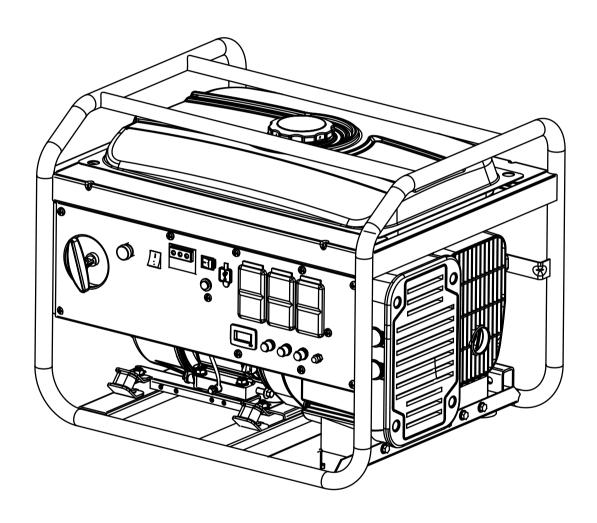


USER MANUAL



FOR MODELS:

*iPro***4200**

Open Frame Digital Inverter Generator

3500 Running Watts | 4200 Peak Watts

California Proposition 65 Warning

The engine exhaust from this product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

California Proposition 65 Warning

Certain components in this product and its related accessories contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.

DISCLAIMERS:

All information, illustrations and specifications in this manual are based on the latest information available at the time of publishing. The illustrations used in this manual are intended as representative reference views only. Moreover, because of our continuous product improvement policy, we may modify information, illustrations and/or specifications to explain and/or exemplify a product, service or maintenance improvement. We reserve the right to make any change at any time without notice. Some images may vary depending upon which model is shown.

ALL RIGHTS RESERVED:

No part of this publication may be reproduced or used in any form by any means – graphic, electronic or mechanical, including photocopying, recording, taping or information storage and retrieval systems – without the written permission of MWE Investments LLC.

A DANGER



This manual contains important instructions for operating this inverter generator. For your safety and the safety of others, be sure to read this manual thoroughly before operating the generator. Failure to properly follow all instructions and precautions can cause you and others to be seriously hurt or killed.

TECHNICAL SPECIFICATIONS

Model Number	Running Watts		Fuel Tank Size (L/G)		Ignition Type			Stroke X Bore	Oil Capacity (L)	Oil Type	THD
iPro4200	3500	4200	15L/4G	3600	CDI	F7TC	212cc	55X70	.6 L	10W30	< 3%

NOTICE

This generator is NOT equipped with altitude carburetor modification. Even with a carburetor modification, engine horsepower will decrease about 3.5% for each 300 meter (1,000 foot) increase in altitude. The effect of altitude on horsepower will be greater if no carburetor modification is made. A decrease in engine horsepower will decrease the power output of the generator. Contact our service team to order altitude kits. See page 11 for altitude kit number.

HAVE QUESTIONS? Email us at service@wpowereq.com or call 1-855-944-3571

FOR YOUR RECORDS:				
Date of Purchase:				
Inverter Model Number:				
Purchased from Store/Dealer:				
Inverter Serial Number:				
IMPORTANT: KEEP YOUR P COVERAGE.	URCHASE	RECEIPT TO E	NSURE TROUBL	.E-FREE WARRANT
PRODUCT REGISTRATION To ensure trouble-free warranty cov You can register your generator by 1. Filling in the product registration Product Registration MWE Investments LLC 777 Manor Park Drive Columbus, Ohio 43228	either: n form below a	and mailing to:		
 Registering your product Online To register your generator you v 				r-your-product/
Westinghouse Model Modele Part NO. MWE Investments LLC Columbus Ohio 43228 USA MWE Investments LLC Columbus Ohio 43228 Etats-Unis Model Modele Part No. Model Modele Part No. Part No	Power (Rated) Pussance (Norn.) Power (Peak) Pussance (Pointe) Finquency Finquency Finquence RPM TRIMIN	insul Class Classe D'Isol. Max Arch Temp Temp. Arrib. Max Duty Santoe Designed in Columbus, Ohio. Con u à columbus, Ohio, tats-		i Série iqué en Chine
Model info decal located on back side above muffler	3		Serial Number whic right side of mod	
WESTINGHOUSE PRODUCT PERSONAL INFORMATION		ATION FORM	NFORMATION	
First Name:		Model Numl	ber:	
Last Name:		Serial Numb	oer:	
Street Address:		Date Purcha	ısed:	
Street Address:		Purchased F	-rom:	
City, State, ZIP:				
Country:				(382)
Phone Number				

E-Mail:

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SAFETY

SAFETY DEFINITIONS

The words DANGER, WARNING, CAUTION and NOTICE are used throughout this manual to highlight important information. Be certain that the meanings of these alerts are known to all who work on or near the equipment.



This safety alert symbol appears with most safety statements. It means attention, become alert, your safety is involved! Please read and abide by the message that follows the safety alerts symbol.

▲ DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

▲ WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates a situation which can cause damage to the generator, personal property and/or the environment, or cause the equipment to operate improperly.

NOTE: Indicates a procedure, practice or condition that should be followed in order for the generator to function in the manner intended.

SAFETY SYMBOL DEFINITIONS

Symbol	Description	
\triangle	Safety Alert Symbol	
	Asphyxiation Hazard	
	Burn Hazard	
	Burst/Pressure Hazard	
	Don't leave tools in thearea	
4	Electrical Shock Hazard	
	Explosion Hazard	
	Fire Hazard	
	Lifting Hazard	
	Pinch-Point Hazard	
	Read Manufacturer's Instructions	
STOP	Read Safety Messages Before Proceeding	
	Wear Personal Protective Equipment (PPE)	

GENERAL SAFETY RULES

A DANGER



Never use the inverter in a location that is wet or damp. Never expose the inverter to rain, snow, water spray or standing water while in use. Protect the inverter from all hazardous weather conditions. Moisture or ice can cause a short circuit or other malfunction in the electrical circuit.



Never operate the inverter in an enclosed area. Engine exhaust contains carbon monoxide. Only operate the inverter outside and away from windows, doors and vents.

▲ WARNING



Voltage produced by the inverter could result in death or serious injury.

- Never operate the inverter in rain or a flood plain unless proper precautions are taken to avoid being subject to rain or a flood.
- Never use worn or damaged extension cords.
- · Always have a licensed electrician connect the inverter to the utility circuit.
- Never touch an operating inverter if the inverter is wet or if you have wet hands.
- · Never operate the inverter in highly conductive areas such as around metal decking or steel works.
- Always use grounded extension cords. Always use three-wire or double-insulated power tools.
- Never touch live terminals or bare wires while the inverter is operating.
- Be sure the inverter is properly grounded before operating.

⚠ WARNING



Gasoline and gasoline vapors are extremely flammable and explosive under certain conditions.

- · Always refuel the generator outdoors, in a well-ventilated area.
- · Never remove the fuel cap with the engine running.
- Never refuel the inverter while the engine is running. Always turn engine off and allow the generator to cool before refueling.
- · Only fill fuel tank with gasoline.



