Kinetik

INTELLIGENT

Power Supply / Charger

OWNERS MANUAL

HC SERIES

KIPS12-45
KIPS12-60
KIPS12-80

Computer Controlled Charging System

The Intelligent way to charge and maintain your vehicle's battery.

45 AMP • 60 AMP • 80 AMP

Constantly monitors the battery voltage and automatically selects one of four operating modes:
NORMAL • BOOST • STORAGE • DESULFATION

FEATURES

INTELLIGENT CHARGING
The Kinetik Intelligent Power Converter is the intelligent way to charge your Kinetik battery. The built-in microprocessor constantly monitors the battery voltage then automatically adjusts the converter output voltage to provide the proper charging voltage for fast recharges and long-term maintenance.

MULTIPLE BATTERY CHARGING
Kinetik Intelligent Power Converters have the capability of charging multiple batteries at the same time! They can even charge a combination of different capacity batteries.

GFCI PROTECTION
Kinetik Intelligent Power Converters have the LOWEST ground fault leakage. With this unit, the user can confidently utilize AC outlets without being concerned about a ground fault interruption of the facilities power source.

REVERSE BATTERY PROTECTION CIRCUIT
If a battery is accidently hooked up backwards, the converter will be protected. Externally mounted ATC type fuses will blow when a battery is connected in reverse. Replace fuses with the same type and rating.

CAUTION: *If the reverse battery protection fuses are blown during installation, check to see that the battery has been connected properly before replacing the fuses. Replace the fuses only with the same type and rating as the original fuses. Using other fuses could result in the converter being damaged, vehicle damage, injury or other consequences (see warranty).*

SHORT CIRCUIT PROTECTION
The Kinetik Intelligent Power Converter senses, within millionths of a second, if the output terminals have been shorted. If this condition should occur the converter first limits the current. Should the condition continue to exist the converter then reduces the current output, within thousandths of a second. The Kinetik Intelligent Power Converter was designed to protect itself. Once the “short circuit” has been corrected the converter will automatically return to normal operating conditions.

THERMAL PROTECTION
If a over temperature condition should occur due to air flow obstruction or improper installation, the Kinetik Intelligent Power Converter senses the condition and decreases power output until the unit returns to normal operating temperature. The converter will return to full output capacity as it cools down.

IGNITION PROTECTION
All Kinetik Intelligent Power Converters are ignition protected.

INTERNAL COMPONENT COOLING
Kinetik Intelligent Power Converters are equipped with a variable speed cooling fan. The fan will only run at the speed needed to prevent the converter from overheating and shutting down. Running the fan at lower speeds where possible will reduce the audible noise generated by the fan while protecting the converter from excess heat. The location of the fan allows for the maximum cooling of both the case and components.

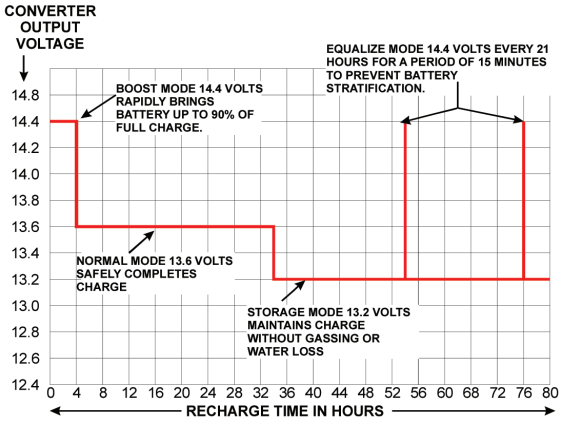
OVERVOLTAGE PROTECTION
If the Input Voltage exceeds a preset limit the converter will shutdown to prevent damage. The unit will return to normal operation when the voltage returns to normal.

TROUBLE FREE
The Kinetik Intelligent Power Converters have undergone tens of thousands of hours of strenuous engineering testing to ensure years of trouble free operation. These converters have been designed and tested to provide maintenance free operation.

