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A MISSION CRITICAL ELECTRONICS BRAND



Owner's Guide

Xantrex Gateway

Xantrex Gateway
808-1888

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Product Name and Part Number

Xantrex Gateway (808-1888)

Contact Information

Telephone: +1-800-670-0707 (Toll Free USA/Canada) / +1-408-987-6030 (Outside USA/Canada)

Email: <https://xantrex.com/support/get-customer-support/>

Web: www.xantrex.com

Information About Your System

As soon as you open your product, record the following information and be sure to keep your proof of purchase.

Serial Number _____

Product Number 808-1888

Purchased From _____

Purchase Date _____

Abbreviations and Acronyms

AC [~]	Alternating Current, Mains
BMS	Battery Management System
CAN	Controller Area Network bus protocol
DC [—]	Direct Current
EMC	Electromagnetic Compatibility (emissions and immunity)
EMI	Electromagnetic Interference source (emissions only)
IP	Ingress protection rating (example: IP20 is for Indoor Use only)
kW	Kilowatts (1000 watts)
LED	Light Emitting Diode
PN	Product Number
RV-C	Recreational Vehicle (Caravan) CAN Bus Communications protocol
SSID	Service Set Identifier — Wi-Fi network identifier
V, VAC, VDC	Voltage, Volts AC, Volts DC
V, V~, V---	

Product Safety Information

NOTICE

RISK OF ELECTRIC SHOCK AND EQUIPMENT DAMAGE

- Connect communication circuits only to Safety Power Source Class 1 (PS1) circuits. This device connects to a 9-58V--- battery source through the two-pin battery terminal (see *Connection Terminals on page 8*).
- Do not expose the Xantrex Gateway to rain, snow, spray, or bilge water. For indoor use only.
- Do not disassemble. No user serviceable parts inside.
- Do not install and/or operate in compartments containing flammable materials or in locations that require ignition-protected equipment.

Failure to follow these instructions may result in injury or equipment damage.

EMI / EMC Information

This device complies with part 15 of the FCC Rules and contains a licence-exempt transceiver that complies with ISED Canada's licence-exempt RSS Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC ID: 2ABCB-RP14B

IC: 20953-RP14B



Unauthorized changes or modifications to the equipment could void the user's authority to operate the equipment.

End of Life Disposal

The Xantrex Gateway is designed with environmental awareness and sustainability in mind. At the end of its useful life, the Xantrex Gateway can be decommissioned and disassembled. Components which can be recycled must be recycled and those that cannot be recycled must be disposed of according to local, regional, or national environmental regulations including the WEEE Directive.

Electronic equipment such as the circuit boards, connectors, and fuses can be broken down and recycled by specialized recycling companies whose goal is to avoid having these components end up in the landfill.

For more information on disposal, contact Xantrex.

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1 INTRODUCTION

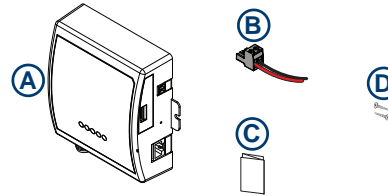
The Xantrex Gateway is a single-box communications hub from Xantrex that is capable of interfacing with a number of Xantrex inverters, chargers, inverter/chargers, lithium-ion battery BMS, and solar charge controllers. You can connect your smart phone or tablet to Xantrex Gateway to monitor, control and change settings on any of the connected devices. The Gateway Touchscreen (808-0890) is available separately as a user interface.

This chapter includes the following topics:

Materials List	6
Key Features	7
New Features	7
Supported Xantrex Components	7
Connection Terminals	8
Port Pin Assignments	9
LED Status Indicators	9

Materials List

The Xantrex Gateway package includes the following items:



A	Xantrex Gateway
B	2-pin connector with pigtail, 14–28 AWG (0.2–1.5 mm ²), connect to power supply (---)
C	Quickstart guide
D	2x mounting screws 6-20 by 1/2" (or equivalent)

NOTE: If any of the items are missing, contact Xantrex or any authorized Xantrex dealer for replacement. See *Contact Information on page 2*.

