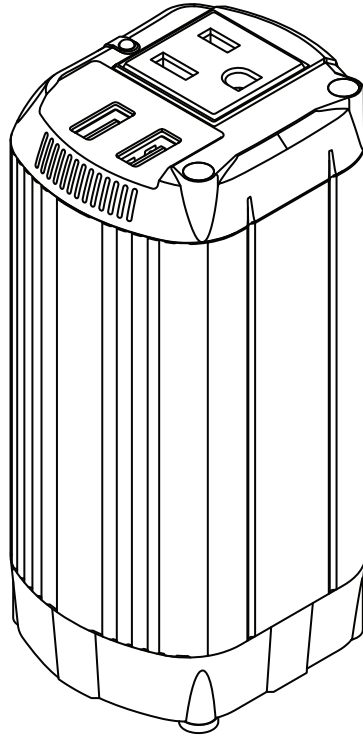


Energizer[®]



150W PURE SINE WAVE INVERTER

model no. EP150

IMPORTANT:

Please read this manual carefully before running this power inverter and save it for reference.

**INSTRUCTION
MANUAL**

Energizer® has been providing reliable, affordable automotive products developed with the DIY customer in mind. Our extensive line of power inverters, jump starters, booster cables and more were developed with our roads and drivers in mind. With hundreds of automotive products, Energizer® has helped keep our customers on the go by providing well-priced automotive products with competitive performance and durability.

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SAVE THESE INSTRUCTIONS

This manual contains important safety and operating instructions. Read all instructions and follow them with use of this product.



WELCOME

Please read this manual thoroughly before installing and operating your new Energizer inverter. This manual contains information you need to obtain the performance required for your application. Keep this manual for future reference.

This inverter converts low voltage direct current (DC) to 115 V pure sine wave (PSW) alternating current (AC). The inverter draws power from 12 V batteries such as those used for cars, marine, golf cart, and fork-lift applications, or from other high-current 12 V sources.

This model has been performance tested by ETL and complies with UL and with the Canadian Standards Association safety standards.

A HIGHER WATTAGE INVERTER MAY BE REQUIRED

To determine whether the power inverter's wattage capacity is within your power requirements, turn on the highest wattage appliance first and then all other devices in order of highest wattage to lowest. This inverter is designed to automatically shut down in the event of power overload. While running this test, if inverter shuts down due to power overload, you may require a larger capacity inverter or run the devices separately to stay within the inverter's capacity.

WARNINGS, CAUTIONS AND NOTES

It is very important that any operator and installer of this inverter read and follow all **WARNINGS**, **CAUTIONS AND NOTES** and all installation and operation instructions. In particular, comply with **WARNINGS** (possibility of serious injury or death), **CAUTIONS** (possibility of damage to the inverter and/or other equipment), and **NOTES** (included to assist you in achieving the maximum performance and longest working life from this advanced-design inverter).

WARNINGS: INVERTER OUTPUT

- Danger of shock or electrocution—treat inverter output the same as commercial AC power.
- Do not use the inverter near flammable materials or in any locations that may accumulate flammable fumes or gases.
- This is an electrical device that can briefly spark when electrical connections are made or broken.
- Do not allow water or other liquids to contact the inverter.
- Do not use appliances with damaged or wet cords.

CAUTIONS: INVERTER OPERATING ENVIRONMENT

- Surrounding air temperature should be between -20°C and 40°C (4°F and 104°F) – ideally between 15°C and 25°C (60°F and 80°F).
 - Keep the inverter away from direct sunlight if at all possible.
 - Keep the area surrounding the inverter clear to ensure free air circulation around the unit. Do not place items on or over the inverter during operation. The unit will shut down if the internal temperature gets too hot. Restart the inverter after it cools.
 - This Energizer inverter will only operate from a 12 V power source. Do not attempt to connect the inverter to any other power source, including any AC power source.
 - Do not reverse DC input polarity – this will void the warranty.
- Because of the possibility of sparking, however, it is extremely important that both the inverter and the 12 V battery be positioned far from any possible source of flammable fumes or gases. Failure to heed this warning could result in fire or explosion.
 - Operating the inverter without correctly grounding the unit may result in electric shock.

CAUTIONS

- Loose connections can result in a severe decrease in voltage that can cause damage to cables and insulation.
- Failure to make correct polarity (pos, neg) connection between the inverter and the battery bank can result in blowing fuses in the inverter and can permanently damage the inverter. Damage caused by reversed polarity is not covered under the Energizer warranty.
- Making the connection to the positive terminal may cause a spark as a result of current flowing to charge capacitors within the inverter. This is a normal occurrence.

