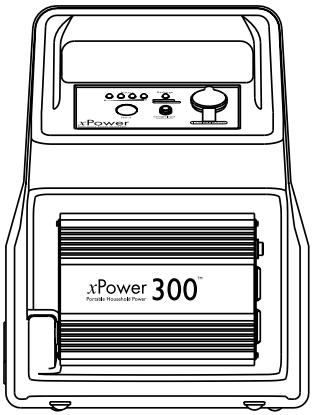
XANTREX

Smart Choice For ***Power***

Owner's Guide



xPower 300™

Portable Household Power

About Xantrex

Xantrex Technology Inc. is a world-leading supplier of advanced power electronics with a product line that ranges from 50-watt mobile units to 1 MW utility-scale systems for wind, solar, batteries, fuel cells, microturbines and backup power applications in both grid-connected and stand-alone systems. Xantrex products include inverters, battery chargers, programmable power supplies, and variable speed drives that convert, supply, control, clean and distribute electrical power.

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Contents

Safety First ...

Misuse of xPower300 may result in danger to the user. 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 xPower300 or to other equipment. **WARNING** statements identify conditions that may result in personal injury or loss of life.

WARNING! Not for use with medical or life-support equipment.

- xPower300 will run a wide variety of consumer electronics, power tools and household appliances. This product is not designed for use with medical or life-support equipment.

WARNING! Shock hazard. Keep away from children.

- xPower300 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 any foreign objects into xPower300's AC outlets, its DC Power Socket, the High Power DC Connector, or the ventilation holes in its AC inverter. Do not expose xPower300 to water.
- Not for hardwire applications. Do not, under any circumstances, connect xPower300's AC outlets to AC distribution wiring. Permanent damage to xPower300 will occur.
- Failure to follow the above safety instructions may result in personal injury and/or damage to xPower300.

WARNING! Explosion hazard.

- Do not use xPower300 where there are flammable fumes or gases, such as in the bilge of a gasoline powered boat, or near propane tanks. Do not use xPower300 in an enclosure containing automotive-type lead acid batteries. These batteries, unlike the sealed battery in the xPower300, vent explosive hydrogen gas which can be ignited by sparks from electrical connections.
- When working on electrical equipment, always ensure someone is nearby to help you in an emergency.

WARNING! Heated surface.

- xPower300's AC inverter chassis may become uncomfortably warm, reaching 140° F (60° C) under extended high power operation. Ensure at least 2 in. (5 cm.) air space is maintained on all sides of xPower300. During operation, keep away from materials that may be affected by high temperatures such as blankets, pillows and sleeping bags.

CAUTION

- Do not expose xPower300 to temperatures in excess of 104°F (40°C).

CAUTION

- Do not connect any AC load, whose neutral conductor is connected to ground, to xPower300.

CAUTION: Do not use the xPower300 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 power tools. These chargers will have a warning label stating that dangerous voltages are present at the charger's battery terminals.

1 Introduction

Thank you for purchasing xPower300™, the 300-watt electronic generator. Designed for best-in-class performance and value, xPower300 can temporarily power a wide variety of electrical products and equipment when utility power is unavailable or during a power outage, and can even jump-start your car in an emergency.

Read this guide before using xPower300 and save it for future reference.

Be sure to charge xPower300 immediately after purchase (see Section 7). xPower300's automatic charging system is intended to be left permanently plugged into a wall outlet, to keep its battery fully charged and ready for use.

To ensure you enjoy all the features of xPower300, the following topics are covered in this guide:

- How to use xPower300 as a source of 115-volt AC power to run household or workplace products.
- How to use xPower300 as a source of 12-volt DC power to run typical auto or marine accessories.
- How to use xPower300 to jump-start a vehicle.
- How to recharge xPower300's battery.

2 Quick Start Guide

Overview

The following basic instructions are intended to provide a brief overview of xPower300's key features. For complete information, be sure to read this guide fully. The diagram below shows xPower300's key features and accessories.