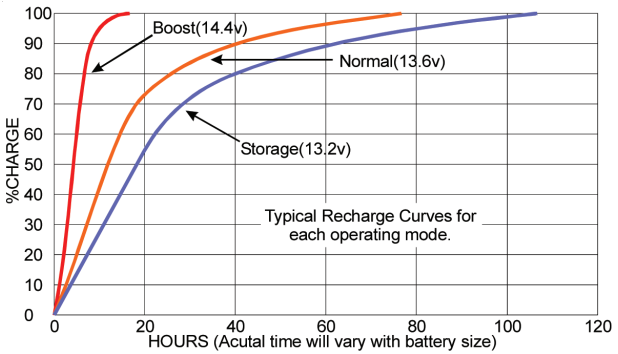
GENERAL INFORMATION

Kinetik Intelligent 120 VAC to 12 VDC Power Converters are state-of-the-art electronic converters / battery chargers. Their compact size and quiet operation gives greater flexibility in selecting the mounting locaiton for either OEM installation or after market replacement.

The Kinetik Intelligent Power Converters have a computer controlled charging module built in. This is a microprocessor-controlled device which constantly monitors the battery, and then automatically adjusts the converter output voltage based on its charge status. There are four (4) operating Modes (NORMAL, BOOST, STORAGE and DESULFATION/EQUALIZE). Each mode is automatically selected by the microprocessor and ensures a fast yet safe recharge for your battery. See the chart below for details.



The chart below shows the amount of time it took a converter set to three different output voltages to recharge a 125Ah (Amp Hour) battery after it was discharged to 10.5 volts.



GENERAL INFORMATION (continued...)

14.4 Volts (Boost Mode)
Returned the battery to 90% of full charge in approximately 8 hours. The battery reached full charge in approximately 11 hours.

13.6 Volts (Normal Mode)
Required 40 hours to return the battery to 90% of full charge and 78 hours to reach full charge.

13.2 Volts (Storage Mode)
Required 60 hours to return the battery to 90% of full charge and 100 hours to reach full charge.

The integrated intelligent microprocessors ability to change the output voltage of the converter will significantly reduce the amount of time it takes to recharge your battery. The lower voltage for Storage mode prevents gassing and reduces water loss during long-term storage.

GENERAL OPERATION

The Kinetik Intelligent Power Converters will supply “clean” nominal 13.6 VDC (Normal Mode) power from input voltages that range from 90-130 VAC.

The Kinetik Intelligent Power Converters are primarily designed for use with a battery, however, the output of the Kinetik converters are a regulated, filtered D.C. voltage that can power sensitive electronics without the need for a battery or other filtering.

NOTICE
At normal input voltages the full load rated capacity is available. At input voltages less than 105 VAC the converter may not supply full rated output capacity.

The full rated load is available for load, battery charging or both. When functioning as a regulated battery charger, the Kinetik converters have a nominal voltage output of 13.6 VDC. The system was designed to sense voltage on the battery and automatically selects one of 4 operating modes (normal, boost, storage and desulfation/equalization) to provide the correct charge level to the batteries.

NORMAL MODE: Output voltage set at 13.6 volts DC. This voltage provides good charging rates and low water usage.

BOOST MODE: If the converter senses that the battery voltage has dropped below a preset level the output voltage is increased to 14.4 volts DC to rapidly recharge the batteries.

STORAGE MODE: When the converter senses that there has been no significant battery usage for approximately 30 hours the output voltage is reduced to 13.2 volts DC for minimal water usage.

DESULFATION/EUALIZATION MODE: When in storage mode the microprocessor automatically increases the output voltage to 14.4 volts for 15 minutes every 21 hours to reduce the buildup of sulfation on the battery plates.

INSTALLATION INSTRUCTIONS

Horizontal mounting of the Kinetik Intelligent Power Converter is recommended although it can be mounted in any position that provides unobstructed ventilation to the fan and vent holes. Secure the converter firmly to the mounting surface using standard fasteners.