- Keep sparks, open flames or other form of ignition (such as match, cigarette, static electric source) away when refueling.
- Never overfill the fuel tank. Leave room for fuel to expand. Overfilling the fuel tank can result in a
 sudden overflow of gasoline and result in spilled gasoline coming in contact with HOT surfaces.
 Spilled fuel can ignite. If fuel is spilled on the inverter, wipe up any spills immediately. Dispose of
 rag properly. Allow area of spilled fuel to dry before operating the inverter.
- Wear eye protection while refueling.
- · Never use gasoline as a cleaning agent.
- Store any containers containing gasoline in a well-ventilated area, away from any combustibles or source of ignition.
- Check for fuel leaks after refueling. Never operate the engine if a fuel leak is discovered.

▲ WARNING



Never operate the inverter if powered items overheat, electrical output drops, there is sparking, flames or smoke coming from the inverter, or if the receptacles are damaged.



Never use the inverter to power medical support equipment.



Always remove any tools or other service equipment used during maintenance from the inverter before operating.

NOTICE

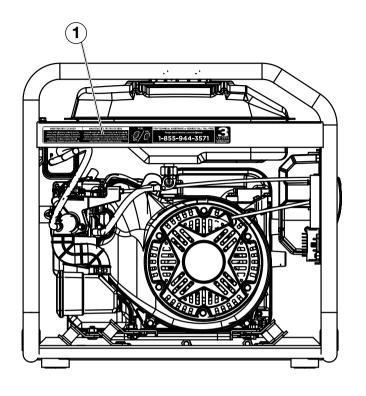
Never modify the inverter.

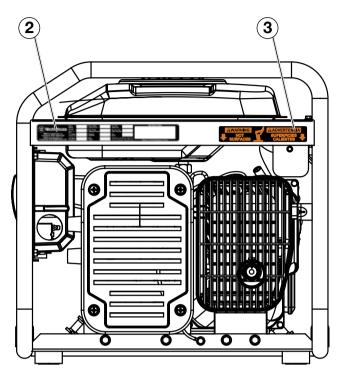
Never operate the inverter if it vibrates at high levels, if engine speed changes greatly or if the engine misfires often.

Always disconnect tools or appliances from the inverter before starting.

SAFETY

SAFETY LABELS AND DECALS





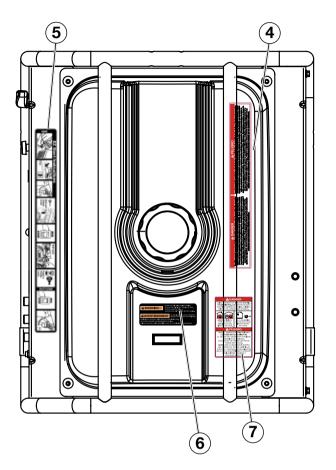


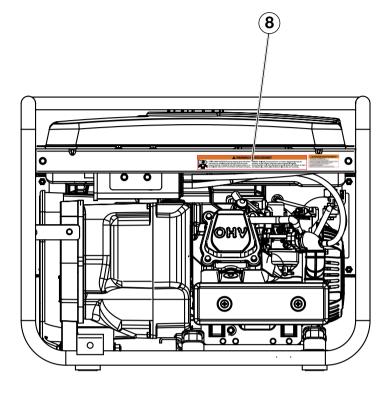




SAFETY

SAFETY LABELS AND DECALS





4

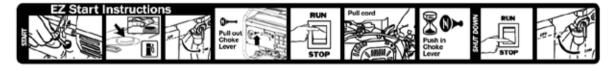
A DANGER

Read the owner's manual and follow all safety procedures prior to operating the generator. Fallure to follow these instructions may lead to serious injury, property damage or death. Never add fuel to generator when the engine is hot or running. Never allow fuel to come in contact with running engine or hot generator parts. Always allow engine to cool down before adding fuel. Never touch hot surfaces. Generators pose risk of shock especially if operated in damp or wet conditions. Keep generator and stored fuel away from fire, sparks and cigarettes. Never connect to a building's electrical system unless a transfer switch has been installed by a certified electrician.

▲ PELIGRO

Lea el manual del propietario y siga todos los procedimientos de seguridad antes de hacer funcionar el generado:
El incumplimiento de estas instrucciones puede causar lesiones graves, daños a la propiedad o la muerte. Nunca agregue combustible al generador cuando el motor está callente o en marcha. Nunca permitir que el combustible entre en contacto con el motor en marcha o partes callentes del generados: Siempre permita que el motor se enfífe antes de agregar combustible. Nunca toque las superficies callentes. Generadores presenten un riesgo de choque especialmente en caso de operar en condiciones húmedas o mojadas. Mantenga el generador y se almacena el combustible alejado del fuego, chispas o cigarrillos. Nunca conecte al sistema eléctrico de un edificio a menos que un interruptor de transferencia ha sido instalado por un electricista certificado.













A PELIGRO

USAR EL GENERATOR EN INTERIORES
LO PUEDE MATAR EM MINUTOS.
EL ESCAPE DEL GENERATOR CONTIENE
MONÓXIDO DE CARBONO.
ESTE GAS ES UN VENENO QUE NO SE
PUEDE VER NI OLGE.
NUNCA USE EL GENERADOR DENTRO
DEL HOGAR O EL GARAJE. AÚN SI LAS.
PUERTAS Y VENTANAS ESTÁN ABIERTAS.
SOLO USELO EN EXTERIORES Y LEJOS DE
VENTILACIONES, PUERTAS Y
VENTANAS ABIERTAS.

(8)

▲ WARNING/AVERTISSEMENT



TOXIC FUMES HAZARD. Running engines gives off carbon monoxide, an odourless poisonous gas that can cause carbone, un gaz inodore toxique qui peut provoquer la nausée, nausea, fainting, or death. Do not start engine indoors or in évanouissement ou la mort. Me démarter pas le moteur à l'intérieur ou dans an enclosed area, even if the windows and doors are open.

UNPACKING

A CAUTION



Always have assistance when lifting the generator. The generator is heavy; lifting it could cause bodily harm.



Avoid cutting on or near staples to prevent personal injury.

Tools required – box cutter or similar device.

- 1. Carefully cut the packing tape on top of the carton.
- 2. Fold back top flaps to reveal the manual.
- Carefully cut two sides of the carton to remove the generator.

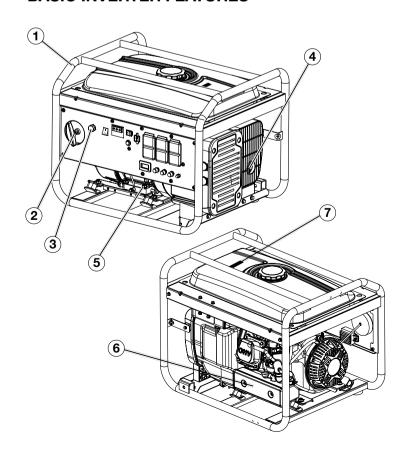
WHAT COMES IN THE BOX

Owners manual Quick Start Guide/Maintenance Schedule .6 Liter Bottle of SAE 10W30 Oil (1) Spark Plug Socket Wrench (1) Funnel (1)



FEATURES

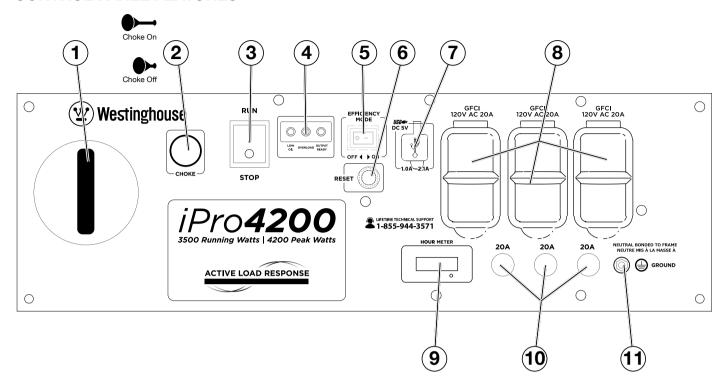
BASIC INVERTER FEATURES



- 1 Open frame inverter design: Quiet, fuel efficient power provided by a digital inverter built in a rugged open frame design.
- (2) Recoil Handle: Pull to start the engine.
- 3 Choke lever: Pull to choke and push in to run once the engine has started.
- Muffler and Spark Arrestor: Avoid contact until the engine is cooled down. The spark arrestor prevents sparks from exiting the muffler. It must be removed for servicing.
- (5) Oil Fill Plug/Dipstick: Must be removed to add and check oil.
- 6 Air-filter Access Cover: Gain access to air-filter for maintenance.
- 7 Fuel Gauge: Indicates fuel level.

