

## Battery Chargers



### TRUECHARGE™2 Battery Chargers – Ultra Compact, High Performance Chargers for Worldwide Charging

Designed for marine and commercial applications worldwide, the Truecharge2 battery chargers are versatile enough to be used in a wide variety of conditions & applications. New parallel stacking feature\* delivers up-to twice the rated output when used with the optional remote.

#### Worldwide Input Voltage Range

- Automatically senses the power input voltage (90-265 Vac 47-63 Hz, 120 Vac, 230 Vac, 240 Vac nominal)
- Enables proper delivery of a full three-stage charge as it can charge from less than perfect quality shorepower or generator power

#### Energy Efficient, Low Noise Charging

- Power Factor Corrected charging to effectively use incoming AC power, minimizing current draw and reducing electrical interference
- Temperature-compensated charging ensures proper charge in the heat of summer and during cold winter storage

#### Global Safety & Protection Features

- Built-in protection against surges and spikes on the AC power line
- Meets CE/EMC, ABYC, UL1564 & UL1236 with marine supplement



#### XC Series Battery Charger (24 V only)

- Independently controls each battery bank eliminating the problem of under or overcharging batteries
- Allows charging of 3 different battery chemistries simultaneously

| Models         | Part number | Output voltage | Power output | Battery banks | Remote panel       | Parallel stacking |
|----------------|-------------|----------------|--------------|---------------|--------------------|-------------------|
| Truecharge 10  | 804-0100    | 12 V           | 10 A         | One           | No                 | No                |
| TRUECHARGE2 10 | 804-1210    | 12 V           | 10 A         | Two           | No                 | No                |
| TRUECHARGE2 20 | 804-1220-02 | 12 V           | 20 A         | Three         | Optional           | Yes               |
| TRUECHARGE2 40 | 804-1240-02 | 12 V           | 40 A         | Three         | Optional           | Yes               |
| TRUECHARGE2 60 | 804-1260    | 12 V           | 60 A         | Three         | Optional           | No                |
| XC2524         | 804-2524    | 24 V           | 25 A         | Three         | Included (Digital) | No                |

12 Volt 24 Volt

\* Applies to TRUECHARGE2 20 and 40. Does NOT apply to TRUECHARGE2 10 and 60.

## ACCESSORIES



### TRUECHARGE™2 Remote Panel

- Designed for use with the TRUECHARGE2 Battery Chargers
- Displays all system configuration information as well as battery status for up to three battery banks



### LinkPRO and LinkLITE Battery Monitors

- Displays % state of charge, voltage, charge and discharge current and consumed amp hours
- LinkPRO also displays the time remaining of your battery bank

| Description                       | Part number | Product compatibility  |
|-----------------------------------|-------------|--|
| TRUECHARGE2 Remote Panel          | 808-8040-01 | TRUECHARGE2 20 A (part # 804-1220-02) and 40 A (part #804-1240-02) |
| TRUECHARGE2 Remote Panel          | 808-8040-00 | TRUECHARGE2 60 A (part # 804-1260)                                 |
| LinkLITE                          | 84-2030-00  | Stand alone  |
| LinkPRO                           | 84-2031-00  | Stand alone  |
| Temperature Sensor - 32 ft (10 m) | 854-2022-01 | LinkPRO  |
| Communication Kit                 | 854-2019-01 | LinkPRO  |
| Connection Kit - 50 ft (15 m)     | 854-2021-01 | LinkPRO & LinkLITE   |
| Alternator Regulator (12V)        | 84-2006-01  | Stand alone  |
| Echo Charge Auxiliary Charger     | 82-0123-01  | Stand alone  |
| Battery Fuse & Holder 200 A       | TFB200      | All products   |
| Battery Fuse & Holder 300 A       | TFB300      | All products   |
| Battery Fuse & Holder 400 A       | TFB400      | All products   |
| Battery Temp Sensor               | 808-0232-01 | XC, TRUECHARGE2 (20 A, 40 A and 60 A)                              |