Key Features













The Xantrex Gateway has the following key features:

- **BLE and Wi-Fi Connectivity:** Facilitates efficient communication through Bluetooth Low Energy and broad network access via Wi-Fi.
- **AP Mode Wi-Fi:** Creates a dedicated Wi-Fi network for easy initial setup and troubleshooting without needing an existing network.
- **System Display via Xantrex App, a web-based app, and Gateway Touchscreen:** Offers monitoring and control of connected components.
- **Setting for Xantrex Components:** Simplifies the configuration and management of various Xantrex devices within your power system from a centralized interface.
- **Remote Software Update:** Enables seamless over-the-air firmware and software updates, ensuring Xantrex Gateway remains up-to-date with the latest features and security enhancements.
- **Power Save Button:** Optimizes energy usage by manually switching connected inverters on or off.

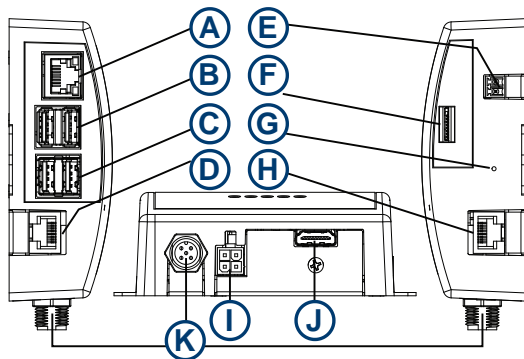
New Features

- **Tank monitoring:** Provides real-time, accurate data on resource levels in vehicles or vessels via RV-C communication protocols. They enhance safety, efficiency, and planning by preventing overflows, shortages, and reducing waste.
- **Event Logs:** Comprehensive records that capture all significant activities, changes, and events occurring within Xantrex Gateway and its connected power system components.
- **Remote Software Update**
- **Power Save Button**

Supported Xantrex Components

	Gateway Touchscreen PN: 808-0890		Freedom SW inverter/chargers PNs: 815-2012-03 815-3012-02
	Freedom X inverters (via the Freedom X Combox) PNs: 817-1000 817-2000 817-3000		Freedom XC inverter/chargers (via the Freedom X Combox) PNs: 817-1050 817-2080
	Freedom X Combox PNs: 808-0822		Freedom X PRO inverter PN: 806-1212-05
	Freedom XC PRO inverter/chargers PNs: 818-2010 818-3010		Xantrex MPPT Charge Controller 60A PN: 710-6048-01
	Xantrex Battery PNs: 884-0310-12/01 884-0410-12/01 884-0205-24/01 884-0100-51		Xantrex MPPT Charge Controller 30A PN: 710-3024-01
	Freedom EX 4000 inverter/charger/converter PN: 820-4080-41		XanLink Battery Monitor PNs: 854-2033

Connection Terminals

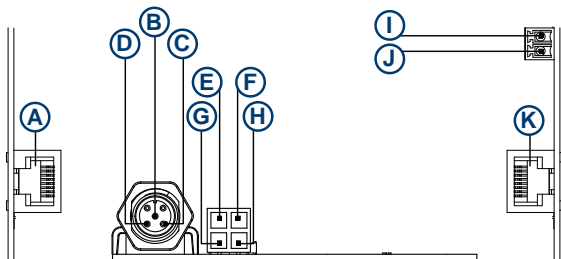


A	Ethernet port for wired internet connection.
B	5V USB host ports (max 1.0A total)
C	⚠ Use to connect to the Gateway Touchscreen. May also be used to connect a mouse, USB stick, and keyboard.
D	RJ-45 RV-C port - connect to RV-C CANbus network. ⚠ If Xantrex Gateway is the end device of RV-C network, then you must turn on the CAN terminator switch. Refer to <i>Activate RV-C Internal Terminator</i> .
E	Input power supply terminal (connect to battery using the supplied 2-pin connector power cable).
F	micro-SD card slot for the supplied micro-SD card ⚠ Do not remove the micro-SD card.
G	Pinhole factory reset button - press for 5 seconds to restore factory settings including the Wi-Fi SSID and password
H	RJ-45 RS-485 Modbus port - connect to an RS-485 Modbus device such as a Xantrex MPPT 30 Solar Charge Controller (SCC).

I	4-pin Molex® type RV-C port - connect to RV-C CANbus network. ⚠ If Xantrex Gateway is the end device of RV-C network, then you must turn on the CAN terminator switch. Refer to <i>Activate RV-C Internal Terminator</i> .
J	HDMI port ⚠ Use to connect to the Gateway Touchscreen or another HDMI monitor.
K	NMEA 2000 [Micro-C (CAN)] port ⚠ RESERVED FOR FUTURE USE.

