

Ampeak

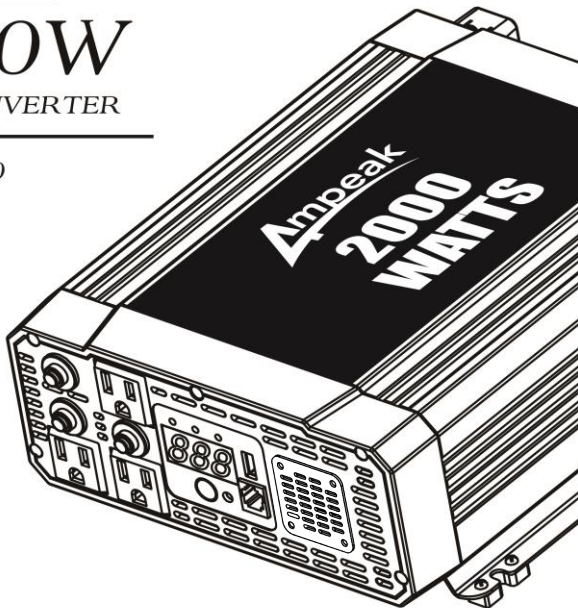
2000W

POWER INVERTER

IVUFA2000



Intertek
3069523



OWNER'S MANUAL

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Thank you for purchasing this AMPEAK product. All AMPEAK products are produced to the highest quality. When connected to a 12V DC power source, the inverter efficiently and reliably supplies 115V/60Hz AC power for a wide variety of appliances, such as cell phone, TV sets, gaming systems, cell phones and portable entertainment devices. Our line of power inverters is designed to meet and exceed your quality expectations with ETL certification. With proper care and appropriate usage, this inverter will give you years of dependable service in your car, truck, RV and boat. Perfect for traveling and outdoor activities.



To reduce the risk of injury, please read this instruction manual and retain for future reference.

Should you have any questions or need any support, please contact us at support.us@ampeak.com

IMPORTANT SAFETY INFORMATION

SAFETY STATEMENT:

It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsibility of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact AMPEAK for replacements or an electronic edition. If the operator is not fluent in English or French, the product and safety instructions shall be read and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.



READ ALL WARNINGS AND FOLLOW ALL INSTRUCTIONS BEFORE OPERATING THIS PRODUCT!

WARNING: RISK OF SHOCK, FIRE AND EXPLOSION

- The inverter produces the same potentially lethal AC power as normal household outlets. It is suggested that you treat it as normal AC outlet.
- DO NOT insert foreign objects into the AC outlet, the USB port, or the ventilation hole.
- DO NOT use this product where there are flammable fumes or gases,

such as in the bilge of a gasoline-powered boat, or near propane tanks.

- NEVER smoke or allow a spark or flame in vicinity of the engine or batteries.
- Make sure the inverter wiring is of proper size and rating and in good condition. Operating the inverter with damaged wiring may void warranty.

CAUTION: PERSONAL SAFETY & EQUIPMENT DAMAGE

- Keep away from children, this is not a toy.
- DO NOT attempt to fix the unit by disassembling or modification. You can cause self-injury and disassembling and modifying the unit will void your warranty.
- Disconnect DC power source from the inverter, before attempting to service, clean or operate on any circuits connected to inverter. Simply turning OFF the ON/OFF switch of the inverter will not disconnect the power, thereby causing electric shock.
- Never connect the inverter to any power distribution systems or branch circuits.
- DO NOT makes any electrical connections or disconnections in areas designated as ignition protected. This unit is NOT approved for ignition protected areas.
- Connect the unit to power source with a normal output of 12V DC

ONLY. 6V battery voltages are too low and 24V battery voltages are too high, which will damage the unit.

- DO NOT use the inverter in temperatures above 104°F (40°C) or below 32°F (0°C).
- DO NOT expose this product to water, rain, snow, condensation, or spray.
- DO NOT connect the unit to live AC power circuits or there will be damage to the inverter.
- DO NOT connect any AC device which has its neutral conductor connected to ground to the unit.
- DO NOT use the inverter with medical devices since it is not approved for medical applications.
- DO NOT use the inverter beyond its rated wattage capacity. Add the total watts of all connected appliances and be sure the total is less than the inverter's capacity.
- DO NOT permanently install the unit in the engine compartment.
Certain chargers for small nickel cadmium batteries can be damaged if connected to the inverter.
- DO NOT connect these 3 particular types of equipment:
 1. Small battery-operated appliances such as flashlights, razors and night lights that can be plugged directly into an AC receptacle to recharge.
 2. Certain battery chargers for battery packs used in hand power tools.

