

KINGS^{ADVENTURE}

USER MANUAL



1000, 2000, 3000W PURE SINE WAVE INVERTERS

SKUS: AKEP-INV1000W_02, AKEP-INV2000W_02, AKEP-INV3000W_02

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**PLEASE READ AND UNDERSTAND THIS MANUAL
COMPLETELY BEFORE USING THIS PRODUCT.**

1. SAFETY WARNINGS

- Power inverters pose the same potentially lethal risks that household power sockets do, and for this reason, should be treated with the same respect and caution.
- This appliance is not intended to be used by children. In addition to this, adults with reduced physical or mental capabilities, or those who are under the influence of drugs or alcohol should not operate this appliance.
- Do not insert foreign objects, of any kind, into any of the inverters sockets, fans, or vents.
- Do not expose the inverter to water, chemicals, extreme heat(50°C)/cold(0°C) or any kind of adverse weather.
- Do not, for any reason, connect the inverter to utility power.
- After extended use, the inverters housing can reach 60°C, ensure that the unit always has at least 5cm of clearance to allow for proper air flow.
- Keep clear of materials that are affected by high temperatures
- Do not use the inverter in the presence of flammable liquids, gases, or fumes.
- Do not connect live AC power to the inverter's AC outlets.
- Do not connect any AC load, which has its neutral conductor connected to the ground, to the inverter.
- The inverter should only be connected to a rated DC battery (see Specification table for further details).

2. SPECIFICATIONS

Model	1000 Watt	2000 Watt	3000 Watt
SKU	AKEP-INV1000W_02	AKEP-INV1000W_02	AKEP-INV1000W_02
Constant Output Wattage	1000 Watt	2000 Watt	3000 Watt
Peak Output Wattage	Up to 2000 Watts	Up to 4000 Watts	Up to 6000 Watts
Input Voltage	12V DC (10.5 - 15.5V)		
Output Voltage	240V AC		
AC Frequency	50Hz		
Output Waveform	Pure Sine Wave		
Conversion Efficiency	~89%		
Power Usage on Standby	0.65A	0.85A	0.85A
Dimensions	33 * 15 * 7.5CM	40 * 22 * 7.5CM	42 * 22 * 11CM
Weight	2.6KG	4.4KG	6.2KG

3. INSTALLATION

When installing the Adventure Kings Power Inverter, ensure the location you choose includes all of these:

- **Dry** – Protected from moisture of any kind
- **Cool** – Area will remain between 0°C - 50°C (Ideal temperature 15°C - 25°C)
- **Ventilated** – There is at least 5cm of clearance around the unit, more is better
- **Clean** – Free of dust, dirt, chemicals, or vapours

4. FUNCTIONS & FEATURES

Adventure Kings Pure Sine Wave Inverters do not include DC Power Cables. We offer a separate 'Inverter Power Cable with Fuses' kit that supplies everything needed to power up to a 3,000 Watt Inverter up to 1 Meter away from the battery. This kit also includes a heavy duty fuse holder and different sized fuses to suit 1000, 2000 and 3000 Watt inverters.

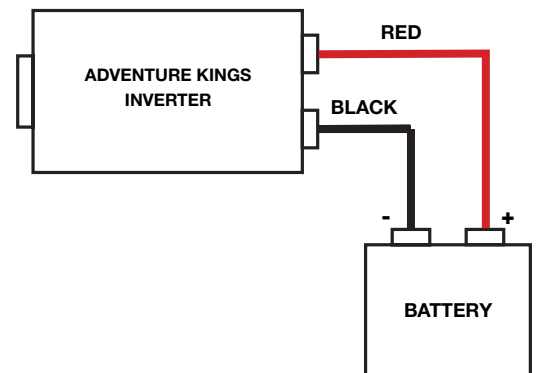
If making your own DC power cables, it is vital to size the cables to suit the rated Amperage draw of the inverter you are using and the overall cable length. Two major considerations are the rated Amperage of the cable and the Voltage drop across the cables entire length at the rated current of the inverter. It is also strongly recommended to use a fuse holder and fuse that suitably protects the cable used.

4.1 CONNECTING THE INVERTER

1. Attach the DC connectors to the inverter, attach the positive red (+) to the positive terminal and the negative black (-) to the negative terminal of the battery.

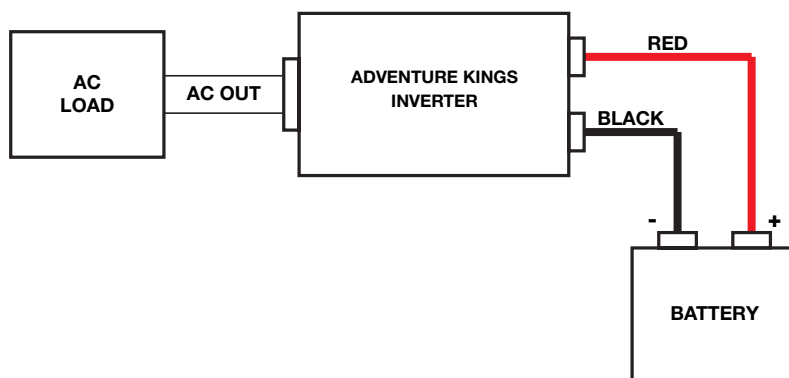
CAUTION: Attaching the positive and negative incorrectly will result in a reverse polarity, potentially damaging the inverter & voiding warranty.

