



**DC to AC
Power Inverter**

jazz™ 150

Owner's Guide

XANTREX

Smart Choice For Power

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Safety First ...

Incorrect installation or misuse of the Jazz 150 may result in danger to the user or hazardous conditions. We urge you to pay special attention to all **CAUTION** and **WARNING** statements. **CAUTION** statements identify conditions or practices that may result in damage to the Jazz 150 or to other equipment. **WARNING** statements identify conditions that may result in personal injury or loss of life.



WARNING! Shock hazard. Keep away from children.

- The Jazz 150 generates the same potentially lethal AC power as a normal household wall outlet. Treat it with the same respect that you would any AC outlet.
- Do not insert foreign objects into the Jazz 150's AC outlet or vent openings.
- Do not expose the Jazz 150 to water, rain, snow or spray.
- Do not, under any circumstances, connect the Jazz 150 to power utility AC distribution wiring.
- Failure to follow the above instructions may result in personal injury or damage to the Jazz 150.



WARNING! Heated surface.

- The Jazz 150's housing may become uncomfortably warm, reaching 140°F (60°C) under extended high power operation. Ensure at least 2 inches (5 cm) of air space is maintained on all sides of the Jazz 150. During operation, keep away from materials that may be affected by high temperatures.



CAUTION!

- Do not connect any AC product to the Jazz 150, whose neutral conductor is connected to ground.
- Do not expose the Jazz 150 to temperatures in excess of 104°F (40°C).



CAUTION! Do not use the Jazz 150 with the following equipment:

- Small battery operated products such as rechargeable flashlights, some rechargeable shavers, and night-lights that are plugged directly into an AC receptacle to recharge.
- Certain battery chargers for battery packs used in hand powered tools. These chargers will have warning labels stating that dangerous voltages are present at the charger's battery terminals.

1 Introduction

Thank you for purchasing the Jazz™ 150 Power Inverter. The Jazz 150 is an ultra compact and highly portable power inverter from Xantrex, the leader in the field of high frequency inverter design. From the 12-volt outlet in your vehicle or boat, the Jazz 150 will reliably power a wide variety of household AC products, such as portable stereos, laptop computers, camcorders and mobile phone chargers. The Jazz 150 is designed to provide years of trouble free operation and includes automatic safety monitoring circuitry to protect it, and your battery, from inadvertent overload conditions.

Read this guide before installing or using the Jazz 150 and save it for future reference.

Safety Features

These important safety features are built into the Jazz 150.

- Electronic overload protection with automatic shutdown.
- Built-in internal backup DC fuse provides added safety.
- Low input voltage warning alarm
- Automatic low input voltage shutdown.
- High input voltage shutdown.
- Overheat shutdown protection.
- Output short circuit protection.

2 Placement Guidelines

For optimum operation, the Jazz 150 should be placed on a flat surface such as the floor of a vehicle. The location should be...

- **Dry.** Do not expose to water drip or spray.
- **Cool.** Operate only in ambient temperatures between 32°F (0°C) and 104°F (40°C). Keep away from heating vents.
- **Well ventilated.** Allow at least 2 inches (5 cm) clearance above and on all sides of the Jazz 150 for proper cooling.

3 Using the Jazz 150

The Jazz 150 is capable of continuously powering most 120-volt AC products that use 120 watts or less. Its AC output waveform, called “modified-sine wave”, is designed to function similarly to the sine wave shape of utility power. Most AC products rated for 120 watts or less will operate normally with the Jazz 150.

The power or “wattage” rating of AC products is the average power they use. When many AC products are first switched on, they initially consume more power than their power rating. TVs, monitors, and electric motors are examples of products that have high “surge” requirements at start up. Although the Jazz 150 can supply momentary surge power as high as 300 watts, occasionally some products rated less than 120 watts may exceed its surge capabilities and trigger its safety overload shutdown feature.

Indicators, Controls and Connectors (see Figure 1)

- An AC outlet is provided on one end of the Jazz 150. A 120-volt AC product with a continuous power consumption of 120 watts or less, may be plugged in.
- The Jazz 150 receives its operating power through its DC Plug that fits standard vehicle cigarette lighter sockets and 12-volt power outlets.
- The ON/OFF switch enables output AC power at the AC outlet when switched ON.
- The green POWER light indicates AC power is present at the AC outlet and the Jazz 150 is operating normally.
- The red FAULT light indicates inverter shutdown caused by low or high battery voltage, overload or excessive temperature.

