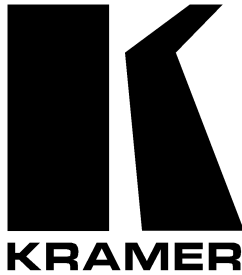


**Kramer Electronics, Ltd.**



# **USER MANUAL**

**Model:**

**VA-100**

*Portable Power Supply*

## Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Getting Started</b>	<b>1</b>
<b>3</b>	<b>Overview</b>	<b>1</b>
<b>4</b>	<b>Your Portable Power Supply</b>	<b>2</b>
<b>5</b>	<b>Using the Portable Power Supply</b>	<b>3</b>
5.1	Recharging the Portable Power Supply	3
5.2	Connecting the Portable Power Supply	5
<b>6</b>	<b>Technical Specifications</b>	<b>6</b>

## Figures

Figure 1:	VA-100 Portable Power Supply	2
Figure 2:	Recharging the Portable Power Supply	4
Figure 3:	Connecting the Portable Power Supply	5

## Tables

Table 1:	Features and Functions of the VA-100 Portable Power Supply	3
Table 2:	Technical Specifications of the VA-100 Portable Power Supply	6

**The following information is added at the end of section 3 on page 3 of the user manual:**

**Caution** – No operator-serviceable parts inside unit.

**Warning** – Use only the Kramer Electronics input power wall adapter that is provided with this unit<sup>1</sup>.

**Warning** – Disconnect power and unplug unit from wall before installing or removing device or servicing unit.

**Caution** – Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer’s instructions.

**Attention** – Il y a danger d’explosion s’il y a remplacement incorrect de la batterie, remplacer uniquement avec une batterie du même type ou d’un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

**In Section 5.1, Recharging the Portable Power Supply, step 4 on page 4 is updated. The text in the first sentence of step 4 that appears as follows:**

“When the green *FULL* LED lights continuously **instead of** the *CHARGE* LED, your **VA-100 Portable Power Supply** is fully charged.”

**Is replaced by the following text:**

“When the green *FULL* LED lights continuously **together with** the *CHARGE* LED, your **VA-100 Portable Power Supply** is fully charged.”

---

<sup>1</sup> For example: model number AD2512C, part number 2535-000251

## 1 Introduction

Dedication by Kramer Electronics since 1981, to the development and manufacture of high quality video/audio equipment, makes the Kramer line an integral part of the finest production and presentation facilities in the world. In recent years, Kramer has redesigned and upgraded most of the line, making the best even better! The Kramer line of professional video/audio electronics is one of the most versatile and complete available, and is a true leader in terms of quality, workmanship, price/performance ratio and innovation. In addition to our high quality accessories, like the Kramer Tools **VA-100 Portable Power Supply**, we also offer excellent switchers and matrices, distribution amplifiers, remote controllers, presentation processors and interfaces. Congratulations on purchasing your **VA-100 Portable Power Supply** which is ideal for field applications that require a 12V DC power supply. The package includes the following items:

- **VA-100 Portable Power Supply** (pre-installed with NiMH rechargeable batteries)
- A 12V power supply
- 2 DC-to-DC cables (each 10 cm in length)
- This user manual
- Kramer concise product catalog/CD

## 2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual

## 3 Overview

Your high efficiency **VA-100 Portable Power Supply** is ideal for field applications for machines that require a 12V DC power supply.

The **VA-100 Portable Power Supply**:

- Incorporates a highly efficient, high-speed battery charger, good quality NiMH rechargeable batteries, and a smart power converter for outputting 12V DC
- Has protection circuitry against heat-up, over-charge, and total discharge which might otherwise damage the built-in batteries
- Can be recharged between 500 and 1000 times

- Has two 12 VDC outputs for parallel feeding of 2 machines and can supply 6 full Watt-hours of energy<sup>1</sup>
- Comes with a 12V mains power supply
- Includes 4 LED status indicators for power feed, full charge, charging state, and in-use state

To achieve the best performance we recommend:

- Not opening your **VA-100** to remove or replace the batteries
- Not using your **VA-100** while recharging its batteries
- Recharging your **VA-100** when not used for more than 7 days
- Only connecting good quality DC-to-DC cables (included)
- Positioning your Kramer **VA-100** in a location free from moisture and away from excessive sunlight and dust