## Inverter/Chargers



### Freedom SW Inverter/Chargers

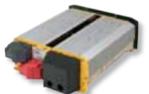
- Value priced, true sine wave inverter/chargers
- Multi-stage, temperature compensated, power factor corrected charging uses less AC input power than traditional chargers
- High surge capability for demanding electrical applications
- Meets FCC Class B & UL458 with marine supplement
- The base 2000 W model features a 100 A charger and is available with a GFCI option

- The feature rich 3000 W model is configurable for customized applications, has dual input/output AC interface and is compatible with the System Control Panel and the Automatic Generator Start



### Freedom HF Inverter/Chargers

- Compact and light weight modified sine wave inverter/chargers designed to run small appliances and other household electronics
- Built-in automatic transfer switch and a detachable digital remote control panel
- Designed to be hardwired using a terminal strip, or by connecting AC through GFCI receptacles
- Meets UL458



### PROsine™ Inverter/Chargers

- True sine-wave power to operate sensitive electronics and appliances
- Equalization modes to condition batteries for longer life
- Series stackability allows two units to power 120/240 VAC applications (PROsine 2.0 only)
- Meets UL 458

| Models          | Part number | Input voltage | Max. continuous watts | Surge rating | AC output             | Charger output | Remote panel       |
|-----------------|-------------|---------------|-----------------------|--------------|-----------------------|----------------|--------------------|
| Freedom SW 2000 | 815-2000    | 12 V          | 2000 W                | 4000 W       | GFCI* and/or Hardwire | 100 A          | Included (On/Off)  |
| Freedom SW 3000 | 815-3000    | 12 V          | 3000 W                | 6000 W       | Hardwire              | 150 A          | Included (On/Off)  |
| PROsine 2.0     | 805-2000    | 12 V          | 2000 W                | 4500 W       | Hardwire              | 100 A          | Included (Digital) |
| PROsine 2.0     | 805-2020    | 12 V          | 2000 W                | 4500 W       | GFCI and/or Hardwire  | 100 A          | Included (Digital) |
| Freedom HF 1000 | 806-1020    | 12 V          | 1000 W                | 2000 W       | GFCI and/or Hardwire  | 20 A           | Included (Digital) |
| Freedom HF 1800 | 806-1840    | 12 V          | 1800 W                | 3600 W       | GFCI and/or Hardwire  | 40 A           | Included (Digital) |
| PROsine 3.0     | 805-3031    | 24 V          | 3000 W                | 4000 W       | Hardwire              | 60 A           | Included (Digital) |

True Sine Wave Inverter/Chargers

Modified Sine Wave Inverter/Chargers

12 Volt

24 Volt

(GFCI option, part# 808-9003 sold separately)

## ACCESSORIES



### Freedom SW System Control Panel (SCP)

- Displays all system configuration and diagnostic information in one central location
- Provides basic controls for other devices connected to the network
- Compatible with the Freedom SW 3000 model only



### Freedom SW Automatic Generator Start (AGS)

- Xanbus Enabled device that can automatically activate a generator
- User programmable quiet times and generator start & stop settings
- Designed for use in conjunction with the SCP and the Freedom SW 3000 Inverter/Charger

| Description                          | Part number | Product compatibility           |
|--------------------------------------|-------------|---------------------------------|
| Automatic Generator Start (AGS)      | 84-2064-00  | Stand alone                     |
| Freedom SW Automatic Generator Start | 809-0915    | Freedom SW 3000                 |
| Battery Temp Sensor                  | 808-0232-01 | Freedom SW 2000                 |
| Battery Temp Sensor                  | 809-0946    | Freedom SW 3000                 |
| Freedom SW System Control Panel      | 809-0910    | Freedom SW 3000                 |
| Freedom SW GFCI Option               | 808-9003    | Freedom SW 2000                 |
| 12V Ignition Lockout Switch          | 808-0912    | Freedom HF                      |
| 25' Network Cable                    | 809-0940    | Freedom SW System Control Panel |
| 75' Network Cable                    | 809-0942    | Freedom SW System Control Panel |

## Inverters



### PROwatt™ SW Inverters

- An affordable true sine wave solution for both heavy duty and sensitive loads
- Dual GFCI AC receptacles and USB port
- Conformal coated circuit boards
- Meets UL458 with marine supplement