Port Pin Assignments

NOTE: Match port pin assignments to connector pins carefully.



A	Pin 1: NC Pin 2: NC Pin 3: Gnd Pin 4: CAN1_RV-C_L	Pin 5: CAN1_RV-C_H Pin 6: Gnd Pin 7: +12_CAN Pin 8: Gnd	RJ-45 port [RV-C (CAN)]
B	CAN_L		Micro-C(CAN) port (Future Use)
C	COM		
D	CAN_H		
E	CAN_Shield		
F	COM		RV-C port
G	CAN_L		
H	CAN_H		
I	Battery negative(-), Gnd		Battery terminals for power
J	Battery positive(+)		
K	Pin 1: NC Pin 2: NC Pin 3: RS485-B Pin 4: RS485-B	Pin 5: RS485-A Pin 6: RS485-A Pin 7: NGnd Pin 8: NGnd	RJ-45 port [RS-485 (Modbus)]
Pins 3 & 4 are shorted together, Pins 5 & 6 are shorted together, NC (not connected), NGnd (network common ground)			

LED Status Indicators

- Power
- Cloud
- Wi-Fi
- CAN
- Modbus

Power	Green	The Xantrex Gateway is connected to a suitable power source.
	Off	The Xantrex Gateway is disconnected from its main power source.
Cloud	Off	The Xantrex Gateway has no activity/connection to the cloud
	Green	The Xantrex Gateway has a valid connection to the cloud.
	Flashing red	The Xantrex Gateway is operating under either of the following when a USB stick is connected: <ul style="list-style-type: none"> • Software upgrade via the USB (around 3-5 minutes) • Data logs useful for technical support are being saved to the USB (around 3-20 seconds)
Wi-Fi	Green	The Xantrex Gateway is connected to a Wi-Fi network.
	Off	No Wi-Fi connection
CAN	Green	CAN device is detected.
	Off	No CAN device is detected.
Modbus	Green	Modbus device is detected.
	Off	No Modbus device is detected

2 INSTALLATION

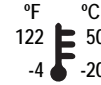
Before beginning your installation, read this entire chapter, assemble all the tools and materials you require, and be aware of all safety and electrical codes which must be met when installing as part of a power system.

This chapter includes the following topics:

Mounting	10
Communication Cables	11
Typical System Diagram	12
Connecting Components to the Gateway	13

Mounting

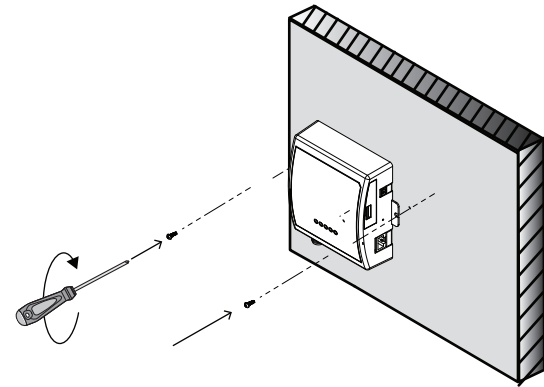
1



PS1
===



2



Consider the following suggestions for mounting.

- Thick walls, metallic objects, and other communication devices may interfere with wireless signals and affect signal strength. See Notice below.
- Avoid exposure to direct sunlight.
- Be within 20 feet (6 m) to obtain the best possible Wi-Fi signal from the Wi-Fi router.

NOTICE

WI-FI INTERFERENCE

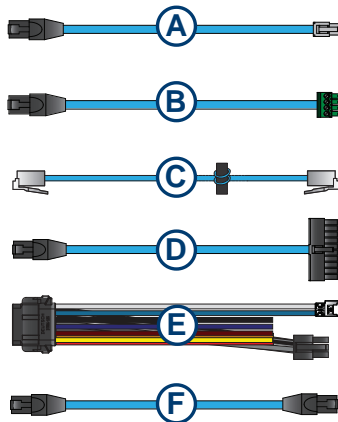
Locate Xantrex Gateway and other Wi-Fi devices (such as a wireless modem) at least 2 feet (0.6 meter) from each other.

Failure to follow these instructions can produce interference in communications.



Communication Cables

NOTE: These cables are available for purchase. Contact any authorized [Xantrex dealer](#).