## 4 Your Portable Power Supply

Figure 1 and Table 1 define the **VA-100** *Portable Power Supply*:

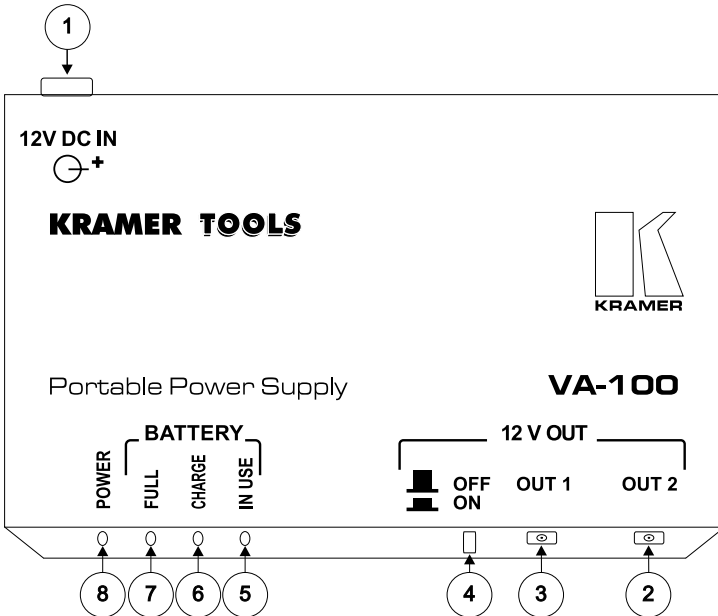


Figure 1: *VA-100* Portable Power Supply

<sup>1</sup> For example, it can power a typical video DA for over 8 hours in the field

Table 1: Features and Functions of the VA-100 Portable Power Supply

#	Feature	Function
1	12V DC IN Power Inlet	+12V DC connector for powering the unit
2	12V OUT OUT 2 12V OUT Power Inlet	Connects to the 12V DC IN power inlet on a Kramer Tools (or other 12VDC) unit
3		
4	OFF / ON Button	Pushing in activates the power outlets; releasing deactivates the power outlets
5	BATTERY IN USE LED	Lights after pushing in the OFF / ON Button <sup>1</sup>
6	CHARGE LED	Indicates when the VA-100 is charging (refer to section 5.1)
7	FULL LED	Green LED lights when the VA-100 is fully charged
8	POWER LED	LED lights when the VA-100 receives power <sup>2</sup>

## 5 Using the Portable Power Supply

Before using your VA-100 be sure that the batteries inside are sufficiently charged, by observing that the FULL LED lights continuously. If the FULL LED blinks, recharge the batteries, as section 5.1 describes. Section 5.2 describes how to connect your VA-100.

### 5.1 Recharging the Portable Power Supply

Recharging the VA-100 Portable Power Supply, means recharging the batteries inside your VA-100, as Figure 2 illustrates.

To recharge your VA-100 Portable Power Supply, do the following:

1. Release the OFF / ON button to prevent any flow to the power outlets.
2. Disconnect any Kramer Tools that are attached to the OUT 1 or the OUT 2 12V OUT power outlets.
3. Connect the AC-DC power adapter source to the 12V DC IN power inlet and attach the plug to the mains electricity.  
The POWER LED lights. Observe the CHARGE LED<sup>3,4</sup>, as follows:
  - After a few seconds, the CHARGE LED blinks at a fast pace while checking the status of the batteries

<sup>1</sup> Blinks after a few seconds indicating that the batteries are low

<sup>2</sup> Via item 1 in Figure 1

<sup>3</sup> If the FULL and CHARGE LEDs blink simultaneously during the recharge, disconnect the AC-DC power adapter and cease recharging. In all likelihood, this indicates a problem with the batteries. If the problem persists, contact your Kramer dealer

<sup>4</sup> If the FULL LED lights continuously and the CHARGE LED flashes twice intermittently, this indicates a problem with the temperature of the batteries. Disconnect the AC-DC power adapter and cease recharging. If the problem persists, contact your Kramer dealer

- After a further few seconds, the *CHARGE* LED blinks at a slower pace (*Soft-start charge*) for about 7-8 minutes
  - Afterwards, the *CHARGE* LED lights continuously (*Fast charge*) while charging for up to a few hours
4. When the green *FULL* LED lights continuously instead of the *CHARGE* LED, your *VA-100* Portable Power Supply is fully charged. Remove the AC-DC power adapter's plug from the mains electricity and then disconnect the AC-DC power adapter from the *12DV DC IN* power inlet.

