DRIVEN™

LIMITED WARRANTY

Driven™ warrants any products purchased in the U.S.A. from an authorized Driven TM dealer.

All Products are warranted to be free from defects in material and workmanship under normal use and service for a period of one (1) year. This warranty applies to the original purchase only.

Driven™ will either repair or replace (at its own discretion) any unit that has been found to be defective and under warranty provided the defect occurs within the one (1) year warranty period.

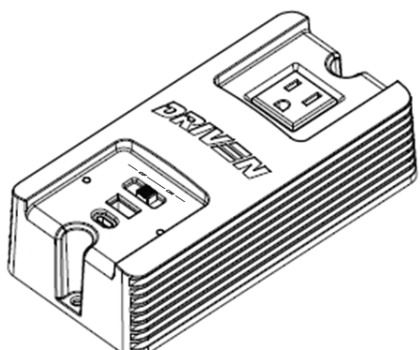
This limited warranty does not exted to units that have been subjected to misuse, abuse, neglect, or accident. In Driven™ judgment, products that show evidence of having been altered, modified or serviced without Driven's authorization, will be ineligible under this warranty.

To Obtain warranty service please contact your retailer or visit our website at www.drivenelectronics.com

DRIVEN™

DR150PSI

150 WATT PURE SINE WAVE POWER INVERTER



Installation Instructions | Owners Manual

Due to continuous improvement of the product, specifications are subject to change without notice.

www.DRIVENELECTRONICS.com

NOTES

A. INTRODUCTION

The DRIVEN DR150PSI pure sine inverter product line is used for mobile AC power. This pure sine inverter is ideal for sensitive equipment and provides clean power, which is more efficient for critical applications. The power inverter transforms DC (direct current) electricity into AC (alternating current) power that can be used for running a wide variety of small devices using a battery. This inverter is perfect for providing mobile power in vehicles, RVs, vans or buses.

Read this instruction manual carefully and make sure your inverter is installed properly before using.

INVERTER FEATURES

- USB Ports
- LED protect indicator
- LED power indicator
- Load based controlled cooling fan
- Low battery voltage warning/shutdown
- High input voltage protection with automatic shutdown
- Overload indicator
- Short circuit protection
- AC output short circuit protection

WARNING AND SAFETY

1. Keep manual for future reference.
2. Do not put the inverter under direct sunlight or near a heating source.
3. The case of the inverter will get hot when used. Do not allow flammable materials to contact the inverter, such as clothing, sleeping bags, carpet, or any other flammable materials. The heat from the inverter can damage these items.
4. The power inverter is designed to be used with a negative ground electrical system! Don't use with positive ground electrical systems (most modern automobiles, RVs, trucks, and boats are negative ground).
5. Do not disassemble the DR150PSI it may cause fire or electric shock.
6. This device should only be serviced by a qualified technician. This item does not have any serviceable parts.
7. Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures during installation.

8.Do not operate the inverter if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the inverter.

9. People with pacemakers should consult their physician(s) before using this product. Electromagnetic fields near a pacemaker could cause interference to or failure of the pacemaker.

10. Keep the inverter well-ventilated. Do not place any objects on top of or next to the inverter or allow anything to cover the cooling fans; doing so can cause the inverter to overheat, causing a potential fire hazard and/or damage to the inverter. Leave adequate ventilation space underneath the inverter as well; thick carpets or rugs can obstruct air flow, causing the inverter to overheat.

11. Avoid unintentional starting. Be sure the switch is in the OFF position when not in use and before plugging in any appliance.

12.The power inverter will output the same AC power as utility power, please treat the AC outlets as carefully as you would your home AC outlets. Do not put anything other than an electrical appliance into the output terminal. It may cause shock or fire.

13.Power down the inverter when not in use.

Note: Performance of this unit may vary depending on the available battery power or appliance wattage.

Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product but must be supplied by operator. Guard against electric shock. Do not open the Plastic case, risk of electric shock.