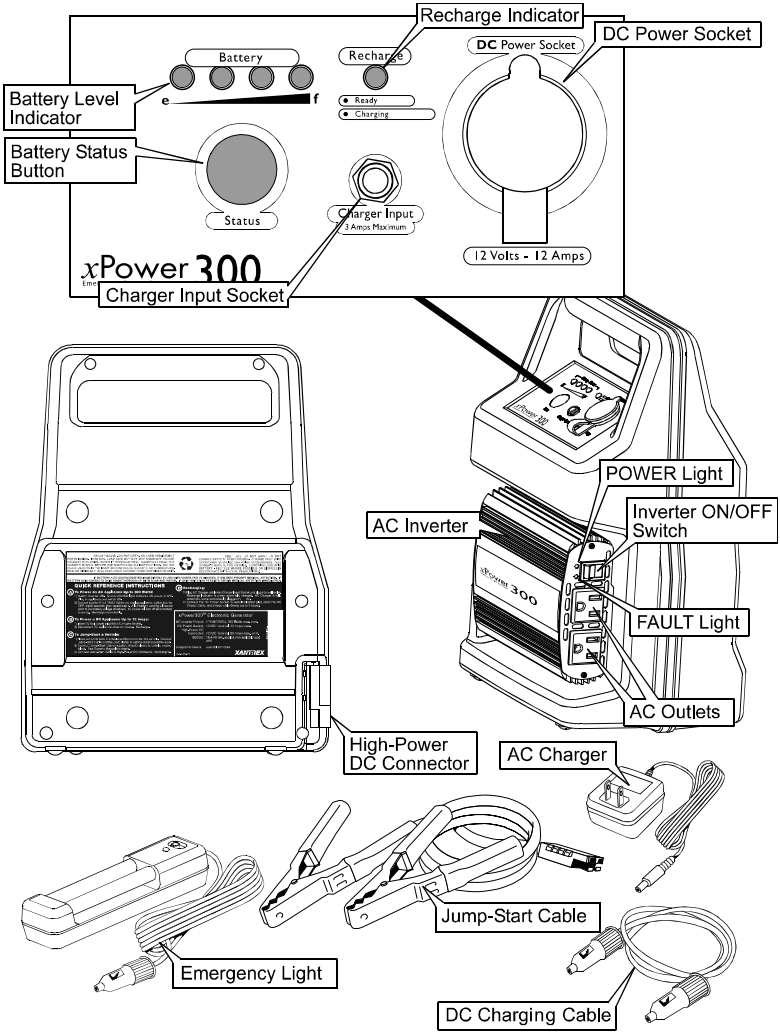

Figure 1 - Key Features

An Explanation of Power Ratings and Battery Life

AC powered products are rated by how much electrical power (in watts) they consume. xPower300's AC inverter is capable of generating a maximum of 300 watts to power AC products plugged into the AC receptacles. As an example, a 40 watt light bulb can be operated from xPower300 for up to 3½ hours when xPower300's internal battery is fully charged.

12-volt DC auto and marine accessories are generally rated according to how much electrical current (in amperes or "amps") they draw from the battery. The small 12-volt fluorescent light included draws less than 0.7 amps. When connected to the xPower300's DC Power Socket, this light could be expected to operate up to 25 hours with its switch set to "**II**", or about 50 hours with its switch set to "**I**" before xPower300's battery needs recharging. xPower300 is designed to supply up to 12 amps from its DC Power Socket.

Remember: The fewer watts an AC product uses, or the fewer amps a DC accessory draws, the longer xPower300 will operate before recharging is required.

Operating 115-Volt AC Products

1. Ensure xPower300 battery is fully charged. See Section 7 for details.
2. Turn the AC inverter switch ON. The green POWER light indicates AC power is available at the AC outlets.
3. Plug the AC product(s) you wish to operate into the AC outlet(s) and switch the product(s) ON, one at a time. xPower300 will operate most devices rated up to 300 watts.
4. In the event of an overload, low battery voltage, or overheating, the AC inverter will automatically shut down and its red FAULT light will illuminate. See Section 4 - **Automatic Protection Overload, Overheating and Low Battery** for details.
5. Fully recharge xPower300's battery as soon as possible after each use.

Operating 12-Volt DC Accessories

1. Ensure xPower300's battery is fully charged. See Section 7 for details.
2. Plug the accessory into xPower300's DC Power Socket, and switch the accessory on (if required). xPower300 will operate any 12-volt DC auto or marine accessory that draws 12 amps or less.
3. Because the DC Power Socket is internally wired direct to xPower300's battery, extended operation of a 12-volt accessory may result in excessive battery discharge.

Important: Care must be taken to ensure the battery does not become totally discharged. See Section 5 - **Connecting 12-Volt DC Accessories** for details.