### PROsine™ Inverters

- High performance true sine wave inverters
- Built-in AC transfer switch, detachable remote panel
- Meets UL458 with marine supplement



### XS 400 Inverter

- A moderate power, true sine wave inverter
- Built-in transfer switch, dual AC outlets, AC hardwire connections
- Meets UL458 & FCC, Class B



### XM Inverters

- Compact but powerful modified sine wave inverters
- Designed to be hard-wired using a terminal strip or by connecting AC through GFCI receptacles
- Conformal coated circuit boards
- Built-in AC transfer switch, detachable remote panel
- Meets UL 458



### PROwatt™ Inverters

- Converts vehicle battery's 12-volt DC power into 120-volt AC power to operate entertainment systems, handheld games, TVs, computers, printers and more
- The 175-watt inverter is a plug-n-play portable inverter
- The 400 W digital inverter features an interactive LED display which provides instant feedback on input voltage and output power

## Inverters



### XPower™ Inverters – High Power

- Modified sine wave inverters for boats, trucks and RVs
- Ideal for users who may need to power multiple loads such as appliances, power tools and other onboard electronics at the same time
- Remote On/Off switch included
- 5000-watt model has four GFCI AC receptacles, each equipped with a 20-amp breaker
- Meets UL458



### XPower™ Inverters - Portable

- Converts vehicle battery's 12-volt DC power into 120-volt AC power to operate entertainment systems, handheld games, TVs, computers, printers and more
- The 175-watt inverter is a plug-n-play portable inverter
- The 400 W digital inverter features an interactive LED display which provides instant feedback on input voltage and output power



### XPower™ OEM 450 Inverter

- Compact, modified sine wave inverter with 450 W output
- Designed specifically for OEM applications
- High surge capacity for products that require more power to start
- Meets UL458



### 230 V / 50 Hz Inverters

- Our popular pure sine wave inverters, the PROwatt SW and PROsine, are also available in 230 V / 50 Hz version for international applications
- Available in 12 V and 24 V models
- Choose from Schuko or hardwire with transfer relay options
- CE marked for EMC & low voltage directives

| Models          | Part number | Input voltage | Max. continuous watts | Surge rating | Transfer switch | AC output                  | Remote panel       |
|-----------------|-------------|---------------|-----------------------|--------------|-----------------|----------------------------|--------------------|
| XS400           | 806-0400    | 12V           | 400 W                 | 800 W        | Yes             | GFCI and/or Hardwire       | Included (On/Off)  |
| PROwatt SW 600  | 806-1206    | 12V           | 540 W                 | 1200 W       | No              | GFCI                       | Optional (On/Off)  |
| PROwatt SW 1000 | 806-1210    | 12V           | 900 W                 | 2000 W       | No              | GFCI                       | Optional (On/Off)  |
| PROsine 1000    | 806-1000    | 12V           | 1000 W                | 1500 W       | No              | GFCI                       | Included (Digital) |
| PROsine 1000    | 806-1002    | 12 V          | 1000 W                | 1500 W       | Yes             | Hardwire w/ transfer relay | Included (Digital) |
| PROsine 1800    | 806-1800    | 12V           | 1800 W                | 2900 W       | No              | GFCI                       | Included (Digital) |
| PROsine 1800    | 806-1802    | 12V           | 1800 W                | 2900 W       | Yes             | Hardwire w/ transfer relay | Included (Digital) |
| PROwatt SW 2000 | 806-1220    | 12V           | 1800 W                | 3000 W       | No              | GFCI                       | Optional (On/Off)  |
| XM 1000         | 806-1010    | 12V           | 1000 W                | 2000 W       | Yes             | GFCI and/or Hardwire       | Included (Digital) |
| XM 1800         | 806-1810    | 12V           | 1800 W                | 3600 W       | Yes             | GFCI and/or Hardwire       | Included (Digital) |
| Prowatt 250     | 801-3255    | 24V           | 250 W                 | 500 W        | No              | AC Outlet                  | No                 |
| Prowatt 800     | 801-3853    | 24V           | 800 W                 | 2000 W       | No              | GFCI and/or Hardwire       | Optional (On/Off)  |
| PROsine 1800    | 806-1850    | 24V           | 1800 W                | 2900 W       | No              | GFCI                       | Included (Digital) |
| PROsine 1800    | 806-1852    | 24V           | 1800 W                | 2900 W       | Yes             | Hardwire w/ transfer relay | Included (Digital) |