TROUBLESHOOTING TIPS

PROBLEM OR FAULT	POSSIBLE CAUSE	SOLUTION
No AC Voltage out of outlet	Power switch may be off	Verify that the power switch is in the ON position
	AC outlet overload	Verify that the AC load on the outlet does not exceed 150 watts
Unit has gone into protect.	Over temperature	
	Low battery under 10.0 VDC	Verify that the DR150PSI is receiving at least 12V DC for optimal performance
Green LED indication is not ON	Loose connection in power supply cable	Verify the battery fuse connection and or the DR150PSI cable connections for a loose connection
Incorrect AC output voltage	Low Battery	Verify that the DR150PSI is receiving at least 12V DC for optimal performance
Cannot drive the AC load & unit goes into protect	AC load exceeded 150 watt capacity	Verify that the AC load on the outlet does not exceed 150 watts

SOFT START UP

The soft start built into this inverter protects the unit from delivering too much AC power at once by gradually increasing the AC voltage pushed out.
Pure sine wave output
The electrical waveform output of this inverter is a pure sine wave, which has the same quality as utility and/or domestic power This type of waveform is suitable for most electrical devices, appliances, and tools. This pure sine wave unit provides more capabilities than modified sine wave inverters because it is a cleaner form of power. The pure sine wave also effectively reduces the noise produced while using appliances.

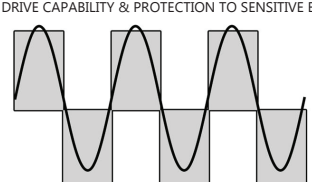
PROTECTION CIRCUIT

1. Under voltage protection: The inverter will automatically shut down when the input DC voltage is lower than 10.5V the inverter will protection LED light will show red.

2. Over voltage protection: The inverter will automatically shut down when the input DC voltage is higher than 15.5V the inverter will protection LED light will show red.

PURE SINE WAVE INVERTER

GREATER DRIVE CAPABILITY & PROTECTION TO SENSITIVE EQUIPMENT



Overload Protection **Heat Protection** **Voltage Protection**

INSTALLATION

Ensure there is enough space for the installation, The mounting location should meet the following requirements:

1. Keep away from moisture or any location that may be exposed to moisture.
2. The ambient temperature should be 32-104°F, and the preferred temperature is 50-77°F. The lower the better in this range of ambient temperature.
3. Do not mount the inverter upside down. Vertical mounting on a wall is recommended.
4. We recommend mounting the inverter on something stable to prevent it from bouncing. Impact shock could result in damage to your unit. Be sure to use mounting screws for optimal stability. Mount in a location that can support the weight of the inverter.
5. Allow 12 inches of space around the inverter to prevent objects from blocking the vents and to provide enough air to circulate.
6. Do not install the inverter in an environment with high dust, saw dust residue or other particles that may get sucked into the inverter increasing internal temperature.

DC BATTERY SUPPLY

1. The battery is designed to supply the inverter with DC input voltage and the rated voltage should be in accordance with the rated input voltage of the inverter. Any voltage exceeding the range of the input voltage of the inverter will cause the inverter to go into overload and could possibly damage the inverter. The battery should supply enough current for the load. The load is the amp or watt rating of the equipment being powered by the inverter. A small capacity battery cannot provide enough power for large electrical equipment. In this case, the battery will cause the inverter to go into under voltage protection because of the load put on the battery. A simple way to calculate the load or amps required from your battery is to divide watts of equipment by battery voltage. Due to the consumption of the inverter itself, the actual current will be about 10% more. For example, the voltage of lead acid battery is 12VDC, and load of the equipment is 125W, therefore, the actual current needed from the battery is about 125W / 12V = 10.4 amps per hour Add 10% for efficiency loss and you get 10.4 * 1.10% = 11.45 amp per hour needed. If you don't know the wattage of your equipment, you can figure the wattage by multiplying AC amps by AC voltage. For example, a laptop with 1.2-amp AC * 120 Volts AC = 144 watts. Remember, some equipment has a start-up requirement 3-5x its running wattage. In this example, 144 watts *3 = 432 watts needed from the inverter so 150 watts would be too small.