2. Ensure input connections are tight. Use hand tools and do not use power tools. Recommended terminal torque between 8 - 12NM.



4.2 OPERATING THE INVERTER

1. With the 12V DC battery connected to the inverter, switch the power ON, a green light will indicate that the inverter is working correctly and can provide power. Turn the inverter back off.
2. Connect the AC load to the inverter and turn it on.
3. The inverter will now provide 240V AC Power to the device.
4. When the inverter is not in use, turn off.



5. VEHICLE BATTERIES

If you are using a vehicle's battery to power your Adventure Kings Power Inverter, we strongly recommend using a deep-cycle battery. These batteries are designed to slowly discharge and provide low amp power over long periods.

The vehicle's cranking battery is designed to provide brief periods of high current, needed to start your engine. Slowly draining your cranking battery repeatedly will shorten its lifespan.

6. PROTECTION FEATURES

High Voltage Shutdown

If the 12V DC battery reaches 16V (+0.2V) the inverter will automatically turn off. The buzzer will sound 4 times and the fault LED will illuminate.

Low Voltage Shutdown

If the 12V DC battery reaches 10.5V (+0.2V) the inverter will automatically turn off. The buzzer will sound 2 times. 'If the 12V DC battery reaches 10.0V (+0.2) the inverter output turns off, the buzzer will sound 3 times and the fault LED turn on.

Thermal Protection

If the internal inverter temperature rises above 45°C the internal fan turns on. If the internal inverter temperature rises above 75°C the inverter output turns off, the buzzer will sound 5 times and the Fault LED will turn on.

Overload Protection

If the AC load is above what the Inverter is rated for (Specification table) the Inverter output turns off, the buzzer will sound 11 times and the Fault LED will turn on.

Short-Circuit Protection

If a short circuit occurs the Inverter output turns off, the buzzer will sound 6 times and the Fault LED will turn on.

7. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
Inverter light not turning on	Inverter not switched on	Press Power button on front of Inverter
	DC power cables not connected to 12 Volt battery	Connect Inverter to battery (confirm polarity is correct)
	Loose connection	Check connections between inverter and battery
	Reverse polarity	Check and confirm both positive and negative connections have been made correctly between the inverter and 12 Volt battery
Inverter not outputting full Wattage as per specification table	Input power issue	Shorten cables. Check that your battery has sufficient charge.
	Battery charge level	Charge battery as low battery charge will reduce ability of battery to output required current and stay above low Voltage point
Fault LED on / buzzer sounding	Inverter in fault mode	See Protection Features section for further information
Battery discharging rapidly	AC loads too high	Note that Inverters can induce some of the highest loads a 12 Volt battery will deal with. As a guide, each 1000 Watts of Inverter size should have 100 - 200ah of battery capacity to support it. So a 2000 Watt Inverter should have 200 - 400ah of battery capacity to support it. A lower than this battery capacity may not cause an issue, but will result in a shorter run time
	Battery is old or damaged	Due to Inverters ability to apply a large Amperage load on 12 Volt batteries, it can stress a battery higher than smaller Amperage loads. Connecting an inverter to a battery that is older / damaged may require the battery to be replaced for the inverter to operate correctly.

8. WARRANTY

12 MONTH LIMITED WARRANTY

WARRANTY PERIOD:

Full 12 month warranty from date of purchase against all manufacturing defects.

WHAT DOES THE WARRANTY COVER?

Under normal usage conditions, this warranty covers:

- a. Any defect in design or manufacture which results in the product failing to perform substantially as described in authorised advertising or literature.
- b. We will either repair or replace the product at our discretion providing that the fault is found to have been caused by a design or manufacturing defect and not misuse or tampering.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits provided to you as the consumer by this warranty are in addition to other rights and remedies available to you under the law.

THE WARRANTY DOES NOT COVER:

- a. Any damage resulting from improper use
 - b. Faulty installation or modification made during installation
 - c. The cost of removing and reinstalling the product
 - d. Travel and /or other expenses due to customer's remote location
 - e. Transport charges and damage in transit. It is your responsibility to deliver and pick up your product, including any costs associated with the postage of your repair or replacement product. If you do freight your product we recommend that you insure against loss or damage.
 - f. Any loss directly or indirectly associated with the product failing to operate.
 - g. Damage caused by mould, insects, animals, misuse, incorrect operation, adverse weather, accidents and fair wear and tear
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TO MAKE A CLAIM, PLEASE ENSURE YOU RETAIN YOUR SALES RECEIPT OF PURCHASE

1800 88 39 64



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