

inercy

KODIAK

1100W ULTRA LIGHT SOLAR GENERATOR

***POWER* YOUR *PASSION*[™]**



Charging Your Kodiak

- Using Solar
 - The Kodiak provides two ports for solar based charging.
 - **Port 1**: Charge input for use with Inergy's foldable and modular solar panels. Up to 270 Watts input maximum (12-18V only) and AC charger.
 - **Port 2**: High current charging input for Inergy's larger rigid panels. Up to 600 Watts input maximum (12V-32V and car charger only).
 - Charge times vary depending on solar panels used, sun conditions, and angle of panel(s).
- Using AC (wall) charger
 - The provided AC wall charger (12.6 VDC, 8 Amps) charges the Kodiak at 100W, taking approximately 11 hours to fully recharge. Connect wall charger to **Port 1**.
- Using Car Charger
 - Using a vehicle's 12V DC socket (240 Watts) charges the Kodiak at 240W, taking approximately five hours to fully recharge. Connect car charger to **Port 2**.
- Using External Batteries
 - The Kodiak provides a set of external battery bank connectors to be used with external lead acid deep cycle batteries (sold separately). See "Using External Battery" page for more info.

Using Your Kodiak

- Powering Devices
 - The 12V DC car sockets & Basecamp LED Light ports are always live (reference diagram).
 - All USB & AC ports are activated by the power button. You may hear a cooling fan and see a small increase on the power display in both Wattage and Amps. The AC & USB ports are now available for use.
 - The inverter shuts off at approximately 20% remaining battery. DC power is still available, but more battery capacity is needed to power the inverter (AC outlets).
 - If the AC output limit is exceeded, the inverter may power off and go into safe mode. If restarting the Kodiak doesn't restore AC power, plug into a charge source for 10 seconds and restart the system. AC power should be restored.
- Reading the Battery Storage Indicator
 - Anytime the power button is pressed, 10 multi-colored LEDs activate below the power display, each representing approximately 10% of the battery capacity.
- Maintaining the Kodiak for Storage
 - We recommend charging the Kodiak every three months for best performance and longevity. Not recommended for outside storage or in damp environments.
- Safety Mode
 - Sometimes following transport, heavy use, or extended storage, the Kodiak will go into "Safety Mode." During Safety Mode, the system won't power on, or charge. To reset the system, plug an AC charger into the Basecamp LED Light Port (see illustration) on the front for about 10 seconds. The system should now power on and accept a charge.

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Dear Valued Customer,

We at Inergy Solar would like to express our sincere appreciation for your purchase and support. The Kodiak represents four years of research, countless prototypes, and numerous revisions. We couldn't be more excited to deliver this product to you. While we know you are as excited to dive in with the Kodiak as we are to provide it to you, there are a few things we need to cover first:

- The Kodiak will arrive partially charged in accordance with lithium ion shipping regulations. Fully charge prior to use using the AC charger, solar panels, or car charger (not included).
- The provided AC charger will get **HOT** during charging. Be sure to keep it in a well-ventilated area.
- The following pages comprise the User's Manual for the Kodiak. Inside you will find product specs, basic information relating to using and expanding your new system, and much more.
- All of our products include a **one year (from date of delivery)** warranty. As with any new product, there may be kinks along the way. If you experience anything peculiar at all, we would greatly appreciate your feedback! Feel free to contact us with any questions or problems that may arise by either calling us toll free at **(877) 969-2432**, our local number at **(208) 717-3147**, or via email at **info@inergysolar.com**.

We're also always looking for photos of our products in use, so feel free to send some along by emailing us at the above listed email address, or connect with us on Facebook, Instagram, or Twitter!

Best Regards,

The Inergy Solar Team



LIMITED WARRANTY

INERGY HOLDINGS (INERGY SOLAR) LLC warrants to the original consumer purchaser that this INERGY SOLAR product will be free from defects in workmanship and material under normal consumer use during the applicable warranty period identified in Paragraph 2, below, subject to the exclusions set forth in Paragraph 6, below. This warranty statement sets forth INERGY SOLAR's total and exclusive warranty obligation. We will not assume, nor authorize any person to assume for us, any other liability in connection with the sales of our products.