POWER REQUIREMENTS

When a motorized appliance or a tool turns on, there is an initial surge of power to start. This surge of power is referred to as the "starting load" or "peak load." Once started, the tool or appliance requires less power to operate. This is referred to as the "continuous load" in terms of power requirements. You will need to determine how much power your tool or appliance requires to start up (starting load) and its continued running power requirements (continuous load).

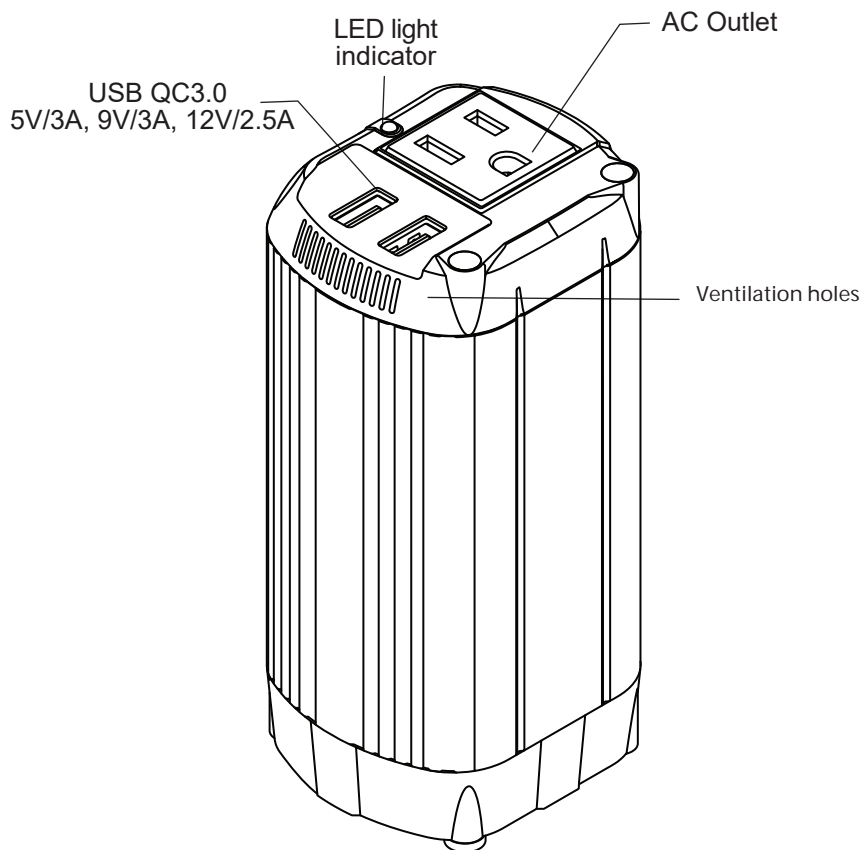
Power consumption is rated in watts, or it can be calculated from amperes (amps). This information is usually stamped or printed on most appliances and equipment. If this information is not indicated on the appliance or equipment, check the owner's manual.

Multiply: **AC AMPS X 110** (AC voltage) = **WATTS**

This formula yields a close approximation of the continuous load of your appliance.

Multiply: **WATTS X 2** = starting load for most appliances

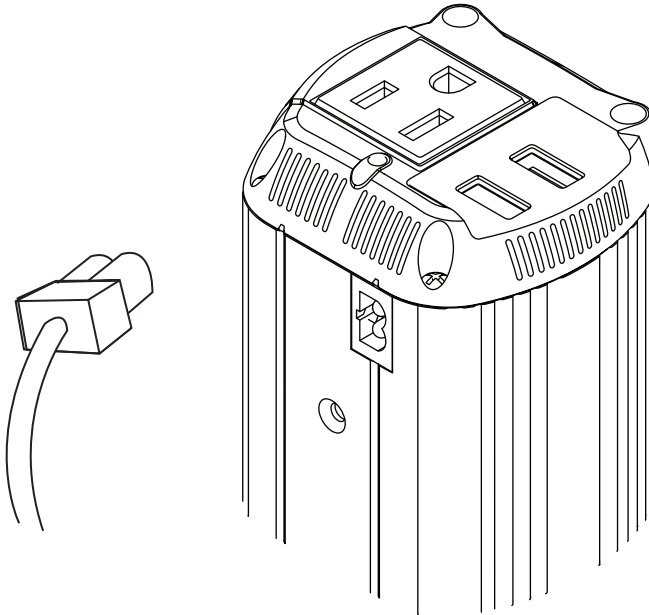
This formula yields a close approximation of the starting load of most appliances.