Recharging xPower300

1. The battery's charge level may be seen by pressing the Battery Status Button on xPower300's display panel.
2. To recharge, plug the AC Charger into a household AC outlet, and plug the AC Charger cord into the Charger Input Socket on xPower300's display panel. The Recharge Indicator will change from amber to green when charging is complete (typically after 35 hours). It is safe (and recommended) to leave the AC Charger connected indefinitely.
3. Charging may also be done from an automobile lighter socket. See Section 7 - **Recharging from Your Vehicle** for details.

CAUTION: Do not use xPower300 to operate any AC products or DC accessories while charging with the AC Charger.

Using xPower300 to Jump-Start Your Vehicle

Due to potential dangers, see Section 6 for a detailed explanation.

3 Indicators, Controls and Connectors

Refer to Figure 1 in Section 2 for location of the items identified below.

Display Panel

The display panel is located on the front of xPower300, directly below its carrying handle. Located on the display panel, you will find xPower300's DC Power Socket, the Charger Input Socket, a Recharge Status Indicator light, and a Battery Level Indicator that is actuated by the Battery Status Button.

Battery Level Indicator

The Battery Level Indicator shows the state of charge of xPower300's battery. Its function is similar to the fuel gauge in a car. When pressing and holding the Battery Status Button, one or more of the display's four lights will illuminate, showing the approximate amount of charge remaining in the battery. Figure 2 shows the function of each light:

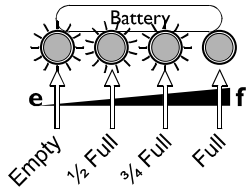

Figure 2

When the battery is fully charged, all four lights will illuminate. When discharged (empty), only the red light will illuminate and the battery must be recharged promptly. Figure 2 shows the battery is approximately ¾ full.

Battery condition is indicated most accurately when the battery has been unused for 15 minutes. Pressing the Battery Status Button while supplying power to an AC product may result in false battery level reading.

Recharge Indicator

The Recharge Indicator operates only when the battery is being recharged through the Charger Input Socket. It will not operate when other charging methods are used. When charging the battery with the AC Charger, this light will glow amber, then change to green when the battery is fully charged. Once fully charged, the charging circuitry automatically switches into its charge maintenance mode.

Charger Input Socket

The AC Charger supplied with xPower300 connects to this socket when recharging is required. Other low power charging devices can also be connected here. See Section 7 - **Recharging with a Solar Panel** for full details.

DC Power Socket

The DC Power Socket is a cigarette lighter style connector used for powering 12-volt DC auto or marine accessories (see Section 5), and for recharging xPower300 from your vehicle's electrical system. See Section 7 - **Recharging from Your Vehicle**.

AC Inverter

The front-mounted AC inverter is the heart of xPower300. It converts 12 volts DC supplied by the internal battery to 115-volt AC power. Two standard AC outlets mounted on the right side of the inverter supply the AC power for running products from xPower300. The inverter's ON/OFF switch, and its POWER and FAULT indicator lights are mounted on the same side of the inverter as the AC outlets. A low battery voltage alarm warns you when the inverter has nearly discharged the battery, prior to automatic low voltage shutdown. See Section 4 for complete details on using the AC inverter.

High-Power DC Connector

The High-Power DC Connector, located on the lower left side of xPower300, is a high current capacity connector wired directly to xPower300's battery. The Jump-Start Cable supplied with xPower300 connects to the High-Power DC Connector to allow jump-starting of a vehicle in an emergency. Be sure to read Section 6 for full details before any attempt is made to use this feature. The High-Power DC Connector can also be used to connect an external battery to xPower300 to increase battery capacity. See Section 8 for more information.

4 Powering 115-Volt AC Products

General Information

xPower300 is capable of powering most 115-volt AC products and equipment that use 300 watts or less. Its AC output waveform, called a "quasi-sine wave" or "modified sine wave", is designed to function similarly to the sine wave shape of utility power.

CAUTION: Do not use the xPower300 with certain small battery operated products or certain battery chargers. See Section - **Safety First...** for details

The power, or "wattage", rating of AC products is the average power they use. During the first moments after they are switched on, many products such as televisions, monitors, and products with motors, consume much more power than their average rating. Although xPower300 can supply momentary surge power greater than 300 watts, some products may exceed its capabilities and trigger the inverter's safety overload shutdown circuit. See details in Section 4 - **Automatic Protection: Overload, Overheating and Low Battery** for the reset procedure. If this problem occurs when attempting to operate several products at the same time, try first switching on the inverter with all products switched off, then one by one switch each on, starting with the high surge product first.