FEATURES

CONTROL PANEL FEATURES



- 1 Pull Cord Starter: Pull to start engine.
- **2 Choke Lever:** Pull to set choke before starting and push in to run once the engine has started.
- **3 Engine Control Switch:** Switch to "Stop" to stop the engine. Switch to "Run" before starting engine.
- (4) Indicator Lights:

Low Oil LED: Indicates low oil level.

Overload LED: Indicates that the inverter is overloaded.

Output Ready LED: Indicates the inverter is ready to be used.

- (5) Efficiency Mode Switch: When turned to the ON position, the engine will sense the load needed and run at a slower RPM to save fuel.
- Reset Breaker: If the inverter is overloaded, the reset breaker will trip. The engine will continue to run, but there will be no electrical power output from the inverter. Unplug the devices and reduce the load. Push in the reset breaker to reset it.

- **7 USB Duplex:** 5V DC that come in 1 amps and 2.1 amps.
- (8) 120-Volt, 20-Amp Duplex GFCI Outlets (NEMA 5-20R): Each outlet is capable of carrying a maximum of 20 amps on a single receptacle or a combination of both receptacles.
- **9 Hour Meter:** Displays how many hours the generator has been run when under load.
- **10 20-Amp Circuit Breakers:** Each circuit breaker limits the current that can be delivered through the 120-volt duplex outlets to 20amps.
- **Ground Terminal:** The ground terminal is used to ground the generator.

BEFORE STARTING THE INVERTER



BEFORE STARTING THE INVERTER. **REVIEW SAFETY SECTION STARTING** ON PAGE 5.

Location Selection - Before starting the inverter, avoid exhaust and location hazards by verifying:

- You have selected a location to operate the inverter that is outdoors and well ventilated.
- You have selected a location with a level and solid surface on which to place the inverter.
- You have selected a location that is at least 6 feet (1.8 m) away from any building, other equipment or combustible material.
- If the inverter is located close to a building, make sure it is not located near any windows, doors and/ or vents.

A 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.

Avoid other generator hazards. READ MANUAL BEFORE USE.

▲ WARNING



Always operate the inverter on a level surface. Placing the inverter on non level surfaces can cause the inverter to tip over, causing fuel and oil to spill. Spilled fuel can ignite if it comes in contact with an ignition source such as a very hot surface.

NOTICE

Only operate the inverter on a solid, level surface. Operating the inverter on a surface with loose material such as sand or grass clippings can cause debris to be ingested by the inverter that could:

- · Block cooling vents
- · Block air intake system

Weather - Never operate your inverter outdoors during rain, snow or any combination of weather conditions that could lead to moisture collecting on, in or around the generator.

Dry Surface – Always operate the inverter on a dry surface free of any moisture.

No Connected Loads - Make sure the inverter has no connected loads before starting it. To ensure there are no connected loads, unplug any electrical extension cords that are plugged into the control panel receptacles.

NOTICE

Starting the inverter with loads already applied to it could result in damage to any appliance being powered off the inverter during the brief start-up period.

Grounding the Generator – The National Electric Code (NEC), as well as many local electrical codes, may require the generator to be connected to earth ground. As the generator application has many variables that cannot be determined by the manufacturer of the generator, a licensed electrician will need to determine if a grounding rod is needed.

If a licensed electrician has determine the application requires a ground rod, make sure it is connected to earth ground by connecting the ground terminal on the control panel to earth ground using copper wire (minimum 10 AWG). Consult a qualified electrician for local grounding requirements.

Neutral Bonded: There is a permanent conduct or between the generator (stator winding) and the frame.

Consult with your local municipalities for your grounding codes.

▲ WARNING



Be sure the inverter is properly connected to earth ground before operating.

High Altitude Operation

Engine power is reduced the higher you operate above sea level. Output will be reduced approximately 3.5% for every 1000ft of increased altitude from sea level. This is a natural occurrence and cannot be adjusted by engine. Increased exhaust emissions can also result due to increased fuel mixture. Other issues include hard starting, increased fuel consumption and spark plug fouling. Contact our service team 1-855-944-3571 for altitude part kits.

High Altitude Carburetor Kit Part Number: 140540

POWERCORD

Using Extension Cords

Westinghouse Portable Power assumes no responsibility for the content within this table. The use of this table is the responsibility of the user only. This table is intended for reference only. The results produced by using this table are not guaranteed to be correct or applicable in all situations as the type and construction of cords are highly variable. Always check with local regulations and a licensed electrician prior to installing or connecting an electrical appliance

Extension Cord Wire Gauge Size

	LENGTH OF EXTENSION CORD (ft)								
AMPS	10	20	30	40	50	60	80	100	120
5	20	18	16	14	12	12	10	10	8
10	18	16	14	12	12	10	10	8	8
15	16	14	12	12	10	10	8	8	6
20	14	12	12	10	10	8	8	6	6
25	12	12	10	10	8	8	6	6	6
30	12	10	10	8	8	6	6	6	6
35	10	10	8	8	6	6	6	6	6

ADDING/CHECKING ENGINE FLUIDS AND FUEL



BEFORE ADDING/CHECKING ENGINE FLUIDS AND FUEL, REVIEW SAFETY SECTION STARTING ON PAGE 5.

A DANGER



Filling the fuel tank with gasoline while the inverter is running can cause gasoline to leak and come in contact with hot surfaces that can ignite the gasoline.

Before starting the inverter, always check the level of:

- Engine oil
- · Gasoline in the fuel tank

Once the inverter is started and the engine gets warm, it is not safe to add gasoline to the fuel tank or engine oil to the engine while the engine is running or the engine and muffler are hot.

CHECKING AND / OR ADDING ENGINE OIL

▲ WARNING



Internal pressure can build in the engine crankcase while the engine is running. Removing the oil fill plug/dipstick while the engine is hot can cause extremely hot oil to spray out of the crankcase and can severely burn skin. Allow engine oil to cool for several minutes before removing the oil fill plug/dipstick.

The unit as shipped does not contain oil in the engine. You must add engine oil before starting the inverter for the first time. See *Checking Engine Oil* and *Adding Engine Oil* on page 17 for instructions on checking engine oil level and the procedure for adding engine oil.

NOTICE

The engine does not contain engine oil as shipped. Attempting to start the engine without adding engine oil will permanently damage internal engine components.

The engine is equipped with a low oil shutdown switch. If the oil level becomes low, the engine may shut down and not start until the oil is filled to the proper level.

