



INSTALLATION & OPERATION MANUAL

RACE ENERGY

Kart Charge-12-5 Battery Charger



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IMPORTANT SAFETY INSTRUCTIONS

■ **SAVE THESE INSTRUCTIONS** — This manual contains important safety and operating instructions for the battery charger.

■ **ALL BATTERY CHARGERS**

- 1) CAUTION — To reduce risk of injury, charge only lead acid or sealed gel cell type rechargeable batteries. Other types of batteries may burst causing personal injury and damage.
- 2) Do not expose battery charger to rain or snow.
- 3) Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
- 4) Do not disassemble battery charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
- 5) To reduce risk of electric shock, disconnect battery charger from batteries and AC supply before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.



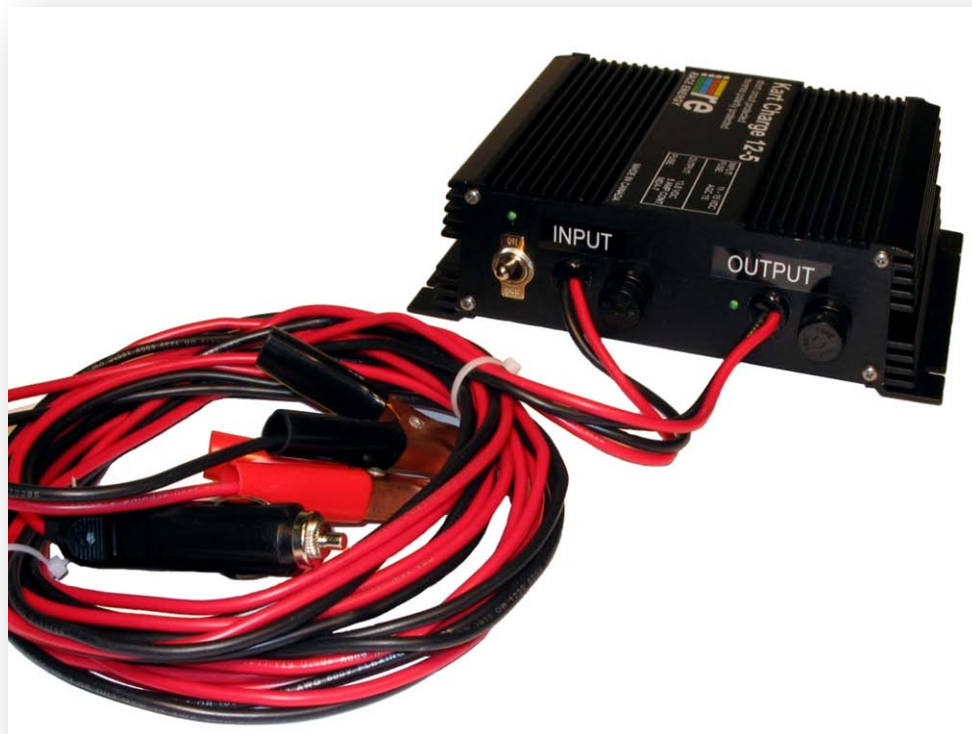
INTRODUCTION

This compact charger plugs into a cigarette lighter or accessory outlet in your car or truck and charges a kart battery at up to 5 amps, without an AC charger or noisy generator. High quality copper alligator clips make connection to the battery quick and easy. In fact, the KartCharge can be used to charge any lead acid or sealed gel 12V battery from your car, even with the engine off.

Another way to use the charger is to use an adapter cable to convert the input from an accessory plug to a second set of alligator clips. Then simply connect it to a surplus car battery that is at least partially charged. Connect the other end to the kart or other small lead acid battery to fully and completely charge it as long as the source battery has any energy at all.

The charger does have an On/Off switch to de-energize the output when not in use. Make sure you turn the charger ON after making all connections, and turn it OFF before disconnecting the output.