Connecting Your AC Products

The following steps assume you have fully charged xPower300's battery. See Section 7.

1. Turn on the AC inverter switch located on the inverter's right side. The green POWER light that illuminates adjacent to the switch indicates AC power is now on and available at the two inverter AC outlets. See Figure 1 in Section 2.
2. Plug the AC product you wish to operate into one of the two inverter outlets and switch the product on. The product should operate normally, just as it would if plugged into a wall receptacle.
3. As the AC product is operated, you can check the level of the battery as detailed in Section 3 - **Battery Level Indicator**. This will allow you to approximate how much time remains until the battery needs recharging.

4. As the battery becomes nearly discharged, or "empty", a low voltage warning will sound. This will give you time to shut down a computer, for example. If this warning is ignored, the inverter will switch off automatically a few minutes later to prevent battery damage. (See section below for full details.)
5. Fully recharge xPower300's battery as soon as possible after each use. See Section 7.

Automatic Protection: Overload, Overheating and Low Battery

xPower300 has built-in protection against output overload and from overheating. If an AC product rated higher than 300 watts (or which draws excessive surge power at start up) is connected, or if the inverter exceeds a safe temperature, it will automatically shut down. The green POWER light will go off and the red FAULT light will switch on. To reset, unplug the product and turn the AC Outlets Switch off for 5 seconds, then turn it back on. Normal operation should resume. If not, turn the AC Outlets Switch off again and allow xPower300 to cool for several minutes. While AC power is off, press the Battery Status Switch to make sure the charge level is sufficient.

If the battery is allowed to discharge excessively, damage may occur. To prevent this, the AC inverter has a built-in audible warning that alerts you when the battery is nearly discharged and it is time to recharge xPower300. If this warning is ignored, the inverter will automatically switch off and the red FAULT light will illuminate when the battery reaches "empty". xPower300's internal fan will continue running and the FAULT light will remain on until inverter is turned off. Promptly recharge the battery. See Section 7.

Interference with Electronic Equipment

Buzzing Sound in Audio Systems

Some inexpensive stereo systems and "boom-boxes" will emit a buzzing sound from their loudspeakers when operating from the AC output of xPower300. This is because the power supply in the equipment does not adequately filter the modified sine wave produced by xPower300's AC inverter. Unless the stereo can be operated directly from xPower300's 12-volt DC Power Socket, the only solution is a sound system with a higher quality internal power filter.

Television Interference

xPower300's AC inverter is shielded to minimize interference with TV signals. In some cases, particularly with weak TV signals, some interference may still be visible in the form of scrolling lines across the screen. In this case, take the following corrective measures:

1. Use an extension cord to position xPower300 as far away as possible from the television, antenna and cables.
2. Adjust the orientation of xPower300, television, antenna and cables to minimize interference.
3. Maximize TV signal strength by using a better antenna, and ensure a shielded antenna cable is used.
4. Try a different TV. Different models of TV sets vary greatly in their susceptibility to interference.

Battery Operating Times

Below are typical 115-volt AC products that may be operated by xPower300 with estimated operating times. See Section 8 for information about connecting to an external battery to increase operating time.

AC Products[3]	Typical Power[1]	Operating Time[2]
Cordless Telephone (stand by time)	5 watts	40 hours
Home Security System	5 watts	40 hours
Clock Radio	8 watts	20 hours
Portable Stereo	10 watts	15 hours
Flourescent Work Light	14 watts	12 hours
Color TV (5")	20 watts	8 hours
Fireplace Fan	20 watts	8 hours
Laptop Computer	25 watts	6 hours
Table Lamp	40 watts	3.5 hours

1 Represents actual power consumption as measured on sample products.

2 Operating times will vary depending on the battery charge level and the actual AC product being operated.

3 xPower300 will not operate AC products rated at more than 300 watts, such as hair dryers, microwave ovens, and toasters.

5 Powering 12-Volt DC Accessories

Connecting 12-Volt DC Accessories

xPower300 can operate any accessory that is intended to run from a vehicle's lighter socket. Simply insert the accessory's plug into the DC Power Socket on xPower300's display panel. xPower300's DC Power Socket will operate any 12-volt DC auto, marine or other 12-volt accessory that draws 12 amps or less. The following steps assume you have first fully charged xPower300's battery according to instructions in Section 7.