WARRANTY PERIOD

The warranty period for all INERGY SOLAR products and components is one (1) year. In each case, the warranty period is measured starting on the date of purchase by the original consumer purchaser. The sales receipt from the first consumer purchase, or other reasonable documentary proof, is required in order to establish the start date of the warranty period. Registration is not required.

NO LEMON POLICY

INERGY SOLAR warrants to the original consumer purchaser that should this INERGY SOLAR product require service (rendered only by INERGY SOLAR) on (3) three separate occasions within the above stated one (1) year warranty period, the unit can be exchanged for a replacement product of comparable type, quality, and functionality at the request of the original consumer purchaser. Validation by an INERGY SOLAR technician of product failure is required prior to replacement. Your warranty remains in force for the duration of the original one (1) year warranty period, and is in no way terminated by replacement product under this No Lemon Policy.

REMEDY

INERGY SOLAR will repair or replace (at INERGY SOLAR's option and expense) any INERGY SOLAR product that fails to operate during the applicable warranty period due to a defect in workmanship or material.

LIMITED TO ORIGINAL CONSUMER BUYER

The warranty on INERGY SOLAR's products is limited to the original consumer purchaser and is not transferable to any subsequent owner.

EXCLUSIONS

INERGY SOLAR's warranty does not apply to (i) any product that is misused, abused, modified, damaged by accident, or used for anything other than normal consumer use as authorized in INERGY SOLAR's then—current product literature, or (ii) any product purchased through an online auction house. INERGY SOLAR's warranty does not apply to any battery cell or product containing a battery cell unless the battery cell is fully charged by you at least once every 6 months.

HOW TO RECEIVE SERVICE

To obtain warranty service, you must Contact our customer service team via telephone at (877) 969-2432, or via email at info@inergysolar.com. If our customer service team determines that further assistance is required, they will give you a Return Material Authorization ("RMA") number and return shipping label. You must package the product in original provided product packaging, clearly marking the RMA number on the package and including proof of your purchase date with the product.



Customer service will then provide additional shipping instructions (if required) to INERGY SOLAR at 620 Pheasant Ridge Dr, Pocatello, Idaho, USA 83202. We will process your return and send your repaired or replacement product to you at our expense for product being shipped to locations in North America.

IMPLIED WARRANTIES

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IN NO EVENT SHALL ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, EXTEND BEYOND THE APPLICABLE WARRANTY PERIOD IDENTIFIED IN PARAGRAPHS 2, ABOVE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

EXCLUSIVE REMEDY; LIMITATION OF LIABILITY

The foregoing provisions state INERGY SOLAR's entire liability, and your exclusive remedy, for any breach of warranty, express or implied. IN NO EVENT WILL INERGY SOLAR BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING FROM ANY USE OR MALFUNCTION OF ANY INERGY SOLAR PRODUCT, OR FROM ANY BREACH OF WARRANTY, INCLUDING DAMAGE TO OTHER DEVICES. IN NO EVENT WILL INERGY SOLAR's LIABILITY FOR ANY CLAIM, WHETHER IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR UNDER ANY OTHER THEORY OF LIABILITY, EXCEED THE AMOUNT PAID BY YOU FOR THE INERGY SOLAR PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.



Manufacturer's Certification Statement

Pertaining to the Federal Tax Credits for Residential

Energy-Efficient Property Credit of 2014

Inergy Holdings, LLC ("Inergy") certifies that the Inergy solar panels and generators are designed primarily as solar electricity generation and are eligible units to qualify for the federal tax credit for existing homes under the Residential Energy Credits of 2014. This certification relates to the credit for Solar Panels (Photovoltaic Systems) whereby Photovoltaic systems must provide electricity for the residence.

Please note: Inergy units are portable and may be used to generate electricity in a variety of applications, settings, and locations. Inergy limits this Certification Statement as follows: An Inergy generator/power system is a "qualified solar electric property" only when using solar panels to generate electricity and using the generator to store and deliver that electricity in or in connection with a qualifying dwelling unit.

Please refer to <https://www.irs.gov/uac/Form-5695,-Residential-Energy-Credits> for more information.