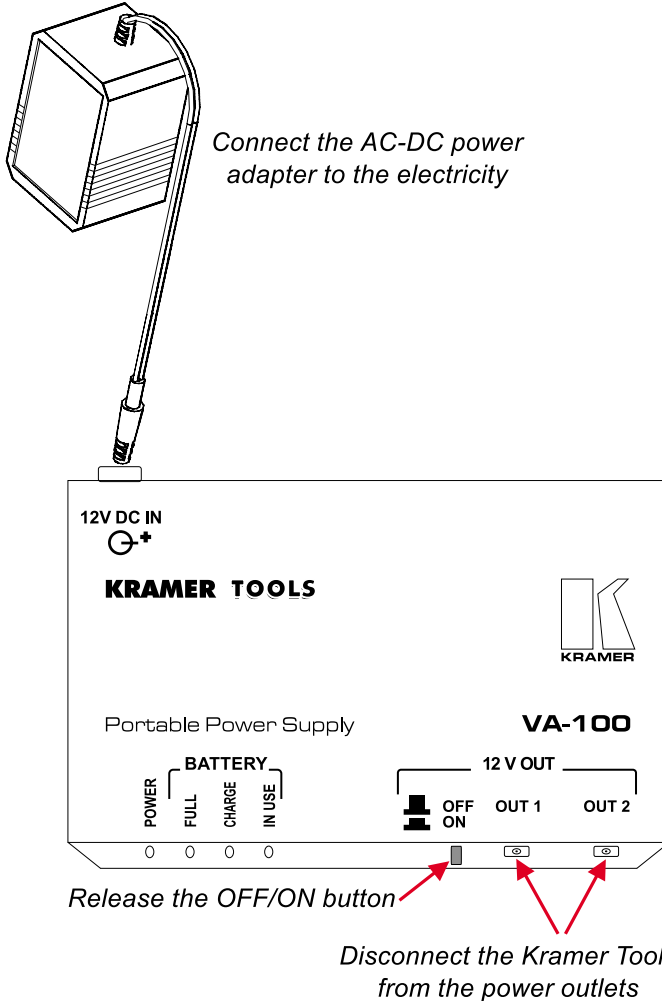


Figure 2: Recharging the Portable Power Supply

## 5.2 Connecting the Portable Power Supply

To connect your **VA-100 Portable Power Supply**, as the example in Figure 3 illustrates, do the following:

1. Remove the AC-DC power adapter plug from the mains electricity and disconnect it from the *12V DC IN* power inlet.
2. Release the *OFF / ON* button to prevent any current flow to the power outlets.
3. Connect up to 2 power outlets to 2 Kramer Tools, using 2 DC -to-DC cables (included), as follows:
  - Connect the *OUT 1 12V OUT* power outlet to the *12DV DC IN* power inlet on a Kramer Tools unit
  - Connect the *OUT 2 12V OUT* power outlet to the *12DV DC IN* power inlet on a second Kramer Tools unit
4. Push in the *OFF / ON* button to activate the flow to the power outlet(s). The power flows to the *OUT 1* and *OUT 2* power outlets and the *IN USE* LED lights.

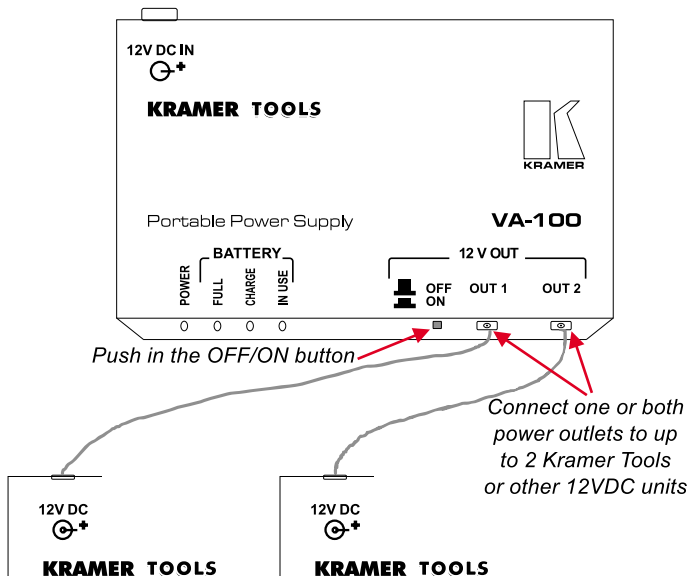


Figure 3: Connecting the Portable Power Supply

5. Recharge the **VA-100** when the power becomes low and the *FULL* LED blinks, by repeating steps 1 to 4 in section 5.1.