Check for a WARNING label stating dangerous voltages are present at the battery terminals.

- * This problem does not occur with the vast majority of battery-operated equipment
 - * The output of the inverter is non-sinusoidal.
3. Positive ground electrical systems will result in a blown fuse and may cause permanent damage to the inverter and void the warranty.
- * The majority of modern automobiles, RVs and trucks belong to negative ground electrical system.
 - Some equipment may be damaged by the inverter's modified sine wave output (non-sinusoidal) or will not work. Below is a general list.
1. Electronics that modulate RF (radio frequency) signals on the AC line.
 2. Speed controllers found in some fans, power tools, kitchen appliance, and other loads.
 3. Some chargers for small rechargeable batteries.

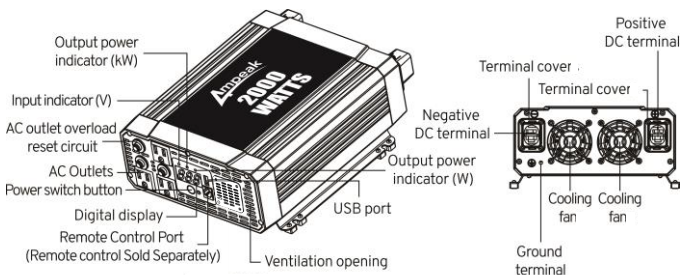


This product may contain one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands thoroughly after handling.

NOTE:

If you are unsure about using your rechargeable appliance with the inverter, contact the equipment Ampeak to determine the rechargeable appliance's compatibility with the inverter.

FEATURES



OPERATING INSTRUCTIONS

Before operating the inverter, make sure the location meets the following conditions.

Dry	DO NOT drop or pour any liquid on the inverter.
Cool	Keep the inverter from direct sun lighting. Maintain the ambient air temperature between 32°F (0°C) and 104°F (40°C).
Safe	DO NOT operate in the same compartment as stored flammable liquids and gasoline.
Clean	DO NOT operate the inverter in an area that is prone to dirt, dust or debris.
Ventilated	Leave at least 2" (5cm) clearance around the inverter for air flow. Make sure the ventilation openings are not obstructed.
Close to Battery	DO NOT use an excessively longer DC cable, as it increases wire resistance and reduces input power.
Protected from battery gases	DO NOT operate where it will be exposed to battery gases. Prolonged exposure can damage the inverter.



WARNING:

- The equipment or appliance's switch should be in the "OFF" position prior to plugging into the AC receptacle of the inverter.
- Before connecting, make sure the cables will be connected correctly. If the poles of the battery are reversely connected, it will damage the

inverter and the warranty does not cover this damage.

- DO NOT perform the cable connection if the environment has any flammable fumes.
- Always ventilate the battery compartment before making this connection. If not, explosion or fire may occur.
- Always make sure the connection is tight. Loose connections may cause excessive voltage drop, thereby leading to overheating and melting of cable insulation.

USING THE INVERTER WITH BATTERY CABLES

1. Make sure the power switch on the inverter is OFF.
2. Connect the red positive (+) end of the ring terminal to the positive (+) terminal of the battery.
3. Connect the other end of the ring terminal to the positive (+) terminal of the inverter.
4. Connect the black negative (-) end of the ring terminal to the negative terminal of the inverter.
5. Connect the other end of the ring terminal to the negative (-) terminal of the battery.
6. Turn on the power switch of the inverter and plug in your appliance and switch them on one at a time with the bigger load first.



CAUTION! AVOID OVER-DISCHARGING THE BATTERY:

When using a vehicle battery as a power source, it is strongly recommended to start the vehicle every hour or two to recharge the battery before its capacity drops too low. Remember to recharge attached battery immediately after use. As the battery is used, its voltage begins to fall. When the inverter senses that the voltage at its DC input has dropped to the range of 10.7-11.3V DC, the audible alarm sounds. If the audible alarm is ignored, the inverter will automatically shut down when the voltage drops to the range of 10.2-10.8V DC, preventing the battery from being over-discharged. Most vehicle batteries are not designed for constant “deep discharge” . Constantly operating the inverter 1tom a vehicle battery until the low voltage shutdown will reduce the life of the battery. If you are operating electrical products for long periods of time, consider connecting the inverter to a separate, deep discharge battery.

**CAUTION:**

Ensure that the electrical system in your vehicle can supply this product without causing the vehicle fusing to open. Information on the vehicle fuse ratings are typically found in the vehicle operator's manual.