Sean Luangrath

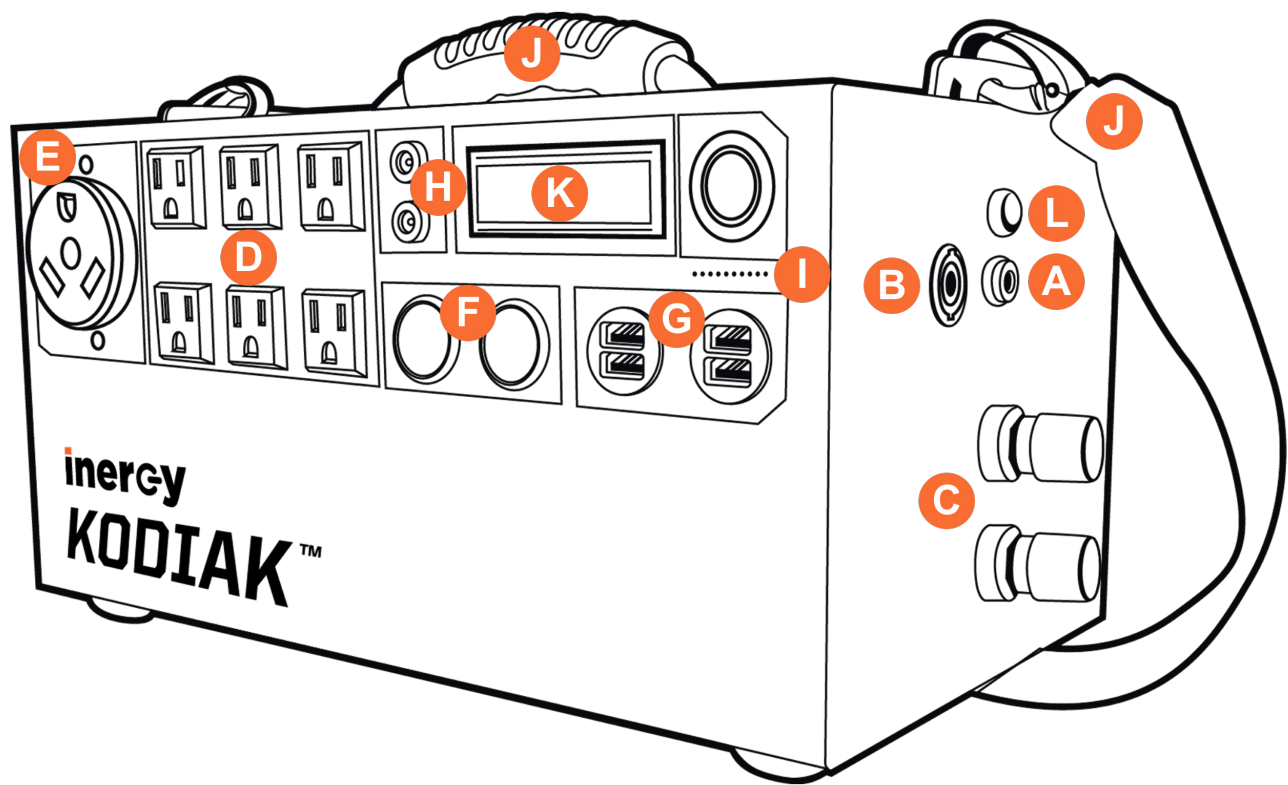
CEO

Inergy Holdings, LLC

Kodiak Specifications: Key

- Input Ports
 - **A** (1) Low Current Charging Port
 - AC & Solar Charging. 12-18 VDC, up to 10 Amps (270 Watt Max). 5.5x2.5 mm Connector
 - **B** (1) High Current Charging Port
 - AC/Solar/Wind/Car Charging. 12-32 VDC, up to 30 Amps (600 Watt Max.). Neutrik NL4XF Connector.
 - **C** (1) External Battery Bank Connection
- Output Ports
 - **D** (6) 110 VAC Ports
 - 1,100 Watt continuous (10 Amp) maximum output per socket, 3,000 Watt starting surge maximum. 1,500 Watt total limit for combined AC & DC output.
 - **E** (1) RV plug
 - 125 Volt, NEMA TT-30R
 - **F** (2) 12V DC Universal Car Sockets
 - 15 Amps max per socket
 - **G** (4) USB Outlets
 - 5VDC
 - (1) 2.1 Amp port
 - (1) 1 Amp port
 - **H** (2) Basecamp LED Ports
 - 12VDC, 50 Watts max output per port, up to 10 Basecamp Led lights chained together. 5.5 X 2.5 mm connector.
- Battery
 - Lithium Ion (Lithium Nickel Manganese Cobalt Oxide, NMC)
 - 1,100 Wh, 550 Watts continuous for two hours, 3,000 Watt peak (AC & DC combined).