The installer should test the converter under full load conditions in its intended mounting location. This will insure that there is sufficient unobstructed ventilation to the converter allowing it to operate at its maximum rated load. Failure to provide adequate ventilation to the converter will cause the converter to cycle on and off as it responds to the ambient conditions.

NOTICE: Kinetik Intelligent Power Converters are not designed for zero clearance compartments. Unobstructed ventilation is required.

ATTENTION

1. USE A 5/32" HEX DRIVER TO TIGHTEN THE OUTPUT SCREWS. DO NOT EXCEED 50 IN-LB TORQUE.

2. THE OUTPUT TERMINALS ARE RATED FOR 2 TO 14 GA. COPPER OR ALUMINUM WIRE.

3. THE KINETIK INTELLIGENT POWER CONVERTERS ARE NOT WEATHER TIGHT OR DESIGNED FOR WET LOCATION MOUNTING. THEY MUST BE PROTECTED FROM DIRECT CONTACT WITH WATER.

4. DURING THE INSTALLATION PROCESS AVOID THE INTRODUCTION OF FOREIGN MATERIALS INTO THE CASE AS THIS COULD CAUSE A MALFUNCTION OF THE CONVERTER.

CAUTION

IT IS IMPORTANT THAT THE FLUID LEVEL OF ANY CONNECTED BATTERY BE CHECKED ON A REGULAR BASIS. ALL BATTERIES WILL "GAS" AND LOSE SOME FLUIDS WHEN CONTINUOUSLY CONNECTED TO ANY CHARGING SOURCE.

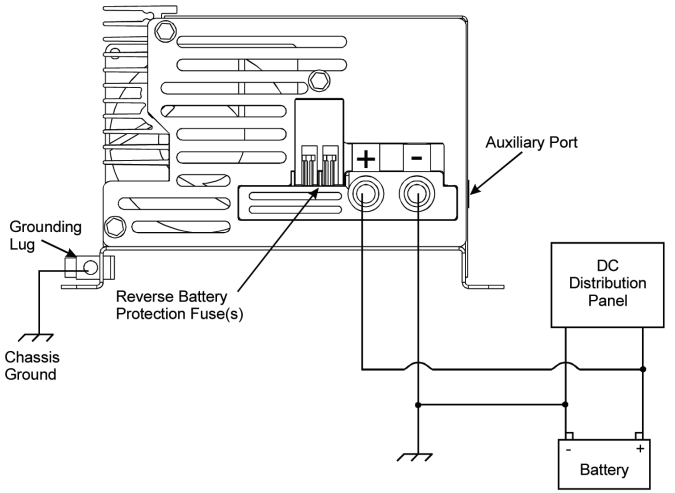
NOTICE:
For more information on Kinetik's line of power products, please visit: ***www.kinetikpower.com***