1. Plug the accessory into xPower300's DC Power Socket, and switch the accessory on (if required).
2. The 12-volt accessory will operate until the battery runs out of power. Refer to the important note below step 4 to avoid battery damage due to excessive discharge.
3. If an accessory that draws more than 12 amps (or which has a short circuit defect) is connected, xPower300's internal circuit breaker will switch off power to the accessory. If this occurs, unplug the accessory and the breaker will automatically reset after a few seconds.
4. Fully recharge xPower300's battery as soon as possible after each use.

IMPORTANT: The DC Power Socket does not automatically switch off the load when the battery is discharged. To protect the battery against damage resulting from total discharge, turn the AC Outlets Switch ON, even when powering 12-volt accessories. This will enable the xPower300's low battery alarm to warn you when the 12-volt accessory has nearly depleted the battery. The battery power used by xPower300 to monitor the internal battery voltage level is negligible.

xPower300 Emergency Light

To use the Emergency Light, insert its power plug into xPower300's DC Power Socket. Switch the lamp to either "**I**" or "**II**", according to the level of illumination desired.

The wire hook concealed in the back of the light may be used to hang the light if desired.

CAUTION: Use the Emergency Light indoors only. Do not expose to rain or moisture.

Should lamp tube replacement be necessary, first unplug the light, then remove the clear cover by grasping it on each side at the end furthest from the switch. Squeeze firmly inward and pull the top of the cover away from the housing. Remove the small black plastic cover to expose the top end of the lamps. Rotate lamps ¼ turn to remove.

Battery Operating Times

Below are typical 12-volt DC accessories that may be operated by xPower300 with estimated operating times.

DC Accessories	Typical Current[1]	Typical Power[1]	Time[3]
Cellular Telephone[2]	0.5 amps	6 watts	36 hours
Fish Finder/Depth Sounder	0.5 amps	6 watts	36 hours
Emergency Light (included)	0.7 amps	8 watts	25 hours
Bilge Pump	3 amps	36 watts	6 hours
Portable Cooler	2.5 amps	30 watts	5 hours
Car Vacuum	7 amps	85 watts	1.2 hours
Tire Inflator	8 amps	100 watts	1 hour
Spotlight	8 amps	100 watts	1 hour

1 Represents actual power consumption as measured on sample products.

2 Represents talk time available from 12 recharge cycles.

3 Operating times will vary depending on the battery charge level and the specific accessory being operated.

6 Vehicle or Boat Engine Starting Assistance

Jump-Starting Direct to the Battery

xPower300 may be used to jump-start a 12-volt vehicle or small boat engine using the Jump-Start Cable supplied. Jump-starting causes very high current surges and possible sparking. Unless care is taken, the possibility of battery explosion exists. Read the safety warnings in the beginning of this guide before proceeding, then follow these instructions exactly.

1. Turn off the vehicle or boat ignition, and all accessories.
2. Engage the park or emergency brake and place the transmission in park or neutral.
3. If jump-starting a boat engine, purge the engine compartment and bilge of all fumes before jump-starting.
4. Lay xPower300 on its back on a flat stable surface near the battery and clear of all moving parts of the engine.
5. Do not connect the Jump-Start Cable to xPower300 yet. Connect its red positive (+) clamp to the positive (+) terminal of the engine battery.

⚠ **WARNING:** Connecting to the negative terminal can lead to a battery explosion later in this procedure. The battery's positive terminal is identified as being larger in diameter than the negative terminal. In most vehicles it has a red wire connected to it. Do not proceed until you are sure you have connected to the positive terminal.

6. Connect the black negative (-) clamp to the engine block, cylinder head, or other stationary heavy metal part of the motor, as far from the battery as possible. Do not attach the black negative clamp to the battery terminal.
7. Making sure that the cables are clear of belts and fans, plug the Jump-Start Cable into the High-Power DC Connector on the lower left side of xPower300, and start the engine.
8. If the vehicle fails to crank, unplug the Jump-Start Cable from xPower300, then disconnect the jumper cable clamps. Ensure that the contact area is clean, then repeat steps 5 through 7.

9. After the vehicle is started and while the cables are still connected, it is a good idea to run the motor at fast idle for 2 minutes to fast-charge xPower300's battery. After recharging, unplug the Jump-Start Cable from xPower300, disconnect the black (negative) cable clamp, and then as a last step, disconnect the red (positive) cable clamp.