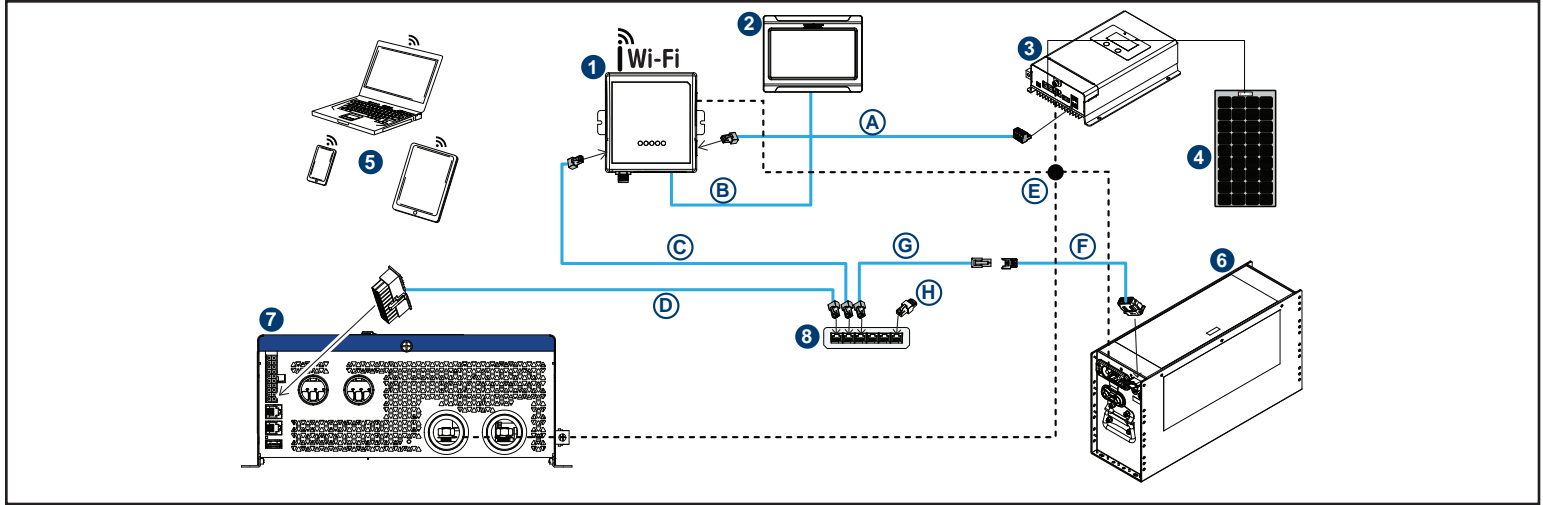
A	4 ft. (1.2 m)	RVC 4P-RJ45 (PN: 808-1889)
B	1 ft. (0.3 m)	MODBUS 4P-RJ45 (PN: 808-1890)
C	25 ft. (7.6 m)	COMM CABLE RJ12 (PN: 31-6257-00)
D	4 ft. (1.2 m)	RVC 20P-RJ45 (PN: 808-1892)
E	1 ft. (0.3 m)	DEUTSCH 12P (PN: 881-0262-12-02) (included with Xantrex Battery 884 Series)
F	4 ft. (1.2 m)	XanLink RVC cable RJ45-RJ45 (PN: 854-2035)
*	--	Network terminator (PN: 808-1895)
**	length varies	RJ45 Ethernet Straight-through Cable Available at any computer or electronics store.

Typical System Diagram

This diagram illustrates a typical system that Xantrex Gateway can connect into on a vehicle or vessel.

Figure 1 Vehicle Communication Network

⚠ The solid lines are communication cables. The dotted lines are electrical power connections. Refer to the installation guide for each power system component.