 - 12.6 VDC, 90 Ah
 - Up to 2,000 charge cycles
 - Up to 10 years shelf life, charge every three months. Integrated charge balancer and controller.
 - Overcharge and balancing protection.
- Physical
 - **I** Battery Storage Indicator
 - **J** Handle/Shoulder Strap
 - **K** Power Display
 - **L** Charge Indicator
 - Weight: 20 lbs (9 kg)
 - Dimensions: 7" tall, 14" wide, 8" deep
 - Warranty: 12 months full repair or replacement
 - Note: Extend useful run times off-grid by connecting the solar panel during the day and maximizing the internal battery charge. You can charge Inergy's solar generators and use the power outputs at the same time.

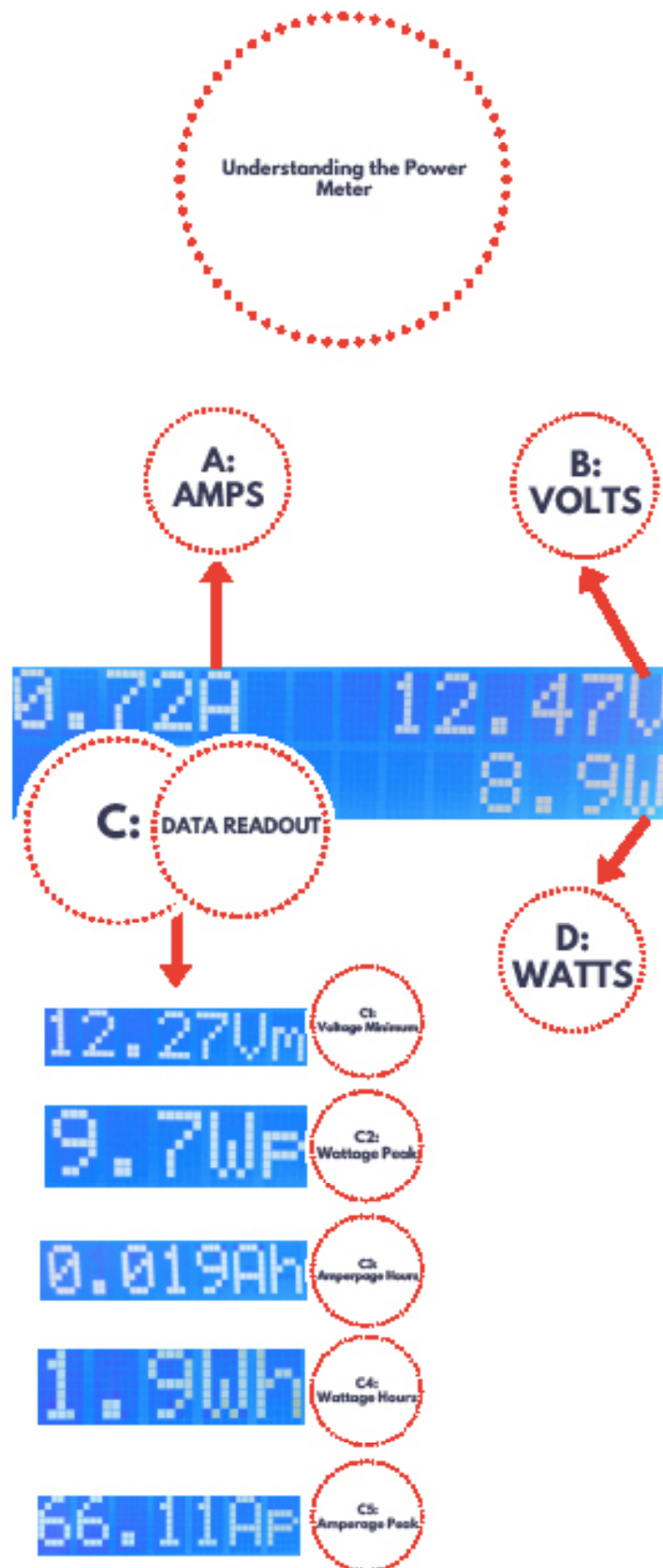
*The **KODIAK** Solar Generator*



Power Meter: Key

Our power meter contains three measurements (Volts, Amps, and Watts), and one information field (Data) that will cycle between five different measurements to help you better understand the performance of your Kodiak: Voltage minimum (Vm), Wattage peak (Wp), Amperage hours (Ah), Wattage hours (Wh), and Amperage peak (Ap).