Jump-Starting via a Vehicle's Lighter Plug Socket

The following simple procedure is often sufficient to start a vehicle when its battery is not completely dead.

1. Connect your vehicle's cigarette lighter socket to xPower300's DC Power Socket using the DC Charging Cable. You may need to switch the ignition key to the "accessory" position to supply power to the lighter socket.
2. Wait 15 minutes while xPower300 partially charges your vehicle's battery, then attempt to start the engine.
3. Once the engine starts, leave xPower300 connected for at least 5 minutes to recharge its battery.
4. If your vehicle does not start, attempt to jump-start as described above - **Jump-Starting Direct to the Battery**.

7 Recharging xPower300

General Information on Batteries and Charging

Charging Options

A variety of charging options are possible with xPower300:

- Charging with the fully automatic "plug-in-and-forget" AC Charger.
- Charging from your vehicle as you drive.
- Charging from a generator equipped with a 12-volt battery charging outlet.
- Charging from a solar panel.

Battery Self-Discharge and Shelf Life

All rechargeable batteries gradually discharge when left standing. Periodic charging is necessary to maintain maximum battery capacity. When the AC Charger is connected via xPower300's Charger Input Socket, the circuitry built into xPower300 will regulate the charging process, ensuring the battery is always fully charged, but never overcharged. To ensure safe recharging and maximum battery life, charge only with Xantrex supplied or approved products.

CAUTION: Due to inherent self-discharge, lead acid batteries must be charged at least every 3 months, especially in a warm environment. Leaving a battery in a discharged state, or not recharging every 3 months, risks permanent damage.

Battery Replacement

xPower300 uses a state-of-the-art internal battery that will serve as a reliable power source for years when properly maintained.

Should replacement ever be needed, we recommend this be performed by those experienced in the installation of high amperage, high energy batteries. For full details, including information on approved replacement battery models, contact Xantrex Customer Service. See front of Owner's Guide for contact information .

Recharging with the AC Charger

Recharging with the AC Charger is a true "plug-in-and-forget" charging method. To use it, follow these steps:

1. Disconnect any 12-volt DC accessories and switch the inverter OFF.
2. Insert the AC Charger plug into the Charger Input Socket on xPower300's display panel.
3. Plug the AC Charger into a standard 115-volt AC receptacle.
4. As xPower300 charges, its Recharge Indicator will glow amber. A typical recharge may take up to 35 hours.
5. When fully charged, the Recharge Indicator changes to green and xPower300 is ready to use.
6. Once xPower300 is fully charged, charging current automatically reduces to a low maintenance level and xPower300 may be left permanently connected to its AC Charger.

In addition, should your utility power be interrupted, the charging process will automatically restart when power returns.

Note: Battery Level Indicator readings will not be accurate until the battery has "rested" for 15 minutes after charging.

CAUTION: Do not use xPower300 to operate any AC products or DC accessories while charging with the AC Charger.

Recharging from Your Vehicle

Using the DC Charging Cable, xPower300 can be recharged as you drive.

1. Simply plug either end of the DC Charging Cable into xPower300's DC Power Socket, and the other end into the vehicle's cigarette lighter socket or 12-volt accessory outlet.
2. Most of xPower300's capacity will be restored in 1 to 3 hours while the motor is running.
3. Disconnect the DC Charging Cable at both ends once xPower300 is fully charged or when your vehicle's motor is not running.

NOTE: Although the automatic charge regulation circuitry in xPower300 does not operate with this charging method, most vehicle voltage regulators will ensure xPower300 is not overcharged.

IMPORTANT: This charging method must not be used with vehicles having abnormally high voltage electrical systems that operate above 15 volts DC. Do not leave xPower300 permanently connected to the vehicle's lighter socket or 12-volt accessory outlet.

CAUTION: While xPower300 is being recharged with the DC Charging Cable from your vehicle, do not oerate AC products over 120 watts from the AC inverter at the same time.

Recharging with a Generator's 12-Volt DC Power Outlet

Recharging xPower300 from a generator using xPower300's AC Charger is possible, but would require extended generator running time. Since many generators have an auxiliary regulated 12-volt DC output designed for charging 12-volt batteries, using this power source will result in much faster charging. If the generator has a cigarette lighter style socket for its 12-volt output, follow the connection instructions in Section 7 - **Recharging from Your Vehicle**.