You will know the charger is operating properly by observing the green output LED. If it is glowing brightly, the battery under charge is nearly fully charged. The charger can be left connected to the battery indefinitely without damaging it.



Kart Charge-12-5 Specifications

■ Input/Output

Input Volts (DC)	10 – 15
Input Amps (max)	8.5
Input Fuse	AGC-10
Output Volts (DC)	13.8
Output Amps	5 Continuous / 5.5 Peak

■ Protection

Input Reverse Polarity	Replace Input Fuse
Output Reverse Polarity	Automatic
Output Protection	Current limit and short circuit protected

■ General

Isolation Case to Input or Output	> 500 VDC
Length	7.9 in / 20.1 cm
Temp. Range	-25 to +40° C @ maximum output
Width	6.0 in / 15.2 cm
Height	2.4 in / 6.1 cm
Clearance	1 Inch (2.5 cm) all around
Material	Marine Grade Aluminium
Finish	Black Anodize
Fastenings	18-8 Stainless
Weight	2.6 lb / 1.2 kg

Designed and manufactured by:

RACE ENERGY  **re**

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Revised May 2009

INSTALLATION

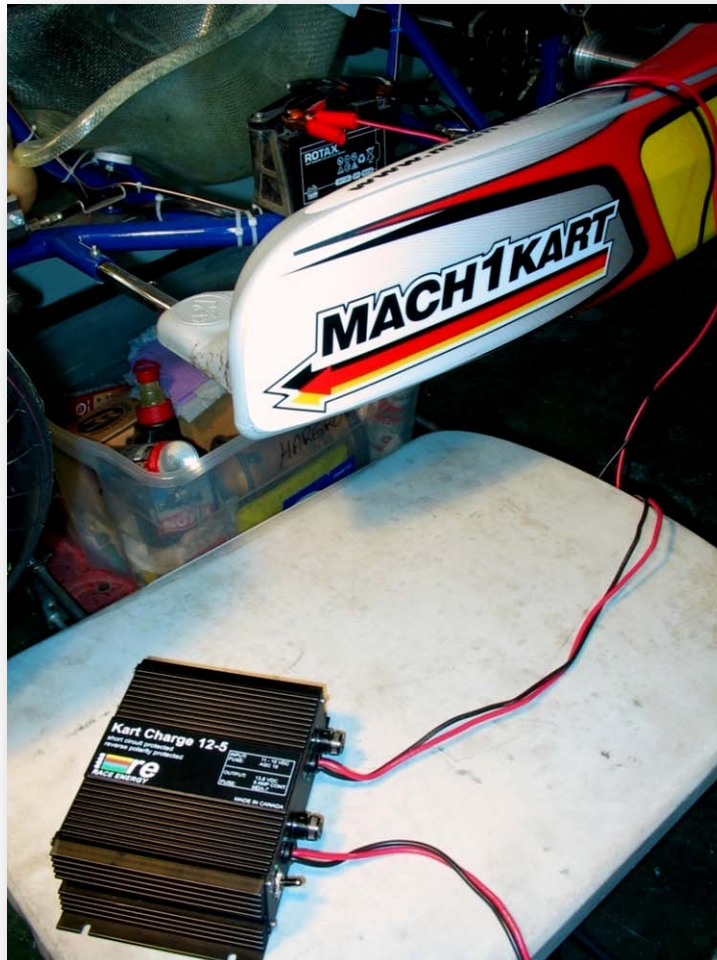
■ POWER CONNECTION

Make sure the ON/OFF switch is in the OFF position. Plug the input power cord into a cigarette or accessory outlet in the vehicle. Some outlets are not powered when the ignition of the vehicle is turned off. As mentioned in the introduction, you can also connect the KartCharge to any 12V battery with the Accessory to Alligator Clip adapter.