- **A: Amps (Current)**
 - Displays the total current draw from the battery. This is a DC current measurement in real time.
- **B: Volts (Battery Voltage)**
 - Displays the voltage from the battery. This is a DC Voltage measurement in real time.
- **C: Data Readout**
 - The data readout cycles between Watts (Average Power or Wp), Volts (minimum or Vm), Amps (Amp-hours/Charge or Ah), Amps (Peak Current or Ap), and Watts (Watt-Hours or Wh).
 - Each of the following five readings represent measurements taken **since the power meter was last activated by either charging the Kodiak, or turning the system ON**. Each time one of these two things happens, the readings will be reset.
- **C1: (Vm) Voltage Minimum**
 - Displays the lowest measured battery Voltage. This helps illustrate Voltage drop caused by a load.
- **C2: (Wp) Wattage Peak**
 - Displays the highest measured Wattage output.
- **C3: (Ah) Amperage Hours**
 - Displays Amp-hours drawn from the battery.
- **C4: (Wh) Wattage-hours**
 - Displays the total amount of Watt-hours drawn from the battery.
- **C5: (Ap) Amperage Peak**
 - Displays the highest measured Amperage output.
- **D: Watts**
 - Displays the total power draw from the battery. This is a DC measurement in real time. Watts are calculated by multiplying the current (Amps) by the voltage.



Solar Energy: General Guidelines

Solar energy ***IS*** as simple as pointing panels at the sun. However, there are many variables that ***CAN*** affect the panel's performance, and as such there are few hard and fast rules involved. Our panels are rated at maximum output in ***IDEAL CONDITIONS***. Below are a few of the most common variables that affect performance.

- **Ideal Time of Day**

- As a general rule of thumb, the brighter the sun is shining, and the clearer the day, the better the panels will work.
- Panels operate at peak efficiency when the sun is most direct – typically around mid-day.
- Solar panels run off of light, not heat. So even during windy or rainy conditions, they are able to function, and while cloud cover will reduce the efficiency of the panels, they will still generate electricity.

- **Time of Year**

- The amount of daylight changes with the seasons. The summer months, from June to August, offer the most daylight hours.
- While the winter months have less daylight, it is important to note that cold temperatures do not negatively affect the panel's performance. Again, they run on light, not heat.

- **Panel Angle**

- As a general rule of thumb, pointing your panel directly at the sun will yield the best results. The angle will vary from month to month and season to season.
- A panel angle of 30-60 degrees from flat is generally considered the optimal angle, but as long as you position your panels facing the sun, you will see results.

- **Unobstructed Sunlight**

- Solar panels function through the interaction of many individual cells. Keeping this in mind, solar energy results can be greatly affected with even the slightest obstruction to a single cell of the panel.
- When selecting a location for panel deployment, keep this in mind. Make sure the panel is free of any debris, or any shadows created by things like tree branches, overhead structures, or any other objects in the environment.

External Battery Guidelines

The Kodiak was designed with end user customization in mind, in an effort to expand the number of applications and versatility of the system. External batteries are one of the main ways we have done this. Below are some guidelines for expanding the power of the Kodiak through the use of additional batteries.

- **Number of batteries?**

- ***“How many batteries can I connect to the Kodiak?”*** The answer is simple, with a small qualifier: there is no limit to the number of batteries you ***could*** connect to the Kodiak, however regardless of the additional cells, the charging potential of the Kodiak remains steady at 600 Watts/hour. Simply stated, you could connect 100 additional batteries, but the limitation would come from the charging time, making extended configurations impractical for most.

- **Types of batteries**

- Recommended battery – Inergy recommends 12 Volt deep cycle batteries be used to expand the Kodiak base system. DO **NOT** connect external lithium batteries not supplied by Inergy. Irreparable damage or fire could result.