Most of xPower300's capacity will be recharged in about 1 to 3 hours. Level of charge can be verified using xPower300's Battery Level Indicator after disconnecting from the charging source as explained in Section 3 - **Battery Level Indicator**.

CAUTION: The generator output must be intended for battery charging. An unregulated output or one that exceeds 15 volts DC can damage the battery.

Recharging with a Solar Panel

Small unregulated 12-volt solar panels rated to produce a maximum of 3 amps (or 40 watts) can be used to charge xPower300 via the Charger Input Socket.

1. You will need a standard 5.5mm OD x 2.5 mm ID "DC Coaxial (Barrel Type) Connector".
2. Solder the solar panel's wire to the "DC Coaxial Connector" as shown in Figure 3.

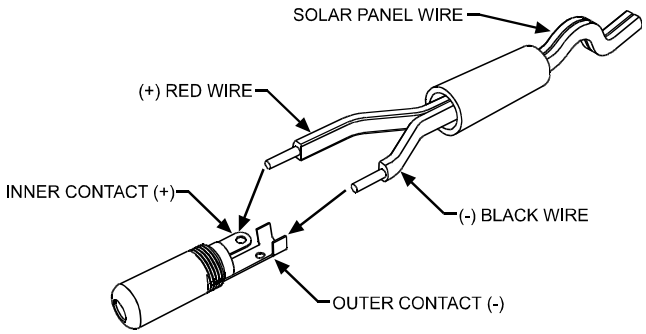

Figure 3 - Typical DC Coaxial Connector Connection

3. Insert the plug into the Charger Input Socket and place the solar panel in the sun. xPower300 will charge automatically just as with the AC Charger. (See Section 7 - **Recharging with the AC Charger**.) A 3 amp solar panel will charge xPower300 in about 8 hours in direct sunlight.

8 Connecting to an External Battery

Extended Operating Time

Much longer battery operating time is possible when connecting xPower300 to a larger external battery. For example, an external 60 amp-hour battery will give approximately 3 times the operating time of xPower300's internal battery alone.

WARNING: Use a sealed, non-spillable battery for indoor use. Common auto and marine batteries are not suitable for indoor use unless their fumes are vented outdoors. They contain acid, which is hazardous if spilled. Wear eye protection and protective clothing when connecting xPower300 to an external battery.

Connecting an External Battery

The external battery is connected using the Jump-Start Cable as follows:

1. Connect the Jump-Start Cable red positive (+) clamp to the positive terminal of the external battery.

WARNING: Connecting to the negative terminal can lead to a battery explosion later in this procedure. The battery's positive terminal is identified as being larger in diameter than the negative terminal. Do not proceed until you are sure you have connected to the positive terminal.

2. Connect the Jump-Start Cable black negative (-) clamp to the negative terminal of the external battery.

3. Plug the Jump-Start Cable into xPower300's High-Power DC Connector. Ensure this step is done last.

4. Disconnect the external battery in the reverse order of the above steps before recharging xPower300. Use a separate battery charger approved by the battery manufacturer to recharge the external battery.

CAUTION: Disconnect the Jump-Start Cable from xPower300 and the external battery when xPower300 is not in use or when there is no adult supervision.

9 Troubleshooting

Problem	Possible Cause	Suggested Remedy
AC product will not operate, inverter red FAULT light is on.	Product rated more than 300 watts, safety overload circuit has tripped.	Use an AC product with a power rating less than 300 watts.
	Product is rated less than 300 watts, high starting surge has tripped overload.	AC product may exceed xPower 300's surge capability. Use an AC product with starting surge power within xPower 300's capability.
	Battery is discharged (alarm is sounding).	Turn off all AC products and recharge battery.
	Inverter has overheated due to poor ventilation.	Turn inverter OFF and allow to cool for 15 minutes. Clear blocked fan, or remove objects covering xPower 300, then restart.
Run time is less than expected.	xPower 300 battery is not fully charged.	Recharge using AC Charger, until Recharge Indicator is green.
	AC product power consumption is higher than expected.	Check AC product power or "wattage" rating (or current draw for DC accessories) and compare with tables in Sections 4 and 5.

Problem	Possible Cause	Suggested Remedy
Measured inverter output voltage is too low.	Use of standard "average" reading AC voltmeter to read output voltage.	"Modified-sine wave" output of inverter requires "true RMS" reading meter, such as Fluke 87 series multimeter, for accurate measurement.
	Battery is almost "empty".	Check Battery Level Indicator and recharge battery as needed.
Charging light is OFF when AC Charger is connected.	No AC power at wall receptacle.	Ensure power is available at receptacle.