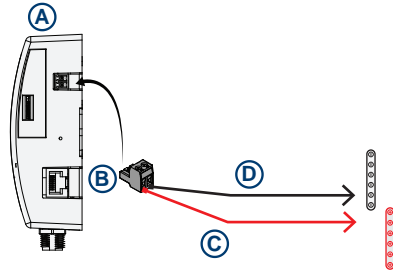


1	Xantrex Gateway (PN: 808-1888)	5	Laptop and/or smart devices with Wi-Fi (not provided)	A	MODBUS 4P-RJ45 (PN: 808-1890)	E	DC System Bus Bars (not provided)
2	Gateway Touchscreen (PN: 808-0890)	6	Xantrex Battery (884-0310-12/01 884-0410-12/01 884-0205-24/01 884-0100-51)	B	HDMI cable and USB-A to Micro-USB cable (both supplied with the Gateway Touchscreen)	F	DEUTSCH 12P (PN: 881-0262-12-02)
3	Xantrex MPPT Charge Controller 30A (PN: 710-3024-01)	7	Freedom XC PRO (PNs: 818-2010 818-3010)	C	RJ45 Ethernet Straight-through Cable (not provided)	G	RVC 4P-RJ45 (PN: 808-1889)
4	Solar Panel (sold separately)	8	Network Hub (PN: 808-0650)	D	RVC 20P-RJ45 (PN: 808-1892)	H	Network terminator (PN: 808-1895)

Connecting Components to the Gateway

NOTE: Always buy the correct communication cable. See *Communication Cables* on page 11 and the following sections for more information. When connecting multiple devices, use a Network Hub (PN: 808-0650). CAN or Modbus termination is required to ensure reliable communication.

Power Source

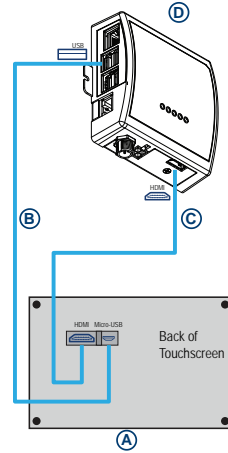


⚠️ Connect the battery wires to a battery power source. For example, connect them to corresponding DC system bus bars (as illustrated below).

⚠️ The Xantrex Gateway has no power switch.

A	Xantrex Gateway (PN: 808-1888)	C	Battery positive(+) wire (red)
B	2-pin connector with pigtail (supplied) connects to the power port	D	Battery negative(-) wire (black)

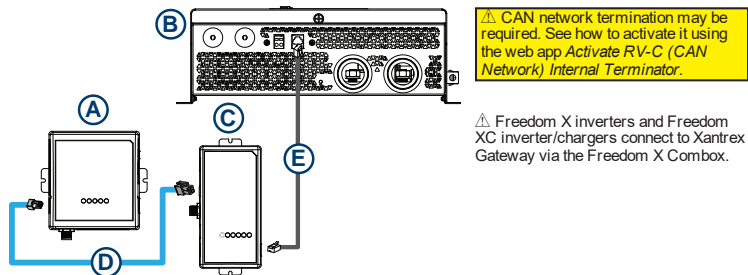
Gateway Touchscreen



A	Gateway Touchscreen (PN: 808-0890)	C	HDMI cable (supplied with the Gateway Touchscreen)
B	USB-A to Micro-USB cable (supplied with the Gateway Touchscreen)	D	Xantrex Gateway (PN: 808-1888)

Freedom X Inverter

NOTE: Consult the Freedom X inverter Owner's Guide for electrical connections to batteries, AC source, and loads.



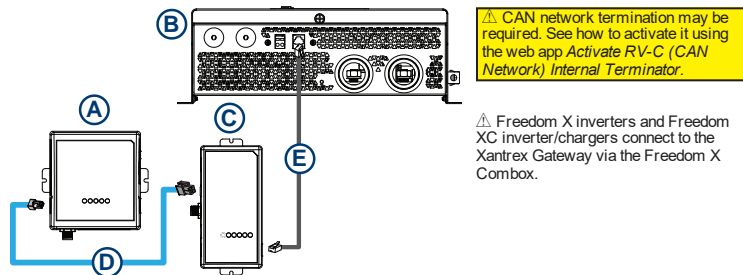
⚠ CAN network termination may be required. See how to activate it using the web app *Activate RV-C (CAN Network) Internal Terminator*.

⚠ Freedom X inverters and Freedom XC inverter/chargers connect to Xantrex Gateway via the Freedom X Combox.

A	Xantrex Gateway (PN: 808-1888)	D	RVC 4P-RJ45 (PN: 808-1889)
B	Freedom X (PN: 817-1000 817-2000 817-3000)	E	COMM CABLE RJ12 (PN: 31-6257-00)
C	Freedom X Combox (PN: 808-0822)		

Freedom XC Inverter/Charger

NOTE: Consult the Freedom XC Owner's Guide for electrical connections to batteries, AC source, and loads.



