

INTRODUCTION

SCA Modified Sine Wave inverters are designed to efficiently and reliably power a wide range of 230/240V household appliances from a 12V automotive power source.

Correct installation is imperative to get the best performance from your inverter.

Please read this operation manual fully prior to installation, and keep in a safe location for later reference.

Please pay special attention to **SAFETY** and **WARNING** statements in the manual, to prevent personal injury or damage to the inverter or connected equipment.

IMPORTANT: When using a power inverter it is important to remember that the inverter is drawing power from the battery and the battery levels should be monitored. A second, or separate, battery is ideal, as well as a means of charging the battery such as a generator or solar system.

If you are running an inverter from your vehicle starting battery the vehicle should be run regularly to recharge the battery to prevent a flat battery and a stranded vehicle.

Power inverters running at full load will quickly deplete even the largest automotive batteries. Please consider the maximum load and running time of the appliance and how you are planning on recharging the battery before installing and using this inverter.

MEASURING POWER REQUIREMENTS

Most electrical equipment will have a label advising of the maximum power consumption in Amps (A) or Watts (W).

To calculate requirements add all the power consumptions for the total of all items you want to power from the inverter, and ensure the total consumption does not exceed the capacity of the chosen power inverter, use the below formula.

> AMPS X VOLTS = WATTS WATTS / VOLTS = AMPS

If you have an appliance rated at 0.9 Amps, multiply this by 230 Volts (AS/NZ3000.2, AS/NZ60038) and you will get a consumption rating of 207 Watts.

0.9 Amps x 230 Volts = 207 Watts

Please Note: Resistive loads (such as incandescent lamps) are the easiest items to power up with an inverter. Inductive motors (electric motors without brushes) power tools and some televisions may require up to 6 times the consumption rating to power up. We recommend you buy a larger model than you think you'll need (at least 10% to 20% more than your largest load).

CAUTION: ENSURE THE CAPACITY OF YOUR DEVICE DOES NOT EXCEED THE INVERTER MAXIMUM RATING.

APPLICATION EXAMPLES

This inverter has safety systems to prevent damage to the inverter or connected device in the event the connected load is too large, however care should still be taken when selecting the types of items to power from an inverter. For more information see Inbuilt Safety Protections.

- Power tools circular saws, drills, grinders, sanders, buffers, air compressors, battery charger.
- Office equipment computers, laptop power supply, printers, monitors, facsimile machines, scanner.
- Household items vacuum cleaners, fans, fluorescent and
- incandescent lights, shavers, sewing machines.
- Kitchen appliances coffee makers, blenders, mixers, toasters. • Home entertainment electronics – televisions, DVD, game
- consoles, stereos, musical instruments.
- USB 5V devices such as phones and tablets may be operated

directly from the 1 x 2.4A USB outlet on the front panel.

the inverter to water or liquids.

GENERAL PRODUCT SAFETY PRECAUTIONS

- SCA Modified Sine Wave inverters are designed for <u>indoor use</u> only, and are not water resistant or waterproof. Do not expose
- To reduce risk of hazard, do not cover or obstruct the ventilation openings on the top or bottom of the inverter. Ensure ventilation is adequate and any vent holes in the battery or inverter are not blocked or obstructed.
- Do not install the inverter in a zero-clearance compartment. Overheating may result causing the thermal protection to shut the unit down until a safe temperature is reached. To avoid a risk of fire and electric shock make sure that existing wiring is in good electrical condition. Do not operate the inverter with damaged or substandard wiring.
- This equipment contains components which can produce arcs or sparks. To prevent fire or explosion do not install in sealed compartments containing batteries or flammable materials or in locations which require ignition protected equipment. This includes any space containing gasoline-powered machinery, fuel tanks; joints, fittings, or other connection between components of the fuel system.

SAFETY / WARNING FOR PERSONS

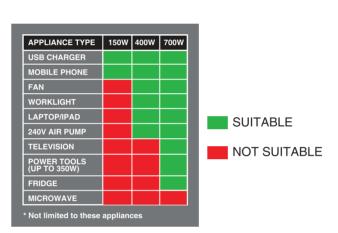
To avoid any personal injury please read the safety instructions below.

- This power inverter is not intended for use by children or infirm persons without supervision.
- Always wear the appropriate Personal Protective Equipment (PPE) when working near batteries. This includes gloves and eve protection.
- Do not use naked flame near a battery. Batteries generate explosive gasses during the charging process that may explode.
- Never smoke or light cigarettes near a battery.
- · Remove personal metal items such as rings, bracelets,
- necklaces, and watches when working with a lead-acid battery.

- A lead-acid battery produces a short-circuit current high enough to weld a ring or the like to metal, causing a severe burn.
- Do not place tools on top of a battery or allow tools to fall onto a
- Ensure a well ventilated area is used when installing this inverter near batteries.
- These inverters **do not contain serviceable parts**. To avoid a hazard ensure that any damage to the unit, cable or plugs are replaced by the manufacturer or service agent/ qualified
- technician. • Do not disassemble the inverter. The warranty will be void if this instruction is ignored.
- For use with 12v automotive battery types only. Not suitable for 24v batteries or 24v electrical systems.

FIRST AID

- For advice, contact the Poisons Information Centre in Australia (PH: 13 11 26) or the National Poisons Centre in New Zealand (PH: 0800 764 766)
- If battery acid makes contact with the skin or clothing, wash immediately with soap and water.
- If battery acid makes contact with the eyes, hold eyelids apart and flush the eye continuously with fresh running water for at least 15 minutes or until the Poisons information centre advises you to stop.
- If battery acid is swallowed, do not induce vomiting. Drink a glass of water and seek medical assistance.