10 Specifications

12-Volt DC Section

Internal battery type	AGM, sealed lead acid
Internal battery voltage (nominal)	12 Vdc
Internal battery capacity (minimum)	21 Ah
Cycle life at 100% discharge/recharge cycles at 68°F (20°C)	170 cycles
Maximum load current through 12-volt DC Power Socket (breaker protected)	12 A

Inverter (115-Volt) AC Section

AC output voltage (nominal)	115 Vac
Maximum continuous AC output power	300 W
Maximum AC surge power	500 W
AC output frequency	60 Hz ± 4 Hz
AC output waveform	Modified sine wave
Inverter no-load current (battery drawin with no load on inverter)	0.18 A
Ambient operating temperature range	32°F - 104°F (0°C - 40°C)
Low battery alarm trigger point	10.7 V (nominal)
Low battery shutdown point	10.0 V (nominal)

Charging System

AC charger bulk charging current	500 mA (maximum)
Bulk charge to float charge transition voltage (peak charging voltage)	14.6 V (nominal)
Float charge to bulk charge transition voltage (charge restart voltage)	12.9 V (nominal)
Float charge current (after full charge has terminated)	1 mA (nominal)
Charger Input Socket maximum current	3 A

Specifications subject to change without notice

11 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 12 months from the date of purchase except for the battery (see details below). Implied warranties of merchantability and fitness for a particular purpose are limited to twelve 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? With the exception of the internal battery, Xantrex will, at its option, repair or replace the defective product free of charge. Xantrex will, at its own 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.

What Will Xantrex Do To Remedy A Battery Defect? Xantrex will replace a battery free of charge, should it be found defective within 6 months of purchase. During the balance of the 12 month warranty period, Xantrex will charge a fee of $45 US to replace the original battery with a new battery when the product is returned under warranty.

How Do You Get Service? 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:

Phone:	(604) 422-8595
	(toll free) 1-800-670-0707
Fax:	(604) 420-1591
	(toll free) 1-800-994-7828
Email:	support.xpower@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 box and 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.

12 Out-of-Warranty Service Information

Service Out Of Warranty: If the warranty period for your xPower300 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 $85.00 US ($130.00 CDN). To return your xPower300 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 "How Do You Get Service?" 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.

13 Other Products from Xantrex

xPower300 is one of the many advanced power conversion products designed and manufactured by Xantrex. Other inverters and portable power products include:

PORTAWATTZ 150 Inverter A compact, versatile inverter that provides 150 watts of AC power for running everything from compact TVs and VCRs to laptop computers to recharging camcorders and cellular phones.

PORTAWATTZ 400 Inverter A compact, yet powerful inverter that's perfect when requirements call for installation in a small space and operation of loads up to 400 watts continuous and 800 watts surge.

PORTAWATTZ 700 Inverter A powerful inverter that's perfect for simultaneously operating multiple applications such as a TV, VCR, and satellite receiver. It supplies 700 watts continuous and 1300 watts surge.

PORTAWATTZ 1000 Inverter A 1000 watt inverter designed for installation in trucks, vans, boats and RV's. This inverter can operate more powerful tools and equipment, and even many smaller microwave ovens.

PORTAWATTZ 1750 Inverter A 1750 watt inverter designed for installation in a boat, vehicle, or remote home for operating power tools, kitchen appliances, and a wide range of other equipment.

PORTAWATTZ 3000 Inverter A heavy duty 3000 watt inverter perfect for running multiple higher power loads simultaneously, or for starting tough motor-driven loads.

xPower600 A 600 watt portable AC power source that can be used indoors or outdoors. It runs many power tools, small appliances, and even lawn and garden equipment. Its rugged design allows it to roll easily over rough terrain.

xPower1500 Provides 1350 watts of portable household power and ideal for running a wide range of products, including computers, fax machines, refrigerators, and microwave ovens. Includes an AC charger for recharging from a wall outlet and a DC charging cable for recharging from a vehicle.

Xantrex also designs and manufactures the **PROsine** line of high performance true sine wave inverters and **PROsine** inverter-chargers, and the **TRUE*CHARGE*** line of "smart" battery chargers.

Contact your Xantrex retailer for more information or visit our web site at

http://www.xantrex.com

XANTREX
*Smart Choice For **Power***

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