True Sine Wave Inverters

Modified Sine Wave Inverters

12 Volt

24 Volt

## ACCESSORIES



### PROwatt™ Inline Transfer Relay

- 15A Transfer Relay provides switching between shorepower and inverter AC source
- Equipped with a power plug for convenient connection to the inverter GFCI and hardwire cords for AC input and output interface
- Meets UL458 when used with the PROwatt SW inverters



### PROwatt Remote Panel

- Provides the convenience of a simple on/off remote function to the user
- Includes a 25' remote cable
- Compatible with the PROwatt SW 120 V and 230 V models

| Description                | Part number | Product compatibility |
|----------------------------|-------------|-----------------------|
| Remote Panel Interface Kit | 808-1800    | PROsine 1000 & 1800   |
| S400 Remote Switch         | 808-2400    | XS400                 |
| Remote Panel               | 808-9001    | PROwatt SW            |
| Transfer Relay             | 808-0915    | PROwatt SW            |

## 230 V MODELS

| Models           | Part number | Input voltage | Max. continuous watts | Surge rating | Transfer switch | AC output                  | Remote panel       |
|------------------|-------------|---------------|-----------------------|--------------|-----------------|----------------------------|--------------------|
| PROwatt SW 700i  | 806-1206-01 | 12 V          | 700 W                 | 1400 W       | No              | SCHUKO                     | Optional (On/Off)  |
| PROsine 1000i    | 806-1070    | 12 V          | 1000 W                | 1500 W       | No              | SCHUKO                     | Included (Digital) |
| PROsine 1000i    | 806-1074    | 12 V          | 1000 W                | 1500 W       | Yes             | Hardwire w/ transfer relay | Included (Digital) |
| PROwatt SW 1400i | 806-1210-01 | 12 V          | 1400 W                | 2800 W       | No              | SCHUKO                     | Optional (On/Off)  |
| PROsine 1800i    | 806-1870    | 12 V          | 1800 W                | 2900 W       | No              | SCHUKO                     | Included (Digital) |
| PROsine 1800i    | 806-1874    | 12 V          | 1800 W                | 2900 W       | Yes             | Hardwire w/ transfer relay | Included (Digital) |
| PROwatt SW 2000i | 806-1220-01 | 12 V          | 2000 W                | 4000 W       | No              | SCHUKO                     | Optional (On/Off)  |
| PROsine 1000i    | 806-1080    | 24 V          | 1000 W                | 1500 W       | No              | SCHUKO                     | Included (Digital) |
| PROsine 1000i    | 806-1084    | 24 V          | 1000 W                | 1500 W       | Yes             | Hardwire w/ transfer relay | Included (Digital) |
| PROsine 1800i    | 806-1880    | 24 V          | 1800 W                | 2900 W       | No              | SCHUKO                     | Included (Digital) |
| PROsine 1800i    | 806-1884    | 24 V          | 1800 W                | 2900 W       | Yes             | Hardwire w/ transfer relay | Included (Digital) |

True Sine Wave Inverters

Modified Sine Wave Inverters

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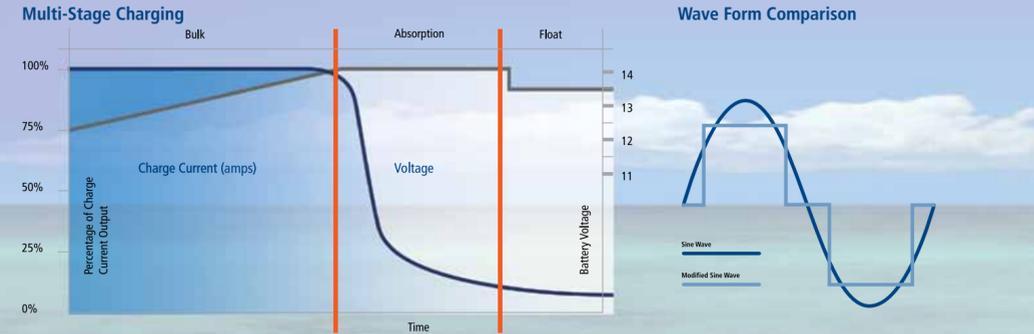
## POWERPACKS