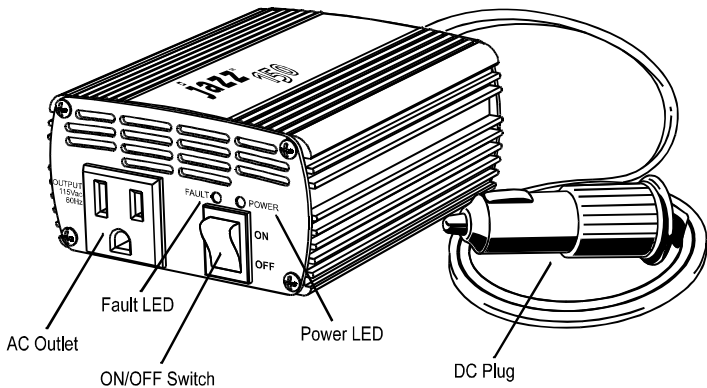


Figure 1 - Key Features

Inverter Operation

1. Plug the Jazz 150 DC Plug into a vehicle's cigarette lighter or 12-volt outlet.
2. Turn the Jazz 150 ON/OFF switch ON. The green POWER light indicates AC power is available at the AC outlet.
3. Plug the AC product you wish to operate into the AC outlet and switch it on.
4. As the battery charge is used up, battery voltage begins to fall. When the Jazz 150 senses the voltage at its DC input has dropped to 10.7 volts, an audio warning is provided. When input voltage drops to 10.0 volts, the Jazz 150 will automatically shut down to prevent battery damage. The red FAULT light illuminates.
5. If an AC product rated higher than 120 watts (or which draws excessive surge power) is connected, the Jazz 150 will shut down. The red FAULT light will turn on.

6. If the Jazz 150 exceeds a safe operating temperature, due to insufficient ventilation or a high temperature environment, it will automatically shut down. The red FAULT light will turn on and the audio warning will sound.
7. Should a defective battery charging system cause the battery voltage to rise to dangerously high levels, the Jazz 150 automatically shuts down. The red FAULT light will turn on.



CAUTION! Although the Jazz 150 incorporates protection against over-voltage, it may still be damaged if the input voltage exceeds 16 volts.

8. In the event of an overload, low battery voltage or overheating, the Jazz 150 will automatically shut down. (See Section 4.)

Interference with Electronic Equipment

Generally, most AC products operate with the Jazz 150 just as they would with household AC power. Below is information concerning two possible exceptions.

Buzzing Sound in Audio Systems.

Some inexpensive stereo systems and “boom boxes” have inadequate internal power supply filtering and “buzz” slightly when powered by the Jazz 150. Generally, the only solution is an audio system with a higher quality filter.

Television Interference.

The Jazz 150 is shielded to minimize interference with TV signals. However, with weak TV signals interference may be visible in the form of lines scrolling across the screen. The following should minimize or eliminate the problem:

- Use an extension cord to increase the distance between the Jazz 150 and the TV, antenna and cables.
- Adjust the orientation of the Jazz 150, television, antenna and cables.
- Maximize TV signal strength by using a better antenna and use shielded antenna cable where possible.
- Try a different TV. Different models of televisions vary considerably in their susceptibility to interference.

Battery Operating Time

When using the Jazz 150, operating time will vary depending on the charge level of the battery, its capacity and the power level drawn by the particular AC load. With a typical vehicle battery and a 50-watt load (such as a portable stereo/CD player), an operating time of 5–6 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 its capacity drops too low. The Jazz 150 can operate while the engine is running, but the normal voltage drop that occurs during starting may trigger the Jazz 150's low voltage shutdown feature.

Because the Jazz 150 draws less than 0.15 amps with the ON/OFF switch in the ON position and with no AC products connected, it has minimal impact on battery operating times.

4 Troubleshooting

PROBLEM: AC product will not operate, red FAULT light ON.

Possible Cause

AC product connected is rated at more than 120 watts; overload shutdown has occurred.

AC product is rated less than 120 watts; high starting surge has caused overload shutdown.

Battery is discharged.

Excessive battery voltage.

Jazz 150 has overheated due to poor ventilation.

Suggested Remedy

Use product with a power rating less than 120 watts (or 120 volts/1.0 amp).

Product exceeds inverter's surge capability. Use a product with starting surge power within the Jazz 150's capability.

Recharge battery.

Check charging system.

Switch Jazz 150 OFF and allow to cool for 15 minutes. Remove objects covering unit, then restart.

PROBLEM: AC product will not operate, no inverter lights are on.

Possible Cause

Poor contact with lighter socket or 12-volt outlet.

Lighter socket or 12-volt outlet may require ignition to be switched on.

Cigarette lighter or 12-volt outlet fuse is blown.

Inverter has been connected with reverse DC input polarity.

Suggested Remedy

Press plug firmly into socket. Clean plug or socket if necessary.

Turn key to accessory position.

Check vehicle fuses and replace blown fuse with correct value.

Probable inverter damage has occurred. Have unit repaired.

PROBLEM: Measured inverter output is too low.

Possible Cause

Standard “average-reading” AC voltmeter used to measure output voltage, resulting in an apparent reading 5 to 15 volts too low.

