

Model:

INV150-24

INV350-24

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**Modified Sine Wave
24VDC to 240VAC Power Inverter**Operating Instructions
Please read these instructions before use**Features Include:**

- Output short - Shutdown
- Input Reverse Polarity – by fuse
- High input voltage Shutdown
- Low Input voltage - Shutdown
- Overload Shutdown
- Over temperature – Pre-Alarm & Shutdown
- High Efficiency Design @ 92% Efficient
- LED displays, Indicate Power ON & Shutdown Modes
- Compact Size and Light Weight Aluminium Construction Heatsink

Product	Fuse Rating	Fuse Location
INV150 - 24	5A	Glass Mounted In Cigarette Lighter Socket
INV350 - 24	35A	(Auto Blade Fuse) Inside Inline Cabling

Controls and Indicators:**ON/OFF Switch (Rear of Unit, Both Models):**

The ON/OFF switch turns the control circuit in the power inverter on and off. It does not disconnect power from the power inverter. Always leave this switch in the off position before operating inverter.

Protection LED indicator (Both Models):

The protection LED has a number of functions; it indicates that the power inverter has shut down because it has become overheated (75°C). This may be because it has been operated at power levels above its rating, or because it has been installed in a location, which does not allow it to dissipate heat properly. The power inverter will restart automatically once it has cooled off. It indicates that the power inverter has shut itself down because its output circuit has been short-circuited or drastically overloaded. Switch the ON/OFF switch to OFF, correct the fault condition, and then switch the ON/OFF switch back to ON. It also indicates when input voltage is either High or Low.

Safety Instructions | Precautions When Working With Batteries:

- If battery acid contacts skin or clothing, wash immediately with soap and water. If acid gets into eyes, immediately flood eyes with running cold water for at least 20 minutes and get medical attention immediately.
- NEVER smoke, allow a spark or flame in the vicinity of batteries or engine. Do not drop a metal tool on the battery as the resulting spark or short-circuit of the battery may cause an explosion.
- 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 similar metal, causing a severe burn.

Electrical Requirements:

Most vehicle and marine (24V) batteries that are in good condition will provide ample power for up to 30–60 minutes even when not being charged. It is recommended to start the engine each hour and run for approx. 10 mins. to re-charge the battery.

Testing Unit after Connection:

Set the power switch to the ON (I) position. Check the POWER LED on the front panel of the inverter is illuminated. If the LED does not illuminate, check the power source, fuse and the connections to inverter. The other indicator should be off.

Maintenance:

You should clean the exterior of the unit periodically with a dry cloth to prevent accumulation of dust and dirt. Do NOT use cleaning chemicals or water. Remember to remove all plugs from GPO when cleaning.

WARNING! You may observe a spark when you make this connection.

Do not make this connection in the presence of flammable fumes. Explosion or fire may result.

Do not open or disassemble inverter. Attempting to service unit yourself may result in a risk of electrical shock or fire.



Installation

The power inverter should be installed in a location that meets the following requirements:

Dry – Do not allow water to drip or splash on the inverter and in an area free of salt or moisture-laden air.

Temperature – Ambient air temperature should be between 0° and 40°.

Ventilation – Ensure the ventilation openings on the rear and bottom of the unit are not obstructed.

Safety – Do not install in a battery compartment or other areas where flammable fumes may exist.

Dust-free – Ensure the inverter is installed in a dust free environment.

1. Unpack and inspect the power inverter, check to see that the power switch in the OFF position.
2. The INV150 is supplied with a Cigar Plug cable for use with appliances that have an output rating of 150W or less and the INV350 with Alligator clip lead for use with appliances that have an output rating of 350W or less.
3. Plug the Cigar Plug into the cigarette lighter holder [INV-150] or Alligator Clips [INV-350]
4. Connect the Red cable to the positive terminal and the Black cable to the negative terminal of the inverter.
5. Connect the Red alligator clip to the Positive (POS+) terminal on the battery and then the Black alligator clip to the Negative (NEG-) terminal of the battery.

****WARNING!** - Reverse polarity connection will blow the internal fuse and may damage the inverter permanently.
- Reverse polarity is not covered by warranty.

Trouble Shooting:

Symptom	Possible Cause	Solution
Protection LED illuminates no AC output	Insufficient ventilation	Improve ventilation
Protection LED flashes, inverter shuts down when trying to start a load.	Possible surge from motor starting causing shut down.	Check battery voltage and battery. Remove load. Reduce load.
Protection LED flashes, no AC output	Low DC input voltage.	Check battery status. Re-charge if necessary
Protection LED flashes, no AC output.	Excessive DC input voltage.	Check input voltage. Reduce if too high.
Some interference on some TV Channels.	Earth connection from inverter chassis to ground may need attention. Ensure TV antenna is providing a good signal. TV too close to inverter. DC power cables too long causing excessive radiated interference.	Check chassis ground lug is electrically connected. Check antenna. Move TV away from inverter. Shorten cables if necessary and twist them together with approx. 2 to 3 twists per 300mm.

Warranty Conditions: The product is warranted to be free from defects in materials and workmanship under normal use and service for a period of 24 months from the date of sale. This warranty covers defective parts and workmanship provided that the product is shipped prepaid to the seller within 24 months of purchase of goods. This warranty is limited to the repair or replacement (at the manufacturers' discretion) of parts and shipping prepaid to the original despatch destination. We regret that no liability can be accepted for consequential or special damages of any kind howsoever arising in connection with products supplied by the seller. This warranty is in lieu of all other warranties expressed or implied. No representative is authorised to assume for the seller any other liability in connection with the seller's products.