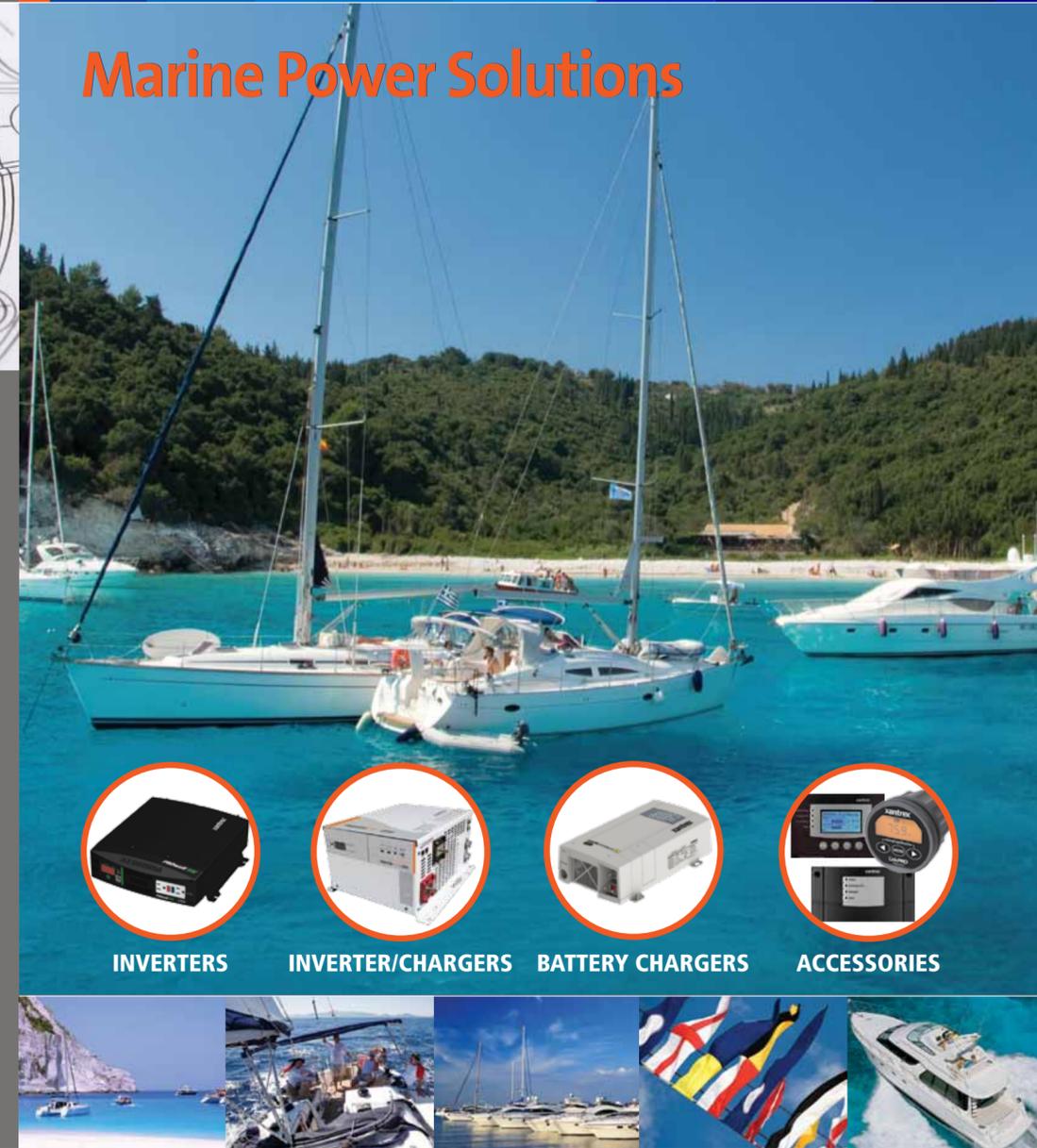
- Ideal mobile companion during power outages, weather emergencies and outdoor activities
- Sealed, non-spillable AGM battery
- Recharge at home or in your vehicle
- Available in two models: 400 W (part # 852-1900) and 1500 W (part # 802-1500)



NOTE: Specifications subject to change without notice. Actual product may look different than the image shown in this catalog.



