

300W PURE SINE WAVE INVERTER ELE-SIP300-E (HIP300)



The OZtrail 300W Pure Sine Wave Inverter is a compact and highly portable power inverter designed to convert an input of 12V DC to an output of 240V AC. The Pure Sine Wave power generated is a clean and stable power source suitable to run a wide variety of 240V AC household appliances as well as being suitable to power sensitive microprocessor controlled equipment such as laptops and TV's that can be effected by poor or inconsistent power supplies. It is designed to provide years of trouble free operation and includes protection features including short circuit protection, overload protection, reverse polarity protection, low voltage input protection/alarm and thermal shutdown. If a fault is detected the inverter will automatically cut the power output and will automatically restart once the fault has been rectified

Please read this manual before using your inverter

Warning:

Shock Or Fire Hazard

The inverter generates the same potentially lethal 240V AC power as a normal household wall outlet. Treat it as you would use any other 240V AC outlet. Do not insert foreign objects into the inverter's AC outlet, fan or vent openings. Do not under any circumstances connect the inverter to 240V AC power. Keep all power inverter leads away from sharp edges and hot surfaces e.g., exhaust systems or engine compartments. This inverter is intended for indoor use only. Do not expose it to water or extreme weather conditions. The inverter's housing may become uncomfortably warm, reaching 60°C under extended high power operation. Ensure that at least 5cm of air space is maintained on all sides of the inverter paying particular attention to ensure the cooling fan remains unobstructed. During operation keep away from materials that may be affected by high temperature.

Risk of Explosion

The inverter contains components that may produce sparks; never install in enclosed spaces that may contain automotive type vented lead acid batteries which produce hydrogen gas or any area where flammable materials are present.

Risk of Damage to Equipment

The inverter should only be connected to standard electrical and electronic equipment. Never connect to any AC load where the neutral conductor is connected to the ground (earth) or connected to the DC (battery source). The inverter must only be operated on a 12V DC battery, it will NOT operate on 24V power supplies

Additional Warning

There are no user serviceable components inside the inverter, any repairs should be only be performed by a qualified tradesperson. Do not disassemble this product under any circumstances. Your warranty may be voided if this instruction is ignored.

INSTRUCTIONS FOR USE

1. 12V input supply cable identification

The OZtrail 300 Watt Pure Sine Wave Inverter is supplied with 2 x 12V supply cable options giving you the flexibility to connect directly to a battery or to plug directly into a 12V lighter socket. Cable #1 is identified by 'U' style terminals on the Red (positive) and Black (negative) wires on one end and a male cigarette lighter style plug on the other end. Caution; This cable will only permit the inverter to operate appliances up to 150 watts maximum. This is due to the fact that cigarette lighter sockets are generally not rated to output in excess of 10-15amp. It is highly likely that if the equipment used exceeds 150 watts in consumption that either the inverter will shut down due to inadequate voltage supply or it will cause the fuse in the cigarette lighter socket to fail. Cable #2 is identified by 'U' style terminals on the Red (positive) and Black (negative) wires on one end and alligator style clamps on the Red (positive) and Black (negative) wires on the other end. This cable (#2) is the recommended option for gaining the optimum performance from your inverter.

2. Connecting the 12V input cables

Inspect the inverter and ensure that the switch on the front of the inverter is in the 'Off' position which is signified by the '0' printed on the switch. Do not under any circumstances attempt to connect any wiring with the inverter in the 'On' position (signified by the '1' printed on the switch). Take the 12V DC input cables ensuring that they are tangle free and unbound. Loosen the Red (positive) post knob and the Black (negative) post knob on the rear of the inverter in readiness for connection of the input cables. Connect the 'U' terminal on the Black wire (negative) to Black (negative) post terminal on the rear of the inverter, next connect the 'U' terminal on the Red wire (positive) to the Red (positive) post on the rear of the inverter. Note; On each post terminal you will find two washers, insert the 'U' terminal in between the washer and firmly tighten the post knob. Check that both connections are secure, poor connections of the input wires will hinder the performance of the inverter.

After ensuring the inverter is still in the off position you are ready to connect to the 12V DC power source. If using input cable option #1 (Cigarette socket type) ensure that power to the output socket is isolated before plugging in the 12V input cable. For connecting cable option #2 take the Red (positive) alligator clamp and connect it to the Positive (+) terminal of your battery, secondly take the Black (negative) alligator clamp and connect it to the Negative (-) terminal of your battery. Ensure that both clamps are secure. Caution: The alligator clamps are not designed to be used to connect the inverter to a battery whilst driving or travelling.