Formulas:

Volt (V) x Amp (A) = Watt (W)

Watt (W) / Volt (V) = Amp (A)

Example: 300W / 12V = 25A

USING THE INVERTER WITH PERMANENT BATTERY CONNECTIONS

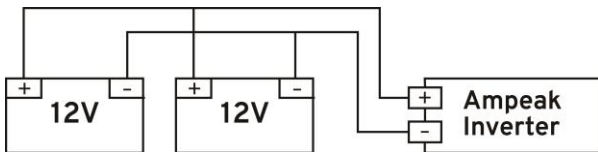
The inverter may optionally be permanently wired to a 12 volt DC power source, such as one or more vehicle batteries or deep cycle marine batteries. Using more than one battery will not increase the AC watts available, because it is limited to the rated watts of the inverter, but additional batteries will allow more operating time between charges.

CAUTION: The DC power source must be a well-regulated DC power supply as typically found in vehicle and deep-cycle marine batteries. Permanent installation should be performed by a qualified electrical installer. Violation of these instructions may result in unsafe operation

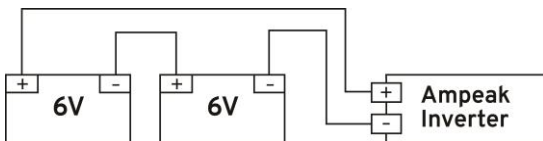
and/or equipment failure. Damage to the inverter as a result of improper installation voids the warranty.

PARALLEL AND SERIES BATTERY CONFIGURATION

12V batteries in parallel configuration (doubles the current Amp/Hours)



6V batteries in series configuration (voltage doubles to 12V)



BATTERY OPERATING TIME

Operating time will vary depending on the charge level of the battery, its capacity and the power level drawn by the particular AC load. With a typical vehicle battery load, an operating time of 1 hour or more can be expected. When using a vehicle battery as a power source, it is strongly recommended to start the vehicle every hour or two to recharge the

battery before its capacity drops too low. The inverter can operate while the engine is running, but the normal voltage drop that occurs during starting of the engine may trigger the inverter's low voltage shutdown feature. Since the power inverter draws less than 0.65A with it turned on and no AC product connected, it has minimal impact on battery operating times.

Approximate Operating Times for AC Power Load and Battery Capacity

Power Output		Battery Capacity			
Watts	Amps	50Ah	120Ah	200Ah	400Ah
100	10	4.5h	6h	8+h	16+h
200	20	2h	5h	6h	8h
300	30	1.5h	3.5h	5h	7.5h
400	40	1.25h	2.5h	4h	7h
500	50	1h	2h	3.5h	6.5h
600	60	45 min	1.75h	2.75h	6h
700	70	38 min	1.5h	2.5h	4h
800	80	25 min	1.25h	2.25h	3h
1000	80	15 min	1h	2h	2.5h
1250	80	10 min	45 min	1.5h	1.75h
1500	80	5 min	30 min	1h	1.5h

Note:

Ah (Amp-hours) is the electrical energy a battery can deliver. A small car's battery is typically about 45 amp-hours. Larger autos will usually have batteries with higher amp-hours.

TROUBLESHOOTING

Problem	Cause	Solution
No Power No Indicator	Battery is defective	Replace the battery
	Blown fuse	Check and replace fuse
	The inverter did not turn on	Turn on the inverter
	Loose cable connection	Check the connection and tighten as required.
Alarm is sounding	AC products connected rated at more than the wattage load of the inverter: overload shutdown has occurred. Digital Display: "OLP"	Reduce load Use a product with starting surge power within the inverter's capability.
	AC products are less than the wattage load of the inverter, but high	Use a product with starting surge power within the inverter's

	starting surge has caused overload shutdown. Digital Display: "OLP"	capability.
	The voltage input from the DC power source is too low. Digital Display: "LUP"	Charge the power source battery.
	The voltage input from the DC power source is too high. Digital Display: "OUP"	Use 12V DC power source ONLY
	Thermal shutdown has occurred. Digital Display: "OCP"	Allow the unit to cool down. Improve air circulation around the unit. Relocate unit to a cooler environment Reduce load if continuous operation is required.
Water entered the unit	Water entered the unit	Disconnect the inverter and wipe immediately

		with a dry cloth, or permanent damage can occur.
Battery run time is less than expected	AC product power consumption is higher than rated.	The total watts needed by the AC products should be no more than the inverter's watt rating.
	Battery is old or defective	Replace the battery
	Battery is not being properly charged.	Some chargers are not able to fully recharge a battery, Make sure you use a powerful charger.
	Battery does not have enough capacity.	Use a battery with a higher amp-hour rating.

