#### 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.

	Soldering Gun	20 Watt 235 Watt 110 Watt 15 Watt 380 Watt 395 Watt 250 Watt 170 Watt 170 Watt 210 Watt 120 Watt 120 Watt 160 Watt 45 Watt
i i	Cd changer  Cellular phone Charger	30 Watt 25 Watt 90 Watt 290 Watt 105 Watt 120 Watt 138 Watt 207 Watt 310 Watt 375 Watt











#### POWER SOURCE

This inverter 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).

### **A** CAUTIONS

- Do not connect this inverter to a 6 or 24 Volt battery system.
- Do not use this inverter with positive ground vehicle to avoid damage to the inverter.

#### DETERMINE POWER REQUIREMENT

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

VOLT(V) X AMP(A) = WATT(W)**EXAMPLE: 120 VOLT X 3.5 AMP = 420 WATT** 

INVERTER CASING REAR PANEL

GROUND TERMINAL

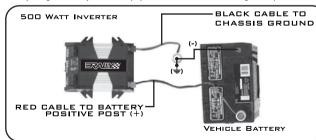
-POSITIVE (+)

CONNECTOR

IMPORTANT: To achieve inverter maximum power output, user must run vehicle while the inverter is in use.

### A. OPERATING INSTRUCTIONS

NOTE: If power requirements exceed 100 Watt, do not plug to vehicle 12 Volt DC socket. The inverter must be connected directly to the battery using the battery terminal clips provided. For 100 Watt or less go to step a. For device(s) with over 100 Watt go to step b.



NEGATIVE (-)

CONNECTOR

Prior to connecting inverter, make sure the inverter on/off power switch is in the off position.

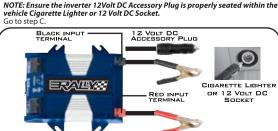


Attach the red cable connector (12 Volt DC Accessory Plug Cabling) to inverter RED ( + ) input TERMINAL

Attach the black cable connector (12 Volt DC Accessory Plug Cabling) to inverter BLACK ( - ) input TERMINAL

Hand tighten both terminal nuts securely. Do not over-tighten.
Connect the 12Volt DC Accessory Plug into the

vehicle Cigarette Lighter or 12 Volt DC Socket.



#### B. BATTERY TERMINAL CONNECTION:

**WARNING:** Explosive GAS DANGER! Only make battery and ground connections in a well ventilated area.

- 1. Prior to connecting inverter, make sure the inverter on/off power switch is
- in the off position.
- Attach the connector (RED CABLE) to inverter RED (+) input TERMINAL. 3. Attach the connector (BLACK CABLE) to inverter BLACK (-) input TERMINAL.
- 4. Hand tighten both terminal nuts securely. Do not over-tighten
- 5. Connect the RED alligator clip to vehicle battery positive ( + ) terminal.
- 6. Connect the BLACK alligator clip to the vehicle chassis, engine block or a non-moving grounded metal part of vehicle as far away from the battery as possible

#### C. PLUGGING IN DEVICE(S)

SYSTEM NORMAL OPERATION GREEN LED INDICATO	OR
OVER VOLTAGE AMBER LED INDICATO	OR
OVER LOAD RED LED INDICATOR	
OW BATTERY AMBER LED INDICATO	DR )



- 1. Prior to plugging in device(s), make sure the device(s) is OFF.
- 2. Connect the device(s) electrical plug into the inverter receptacle(s).
- 3. Turn the inverter power ON/OFF switch, to ON position. If the inverter is working properly, the green LED indicator on the front panel will light. Now turn ON the device(s). If the green indicator remains ON, then the system is operating properly. If inverter alarm sounds or the red or amber LED indicator light turns ON, turn OFF the device(s) then turn OFF the inverter immediately. See the trouble shooting guide. The inverter may have been over loaded or the input voltage may be too low.

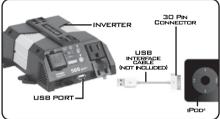
**A CAUTION:** Some rechargeable devices are equipped with a separate charger, which can be connected into this inverters AC receptacle(s). Rally inverters are engineered to be used with these products. However, certain rechargeable devices are manufactured with built in chargers (see device owner's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

#### **USB PORT OPERATION**

- 1. Connect your Cell Phone, PSP, MP3 Player or any other device that can be charged or powered via a USB terminal, into the 500 Watt inverter USB port, Make sure the device USB connecter plug is properly seated into the inverter USB port. Your USB device with built-in rechargeable battery will start charging automatically
- Turn ON the USB device and operate as needed.
- . To stop charging or powering your USB device, you must first turn OFF the USB device
- 5. Disconnect your device from the inverter USB power port.

NOTE: The USB port does not support data transfer. It will only power and/or recharge USB personal device(s).

The Inverter USB power port is configured to charge and operate iPod® and iPhone® products, however certain "new generation" models will not function or operate properly. User is advised to have the iPod® and iPhone® product software undated via the official Apple website



SOLUTION

# TROUBLESHOOTING GUIDE

TROUBLE	CAUSE	SOLUTION
Inverter does not Power on	Vehicle Cigarette Lighter or 12 Volt DC socket not working.	Turn ignition to accessory ON position.
	2. Inverter fuse blown.	2. Have inverter serviced by a qualified technician.
Low Battery Alarm ON all the time (Amber LED on)	Inadequate power or excessive voltage drop.     Poor battery condition.	Check the inverter 12 Volt Accessory plug to the socket connection. Clean or replace as required.     Start the engine to recharge the battery. Make sure inverter is powered OFF before starting engine. Replace battery if required.
Red LED ON	1. Inverter is overloaded.	1. Replace load to maximum of 500 Watt.
Television/power tool will not start	High surge wattage requirement to start-up.	Press the inverter POWER switch in succession a total of 5 times in order to generate the necessary power to start the device. If the device does not Power ON or start up in 5 cycles of ON/OFF trials. This inverter will not work with the device.
Television Interference	Picture breaking up (snow).	Place the inverter as far as possible from TV, the antenna and the coaxial cable.     TV station may be out of range.
Static/Noise interference	Sound system has weak alternating current sheilding.	Do not use inverter with low quality audio system AC current shielding.     Replace audio system with high quality noise filtering.
Fuse Blown	Reverse battery polarity connection.	1. Have inverter serviced by a qualified technician.
MP3 player, iPod® or iPhone® device failed to charge via the USB port	MP3 player, iPod* or iPhone* device not properly connected.	Check MP3 player, iPod®, or iPhone® device interface cable connections.