3. Connecting 240V AC appliances

Once you have connected the 12V DC input leads you are ready to connect your 240V AC appliance. Before plugging in your appliance ensure that the inverter is in the 'Off' position. Before using any appliance in the inverter calculate the power consumption of the appliance to ensure that the inverter has sufficient power available to run the device. Refer to the section below titled "Understanding Appliance Power Consumption". Once you have ascertained that the appliance you wish to run is suitable, plug in your appliance and turn the inverter on. Conversely before removing an appliance from the inverter always ensure that you turn the inverter off before doing so. Note; When the inverter is not in use always disconnect it from the 12V power source.

4. USB charging outlet

Your inverter has been fitted with a 5VDC 2.4amp USB power outlet that is suitable for charging a variety of devices that are recharged via a USB port. It features internal overload protection which in the case of a fault being detected the power will be cut to the device and restored automatically when the fault has been rectified. When your inverter is connected to a battery the USB outlet will provide power to the device you wish to charge, the power switch for the inverter does not need to be in the ON position. The ON/OFF switch will not isolate the power to the USB charging port, when the inverter is not in use disconnect from the battery.

UNDERSTANDING APPLIANCE POWER CONSUMPTION

The 12V DC power supply must be able to supply adequate voltage (11-15 volts) and current to operate the load required. To ensure that your battery has adequate power and that the inverter has adequate power to run your appliances you need to understand the amount of power that your appliance requires to run. Power consumption ratings of electrical equipment are generally published on a label on the appliance and are represented in either Amps or Watts. If an appliance is rated in Amps multiply it by the AC supply voltage (240 V), this will give you the wattage of the appliance e.g. if you have a TV rated at 1.1 amps multiply this by 240 and it will give you a consumption rating of 264 watts. This information will help you determine whether the inverter is large enough to handle the wattage required to run the appliance, you are also able to estimate how many amps will be drawn from the battery to run the appliance which will give you an idea of how long your battery will last.

To determine the amp draw per hour of your equipment as a guide, divide the power consumption of the load (watts) by 10 to obtain the current (Amps) required for the load. For example, if the required loads is 250 watts divide 250 by 10 which equals 25 amps required from the battery supply to the inverter.

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IDENTIFICATION OF FEATURES



- ① Power indicator
Indicates inverter is switched on and power is available
- ② Overload, fault indicator
Indicates when inverter is overloaded or there is a fault
- ③ On/Off switch
- ④ 5VDC 2.4amp USB outlet
- ⑤ AC outlet
Output 240V pure sine wave
- ⑥ 12 volt supply cables
- ⑦ 12 volt connecting posts
- ⑧ High speed cooling fan

TROUBLE SHOOTING

Problem	Possible Cause	Recommendation
No power out from inverter	the inverter is not at operating temperature	Turn power switch off and back on again
	Battery voltage is below 10 volts	Charge or exchange the battery
	Equipment used will not operate	Check the power requirement (watts) of the equipment, reduce the load under the maximum rated watts
	Power inverter has shut down due to overheating	Allow the power inverter to cool down and reset, Ensure the inverter has adequate ventilation
Low Voltage alarm is sounding	Inverter is overloaded	Reduce the load under the maximum rated watts
	Poor condition of battery, insufficient voltage	Charge or exchange the battery
TV Interference	Inverter too close to TV	Locate the power inverter as far away from the TV, power and antenna leads as possible
		Poor quality antenna or antenna leads

SPECIFICATIONS:

Rated Power		300 Watt
Output	Surge Power	600 Watt
	Frequency	50Hz ± 5%
	AC Regulation	± 10%
	AC Voltage	220/230/240V AC
	Waveform	Pure Sine Wave
Input	No Load Current Draw	<0.6A
	DC Voltage	12V
	Voltage Range	10-15V DC
	Efficiency (Typ.)	≥80%
Protection	Battery Low Alarm	10V DC ± 0.5V
	Battery Low Shutdown	9.5V DC ± 0.5V
	Overload	>340W
	Over Voltage	15-16V
	Over Temperature	>60°C
	Output Short	Auto. Shut-off
	Battery Polarity	By fuse open

 Responsible Supplier Number – E604
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 OZtrail Leisure Products
 71 Charles Ulm Place Eagle Farm QLD 4009
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