The owner of the inverter is responsible to ensure the proper oil level is maintained during the operation of the generator. Failure to maintain the proper oil level can result in engine damage.

ADDING GASOLINE TO THE FUEL TANK

▲ WARNING



Never refuel the inverter while the engine is running.



Always turn the engine off and allow the inverter to cool before refueling.

A CAUTION



Avoid prolonged skin contact with gasoline. Avoid prolonged breathing of gasoline vapors.

Required Gasoline – Only use gasoline that meets the following requirements:

- Unleaded gasoline only
- · Gasoline with maximum 10% ethanol added
- · Gasoline with an 87 octane rating or higher

Filling the Fuel Tank – Follow the steps below to fill the fuel tank:

- 1. Shut off the inverter.
- Allow the inverter to cool down so all surface areas of the muffler and engine are cool to the touch.
- 3. Move the inverter to a flat surface.
- 4. Clean area around the fuel cap.
- 5. Remove the fuel cap by rotating counterclockwise.

NOTICE

Do not overfill the fuel tank. Spilled fuel will damage some plastic parts.

- Slowly add gasoline into the fuel tank. Be very careful not to overfill the tank. The gasoline level should NOT be higher than the red ring (see Figure 1).
- 7. Install the fuel cap by rotating clockwise.

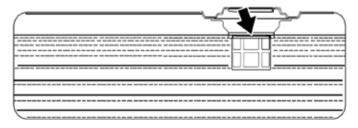


Figure 1: Maximum gasoline fill level

STARTING THE INVERTER



BEFORE STARTING THE INVERTER, REVIEW SAFETY SECTION STARTING ON PAGE 5.

For proper starting and operation of the inverter, make sure you review the inverter control panel features and their descriptions starting on page 10.

Before attempting to start the inverter, verify the following:

- The engine is filled with engine oil (see *Engine Oil Correct Level* on page 17).
- The inverter is situated in a proper location (see Location Selection on page 11).
- The inverter is on a dry surface (see Weather and Dry Surface on page 11).
- All loads are disconnected from the inverter (see No Connected Loads on page 11).
- The inverter is properly grounded (see Grounding the Inverter on page 11)

A DANGER



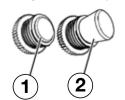
Never use the inverter in a location that is wet or damp. Never expose the inverter to rain, snow, water spray or standing water while in use. Protect the inverter from all hazardous weather conditions. Moisture or ice can cause a short circuit or other malfunction in the electrical circuit.



Never operate the inverter in an enclosed area. Engine exhaust contains carbon monoxide. Only operate the inverter outside and away from windows, doors and vents.

Starting iPro4200

- Move inverter to a flat surface outside in a well ventilated area away from open doors or windows.
- Check oil levels. If it is the first time starting make sure to add oil (see Adding Engine Oil on page 17).
- 3. Disconnect all electrical loads from the generator.
- Make sure the circuit breakers are properly set (see Figure 2 below).



- 1 120V Breaker Operating Position
- 2 120V Breaker Tripped Position

Figure 2: Breaker position

Move the fuel shut off valve to the **ON** position (see Figure 3).

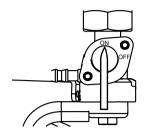


Figure 3: Fuel shut off valve - ON

6. Push the engine control switch into the **RUN** position (see Figure 4).

RUN

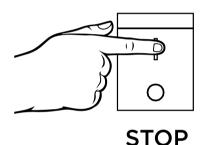


Figure 4: Engine control switch - RUN

7. Pull the choke lever on the control panel (see Figure 5).

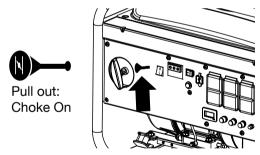


Figure 5: Pull choke lever

- 8. Firmly grasp and pull the recoil handle slowly until you feel increased resistance. At this point, apply a rapid pull while pulling up and slightly away from the generator.
- 9. As the engine starts and stabilizes, push the choke lever in (see Figure 6).



Push in: Choke Off

Figure 6: Push in choke lever

STOPPING THE INVERTER

Normal Operation

During normal operation, use the following steps to stop your inverter:

- Remove any connected loads from the control panel receptacles.
- Allow the inverter to run at "no load" to reduce and stabilize engine and alternator temperatures.

RUN

Push the engine control switch to the STOP position (see Figure 7).

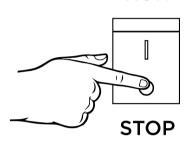


Figure 7: Push engine control switch to STOP position

During an Emergency

If there is an emergency and the inverter must be stopped guickly, move the engine control switch to the **STOP** position immediately (see Figure 7).

USING EFFICIENCY MODE

The inverter is equipped with an efficiency mode switch to minimize fuel consumption. In efficiency mode, the inverter will sense the load and adjust the engine RPM to the current load requirements. Efficiency mode should be used only after the inverter has been warmed up to operating temperature.

- To turn on the efficiency mode, press the switch to the ON position).
- If no load is present, the inverter RPM will drop down to an idle speed.
- 3. As a load is applied, the inverter will sense the load and engine RPM will increase according to the load applied.
- To run the inverter at maximum power and RPM, press the efficiency mode switch to the OFF position.

RESETTING THE RESET BREAKER

The inverter will trip the breaker and automatically disconnect from the load when the controls sense a predetermined overload condition. The inverter engine will continue to run, but there will not be any electrical output.

- Turn off all devices and unplug them from the inverter.
- Determine the wattage required from the devices being powered by the inverter. Make sure the wattage required does not exceed the maximum output of the inverter.
- 3. Press in the reset breaker to reset it (see Figure 8).

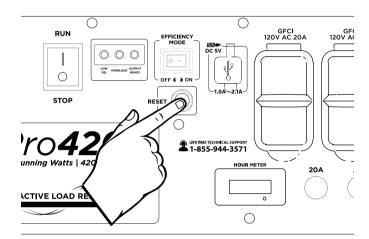


Figure 8: Press in reset breaker

- Plug the devices in to the inverter.
- Turn on the devices as needed.



BEFORE PERFORMING MAINTENANCE ON THE INVERTER, REVIEW THE SAFETY SECTION STARTING ON PAGE 5, AS WELL AS THE FOLLOWING SAFETY MESSAGES.

▲ WARNING



Avoid accidentally starting the inverter during maintenance by removing the spark plug boot from the spark plug. For electric start inverters, also disconnect the battery cables from the battery (disconnect the black negative (-) cable first) and place the cables away from the battery posts to avoid arcing.



Allow hot components to cool to the touch prior to performing any maintenance procedure.



Internal pressure can build in the engine crankcase while the engine is running. Removing the oil fill plug/dipstick while the engine is hot can cause extremely hot oil to spray out of the crankcase and can severely burn skin. Allow engine oil to cool for several minutes before removing the oil fill plug/dipstick.



Always perform maintenance in a well-ventilated area. Gasoline fuel and fuel vapors are extremely flammable and can ignite under certain conditions.

△ CAUTION



Avoid skin contact with engine oil or gasoline. Prolonged skin contact with engine oil or gasoline can be harmful. Frequent and prolonged contact with engine oil may cause skin cancer. Take protective measures and wear protective clothing and equipment. Wash all exposed skin with soap and water.

▲ WARNING



Failure to perform periodic maintenance or not following maintenance procedures can cause the inverter to malfunction and could result in death or serious injury.