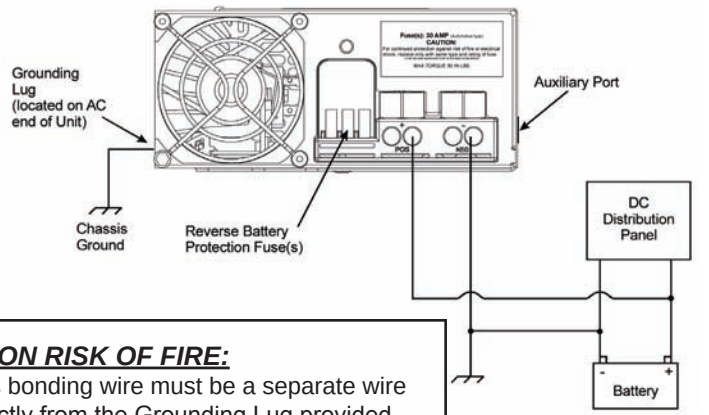
TROUBLE SHOOTING GUIDE

PROBLEM	POSSIBLE CAUSES	ACTION
1. No Output	120 VAC supply not connected	Connect power supply
		Check AC distribution panel for proper operation
	External Fuses Blown	Check for Reverse Polarity
		Replace Fuses with same type and rating
	Short Circuit	Trace Circuits for possible fault
	Unit has shutdown due to overheating	Check air flow
		Allow unit to cool
	Unit has shutdown due to over voltage (Also see item 5 below)	Check input voltage
		Converter will shut down if the input voltage exceeds 13.2 Volts
		Correct Input Voltage
2. External Fuses Blown	Reverse Battery Hook Up	Correct Hook up and replace Fuses with same type and rating
3. Converter cycles on & off	Compartment gets too hot	Check air flow to the converter
		Improve Ventilation to the compartment
4. Low Output	Excessive Load for Converter	Reduce load requirements or Install Larger Converter
	Input Voltage not between 105-130 VAC	Correct input supply voltage
	Bad Battery Cell(s)	Replace Battery
5. Intermittent or no Output on Generator, works on Shore Power	Unit has shutdown due to over voltage	Add another load to the generator, this may reduce the “spikes” to an acceptable level
	Some generators exhibit excessive voltage spikes on the AC power output, this may cuase the over voltage protection to shut the unit down	Contact generator manufacturer for possible defect in the generator

INPUT/OUTPUT SPECIFICATIONS

KINETIK KIPS12-45 Input: 105-130 VAC 60 Hz 725 Watts Output: 13.6 VDC, 45 Amps Dimensions: 4.5H x 8.625L x 7.25W Weight: 4.5lbs	**KINETIK KIPS12-60** Input: 105-130 VAC 60 Hz 1000 Watts Output: 13.6 VDC, 60 Amps Dimensions: 3.6H x 9.15L x 9W Weight: 5.8lbs
KINETIK KIPS12-80 Input: 105-130 VAC 60 Hz 1300 Watts Output: 13.6 VDC, 80 Amps Dimensions: 3.6H x 11.65L x 9W Weight: 7.5lbs	





CAUTION RISK OF FIRE:

Chassis bonding wire must be a separate wire ran directly from the Grounding Lug provided on the side of the converter. ***DO NOT*** connect Output Negative to chassis using the same wire.

KINETIK POWER CONVERTER LIMITED WARRANTY

I. LIMITED WARRANTY: Kinetik warrants its power converter to be free from defects in material or workmanship under normal use and service; and limits the repair or replacment.

II. DURATION: This warranty shall extend for a period of one year from the original date of purchase, and is only valid within the continental limits of the United States and Canada.

III. WARRANTY EXCLUSIONS: This warranty specifically does not apply to:

A. Any power converter which has been repaired or altered in any way by an unauthorized person or service station;
B. Damage caused by excessive input voltage, misuse, negligence or accident, or an external force;
C. Any power converter installed in a vehicle used for commerical purposes;
D. Any power converter which has been connected, installed or adjusted or used other than in accordance with the instructions furnished, or has had the serial number altered, defaced or removed;
E. Cost of all services performed in removing and re-installing the power converter; and
F. ANY LOST PROFITS, LOST SAVINGS, LOSS OF USE OF ENJOYMENT OR OTHER INCIDENTAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE, THE PRODUCT. THIS INCLUDES DAMAGES TO PROPERTY AND, TO THE EXTENT PERMITTED BY LAW, DAMAGES FOR PERSONAL INJURY. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IV. PROOF OF PURCHASE: A warranty claim must be accompanied by proof of the date of purchase.

V. CLAIM PROCEDURE: Upon discovery of any defect, Kinetik shall be supplied the following information by mail, telephone or fax, at the address listed below:

A. Name and address of claimant;
B. Name and model number of the power converter;
C. Make, year and model of the vehicle in which the power converter was installed;
D. Date of purchase; and
E. Complete description of the claimed defect.

Upon determation that a warranty claim exists (a defect in material or workmanship occurring under normal use and service,) the power converter shall be shipped postage prepaid to Kinetik together with proof of purchase. The power converter will be repaired or replaced and returned postage prepaid.

Kinetik Power
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