FEATURES

OPERATING INVERTER

The EP150 can power most 120V AC products which consume 150W or less. The EP150 cup inverter can also power or charge most consumer electronics which can be charged via USB power ports. The EP150 AC output waveform is called “pure / true sine wave” which is similarly to the sine wave shape of utility power.

1. Plug the included DC cable into the DC port on the EP150 and connect to a 12V charging port in your vehicle.
2. Plug the device you want to operate into the EP150.
3. When the inverter is not in use, unplug it from the 12V port to prevent slight discharge of the battery.



Inverter Operation

1. When properly connected to a 12V port, the LED light will turn BLUE, indicating the inverter is ready.
2. Plug the device you want to operate into the AC outlet or USB port and switch them on (if necessary).

Operating Guidelines

As the battery is depleting, the voltage begins to fall. When the EP150 senses that the voltage at its DC input has dropped to 10.5V, the inverter automatically shuts down and the LED light will change to RED, indicating a fault. This prevents damage to your devices and from completely draining the battery. Turn off any devices that the EP150 is powering.

If an AC device is rated higher than 150W and plugged into the EP150, the inverter will shut down. The LED light will alternate from BLUE to RED. If the EP150 exceeds a safe operating temperature, due to insufficient ventilation or a high-temperature environment, it will automatically shut down. The RED FAULT LED light will turn on.

Should a spike in DC voltage above 15V the EP150 automatically shutdown. The RED FAULT LED light comes on.

Battery Operating Time

Operating time will vary depending on the charge level of the battery, its capacity and the power level drawn by the particular AC load, USB load, or combination of both. With a typical vehicle battery and a 80W load, has an operating time of 4 to 5 hours or more can be expected.

When using a vehicle battery as a power source, it is strongly recommended to start the vehicle every hour or two to recharge the battery before the capacity drops too low to operate or to start the engine. The EP150 can operate while the engine is running, however normal voltage drop can occur while cranking the engine, which may cause the inverter to turn off due to low voltage input.

TROUBLESHOOTING

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|-------------------------------|---|--|
| LED light indicator turns RED | <ul style="list-style-type: none"> • Low battery voltage shutdown feature turns OFF the inverter. • Overheating • High voltage | <ul style="list-style-type: none"> • Recharge the battery. Check if cables and connections are secure. • Make sure inverter is in a cool and dry area and ventilation holes are not obstructed • Charge or replace the battery if needed. |
| LED light is OFF | <ul style="list-style-type: none"> • Loose cable connection • No DC power | <ul style="list-style-type: none"> • Reconnect cables and make sure there is a secure connection • Check vehicle battery and also DC fuse for 12V power port |

SPECIFICATIONS**EP150**

| | |
|-------------------------------|---|
| Output Continuous Watts (W) | 150 W |
| Surge Capacity (Peak Power) | 300 W |
| Rated Input DC (V, A) | 13.8 V battery, 15 A |
| Input Voltage Range | 10.5 to 15.5 V DC +/- 0.3 V |
| Rated Frequency (Hz) | 60 Hz±1 |
| Rated Output AC (V, A) | 115 V +/- 10% |
| Rated Output USB (V, A) | 2 * USB ports QC3.0 (5V/3A, 9V/2A, 18W max) |
| No Load Current | 0.4 A DC |
| Optimum Efficiency | 85% min. |
| Output Wave Form | Pure Sine Wave |
| Touch Temperature | 65°C (149°F) Max. |
| Operating Temperature | -20 to 40°C (4 to 104°F) |
| Operating/Storage Humidity RH | 5 to 95% |
| Cooling System | Thermo Fan |
| THD | < 4% |
| Dimensions LxWxH | 2.6 x 2.4 x 5.5" |
| Assembled Weight | 0.76 lbs (0.35 kg) |

WARRANTY AND RETURNS

IF ANY PARTS ARE MISSING OR DAMAGED, OR IF YOU HAVE ANY QUESTIONS, PLEASE CALL OUR TOLL-FREE HELPLINE AT 1-866-295-6775

Read and understand this instruction manual thoroughly before using the product. It contains important information for your safety as well as operating and maintenance advice.

Keep this instruction manual for future use. Should this product be passed on to a third party, this instruction manual must be included.

The English version of this manual is available online at:
www.energizerpower.com



This Energizer product carries a two (2) year warranty against defects in workmanship and materials. At its discretion, Energizer agrees to have any defective part(s) repaired or replaced free of charge, within the stated warranty period, when returned by the original purchaser with proof of purchase. This product is not guaranteed against wear or breakage due to misuse and/or abuse.

MADE IN CHINA

IMPORTED BY
BRIGHT MANUFACTURING LLC, FORT LAUDERDALE, FL