NOTICE

Periodic maintenance intervals vary depending on inverter operating conditions. Operating the inverter under severe conditions, such as sustained highload, high-temperature, or unusually wet or dusty environments, will require more frequent periodic maintenance. The intervals listed in the maintenance schedule should be treated only as a general guideline.

Following the maintenance schedule is important to keep the inverter in good operating condition. The following is a summary of maintenance items by periodic maintenance intervals.

TABLE 1: MAINTENANCE SCHEDULE - OWNER PERFORMED

Maintenance Item	Before Every Use	After First 20 Hours or First Month of Use	After 50 Hours of Use or Every 6 Months		After 300 Hours of Use or Every Year
Engine Oil	Check Level	Change	Change	-	-
Cooling Features	Check/Clean	-	-	-	-
Air Filter	Check	-	Clean*	-	Replace
Spark Plug	-	-	-	Check/Clean	Replace
Spark Arrestor	-	-	-	Check/Clean	-

^{*}Service more frequently if operating in dry and dusty conditions

ENGINE OIL MAINTENANCE

Engine Oil Specification

- 1. Only use the engine oil specified in Figure 9.
- Only use 4-stroke/cycle engine oil. NEVER USE 2-STROKE/CYCLE OIL. Synthetic oil is an acceptable substitute for conventional oil.

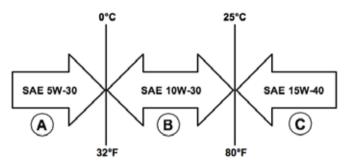


Figure 9: Recommended oil

CHECKING ENGINE OIL

NOTICE

Always maintain proper engine oil level. Failure to maintain proper engine oil level could result in severe damage to the engine and/or shorten the life of the engine.

Always use the specified engine oil. Failure to use the specified engine oil can cause accelerated wear and/ or shorten the life of the engine.

Engine oil level should be checked before every use.

- 1. Always operate or maintain the inverter on a flat surface.
- 2. Stop engine if running.
- 3. Let engine sit and cool for several minutes (allow crankcase pressure to equalize).
- 4. With a damp rag, clean around the oil fill plug.
- 5. Remove the oil fill plug/dipstick (see Figure 10).

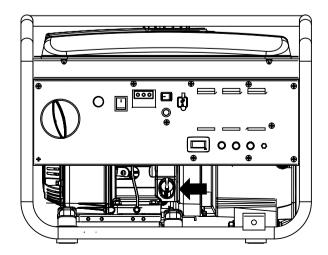


Figure 10: Oil fill plug/dipstick location

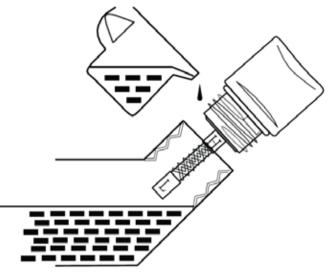


Figure 11: Recommended oil

- Check oil level: When checking the engine oil, remove the oil fill plug/dipstick and wipe it clean. Thread the oil fill plug/dipstick all the way back in and then remove and check the oil level on the oil fill plug/dipstick.
 - Acceptable Oil Level Oil is visible on the crosshatches between the H and L lines on the oil fill plug/dipstick (see Figure 11).
 - Low Oil Oil is below the L line on the oil fill plug/ dipstick.

NOTICE

Engine oil must always be checked and added when the inverter is on a flat, level surface, or an inaccurate reading may result, causing serious engine damage.

ADDING ENGINE OIL

- 1. Always operate or maintain the inverter on a flat surface.
- 2. Stop engine if running.
- 3. Let engine sit and cool for several minutes (allow crankcase pressure to equalize).
- 4. Thoroughly clean around the oil fill plug/dipstick.
- 5. Remove the oil fill plug/dipstick (see Figure 10).
- 6. Select the proper engine oil as specified in Figure 9.
- 7. Using the supplied oil funnel, slowly add engine oil to the engine. Stop frequently to check the oil level and avoid overfilling.
- Continue to add oil until the oil is at the correct level then replace oil fill plug/dipstick.

CHANGING ENGINE OIL

- 1. Stop the engine.
- 2. Let engine sit and cool for several minutes (allow crankcase pressure to equalize).
- 3. Place oil pan (or suitable container) under the oil drain plug (see Figure 12).
- 4. With a damp rag, thoroughly clean around the oil drain plug.
- Remove the oil drain plug (see Figure 12). Once removed, place the oil fill plug/dipstick on a clean surface.

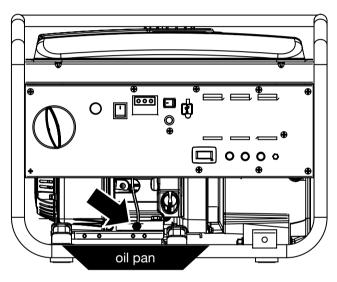


Figure 12: Oil drain plug

- 6. Allow oil to completely drain.
- 7. Replace oil drain plug.
- Fill crankcase with oil following the steps outlined in Adding Engine Oil on page 17
- 9. Dispose of used engine oil properly.

NOTICE

Never dispose of used engine oil by dumping the oil into a sewer, on the ground, or into groundwater or waterways. Always be environmentally responsible. Follow the guidelines of the EPA or other governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.

AIR FILTER MAINTENANCE

▲ WARNING



Never use gasoline or other flammable solvents to clean the air filter. Use only household detergent soap to clean the air filter.

Cleaning the Air Filter

The air filter must be cleaned after every 50 hours of use or 3 months (frequency should be increased if inverter is operated in a dusty environment).

- 1. Turn off the inverter and let it cool for several minutes if running.
- Unscrew the air cleaner cover and set aside (see Figure 13).

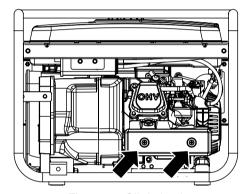


Figure 13: Oil drain plug

- 3. Remove the foam element from the air cleaner housing.
- 4. Wash the foam air filter element by submerging the element in a solution of household detergent soap and warm water. Slowly squeeze the foam to thoroughly clean.

NOTICE

NEVER twist or tear the foam air filter element during cleaning or drying. Only apply slow but firm squeezing action.

6. Rinse in clean water by submerging the air filter element in fresh water and applying a slow squeezing action (see Figure 14).



Figure 14

Cleaning the Air Filter - Continued from Page 18

NOTICE

Never dispose of soap cleaning solution used to clean the air filter by dumping the solution into a sewer, on the ground, or into ground water or waterways. Always be environmentally responsible. Follow the guidelines of the EPA or other governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.

- Dispose of used soap cleaning solution properly. 7.
- Dry the air filter elements by again applying a slow 8. firm squeezing action.
- Once the air filters are dry, coat the air filters with clean engine oil (see Figure 15 below).



Figure 15

- 10. Squeeze the filters to remove any excess oil.
- 11. Install the filters back into the unit.
- 12. Install the air filter cover and secure the air filter assembly.

DRAINING THE FLOAT BOWL

Locate carburetor float bowl above air filter (see Figure 16).

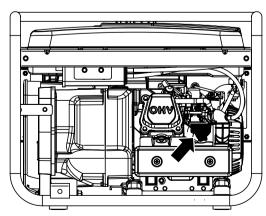


Figure 16: Carburetor float bowl

Locate the clear plastic hose from the float that is exiting out the bottom of the inverter, and place a suitable container under it to catch the drained fuel (see Figure 17).

