

The Xantrex Freedom HF 1800 Inverter

An inverter is just what you need when you don't have shore power.

By Howard Elmer

I've been testing an inverter up north this summer. And while it has not been installed in a trailer or motorhome, it has been doing duty on my diesel tractor. This isn't as silly as it sounds. I'd often lamented the fact that my tractor provides power for all kinds of implements – just not electrical power for power tools.

That's changed now; and so has my need to use battery operated tools that are constantly running down when I'm way back in the bush. Of course, it makes no difference what you need AC power for – if you can't plug into the grid, you are stuck with DC from your batteries, and that will only do so much.

So, what is an inverter? It's an electrical device that changes direct current (DC) to alternating current (AC). The reason all RVs and cars, for that matter, have DC motors and lights is because only DC electricity is storable.

Yet certain appliances run on AC only in our RVs. So, no shore power? Well, that means no TV, no air conditioning, and no microwave. The solution is an inverter that will convert that stored DC electricity to usable AC current.

The Xantrex Freedom HF 1800 inverters are built to work with generators when shore power is unavailable – or draw power from your house batteries. It's easy to install, has a rugged casing, and has clearly marked connections. Once installed into the electrical system, a built-in transfer switch automatically de-

fects when the generator is in use or when shore power is plugged in, to ensure power is always available. It can be mounted either horizontally or vertically, making it easier to fit any compartment.

Of note, when choosing an inverter, remember that an inverter must be able to deal with start-up surge. This means that an appliance can draw twice as much power at start up as it needs to run. So while adding up the wattage load to give an indicator of what you need, always allow a cushion of between 30 and 50% to deal with surges.

The Xantrex inverter I installed has proved rugged, easy to use, and it continues to work without issue;



and frankly, that's what you want from an inverter. **RV**

Howard J. Elmer of PowerSports Media Services is a Canadian automotive journalist, truck writer and RV-ing specialist.

Features of the Xantrex Freedom HF 1800 are:

- ◆ 1000/1800W inverter easily powers TVs, small appliances, and other electronics
- ◆ Built-in 15A circuit breaker to protect GFCI connected loads
- ◆ Up to 15A/20A pass through for hardwired loads for XM1000/XM1800 respectively
- ◆ Digital remote control displays power output, AC source, and battery voltage
- ◆ Detachable remote control can be mounted wherever convenient
- ◆ Conformal coated electronics provide moisture resistance
- ◆ Designed to be hard-wired using a terminal strip or by connecting AC through a GFCI receptacle (included)

Protection Features

- ◆ Battery over-voltage and under-voltage protection
- ◆ Over temperature shutdown
- ◆ Automatic overload protection
- ◆ Short-circuit protection
- ◆ Ground fault protection