# **SPECIFICATIONS**

	A. OUTPUT VOLTAGE RANGE	120 VOLT AC
	B. MAX. CONTINUOUS POWER	500 WATT
	C. SURGE CAPABILITY (PEAK POWER)	1000 WATT/ 0.3 SECOND
	D. OPTIMUM EFFICIENCY	≥ 75%
	E. NO LOAD CURRENT DRAW	≤ 400 mA
	F. WAVE FORM	MODIFIED SINE WAVE
	G. INPUT CURRENT	46 Amp
	H. INPUT VOLTAGE RANGE	10.5 -15 VOLTS DC
	I. OUTPUT FREQUENCY (Hz)	60 Hz (+/- 2Hz)
	J. OUTPUT CURRENT	4.16 AMP
	K. FUSES:	
	a. INTERNAL (NO USER REPLACEABLE)	60 AMP (2 x 30 AMP) SPADE TYPE
	b. 12 VOLT DC ACCESSORY PLUG (USER REPLACEABLE)	8 AMP GLASS TYPE
	L. AUTOMATIC ELECTRONIC CIRCUIT FEATURES:	
	a. HIGH INPUT VOLTAGE SHUTDOWN	≥ 15 VOLT DC
	b. LOW INPUT VOLTAGE AUDIBLE ALARM	≤ 10.5 VOLT DC
	c. LOW INPUT VOLTAGE SHUTDOWN	≤ 10.0 VOLT DC
	d. OVERLOAD SHUTDOWN	≥ 550 WATT
	M. SYSTEM DISPLAY:	
	a. SYSTEM NORMAL OPERATION	GREEN LED INDICATOR
	b. OVER VOLTAGE	AMBER LED INDICATOR
	c. OVER LOAD	RED LED INDICATOR
	d. LOW BATTERY	AMBER LED INDICATOR
	N. ENVIRONMENT OPERATIONAL CONDITIONS:	
	a. ELEVATION	0 TO 10,000 FEET ABOVE SEA LEVEL
	b. OPERATING	10°F TO 110°F
	c. STORAGE	5°F TO 140°F
	O. PHYSICAL:	
	a. NET WEIGHT (lb.)	1.2 lb.
	b. DIMENSIONS (in.)	6.70 in. D x 5.97 in. W x 2.3 in. H.
	P. USB PORT	5 VOLT DC/ 500 mA
\		

## 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-Friday 8:30am-5:30pm Eastern Standard Time For Questions or comments contact us at: www.rallymfg.com or call 1-800-965-4407



No. 7637

# 500 WATT POWER INVERTER W/USB



### IMPORTANT SAFETY INSTRUCTIONS **A WARNINGS**

#### IMPORTANT: Read and understand all warnings and instructions included in instruction manual prior to use.

- This inverter must be connected only to a 12 Volt dc Negative Ground ignition system. Most vehicles are Negative Ground systems. Do not use
- this inverter with Positive Ground vehicle ignition systems. Consult your vehicle owner's manual for ignition system identification. Save these instructions! Read and understand all operating instructions in this manual prior to operating this inverter to avoid damage to inverter, power source or device
- Improper use of this inverter can cause personal injury and or property damage.
- This inverter must be connected only to a 12 Volt DC Negative Ground ignition system (most vehicles). Do not use this inverter with Positive Ground vehicle ignition system. Consult your vehicle owner's manual for ignition system identification.
- Do not use this inverter with device(s) which use more than 500 Watt power consumption. Make certain the wattage requirements are within the capacity of this inverter output watts range.
  Do not connect inverter 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 or 24 Volt DC battery.
- Do not exceed the maximum input voltage of 15 Volt DC (direct current).

  Do not use or place this inverter near flammable materials or any location which accumulate flammable fumes.

- Do not operate this inverter in or near water. Do not operate inverter using wet hands.

  Do not touch tip of the inverter 12 Volt DC plug immediately after usage. The plug may be hot and could cause minor burns. Do not allow inverter cord or any operating device cord to restrict driving.
- Disconnect power to the inverter when it is not in use.
- KEEP OUT OF REACH OF CHILDREN!
- To avoid potential property damage, do not leave this inverter or any device operating unattended in vehicle.
- EXPLOSIVE GAS DANGER! ONLY make battery and ground connections in a well ventilated area.
- BATTERY ARC/SPARK DANGER! DO NOT connect the inverter black cable clip directly to battery negative terminal. Ground inverter as far away from the battery as possible

#### **A** CAUTIONS

- Do not place this inverter in confined spaces or inside battery compartment of vehicle or boat. Use only in properly ventilated areas.
- Do not place item(s) over the inverter. Make sure that air is allowed to circulate freely around it.
- Do not place the inverter in direct sunlight or near any device which is generating heat above room temperature.
- Do not operate inverter in ambient air temperature below -10°F or above 110°F. Do not open the inverter housing case. Secure the inverter and device(s) 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: Power off the inverter and device(s) 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 inverter.
- Save these instructions for future reference.