INSTALLATION

The power source must be able to supply adequate voltage (11.7 to 15 volts) and current (up to 15 amps) to operate the load required. As a guide, divide the power consumption of the (Watts) by 10 to obtain the current (AMPS) required for the load. Example, if the required load is 150 Watts divide 150 by 10 which equals 15 Amps required from the battery supply to the inverter. When the power inverter is not in use disconnect the inverter from the 12v power supply. Before disconnecting the power inverter from the 12V power source and ensure the AC supply is unplugged.

TO POWER THE INVERTER

Simply plug in the inverter 12V accessory plug into a 12V accessory socket, if in your vehicle ensure your accessory or ignition is switched on to allow power to the socket. The 240V socket will be powered as soon as power is on at the 12V DC plug, ensure any 240V device is safely switched off prior to connection (if applicable).



WARNING AND CAUTION

SHOCK OR FIRE HAZARD

This power inverter produces the same lethal AC power as a household power outlet. Do not insert foreign objects into the AC outlet or any other openings of the inverter. Do not open inverter, only allow a qualified tradesperson perform any repairs to the inverter. Never expose the

RISK OF EXPLOSION

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CAUTION

The inverter must only be operated on a 12 volt battery, it will NOT operate on 24 volts.

The cigarette lighter plug can become hot with extended use and cause burns and personal injury.

INBUILT SAFETY PROTECTION SYSTEMS

- Overload Protection: Will occur when the load connected to the inverter is greater than the inverters rating. If the overload is 110% or greater than maximum inverter capacity, the red LED on front panel will illuminate and output power will be cut. This protection state will automatically reset once overload has been
- Over Temperature Protection: Will occur when the internal inverter temperature goes above 65°C, the red LED on front panel will illuminate, a warning beeper will also activate, and output power will be cut. If this occurs, power down the device and inverter and leave the unit to cool down. Check for operation of the cooling fans, and they are not blocked by dust or debris.
- Overvoltage Protection: If the source battery voltage goes above 15.5V, the red LED on front panel will illuminate and output power will be cut off (there will be no beeping warning). Overvoltage indicates a problem with the source battery or charging system, and it should be checked immediately to prevent damage to the source battery. This protection will automatically reset one the overvoltage state is removed.
- Low Voltage Protection: If the source battery level falls below 11.9 V, a low voltage input alert will beep along with a red flashing LED light on the display indicating the battery should be charged.

Pease Note: Continued operation of the inverter will result in 240V power output shutdown once the source battery voltage reaches 11.7V. Care should be taken to ensure the source battery remains charged if running refrigerators and medical devices where uninterrupted power is required.

MAINTENANCE

Very little maintenance is required to keep your SCA Modified Sine Wave inverter operating properly. You should clean the exterior of the unit periodically with microfiber cloth to prevent accumulation of dust and dirt.

CAUTION: ALWAYS ENSURE INVERTER IS SWITCHED OFF AND POWERED DOWN PRIOR TO ANY EXTERIOR CLEANING

If dust is accumulating around the rear cooling fans on the unit, this can be cleaned by lightly vacuuming or gently wiping with a clean dry microfiber cloth. DO NOT use wet cleaning methods around the fan to prevent possible electric shock.

Frequently asked questions:

Q. Why does the inverter turn itself off?

A. Check that the SCA Modified Sine Wave inverter is not overloaded or that the source battery has enough voltage.

Q. Is the SCA Modified Sine Wave inverter(400W & 700W MODELS **ONLY) Reverse Polarity Protected?**

A. No. If you accidentally connect the inverter to the battery incorrectly (reverse polarity) a large current will be drawn by the inverter which could damage internal sensitive electronic components. Always double-check the battery polarity before making any connections. Q. Can I run my CPAP or RPAP Machine off an inverter connected to a source battery.

A. Please check with you Medical Equipment provider to ensure that your equipment is safe to run off the SCA Modified Sine Wave inverter.

This product is guaranteed against defects for a period of 12 months from date of purchase. This warranty is provided by SRGS PTY LTD, ABN 23 113 230 050 of 751 Gympie Rd Lawton QLD 4501 Ph (07) 3482 7500. Supercheap Auto will offer a repair, replacement product or store credit if the product is assessed as being

defective during the warranty period. To claim under this warranty, take this product to the Front Service Desk of your

www.supercheapauto.com.au (AUS) or www.supercheapauto.co.nz (NZ). You will need your receipt or proof of purchase. Additional information may be requested of you to process your claim. Should you be not able to provide proof of purchase with a receipt or a bank statement, identification showing your name, address and

This product may need to be sent to the manufacturer to assess the defect before determining any claim. Faults or defects caused by product modification, misuse and abuse, normal wear and tear or failure to follow user instructions are not

Consumer Law. You are entitled to a replacement or refund for a major failure and also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure

have to be paid by you.

The benefits to the consumer given by this warranty are in addition to other rights and remedies of the Australian Consumer Law in relation to the goods and services to which this warranty relates.

WARNING

Keep all power inverter leads away from sharp edges and hot surfaces e.g. engine compartment or exhaust systems

inverter to rain, spray or snow.

Do not cover or block the ventilation vent of the inverter, do not install the inverter in an enclosed place.

The inverter contains components that may produce sparks, never install the inverter in places that contain batteries, flammable materials or in places that contain ignition protected equipment.

WARRANTY

nearest Supercheap Auto store. For store locations, visit signature may be required to process your claim.

covered under this warranty. Our goods come with guarantees that cannot be excluded under the Australian for compensation for any other reasonably foreseeable loss or damage. You are

Any expenses incurred relating to the return of this product to store will normally

For more information contact your nearest Supercheap Auto store.