# Marine Power Solutions



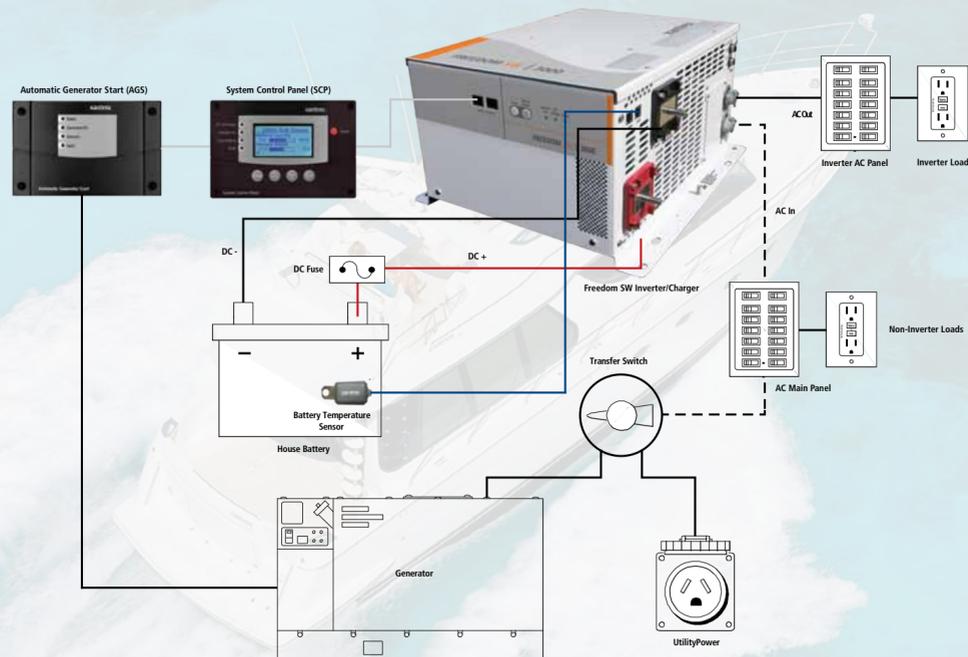
Xantrex DC to AC power inverters and inverter/charger combination units silently convert stored battery power into clean AC power to operate onboard appliances, lights, tools and other electronic equipment whenever they are needed. This allows boaters to enjoy the comforts of home without relying on shore power or noisy generator. Inverting power from a battery is a quiet and environmentally-friendly alternative to other power sources such as a generator. Xantrex products are used in both power and sail boats.

The following illustration shows the Xantrex Freedom SW System (Inverter/Charger, System Control Panel and Automatic Generator Start) along with other important components in a boat's electrical system.

The length of time the inverter/charger can supply AC power depends on the size of the battery bank and the number of loads drawing power.

In this example, the inverter/charger recharges the battery banks by converting a portion of incoming shore power or utility power to DC power. The rest of the incoming AC power is passed on to loads connected to electrical circuits powered by the inverter.

When shore power is disconnected, an internal transfer switch automatically switches the inverter/charger from shore power / charge mode to invert mode, providing AC power from the battery banks to the connected loads.



### Battery Charger FAQs

**Q - What are the benefits of Multi-Stage Battery Charging?**  
 A - Advanced multi-stage battery chargers ensure that batteries receive optimum charging, with the delivery of an accurate three-stage charge cycle. Three-stage charging results in batteries charging faster and more effectively than with a regular charger. This maximizes the amount of time that full AC power is available to the modern, electrically dependant vessel or vehicle, and minimizes generator runtime.