2. Battery operating time depends on battery capacity and load. The formula for operating time is battery capacity divided by the value of the load divided by battery voltage times 1.10%. For example, using the numbers from above, the battery specification is 12V, 200Ah capacity and the load is 144W. Take battery capacity 200Ah/1.1 amps = 151 hours of run time if you fully deplete the battery. This is NOT recommended. Deep cycle batteries last longer when they are only depleted to 50% of capacity.

BATTERY CONNECTION

1. Grounding
The power inverter has a ground wire on the rear panel marked "Ground "or" ".. This is used to connect the chassis of the power inverter to ground. The ground terminal has already been connected to the ground wire of the AC output receptacle through the inverter.
The ground wire must be connected to the battery ground wire, which will vary depending on where the power inverter is installed. In a vehicle, connect the ground wire to the chassis of the vehicle.

2. Battery terminals
Before you connect the battery cables, make sure the inverter power switch is in the off position. Connect (+) battery cable to (+) inverter terminal. Connect (-) battery cable to (-) inverter terminal. Connect (+) battery cable to (+) battery terminal. Connect (-) battery cable to Black (-) battery terminal. Do not reverse the polarity. This may damage the inverter and void warranty.

USING THE POWER ON THE INVERTER

1.Check the output voltage and capacity of the battery. The battery (s) should match the voltage of the inverter and have enough capacity for the load.
2.Connect your inverter to your battery and do not to reverse the polarities of the connection.
3.Slide the power switch button on your inverter and a green LED will light up indicating that the inverter is on.
4.Before plugging anything into your inverter, make sure the appliance you trying to power is shut OFF, then plug it into the AC outlet of your inverter and power on your appliance. If using an inductive load, see Soft Start section.
5.Once finished using the inverter, turn off your electrical appliance and the inverter. The indicator lights should be off.
6.The cooling fan inside the inverter will come during start up and will turn on automatically according to the power usage.
7.The USB ports on this unit can provide a stable line of 5V DC current. The maximum current is 3100 mA. Be sure to double check your device to make sure it doesn't exceed these requirements.

SPECIFICATION

INPUT PROPERTY			
DC input voltage rating	12V DC		
DC input voltage range	11 to 15V DC		
Low battery shutdown	10.0V DC		±0.5V DC
Low battery voltage recovery	11.8V DC		±0.5V DC
No load current draw	<0.5 A DC		@ Input DC 12.8V
High battery voltage	16V DC		±1V DC
High battery voltage recovery	15.8V DC		±1V DC
Fuse (Internal)	25AX1(MAX)		non user replaceable
Input reverse protection	Yes		Blow Fuse
INVERTER OUTPUT PROPERTY			
Output voltage range	115V AC (RMS)		±10%
Output frequency	60Hz		±1Hz
Output wave form	Modified sine wave		
Max output power	175W		>5minute@25°C
Continuous output power	150W		>1H@25°C
Overload protection power	175W		175W~250W
USB OUTPUT PROPERTY			
Type-C	18w*1		
Type-A	5V 3.1A*1		
GENERAL CHARACTERISTICS			
Inverter Efficiency	>80%		@150W
LED Indicator	LED Green	Normal Load	
	LED Flash	Output over load protection	
	LED Shut Down	High and Low voltage protection over temperature	
Low battery shutdown	Yes		
High battery voltage	Yes		
Over load protection	Yes		
Short circuit protection	Yes		
Max case temperature	60 ± 10°C		Safety requirement
Over temperature shutdown	90 ± 10°C		on heat sink
Operating temperature range	-5 - 40°C		
Storage temperature range	-20 - 50°C		
Operating relative humidity	10% - 90%		
Storage relative humidity	5% - 95%		
Noise(db)	>52 db		@ Fan Running
MECHANICAL CHARACTERISTICS			
Dimension	106*72*45mm / 4.17" x 2.83' x 1.77"		
Outlet	EP31*1 + type-c*1 type*A 1		