Battery voltage is too low.

Suggested Remedy

Inverter’s “modified sine wave” output requires “true RMS” voltmeter, such as Fluke 87 series multimeter, for accurate measurement.

Recharge battery.

PROBLEM: Battery run time is less than expected.

Possible Cause

AC product power consumption is higher than rated.

Battery is old or defective.

Battery is not being properly charged.

Suggested Remedy

Use a larger battery to make up for increased power requirement.

Replace battery.

Have vehicle electrical system checked by a qualified technician.

5 Limited Warranty (USA and Canada only)

What Does This Warranty Cover? Xantrex manufactures its products from parts and components that are new or equivalent to new, in accordance with industry standard practices. This warranty covers any defects in workmanship or materials.

How Long Does The Coverage Last? This warranty lasts for 3 months from the date of purchase. Implied warranties of merchantability and fitness for a particular purpose are limited to 3 months from date of purchase. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

What Does This Warranty Not Cover? This warranty will not apply where the product has been misused, neglected, improperly installed, physically damaged or altered, either internally or externally, or damaged from improper use or use in an unsuitable environment. Xantrex does not warrant uninterrupted operations of its products. Xantrex shall not be liable for damages, whether direct, incidental, special, or

consequential, or economic loss even though caused by the negligence or fault of Xantrex. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

What Will Xantrex Do? At its option, Xantrex will repair or replace the defective product free of charge. Xantrex will, also at its option, use new and/or reconditioned parts made by various manufacturers in performing warranty repair and building replacement products. If Xantrex repairs or replaces a product, its warranty term is not extended. Xantrex owns all parts removed from repaired products.

Service During Warranty. In order to qualify for the warranty, dated proof of purchase must be provided and the product must not be disassembled or modified without prior authorization by Xantrex. If your product requires warranty service, please return it to the place of purchase along with a copy of your dated proof of purchase. If you are unable to contact your merchant, or the merchant is unable to provide service, contact Xantrex directly:

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(toll free) 1•800•670•0707
Fax: 604•420•2145
(toll free) 1•800•994•7828
Email: support.jazz@xantrex.com

You must obtain a **Return Material Authorization** (RMA) number from Xantrex before returning a product directly to Xantrex. Do not return a product to Xantrex without first obtaining an **RMA** number. When you contact Xantrex to obtain service, be prepared to supply the serial number of your product and its date of purchase as well as information about the installation or use of the unit.

If you are returning a product from the USA or Canada, follow this procedure:

1. Obtain an **RMA** number and a shipping address from Xantrex.
*Product(s) returned without an **RMA** number or shipped collect will be refused.*

2. Package the unit safely, preferably using the original packing materials. Include the RMA number, a copy of your dated proof of purchase, a return address where the repaired unit can be shipped, a contact telephone number, and a brief description of the problem.
3. Ship the unit to the address provided in Step 1, freight prepaid. Obtaining proof of delivery is recommended.

How Other Laws Apply: This warranty gives you specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

For Our Canadian Customers: When used herein “implied warranties of merchantability and fitness for a particular purpose” includes all warranties and conditions, express or implied, statutory or otherwise, including without limitation implied warranties and conditions of merchantability and fitness for a particular purpose.

6 Out-of-Warranty Service Information


If the warranty period for your Jazz 150 has expired, if the unit was damaged due to misuse, incorrect installation or if other conditions of the warranty have not been met, or if no dated proof of purchase is available, your unit may be serviced/replaced for a minimum flat fee of \$25.00 US (\$37.50 CDN). To return your Jazz 150 for out of warranty service, contact Xantrex customer service for a Return Material Authorization (RMA) number and follow the other steps outlined in the section “Service During Warranty” above. Options for payment (e.g. credit card or money order) will be explained by the customer service representative. In cases where the minimum flat fee does not apply (e.g. incomplete units or units with excessive damage), an additional fee will be charged. If applicable, you will be contacted by customer service once your unit is received. The minimum flat fee is subject to change without notice.

7 Specifications

AC output voltage (nominal)	110 Vac
DC input voltage range	10–15 Vdc
Continuous AC output power	120 W
30-minute AC output power	150 W
Maximum AC output surge power	300 W
AC output frequency	60 ± 4 Hz
AC output waveform	modified sine wave
Battery drain with no AC load (at 12V input)	0.15 A
Efficiency (maximum)	90%
Ambient operating temperature range	32°F–104°F 0°C–40°C
Low battery alarm (nominal)	10.7 V

Low battery shut down point (nominal)	10.0 V
High battery shut down point (nominal)	15.0 V
Dimensions (L x W x H)	4.3 x 3.7 x 1.9 in 109 x 94 x 49 mm
Weight	1 lb / 450 g

Specifications subject to change without notice.



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