**Q - What are the advantages of Power Factor Corrected Charging (PFC)?**  
 A - A charger's power factor rating can be explained as its ability to effectively use incoming AC power. With less incoming AC power required by the charger to operate at its peak efficiency, there is more available AC power for a microwave, TV and other AC loads on the vessel or vehicle.

**Q - What is the difference between sine wave and modified sine wave inverters?**  
 A - True Sine Wave Inverters produce AC power that is similar to power available from the public utility grid system. They are more expensive than comparable modified sine wave inverters but they produce quality output that operates even the most sensitive and sophisticated electronics. True sine wave should be your first choice. Modified Sine Wave Inverters cost less but produce AC power that is sufficient to run most electronics. Some applications such as laser printer, fax machine, satellite receiver and plasma television set may not run properly with modified sine wave power, or they may demand True sine wave.

**Q - What type of batteries should I use?**  
 A - Xantrex recommends using only high-quality deep-cycle batteries for inverter applications. Deep-cycle batteries are designed specifically for a deep discharge and a rapid recharge. Do not use starting batteries for inverter applications.

**Q - Do I need to install my inverter near my batteries?**  
 A - Ideally an inverter should be installed within 10 feet of the battery bank. If you increase this distance, you will need to use thicker DC cables to compensate for a drop in voltage and to avoid increasing DC ripple (noise).

### Inverter FAQs

**Q - What inverter size do I need?**  
 A - Choosing the right inverter size depends on the power requirements of the electronics you expect to operate at any given time. You should consider both the continuous and surge power rating of your electronic device or appliance.

Example: If you are going to operate 2 devices at once, add up the total wattage of both devices then add at least 50% more to account for peaks or spikes in the power draw.

(1) Coffee Maker 1000 watts  
 (2) Portable Lights 200 watts  
 Recommended size of inverter:  
 1200 watts (1000 watts + 200 watts)  
 + 600 watts (0.50 X 1200 watts) = 1800 watts

**Q - Can I install my inverter/charger in a gasoline engine compartment?**  
 A - Currently Xantrex inverter/chargers are not ignition protected and therefore should not be installed in a gasoline engine compartment.

**Q - What type of environmental conditions must I consider when installing an inverter/charger?**  
 A - Most Xantrex inverter/chargers must be installed in a dry, well-ventilated compartment. While the units are designed to withstand corrosion from salt and air, they are not splash-proof. The units also require a flow of fresh air to operate properly.

**Q - What is automatic AC transfer switching?**  
 A - All Xantrex inverter/chargers incorporate an automatic transfer switch. This switch senses when outside AC power is present and transfers loads from the inverter to the source of incoming power (shore or generator). This switch also allows the charger to come on automatically when connected to incoming AC power. Please note that an inverter/charger can only invert or charge, but cannot do both at the same time.

**Q - Can I power my computer with an inverter?**  
 A - Both true sine wave and modified sine wave inverter output will operate a computer. However, some monitors and laser printers can only be powered by true sine wave output.

**H.A.L.T. - A NEW BENCHMARK IN PRODUCT QUALITY**

H.A.L.T. (Highly Accelerated Life Testing) is an extremely effective product evaluation method that our engineers use to test the robustness of each electronic design

- In this test, products are subjected to extreme thermal and mechanical conditions to accurately predict how, when and where product degradation may occur and its anticipated life span
- Allows us to refine the design early in the development cycle to improve reliability and performance

**STRINGENT REGULATORY STANDARDS**

Xantrex certifies its products to comply with various regulatory testing standards to indicate that its products meet or exceed the applicable national and/or international requirements for safety, quality, efficiency and environment

- Examples of regulatory marks you will find on Xantrex products:



**MANUFACTURING EXPERTISE**

- Over 25 years of experience in manufacturing onboard power products
- World class research, engineering and product development capabilities
- One of the widest assortments of advanced onboard power products
- Proud possession of over 100 innovative, product patents globally

**ONLINE KNOWLEDGE BANK**

Check out our newly designed website ([www.xantrex.com](http://www.xantrex.com)) to explore different types of power solutions, compare products, download technical documents or access our vast repository of FAQs and educational documents