**The ON/OFF switch must be in the OFF position
before connecting or disconnecting power to the unit!**

After the KartCharge is connected on the input side, connect the alligator clip leads on the output cable to the battery that needs to be charged. Then turn the power switch to ON. The output LED will glow dimly, and then gradually brighten as the battery reaches full charge. You can also check the voltage on the battery using a good quality voltmeter. Depending on the size of the battery, it will reach full charge about an hour after the voltage reaches at least 13.8 volts.

The kart charge can safely be left connected to the kart battery until you are ready to roll to pregrid.





TROUBLESHOOTING

If the fuse blows whenever the KartCharge is turned on, check that the output leads are connected to the battery with the correct polarity; if they are then the unit replace the fuse. If it blows again, the unit is damaged and must be returned for repair.

If you are using the cigarette lighter to alligator clip adapter on the input, also check that the charger is connected to the source battery correctly.

If both the input and output connections are the correct polarity, turn the power switch to OFF, replace the fuse and turn the power switch back to ON. If the fuse blows again, the unit is damaged and must be returned for repair.



LIMITED WARRANTY

1. The equipment manufactured by Race Energy, (the "Warrantor") is warranted to be free from defects in workmanship and materials under normal use and service.
2. This warranty is in effect for:
 - a. 3 Years from **date of purchase** by the end user for standard products offered in our catalog.
 - b. 2 Years from **date of manufacture** for non-standard or OEM products
 - c. 1 Year from **date of manufacture** for encapsulated products.
3. Race Energy will determine eligibility for warranty from the date of purchase shown on the warranty card when returned within 30 days, or
 - a. The date of shipment by Race Energy, or
 - b. The date of manufacture coded in the serial number, or
 - c. From a copy of the original purchase receipt showing the date of purchase by the user.
4. In case any part of the equipment proves to be defective, the Purchaser should do the following:
 - a. Prepare a written statement of the nature of the defect to the best of the Purchasers knowledge, and include the date of purchase, the place of purchase, and the Purchasers name, address and telephone number.
 - b. Call Race Energy at 800-668-3884 and request a return material authorization number (RMA).
 - c. Return the defective part or unit along with the statement at the Purchasers expense to the Warrantor; Race Energy, 8128 River Way, Delta, B.C., V4G 1K5, Canada.
5. If upon the Warrantor's examination the defect proves to be the result of defective material or workmanship, the equipment will be repaired or replaced at the Warrantor's option without charge, and returned to the Purchaser at the Warrantor's expense by the most economical means. Requests for a different method of return or special handling will incur additional charges and are the responsibility of the Purchaser.
6. Race Energy reserves the right to void the warranty if:
 - a. Labels, identification marks or serial numbers are removed or altered in any way.
 - b. Our invoice is unpaid.
 - c. The defect is the result of misuse, neglect, improper installation, environmental conditions, non-authorized repair, alteration or accident.
7. No refund of the purchase price will be granted to the Purchaser, unless the Warrantor is unable to remedy the defect after having a reasonable number of opportunities to do so.
8. Only the Warrantor shall perform warranty service. Any attempt to remedy the defect by anyone else shall render this warranty void.
9. There shall be no warranty for defects or damages caused by faulty installation or hook-up, abuse or misuse of the equipment including exposure to excessive heat, salt or fresh water spray, or water immersion except for equipment specifically stated to be waterproof.
10. No other express warranty is hereby given and there are no warranties that extend beyond those described herein. This warranty is expressly in lieu of any other expressed or implied warranties, including any implied warranty of merchantability, fitness for the ordinary purposes for which such goods are used, or fitness for a particular purpose, or any other obligations on the part of the Warrantor or its employees and representatives.
11. There shall be no responsibility or liability whatsoever on the part of the Warrantor or its employees and representatives for injury to any person or persons, or damage to property, or loss of income or profit, or any other consequential or resulting damage which may be claimed to have been incurred through the use or sale of the equipment, including any possible failure of malfunction of the equipment, or part thereof.
12. The Warrantor assumes no liability for incidental or consequential damages of any kind.



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