

85 WATT CONVERTER



IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNINGS

- Read and understand all instructions in this manual prior to operating this Power Converter to avoid damage to converter, power source or device connected to the converter.
- Improper use of this Power Converter can cause personal injury, property damage, and/or possible loss of life.
- This Power Converter must be connected only to a 12 Volt DC Negative Ground ignition system (most vehicles). Do not use this Power Converter with Positive Ground vehicle ignition system. Consult your vehicle owner's manual for ignition system identification.
- Do not use this Power Converter with device(s) which use more than 85 Watt power consumption. Make certain the wattage requirements are within the capacity of this converter output power range.
- Do not connect the Power Converter to household or RV, AC distributing circuit. Do not connect the Power Converter to AC load circuit in which the neutral wire is connected to ground (-) or to negative of the DC battery power source.
- Do not connect to a 6 Volt or 24 Volt DC battery
- Do not exceed the maximum input voltage of 15 Volt DC (direct current).
- Do not use or place this Power Converter near flammable materials or any location which accumulate flammable fumes.
- Do not operate this Power Converter in or near water. Do not operate the Power Converter using wet hands.
- Do not touch tip of the Power Converter 12V DC ACC plug immediately after usage. The plug may be hot and could cause minor burns.
- Disconnect the Power Converter when it is not in use.
- This is not a toy. **KEEP OUT OF REACH OF CHILDREN!**
- To avoid potential property damage, do not leave this converter or any device operating unattended in vehicle.

⚠ CAUTIONS

- Do not place this Power Converter in confined spaces or inside battery compartment of vehicle or boat. Use only in properly ventilated areas.
- Do not place item(s) over the Power Converter. Make sure that air is allowed to circulate freely around it.
- Do not place the Power Converter in direct sunlight or near any device which is generating heat above room temperature.
- Do not operate the Power Converter in ambient air temperature below -10°F or above 110°F.
- Do not open the converter housing case.
- Secure the Power Converter and device being operated to prevent them from moving while the vehicle is in motion.
- Do not use an AC (110 Volt) extension cord longer than 25 feet.
- Do not use a 12 Volt DC extension cord of any type or length.
- Start and run your vehicle hourly to prevent battery discharge. **IMPORTANT:** Disconnect the Power Converter and turn OFF the device being used before engine start up.
- Regularly check that all connections are secure and tight. A loose connection can create high electrical resistance and generate excessive heat which will damage the converter.
- Save these instructions for future reference.

IMPORTANT

This power converter is to be used with 85 Watt devices which have regulated switch mode power supplies (SMPS). Do not connect devices with Linear (Bulk Transformer) power supplies to the power converter.

TYPICAL USE AND WATTAGE

This listing is for reference purpose only. Some devices exceed the wattages listed. Before using device, refer to device owner's manual for actual wattage required.

Gamecube [®] with Intec Screen	60 Watt
Glue Gun	20 Watt
Cordless Drill Charger (7 Volt)	15 Watt
13" LCD	70 Watt
DVD	45 Watt
CD Changer	65 Watt
Cellular Phone Charger	30 Watt
Camcorder Charger (6 Volt)	25 Watt
Laptop	80 Watt



POWER SOURCE

This Power Converter must be connected to a 12 Volt DC Negative Ground ignition system battery in good condition. Most vehicles are negative ground systems (see vehicle owner's manual for ignition system identification).

DETERMINE POWER REQUIREMENT

To determine maximum power required, add up the wattage of all devices to be operated with this Power Converter simultaneously. If the wattage of devices is not available, but the current draw (amp) is given, simply convert to wattage using this formula:

$$\text{Volt (V)} \times \text{Amp (A)} = \text{WATT (W)}$$

$$\text{Example: } 110 \text{ Volt} \times 0.7 \text{ Amp} = 77 \text{ Watt}$$

OPERATING INSTRUCTIONS

A. Cigarette Lighter or 12 Volt DC Socket Connection

1. Adjust the Power Converter 12 Volt DC ACC plug for proper fit into the vehicle cigarette lighter or 12 Volt DC socket.
 - a. Ground Contacts Contraction: Push the slide switch inward (toward the Power Converter main housing).
 - b. Ground Contacts Expansion: Push the slide switch outward (toward the Power Converter 12 Volt DC ACC plug tip).
2. Insert the Power Converter into the vehicle cigarette lighter or 12 Volt DC socket. Push it in firmly to ensure a proper connection has been made.



B. Plugging in Device

SYSTEM NORMAL OPERATION	GREEN LED INDICATOR
OVER LOAD	LED INDICATOR OFF
LOW/HIGH BATTERY	LED INDICATOR OFF

1. Prior to plugging in device, make sure the device is OFF.
2. Connect the device electrical plug into the Power Converter receptacle.
3. Turn ON the 110 Volt AC device.

⚠ CAUTION

Some rechargeable devices are equipped with a separate charger, which can be connected into this Power Converter receptacle. The Rally Power Converter is engineered to be used with these products. However, certain rechargeable devices are manufactured with built-in chargers (see device owner's manual). This category of devices may cause internal damage to the Power Converter and should not be used. The temperature of device must be monitored for the first 15 minutes of operation. Abnormally elevated temperature of the device is an indication that they should not be used with this Power Converter.