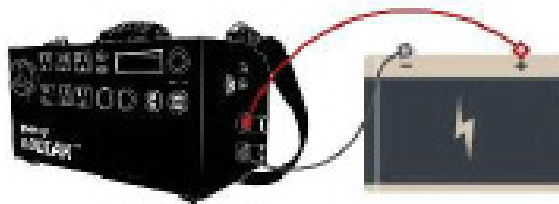
- **Connecting**

- Batteries should be connected in a parallel configuration to expand the battery capacity of the Kodiak. Any additional batteries should be connected in the following manner: positive to positive, and negative to negative. Regardless of the number of additional batteries you wish to incorporate, this will not change.
- Battery wires – Most automotive stores or departments should carry battery connectors that will work for expanding the Kodiak with new batteries.

- **Warnings**

- Never cross positive and negative – It is important to NEVER cross the positive and negative wires coming off of the Kodiak, or any additional battery units installed. Irreparable damage to the Kodiak or fire can result.

Using An External Battery



Internal Battery
Capacity:

1,100 Watts

+

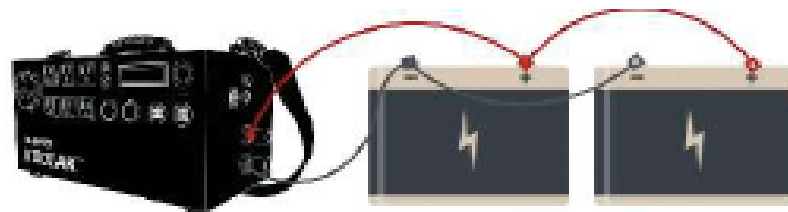
1 External
Battery:

~1,000 Watts

=

Total Battery
Capacity:

~2,100 Watts



Internal Battery
Capacity:

1,100 Watts

+

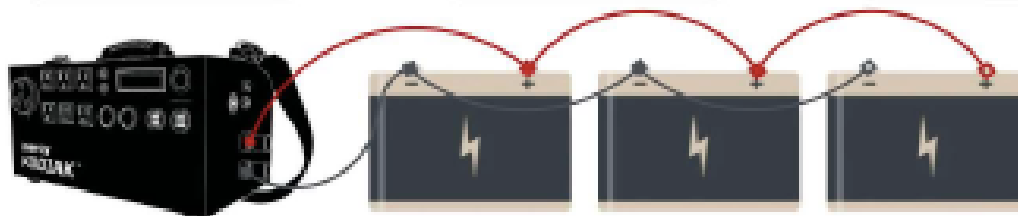
2 External
Batteries:

~2,000 Watts

=

Total Battery
Capacity:

~3,100 Watts



Internal Battery
Capacity:

1,100 Watts

+

3 External
Batteries:

~3,000 Watts

=

Total Battery
Capacity:

~4,100 Watts

FAQ

Q: How much do the Kodiak weigh?

A: The Kodiak weighs 20 pounds total.

Q: What type of AC Inverter is built into the Kodiak?

A: 1,500 Watt Pure Sine Wave. Max output of 3,000 Watts.

Q: What is the expected lifespan of the Kodiak battery?

A: 2,000 cycles or 10 years.

Q: What is the warranty for the Kodiak?

A: The warranty is one year limited.

Q: Is the internal lithium battery user replaceable?

A: No. Any battery service must be rendered by Inergy.

Q: How long will the battery hold its charge?

A: About six months, however; we recommend checking the battery level every 3 months to ensure it is not fully depleted. Storing a battery that is completely depleted can cause irreparable damage.

Q: Can I use the Kodiak while it is charging?

A: Yes. It's capable of outputting power while charging.

Q: Can I fly on an airplane with the Kodiak?

A: No. The Kodiak needs to be either ground shipped to your destination, or air shipped via a shipping carrier, not a passenger airplane.

Q: Can the Kodiak power my entire home?

A: No. The Kodiak system is designed to power individual appliances and devices rather than plugging into the home's breaker panel directly. For instance, electric dryers, ovens, stoves, and water heaters all exceed the Kodiak's ability. However, gas ovens, stoves, dryers, and water heaters can be powered using the Kodiak by plugging in directly - provided they have a standard 110 VAC wall plug.