

# FREEDOM SW 12V

## INVERTER/CHARGER

**xantrex™**  
Smart choice for power™

**True sine, high surge, wide temp and full featured, the Freedom SW is the state of the art. The heart of your power system!**

Available in:

**2000 W**  
**100 A**

**3000 W**  
**150 A**



Freedom SW series from Xantrex are the most advanced and capable inverter chargers in the mobile market. Available in 3000 W with 150 A charger and 2000 W with 100 A charger, these units are packed with features like "Generator Support Mode" which enables the Freedom SW to assist a generator when AC loads exceed the generator's capacity. They are also stackable for extra power and with the ComBox accessory, data logs and system control can be pushed to your tablet or phone! If you are looking for a unit for your air conditioning, this is the one! With a powerful long duration 2x surge and other industry leading features, the Freedom SW series will handle any RV power requirement. *Also available is 24V.*

### Product Features

- » Parallel stacking enables the Freedom SW inverter/chargers to double the available AC output power in inverter mode
- » Series stacking enables the Freedom SW inverter/chargers to generate 120/240 V split phase power\*
- » Temperature compensated charging for varying climate conditions
- » Battery over-voltage and under-voltage protection
- » Available AutoGen Start accessory, ComBox accessory
- » True sine wave output to operate sensitive electronics
- » Advanced configuration options for customized applications
- » Built-in transfer switch automatically transfers between inverter power and incoming AC power
- » Power factor corrected multi-stage charger for fast, efficient charging
- » Ignition lockout feature helps to minimize unnecessary battery drain\*\*
- » Full inverter output up to 40°C (104°F) for 3000W model; 30°C (86°F) for 2000W model
- » Conformal coated circuit boards for humid environments
- » Dual input / Dual output AC interface for 3000 W model only
- » Ability to charge batteries drained to extremely low voltage

### Protection Features

- » Battery over-voltage and under-voltage protection
- » Over-temperature shutdown
- » Automatic overload protection
- » Short-circuit protection
- » Integrated, resettable AC breakers

\* AC source must be split-phase, requires Stacking Cable (#809-9005). \*\*When used with On/Off Remote Panel sold separately



Available telephone to network cable adapter to avoid the need to replace cables when replacing an old inverter. (#808-9010 sold separately)

### Applications:



Recreational vehicles



Marine



Heavy duty trucks



Work vehicles



Buses / coaches



Specialty vehicles



ETL listed to CSA Standard C22.2 No. 107.1 and UL 458\* with Marine supplement

\*For marine supplement compliance drip shield in specific mounting orientation is required. See installation guide



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## INVERTER/CHARGER



| Electrical specifications – inverter | Freedom SW 2012     | Freedom SW 3012                               |
|--------------------------------------|---------------------|-----------------------------------------------|
| Output power (continuous at 40°C)    | 2000 W              | 3000 W                                        |
| Surge rating (5 seconds)             | 4000 W              | 6000 W                                        |
| Peak output current                  | 55 A                | 80 A                                          |
| Output frequency                     | 60 Hz +/- 0.2 Hz    | 60 Hz +/- 0.2 Hz                              |
| Output voltage                       | 120 Vac             | 120 Vac                                       |
| Output wave form                     | True sine wave      | True sine wave                                |
| Optimal efficiency                   | 90%                 | 90%                                           |
| No-load power draw (inverting)       | 3 Adc               | 3 Adc                                         |
| Input DC voltage range               | 10 - 16 Vdc         | 10 - 16 Vdc                                   |
| AC connections                       | Single phase in/out | Split phase in / dual out, Dual in / dual out |

| Electrical specifications – charger    |                                  |                                  |
|----------------------------------------|----------------------------------|----------------------------------|
| Output current (continuous at 25°C)    | 100 A                            | 150 A                            |
| Output voltage                         | 12 Vdc                           | 12 Vdc                           |
| Output voltage range                   | 5 - 16 Vdc                       | 5 - 16 Vdc                       |
| Charge control                         | 3 stage with manual equalize     | 3 stage with manual equalize     |
| Charge temperature compensation        | Remote battery sensor (included) | Remote battery sensor (included) |
| Optimal Efficiency                     | > 85%                            | > 85%                            |
| AC input power factor (maximum charge) | 0.98 typical                     | 0.98 typical                     |
| Input current (for maximum charging)   | 16 A rms nominal                 | 24 A rms nominal                 |
| Input AC voltage                       | 120 Vac                          | 120 Vac                          |
| Input AC voltage range                 | 85 - 140 Vac                     | 85 - 140 Vac                     |
| Dead battery charge                    | > 5 Vdc                          | > 5 Vdc                          |

| General specifications                            |                                           |                                           |
|---------------------------------------------------|-------------------------------------------|-------------------------------------------|
| Compatible battery types                          | Flooded / gel / AGM*                      | Flooded / gel / AGM*                      |
| Transfer relay rating                             | 1 leg of 30 A                             | 2 legs at 30 A each                       |
| Transfer time (AC to inverter and inverter to AC) | < 20 ms                                   | < 20 ms                                   |
| Optimal operating temperature range               | - 4°F to 140°F (- 20°C to 60°C)           | - 4°F to 140°F (- 20°C to 60°C)           |
| Storage ambient temperature range                 | - 40°F to 185°F (- 40°C to 85°C)          | - 40°F to 185°F (- 40°C to 85°C)          |
| Unit dimensions (H x W x L)                       | 7.75 x 13.5 x 15.25" (197 x 343 x 387 mm) | 7.75 x 13.5 x 15.25" (197 x 343 x 387 mm) |
| Unit weight                                       | 27.5 kg (60.5 lbs)                        | 33.5 kg (73.7 lbs)                        |
| Warranty                                          | 2 years                                   | 2 years                                   |
| Master carton quantity                            | 1                                         | 1                                         |
| Master carton dimensions (H x W x L)              | 11.8 x 17.1 x 20.5" (300 x 435 x 522 mm)  | 11.8 x 17.1 x 20.5" (300 x 435 x 522 mm)  |
| Master carton weight                              | 30 kg (66 lbs)                            | 35 kg (77 lbs)                            |
| Part Number                                       | 815-2012                                  | 815-3012                                  |

| Accessories                                |                                   |
|--------------------------------------------|-----------------------------------|
| Battery temperature sensor                 | Part# 809-0946 - Included         |
| Freedom SW On/Off Remote Panel             | Part# 808-9002 - Sold separately  |
| Automatic Generator Start (AGS)            | Part# 809-0915 - Sold separately  |
| System control panel (SCP)                 | Part# 809-0921 - Sold separately* |
| 25' network cable for system control panel | Part# 809-0940 - Sold separately  |
| 75' network cable for system control panel | Part# 809-0942 - Sold separately  |
| Drip shield                                | Part# 808-9004 - Sold separately  |
| GFCI option                                | Part# 808-9003 - Sold separately  |
| Stacking cable for series stacking         | Part# 808-9005 - Sold separately  |

### Regulatory and environmental compliance

ETL certified to CSA 107.1, UL458 with marine supplement\*\*, FCC Part 15, Class B

\*System Control Panel is required for configuring various battery types

\*\*When used with the Drip Shield. Drip Shield sold separately. Note: Specifications subject to change without notice