FREEDOM XC 2000 24V INVERTER/CHARGER DATASHEET

AVAILABLE IN:
24V ⎓

2000W/40A

ROBUST. DURABLE. FLEXIBLE.
DESIGNED FOR LITHIUM ION BATTERIES

The Freedom XC inverter/charger offers premium performance in a lightweight compact package. It cranks out full output in invert or charge mode from -4°F - 104°F (-20°C - 40°C) for operation in all climate temperatures. The extended surge rating of the Freedom XC makes it ideal to start difficult loads including fridge and microwave. The quick connect terminals at AC IN/OUT make installation a breeze.

- Exceptional full rated performance in all climate temperatures
- Ability to charge dead batteries down to 0V
- Designed to charge lithium ion batteries
- View, control and configure via Bluetooth app[1] on iOS and Android

APPLICATIONS:

H.A.L.T.
HIGHLY ACCELERATED LIFE TESTED

C ETL US
LISTED
Intertek

ETL listed to CSA Standard C22.2 No. 107.1 and UL 458* with Marine supplement
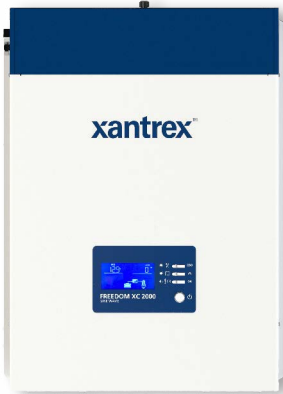*For marine supplement compliance drip shield in specific mounting orientation is required. See installation guide.

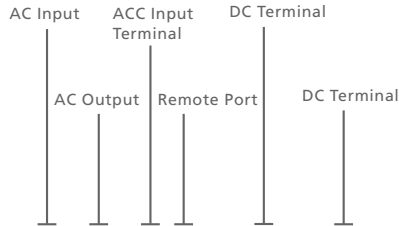2 YEAR WARRANTY

www.xantrex.com
CUSTOMER CARE: 1.800.670.0707

[1]requires FREEDOM X Bluetooth Remote Panel, part #808-0817-02

TOP VIEW

AC Input
ACC Input Terminal
DC Terminal

AC Output
Remote Port
DC Terminal

SIDE VIEW

GFCI Cover
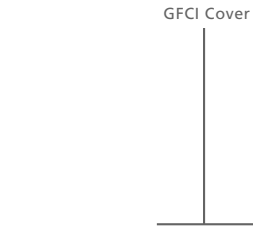
SIDE VIEW

INVERTER FEATURES

Extended Surge Rating

- Surges to 2X continuous power for 5 seconds for motor loads

True Sine Wave AC Power

- For operation of sensitive and motor loads

Ignition Control

- Feature to turn inverter on/off via a 12 VDC signal and to minimize battery drain by switching the inverter off when the ignition key is turned off

Wide 20-32 VDC Input Range

- Ensures inverter operation on high voltage alternators found on many new vehicle chassis

Programmable AC Under-Voltage (85-110VAC) Shutdown

- Feature ideal to operate under weak shore power or generator input

Built in 30A AC Transfer Relay

- Senses when outside AC Power is present and transfers the load from the inverter to the source of incoming power

BUILT-IN CHARGER FEATURES

Power Factor Corrected Multi-Stage Charging

- Utilizes less shorepower when charging batteries. This frees up more usable AC power for running electrical devices and appliances and reduces the likelihood of tripping shorepower breakers

Programmable

- Configurable 3 stage temperature compensated battery charge algorithm for optimal charging of almost any battery type up to 24V

Battery Equalization

- Maximizes flooded battery life

Dead Battery Charging Down to 0 Vdc

Power Share

- Prioritizes AC loads by reducing the charge current and maintaining the total input current to less than the breaker setting

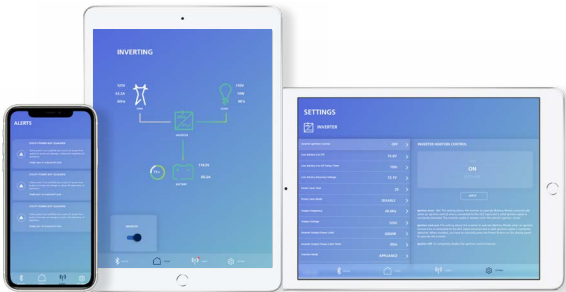### Lithium Ion Battery Charging

- Pre-set Lithium Iron Phosphate (LFP) battery profile available or configurable to charge virtually any lithium ion chemistry battery (BMS required)

FREEDOM X BLUETOOTH REMOTE PANEL + FXC CONTROL MOBILE APP

FREEDOM X BLUETOOTH REMOTE PANEL
(808-0817-02)

- Easily monitor system status
- Monitor alerts
- Change settings conveniently
- Connect via bluetooth
- Available on Android and iOS

DOWNLOAD ON
xantrex CONTROL
CONNECT WITH Bluetooth

ELECTRICAL SPECS - INVERTER

	FREEDOM XC 2000 24V
AC Output Operating Voltage Options	120, 110, 108 Vac
Continuous Output Power	Continuous Power 2000 W @40°C True sine wave (TSW)
Continuous AC Output Current	16.7 A
Surge Power (5 sec)	4000 W
Frequency (Configurable)	60 (or 50) Hz
Peak Efficiency	91%
Full Load Efficiency	≥ 87.5%
DC Nominal Current at Full Load	100 Adc