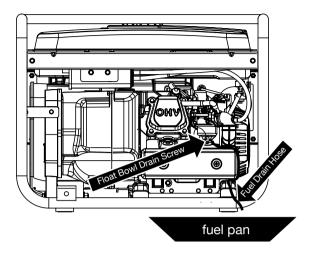


Figure 17: Fuel drain hose

3. Loosen the float bowl drain screw (see Figure 18) until fuel is seen draining from the float bowl.

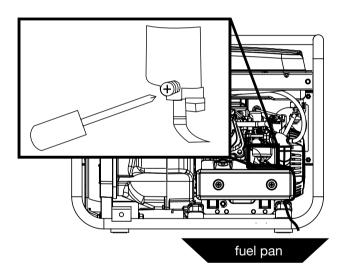


Figure 18: Loosen float bowl screw

4. Allow fuel to drain into the container, and then tighten the float bowl drain screw.

NOTICE

Never dispose of fuel by dumping fuel into a sewer, on the ground, or into groundwater or waterways. Always be environmentally responsible. Follow the guidelines of the EPA or other governmental agencies for proper disposal of hazardous materials. Consult local authorities or reclamation facility.

SPARK PLUG MAINTENANCE

The spark plug must be checked and cleaned after every 100 hours of use or 6 months and must be replaced after 300 hours of use or every year.

- 1. Stop the inverter and let it cool for several minutes if running.
- 2. Remove the spark plug boot by firmly pulling the plastic spark plug boot handle directly away from the engine.

NOTICE

Never apply any side load or move the spark plug laterally when removing the spark plug. Applying a side load or moving the spark plug laterally may crack and damage the spark plug boot.

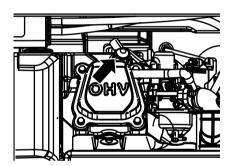


Figure 19 - Remove spark plug boot

- 3. Clean area around the spark plug.
- 4. Using the spark plug socket wrench provided, remove the spark plug from the cylinder head.
- Place a clean rag over the opening created by the removal of the spark plug to make sure no dirt can get into the combustion chamber.
- 6. Inspect the spark plug for:
 - · Cracked or chipped insulator
 - · Excessive wear
 - Spark plug gap (the acceptable limit of 0.027–0.032 in. [0.70 – 0.80 mm]).



7. If the spark plug fails any one of the conditions listed above, replace the plug.

NOTICE

Only use the recommended spark plug. See chart below. Using a non- recommended spark plug could result in damage to the engine.

- 7. Install the spark plug by carefully following the steps outlined below:
 - Carefully insert the spark plug back into the cylinder head. Hand-thread the spark plug until it bottoms out.
 - b. Using the spark plug socket wrench provided, turn the spark plug to ensure it is fully seated.
 - c. Replace the spark plug boot, making sure the boot fully engages the spark plug's tip.

Recommended Spark Plug Replacement:

AC Delco: 4EXLS Autolite: 52 Champion: N9YC Bosch: W7DC Torch: F7TC

CLEANING THE SPARK ARRESTOR

Check and clean the spark arrestor after every 100 hours of use or 6 months.

- 1. Stop the inverter and let it cool for several minutes if running.
- 2. Move the inverter to a flat, level surface.
- Remove the screws holding the muffler cover as well as the screws holding the inverter cover (see Figure 21).

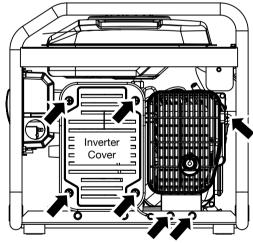


Figure 21: Remove screws holding muffler and inverter cover

- 4. Once the screws are removed and the inverter cover is off, slide the muffler cover to the right and pull out to remove.
- 5. Loosen the clamp holding the spark arrestor onto the muffler (see Figure 22).

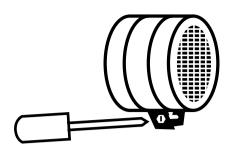


Figure 22: Remove screw holding spark arrestor

- Slide the spark arrestor band clamp off the spark arrestor screen.
- 7. Pull the spark arrestor screen off the muffler exhaust pipe (see Figure 23).

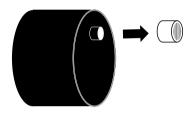


Figure 23: Remove spark arrestor

8. Using a wire brush, remove any dirt and debris that may have collected on the spark arrestor screen (see Figure 24).



Figure 24: Brush dirt and debris off spark arrestor

- 9. If the spark arrestor screen shows signs of wear (rips, tears or large openings in the screen), replace the spark arrestor screen.
- 10. Install the spark arrestor components in the following order:
 - Place spark arrestor screen over the muffler exhaust pipe. Push on the screen until it fully bottoms out.
 - b. Place the spark arrestor band clamp over the screen and tighten with a flathead screwdriver
- 10. Replace the muffler cover and the inverter cover that you removed in step 4.

CHECKING AND ADJUSTING VALVE LASH

A CAUTION



Checking and adjusting valve lash must be done when the engine is cold.

- 1. Remove the rocker arm cover and carefully remove the gasket. If the gasket is torn or damaged, it must be replaced.
- 2. Remove the spark plug so the engine can be rotated more easily.
- Rotate the engine to top dead center (TDC) of the compression stroke. Looking through the spark plug hole, the piston should be at the top.
- 4. Both the rocker arms should be loose at TDC on the compression stroke. If they are not, rotate the engine 360°.
- Insert a feeler gauge between the rocker arm and the push rod and check for clearance (see Figure 25). See table below for valve lash specifications

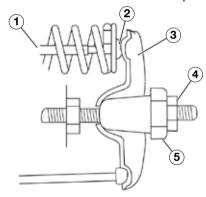


Figure 25 (1) Push Rod, (2) Feeler Gauge Area (3) Rocker Arm, (4) Jam Nut, (5) Adjusting Nut

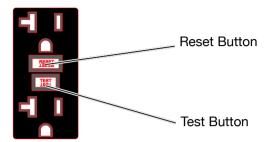
Standard Valve Lash

	Intake Valve	Exhaust Valve
Valve Lash	0.0035 ± 0.0043 in (0.09 \pm 0.11 mm)	0.0043 ± 0.0051 in (0.11 ± 0.13 mm)
Bolt Torque	8-12N.m	8-12N.m

- 6. If an adjustment is required, hold the adjusting nut and loosen the jam nut.
- 7. Turn the adjusting nut to obtain the correct valve lash. When the valve lash is correct, hold the adjusting nut and tighten the jam nut to 106 in-lb (12 N•m).
- 8. Recheck the valve lash after tightening the jam nut.
- Perform this procedure for both the intake and exhaust valves.
- 10. Install the rocker arm cover, gasket and spark plug.

TESTING GFCI OUTLETS

- Start the generator and allow it to warm up.
- 2. Press the test button on the GFCI outlet.



- The reset button should pop out and there will be no power from the outlets. If the reset button does not pop out, the GFCI outlet is not working correctly and must be repaired before the generator can be operated.
- Press the reset button to restore power to the outlet.

CLEANING THE INVERTER

It is important to inspect and clean the inverter before every use.

Clean All Engine Air Inlet and Outlet Ports – Make sure all engine air inlet and outlet ports are clean of any dirt and debris to ensure the engine does not run hot.