Interference with Electronic Equipment

Generally, most AC products operate with the inverter just as they would with household AC power. Below is information concerning two possible exceptions:

1) Buzzing in Audio Systems and Radios

Some stereo systems and AM-FM radios have inadequate internal power supply filtering and "buzz" slightly when powered by the inverter. Generally, the only solution is an audio product with a higher quality filter.

2) Television Interference

The inverter is shielded to minimize its interference with TV signals. However, when weak, TV signals interference may be visible in the form of lines scrolling across the screen. The following should minimize or eliminate the problem:

- Increase the distance between the inverter and the TV antenna and cables.
- Adjust the orientation of the inverter, television, antenna and cables.
- Maximize TV signal strength by using a better antenna and use shielded antenna cable where possible.

SPECIFICATIONS

Model No.:	IVUFA2000
Description	2000W Inverter
AC Output Voltage	105V-125V AC
Maximum Continuous Power Output	2000W
Surge Output Wattage	4000W
AC Output Frequency	60±1 Hz
AC Output Waveform	Modified sine wave
DC Output (USB)	5V DC 2.1A
DC Input Voltage Range	12.8V-13.2V DC
Battery Drain with no AC Load	<0.65A (at a 12V input)
Low Battery Alarm (Audible)	10.5±0.3V
Low Battery Resume	12.0±0.3V DC
Low Battery Shutdown Protection (Audible Alarm)	9.5±0.3V DC & Digital Display: "LUP"
High Battery Shutdown Protection (Audible Alarm)	15.5±0.5V DC & Digital Display: "OUP"
Overload Shutdown Protection (Audible Alarm)	Digital Display: "OLP"
Overheat Shutdown Protection (Audible Alarm)	Digital Display: "OCP"
Short Circuit Shutdown Protection	Digital Display: "OPP"

(Audible Alarm)	
Reverse Connection Protection	No Indicator lights
Fuse	35A mini slip fuse x 10 (Not user-replaceable)
Ambient Working Temperature	32°F (0°C) - 104°F (40°C)
Efficiency (Maximum)	85%
Cable	20mm ² * 0.9 Copper Battery Clips Cable
Dimensions (L*W*H)	29.32cm * 22.03cm * 10.61cm
Weight (N.W/G.W)	3.0kg/3.8Kg

Note:

Please keep in mind most devices require an initial surge of power to start. Most devices can be started up with 2 times their power rating. Be aware of the startup power (surge) of the device(s) you intend to use for the inverter.

LIMITED WARRANTY

1 Year Limited Warranty Policy

The 1 Year Limited Warranty Policy is the only one that applies to this unit, and it sets forth all the responsibilities of Ampeak. There is no other warranty, other than those described herein. Any implied warranty

of merchant ability of fitness for a particular purpose on this unit is limited in duration to the duration of this warranty. This unit is warranted to the original purchaser only to be free of defects in materials and workmanship for one year from the date of purchase without additional charge. The warranty does not extend to subsequent purchasers or users.

Ampeak will not be responsible for any amount of damage in excess of the retail purchase price of the unit under any circumstances. Incidental and consequential damages are specifically excluded from coverage under this warranty. This unit is not intended for commercial use. This warranty does not apply to damage to units from misuse or incorrect installation/connection. Misuse includes wiring or connecting to improper polarity power sources.

RETURN/REPAIR POLICY:

If you are experiencing any problems with your unit, please contact Ampeak Customer Service Department at support.us@ampeak.com before returning product to Amazon.

After speaking to a customer service representative, if products are deemed non-working or malfunctioning, the product may be returned to Amazon within 30 days of original purchase.

Any defective unit that is returned to Amazon within 30 days of the date of purchase will be replaced free of charge or full refunded at buyer's option.

If such a unit is returned more than 30 days but less than one year from the purchase date, manufacturer will repair the unit or, at its option, replace it, free of charge. If the unit is repaired, new or reconditioned replacement parts may be used, at manufacturer's option. A unit may be replaced with a new or reconditioned unit of the same or comparable design. The repaired or replaced unit will then be warranted under the terms of the remainder of the warranty period.

LIMITATIONS

This warranty does not cover accessories, such as adapters and batteries, damage or defects result from normal wear and tear (including chips, scratches, abrasions, discoloration or fading due to usage or exposure to sunlight), accidents, damage during shipping to our service facility, alterations, unauthorized use or repair, neglect, misuse, abuse, failure to follow instructions for care and maintenance, fire and flood.