## 6 Technical Specifications

*Table 2: Technical Specifications of the VA-100 Portable Power Supply*

Power Source:	12 VDC to 25 VDC @ 1A (supply current)
Power Output:	12 VDC to +/-0.5 VDC @ 10 mA to 270 mA (load current)
Voltage Ripple:	Input: 70mV; Output: 50mV
Time of Charge:	2.25 hours
Temperature:	0 to 45 Deg Centigrade
Dimensions:	12 cm x 7.5 cm x 2.5 cm (4.7" x 2.95" x 0.98", W, D, H)
Weight:	0.4 kg. (0.88 lbs.) approx. (including 4 NiMH cells)
Accessories:	Power supply

---

## LIMITED WARRANTY

Kramer Electronics (hereafter *Kramer*) warrants this product free from defects in material and workmanship under the following terms.

### HOW LONG IS THE WARRANTY

Labor and parts are warranted for three years from the date of the first customer purchase.

### WHO IS PROTECTED?

Only the first purchase customer may enforce this warranty.

### WHAT IS COVERED AND WHAT IS NOT COVERED

Except as below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed by Kramer, or which is not purchased from an authorized Kramer dealer. If you are uncertain as to whether a dealer is authorized, please contact Kramer at one of the agents listed in the web site [www.kramerelectronics.com](http://www.kramerelectronics.com).
2. Any product, on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
  - i) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
  - ii) Product modification, or failure to follow instructions supplied with the product
  - iii) Repair or attempted repair by anyone not authorized by Kramer
  - iv) Any shipment of the product (claims must be presented to the carrier)
  - v) Removal or installation of the product
  - vi) Any other cause, which does not relate to a product defect
  - vii) Cartons, equipment enclosures, cables or accessories used in conjunction with the product

### WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items. We will not pay for the following:

1. Removal or installations charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls or programming. These costs are the responsibility of the Kramer dealer from whom the product was purchased.
3. Shipping charges.

### HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on you product, you must take or ship it prepaid to any authorized Kramer service center.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing a contact name, company, address, and a description of the problem(s).
3. For the name of the nearest Kramer authorized service center, consult your authorized dealer.

### LIMITATION OF IMPLIED WARRANTIES

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

### EXCLUSION OF DAMAGES

The liability of Kramer for any effective products is limited to the repair or replacement of the product at our option. Kramer shall not be liable for:

1. Damage to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or:
2. Any other damages, whether incidental, consequential or otherwise. Some countries may not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from place to place.

**NOTE:** All products returned to Kramer for service must have prior approval. This may be obtained from your dealer.

This equipment has been tested to determine compliance with the requirements of:

- EN-50081: "Electromagnetic compatibility (EMC);  
generic emission standard.  
Part 1: Residential, commercial and light industry"
- EN-50082: "Electromagnetic compatibility (EMC) generic immunity standard.  
Part 1: Residential, commercial and light industry environment".
- CFR-47: FCC Rules and Regulations:  
Part 15: "Radio frequency devices  
Subpart B – Unintentional radiators"

### CAUTION!

- ☒ Servicing the machines can only be done by an authorized Kramer technician. Any user who makes changes or modifications to the unit without the expressed approval of the manufacturer will void user authority to operate the equipment.
- ☒ Use the supplied DC power supply to feed power to the machine.
- ☒ Please use recommended interconnection cables to connect the machine to other components.



**The list of Kramer distributors appears on our web site:  
[www.kramerelectronics.com](http://www.kramerelectronics.com)**

**We welcome your questions, comments and feedback.**

---

**Kramer Electronics, Ltd.**

3 Am VeOlamo Street. Jerusalem 95463, Israel Tel: (+972-2)-654-4000

Fax: (+972-2)-653-5369, E-mail: [kramereel@netvision.net.il](mailto:kramereel@netvision.net.il)

**P/N: 2900-006016 REV 1**