STORAGE

▲ WARNING



Never store an inverter with fuel in the tank indoors or in a poorly ventilated area where the fumes can come in contact with an ignition source such as a: 1) pilot light of a stove, water heater, clothes dryer or any other gas appliance; or 2) spark from an electric appliance.

NOTICE

Gasoline stored for as little as 60 days can go bad, causing gum, varnish and corrosive buildup in fuel lines, fuel passages and the engine. This corrosive buildup restricts the flow of fuel, preventing an engine from starting after a prolonged storage period.

Proper care should be taken to prepare the inverter for any storage

- 5. Clean the inverter as outlined in *Cleaning the Inverter.*
- 6. Siphon all gasoline from the fuel tank as best as possible.
- 7. Start the engine and allow the inverter to run until all the remaining gasoline in the fuel lines and carburetor is consumed and the engine shuts off.
- 8. Drain any remaining fuel from the float bowl. See *Draining the Float Bowl* on page 19.
- 9. Change the oil (see Changing Engine Oil on page 18).
- 10. Remove the spark plug (see *Spark Plug Maintenance* on page 20) and place about 1 tablespoon of oil in the spark plug opening. While placing a clean rag over the spark plug opening, slowly pull the recoil handle to allow the engine to turn over several times. This will distribute the oil and protect the cylinder wall from corroding during storage.
- 11. Replace the spark plug (see *Spark Plug Maintenance* on page 20).
- 12. Move the inverter to a clean, dry place for storage.

TROUBLESHOOTING

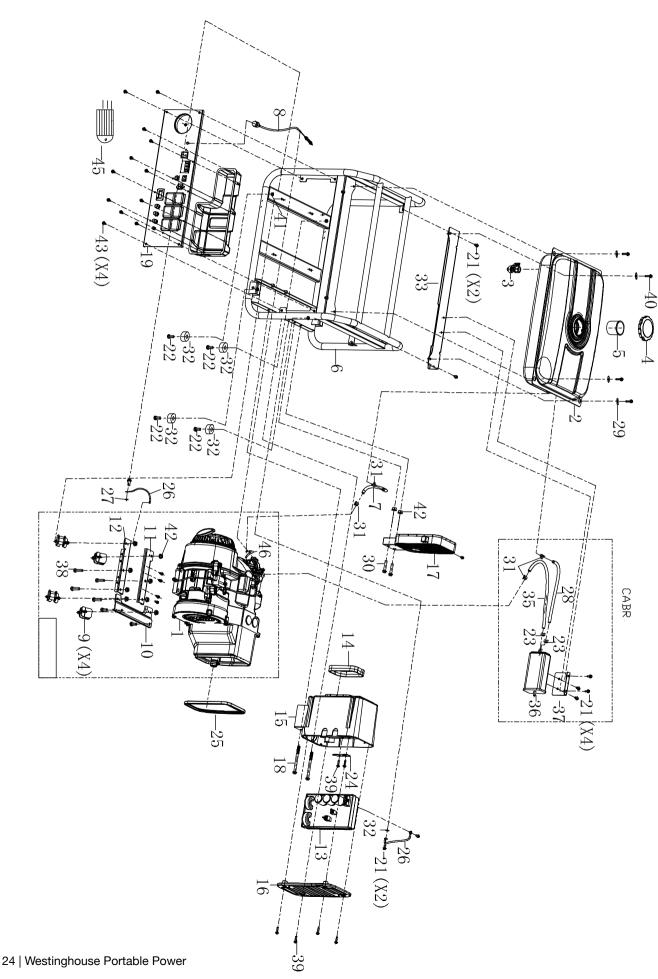
WARNING



Before attempting to service or troubleshoot the generator, the owner or service technician must first read the owner's manual and understand and follow all safety instructions. Failure to follow all instructions may result in conditions that can lead to voiding of the EPA certification or product warranty, serious personal injury, property damage or even death.

PROBLEM	POTENTIAL CAUSE	SOLUTION	
	1. Reset breaker is tripped.	1. Reset the reset breaker (see page 15).	
	2. The power cord's plug connector is not fully engaged in the inverter's outlet.	2. Verify plug connector is firmly engaged in the inverter's outlet.	
	3. Faulty or defective power cord.	3. Replace power cord.	
Engine is running, but no electrical output.	4. Faulty or defective electrical appliance.	4. Try connecting a known good appliance to verify the inverter is producing electrical power.	
	5. GFCI outlet is tripped.	5. Press the reset button on the GFCI outlet (see page 22).	
	6. If trying 1-5 above does not solve the problem, the cause might be the inverter has a fault.	6. Take the generator to your nearest authorized service dealer.	
	1. Invertor is out of gooding	1 Add gooding to the inverter (see page 12)	
	1. Inverter is out of gasoline.	1. Add gasoline to the inverter (see page 13).	
	2. Fuel flow is obstructed or fuel shutoff valve is in the OFF position.	2. Inspect and clean fuel delivery passages and make sure fuel shut off is ON.	
	3. Dirty air filter.	3. Check and clean the air filter (see page 18).	
	4. Low oil level shutdown switch is preventing the unit from starting.	4. Check oil level and add oil if necessary (see page 17).	
Engine will not start or remain running while trying to start.	5. Spark plug boot is not fully engaged with the spark plug tip.	5. Firmly push down on the spark plug boot to ensure the boot is fully engaged.	
	6. Spark plug is faulty.	6. Remove and check the spark plug. Replace if faulty (see page 20).	
	7. Dirty/plugged spark arrestor.	7. Check and clean the spark arrestor (see page 21).	
	8. Stale fuel.	8. Drain fuel and replace with fresh fuel.	
	T		
	1. Inverter is out of fuel.	Check fuel level (see page 14). Add fuel if necessary.	
Inverter suddenly stops running.	2. The low oil shut down switch has stopped the engine.	2. Check oil level and add oil if necessary (see page 17).	
	3. Too much load.	3. Restart the inverter and reduce the load.	
	Choke was left in the CHOKE position.	1. Move choke to the RUN position.	
Engine runs	2. Dirty air filter.	2. Clean the air filter (see page 18).	
erratic; does not hold a steady RPM.	Applied loads maybe cycling on and off.	3. As applied loads cycle, changes in engine speed may occur; this is a normal condition.	

iPro4200 EXPLODED VIEW

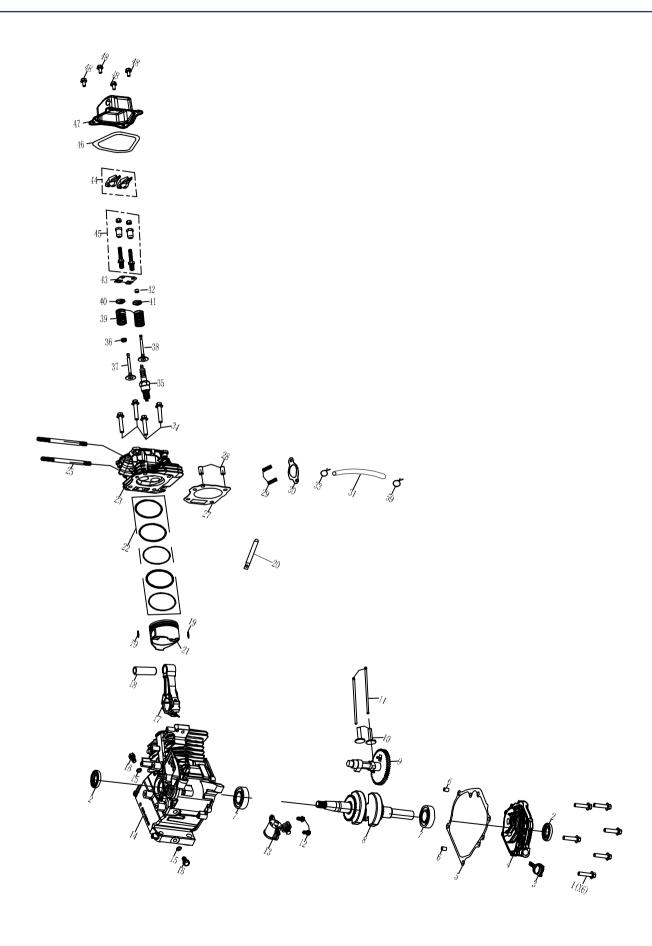


iPro4200 EXPLODED VIEW PART NO.