ELECTRICAL SPECS - BATTERY CHARGER

|	FREEDOM XC 2000 24V
Min Battery Voltage for Charging	0.0 Vdc
Max DC Output Voltage	32.0 Vdc (custom battery type)
Selectable DC Output Current	User Selectable: 5 – 40 A
Full Load Max AC Input Current	11 Arms
Power Factor at Full Charge Rate	> 98%
Operating Input AC Pass-Through Voltage Range	85-140 Vac
Safe Non-Operating Input AC Voltage Range	Up to 240 Vac RMS

GENERAL SPECS

	FREEDOM XC 2000 24V
Operating Temperature Range	-4 to 140 °F (-20 to 60 °C), with output derated above 104 °F (40 °C)
Storage Temperature Range	-40 to 158 °F (-40 to 70 °C)
Operating Humidity Range	5 to 95% RH, non-condensing
Transfer Relay AC Current Rating	30 A
DC Input Operating voltage range	LBCO voltage - 32.0 VDC
DC Input/Output Nominal Voltage (inverting/Charging)	24.0 Vdc
Part Number	817-2040-21
L x W x H (without flanges)	15.4"(390 mm) x 10.8"(275 mm) x 4.0"(102 mm)
L x W x H (with flanges)	16.0"(406 mm) x 12.0"(305 mm) x 4.0"(102 mm)
Net Weight	16.3 lbs (7.4 kgs)

REGULATORY APPROVALS

|	FREEDOM XC 2000 24V
Safety	ETL listed to CSA 107.1, UL458 and UL458 Marine Supplement (drip shield with product number 808-1050 required) ABYC E-11, A-31
EMC	CFR 47, FCC, PART 15, Subpart B, Class B and CAN ICES-3 (B) / NMB-3 (B)

FREEDOM XC 2000 24V DIMENSIONS

15.4"
390mm

12.0"
305mm

4.0"
102mm
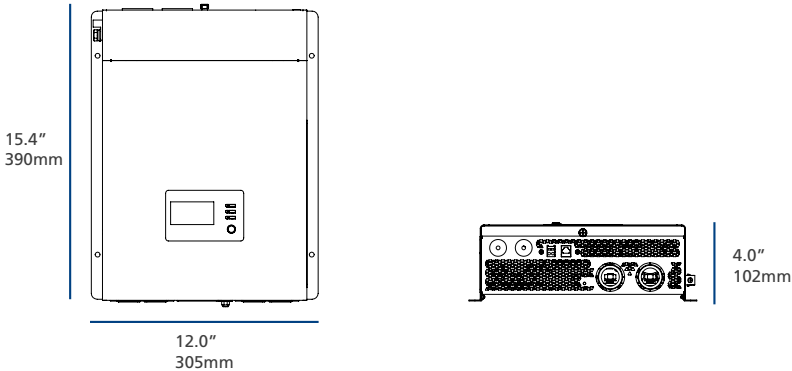
ACCESSORIES

Mfg Part #	Description
808-0817-01	FREEDOM X/XC Remote Panel with 25' (7.62m) cable
808-0817-02	FREEDOM X Bluetooth Remote Panel with 25' (7.62m) cable
808-9817	GFCI Option
31-6257-00 (25ft), 31-6262-00 (50ft)	Remote Panel Cable
808-1050	Drip Shield (for marine use)

View AC and battery current, % status bar for inverter output on the onboard display
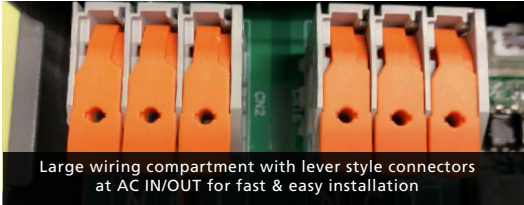
Large wiring compartment with lever style connectors at AC IN/OUT for fast & easy installation
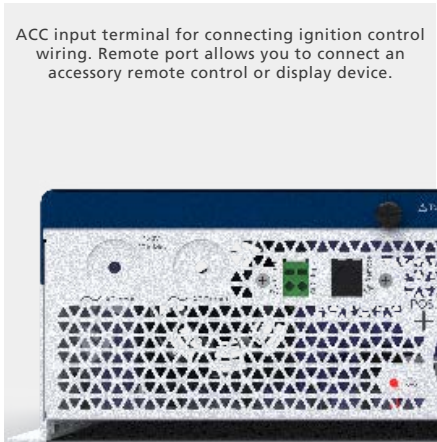
ACC input terminal for connecting ignition control wiring. Remote port allows you to connect an accessory remote control or display device.

CONTACT

CUSTOMER SERVICE

1.800.670.0707
customerservice@xantrex.com
Hours of operation:
6:30am - 4:30pm PST, Monday to Friday

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youtube.com/XantrexTechnology

LEARN MORE ON:
www.xantrex.com