SPECIFICATION:

A. OUTPUT VOLTAGE RANGE	110-125 VOLT RMS
B. OUTPUT AMPERAGE RANGE	0.68-0.77 AMP RMS
C. MAX CONTINUOUS POWER	85 WATT
D. SURGE CAPABILITY (PEAK POWER)	170 WATT/ 0.3 SECOND
E. OPTIMUM EFFICIENCY	> 85%
F. NO LOAD CURRENT DRAW	< 100 m A
G. WAVE FORM	LINEAR
H. INPUT VOLTAGE RANGE	10.5 - 15 VOLT DC
I. INPUT CURRENT RANGE	5.66-8.1 AMP DC
J. OUTPUT FREQUENCY (HZ)	0 Hz
K. REPLACEABLE FUSE	15 AMP
L. AUTOMATIC ELECTRONIC CIRCUIT FEATURES:	
a. HIGH INPUT VOLTAGE SHUTDOWN	> 15 VOLT DC
b. LOW INPUT VOLTAGE SHUTDOWN	< 10.5 VOLT DC
c. OVERLOAD SHUTDOWN	> 95 WATT
M. SYSTEM DISPLAY	
a. SYSTEM NORMAL OPERATION	GREEN LED INDICATOR
b. OVER LOAD	LED INDICATOR OFF
c. LOW/HIGH VOLTAGE	LED INDICATOR OFF
N. ENVIRONMENT OPERATIONAL CONDITIONS:	
a. ELEVATION	0 TO 10,000 FEET ABOVE SEA
b. OPERATING	-10°F TO 110°F
c. STORAGE	-5°F TO 140°F
O. PHYSICAL:	
a. NET WEIGHT (oz.)	4.88 oz.
b. DIMENSIONS (in.)	2.4" W X 5.15" D X 1.43" H

TROUBLESHOOTING GUIDE

TROUBLE	CAUSE	REMEDY
Lack of power output	<ol style="list-style-type: none"> 1. Power source voltage below 10.5 Volt 2. Excessive current drawn by appliance being operated 3. Vehicle 12 Volt socket not working 4. The Power Converter not completely warmed up 5. Fuse blown 	<ol style="list-style-type: none"> 1. Recharge vehicle battery or replace power source 2. Reduce load to maximum 85 Watt 3. Turn ignition to accessory ON position 4. Turn OFF the device and unplug the Power Converter. Disconnect device connected to the Power Converter. Plug in the Power Converter and leave running for a minimum of 2 minutes. Quickly plug in device to Power Converter making sure device is OFF prior to connection, turn ON the device. 5. Replace 15 AMP rated fuse. TO REPLACE FUSE. Unscrew fuse holder retainer ring.
LED Light OFF	<ol style="list-style-type: none"> 1. Inadequate power or excessive voltage drop 2. Poor battery condition 3. Converter is overloaded 	<ol style="list-style-type: none"> 1. Check converter to 12 Volt socket connection. Clean or replace as required. 2. Start the engine to recharge the battery. Make sure the Power Converter is unplugged before starting engine. Replace battery if required. 3. Replace load to maximum of 85 Watt
Television Interference	<ol style="list-style-type: none"> 1. Picture breaking up (snow) 	<ol style="list-style-type: none"> 1. Place the TV, the antenna and the coaxial cable as far away as possible from power converter. 2. TV station may be out of range
Static/Noise interference system	<ol style="list-style-type: none"> 1. Sound system has weak alternating current shielding 	<ol style="list-style-type: none"> 1. Do not use this Power Converter with low quality audio AC filtering system 2. Replace audio system with high quality noise filtering.
Fuse Blown	<ol style="list-style-type: none"> 1. Reverse battery polarity connection 	<ol style="list-style-type: none"> 1. Turn OFF the AC voltage device. Disconnect the Power Converter from the battery power source. Replace Fuse. Reconnect to proper battery polarity.

TWO YEAR LIMITED WARRANTY

Rally Manufacturing is dedicated to making high quality products for every consumer. We are so confident in the quality of our merchandise that we offer a two year limited warranty with this product. That means should you find any defects with the item you purchased, we will repair it or replace it. Please mail all defective products to:

Rally Manufacturing Inc., 7600 Corporate Center Drive, Suite 400, Miami, FL 33126. Attn: Customer Service.

REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT OR COMPONENT PROVIDED UNDER THIS WARRANTY SHALL NOT APPLY IF THE PRODUCT: (a) IS USED FOR COMMERCIAL PURPOSES AND/OR FROM IMPROPER USE IN AN UNSUITABLE ENVIRONMENT (b) IS MODIFIED OR TAMPERED WITH EITHER INTERNALLY OR EXTERNALLY; (c) IS DAMAGED RESULTING FROM MISUSE, NEGLIGENCE, LACK OF REASONABLE MAINTENANCE AND CARE, OR BY OTHER CAUSES UNRELATED TO DEFECTIVE MATERIAL OR WORKMANSHIP; (d) IF THE PRODUCT HAS BEEN SUBJECTED TO FIRE, WATER, OR GENERAL CORROSION.

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State in the U.S.A. or province to province in Canada.

CUSTOMER SERVICE

Monday-Thru-Friday 8:30am-5:30pm Eastern Standard Time

For Questions or Comments contact us at:

VISIT US @ www.rallymfg.com or call 1-800-965-4407