	Y	
No.	Part.	Description
1	180601	Engine Assy
2	150557	Fuel Tank Assy
3	150556	Fuel Vale
4	150558	Fuel Cap
5	150529	Fuel Strainer
6	100614	Frame
7	100615	Hose Clamp
8	130558	Choke Cable
9	100578	Damper
10	100616	Bracket
11	100617	Bracket
12	100618	Bracket
13	130559	Control Panel
14	120548	Seal
15	120549	Duct
16	120551	Inlet Grate
17	120550	Outlet cover
18	130560	M8 X 110
19	130561	Control Panel
20	150559	Vent Hose
21	120539	M6 X 12
22	100619	M6 X 16
23	100620	Hose Clamp
24	120552	Clamp
25	100565	Rubber Boot
26	120553	Ground Strap
27	100621	Washer
28	100622	Rubber Hose
29	150547	M6 Washer
30	100623	BOLT M8X40
31	100624	Hose Clamp

32	100625	Isolator
33	100626	Bracket
34	100627	Bracket
35	100628	Rubber Hose
36	150520	Carbon Canister
37	100629	Bracket
38	100630	M8 X 30
39	150532	M6 X 16
40	100631	M6 X 25
41	180524	M8 Nut
42	100632	NUT M8
43	100633	M6 X 12
44	100634	M4 X 10
45	130500	DC Regulator
46	100635	Hose Clamp

iPro4200 ENGINE VIEW



iPro4200 ENGINE VIEW 2



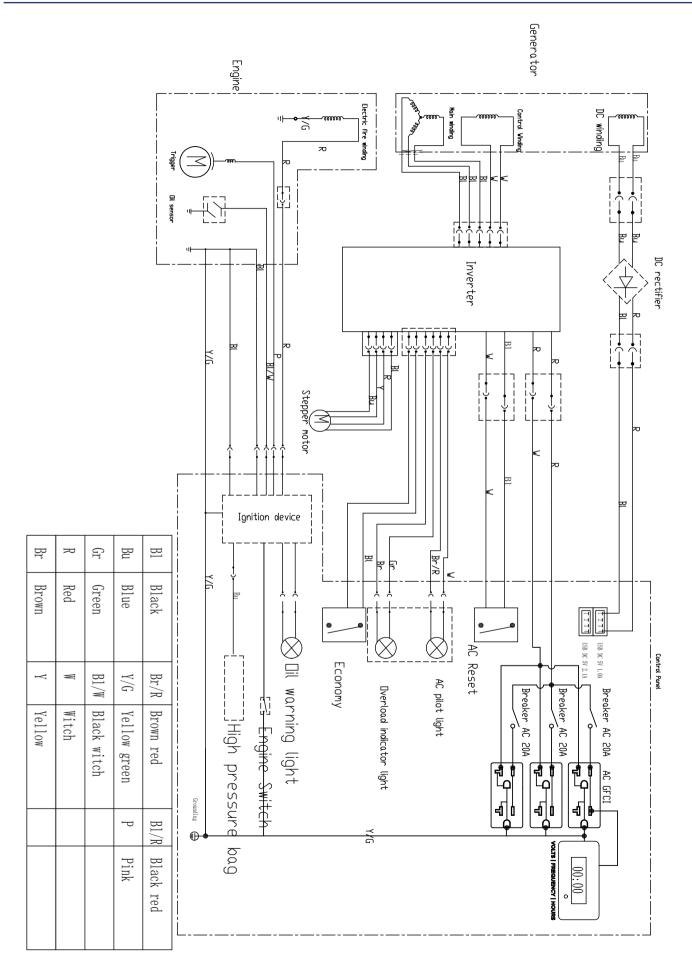
iPro4200 ENGINE VIEW PART NO.

No.	Part.	Description
1	110503	M8X30
2	180602	Seal
3	180600	Dip Stick
4	180603	Crankcase Cover
5	180545	Gasket
6	180604	Dowel
7	180605	Bearing
8	180606	Crankshaft Assy
9	180607	Camshaft Assy
10	180608	Lifter
11	180609	Push Rod
12	130536	M6X16
13	180610	Low Oil Switch
14	180611	Crankcase
15	180544	Drain Plug Seal
16	180612	Drain Plug
17	180613	Connecting Rod
18	180614	Wrist Pin
19	180615	Retainer Clip
20	180616	Clamp
21	180617	Piston
22	180618	Oil Ring
23	180619	Cylinder Head
24	140516	Gasket
25	180620	Exhaust Stud
26	140513	Gasket
27	180621	Cylinder Head Gasket
28	180622	Dowel
29	180571	M10X80 Stud
30	180623	Exhaust Gasket
31	100635	Fuel Hose
32	180624	Clamp
33	180625	Hose Clamp
34	180626	M8X60
35	180580	Spark Plug
36	180627	Valve Spring Retainer

37	180628	Intake Valve
38	180629	Exhaust Valve
39	180630	Valve Spring
40	180631	Exhaust Valve Spring Washer
41	180632	Intake Valve Spring Washer
42	180633	Rotator
43	180634	Push Rod Guide
44	180635	Rocker Arm Assy
45	180636	Rocker Arm Adjuster
46	180555	Valve Cover Gasket
47	180637	Valve Cover
48	120505	M6X12
49	180638	Recoil Housing
50	180537	Crankshaft Nut
51	180539	Starter Cup
52	180640	Engine Cooling Fan
53	180641	Spacer
54	180642	Carburetor
55	140527	Stepper Motor
56	180643	Stepper Motor Plate
57	140558	Stepper Motor Fastener
58	180644	Cover
59	100624	Hose Clamp
60	140534	M4X6
61	160505	Air Cleaner Gasker
62	160506	Elbow
63	160507	Сар
64	160508	Vent Hose
65	160509	Clamp
66	160510	Elbow
		1

68	160512	Link
69	110525	Muffler
70	180524	M8 Nut
71	110502	Spring Washer
72	180645	Ignition Coil
73	180646	Mounting Plate
74	180647	Dowel
75	180648	Magnetic Pickup
76	180649	Washer
77	180650	Stepper Motor Cover
78	180651	Cover
79	100548	M6 Nut
80	120554	Rotor
81	120555	Stator
82	100636	M6X30
83	120556	Housing
84	100637	M6X20
85	180652	Cover
86	180653	M6X45

iPro4200 SCHEMATIC



maintenance Notes			

maintenance Notes			



WestinghousePortablePower.com

Service Hotline: (855) 944-3571

777 Manor Park Drive Columbus, OH 43228

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