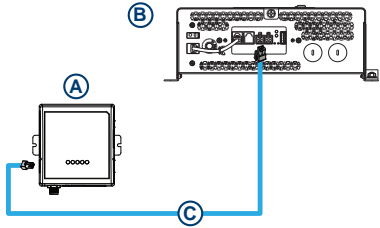
⚠ CAN network termination may be required. See how to activate it using the web app *Activate RV-C (CAN Network) Internal Terminator*.

⚠ Freedom X inverters and Freedom XC inverter/chargers connect to the Xantrex Gateway via the Freedom X Combox.

A	Xantrex Gateway (PN: 808-1888)	D	RVC 4P-RJ45 (PN: 808-1889)
B	Freedom XC (PN: 817-1050 817-2080)	E	COMM CABLE RJ12 (PN: 31-6257-00)
C	Freedom X Combox (PN: 808-0822)		

Freedom X PRO Inverter

NOTE: Consult the Freedom X PRO Owner's Guide for more information.

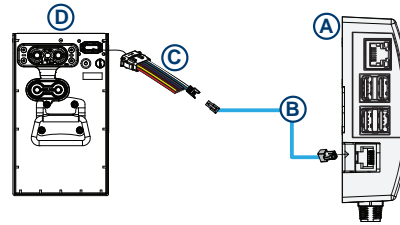


⚠ CAN network termination may be required. See how to activate it using the web app *Activate RV-C (CAN Network) Internal Terminator*.

A	Xantrex Gateway (PN: 808-1888)	C	RVC 4P-RJ45 (PN: 808-1889)
B	Freedom X PRO (PN: 806-1212-05)		

Xantrex Battery (884 Series)

NOTE: Consult the Xantrex Battery Owner's Guide for electrical connections.

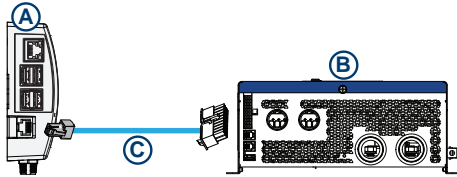


⚠ CAN network termination may be required. See how to activate it using the web app *Activate RV-C (CAN Network) Internal Terminator*.

A	Xantrex Gateway (PN: 808-1888)	C	DEUTSCH 12P (PN: 881-0262-12-02)
B	RVC 4P-RJ45 (PN: 808-1889)	D	Xantrex Battery (PNs: 884-0310-12/01 884-0410-12/01 884-0205-24/01 884-0100-51)

Freedom XC PRO Inverter/Charger

NOTE: Consult the Freedom XC PRO Owner's Guide for electrical connections to batteries, AC source, and loads.



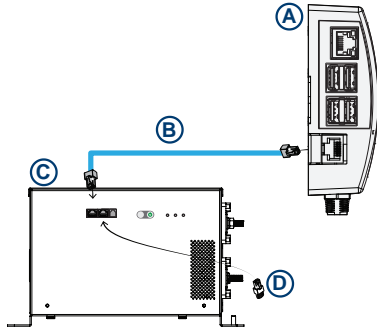
⚠ CAN network termination may be required. See how to activate it using the web app *Activate RV-C (CAN Network) Internal Terminator*.

A	Xantrex Gateway (PN: 808-1888)	C	RVC 20P-RJ45 (PN: 808-1892)
B	Freedom XC PRO inverter/charger (PNs: 818-2010 818-3010)		

Freedom SW Inverter/Charger

NOTE: Consult the Freedom SW Owner's Guide for electrical connections to batteries, AC source, and loads.

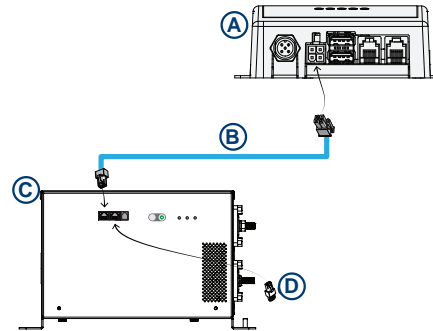
Option 1



⚠ A Network terminator (PN: 808-1895) may be required.

A	Xantrex Gateway (PN: 808-1888)	C	Freedom SW (PNs: 815-2012-03 815-3012-02)
B	RJ45 Ethernet Straight-through Cable	D	Network terminator (PN: 808-1895) (supplied with the Freedom SW)

Option 2



⚠ A Network terminator (PN: 808-1895) may be required.

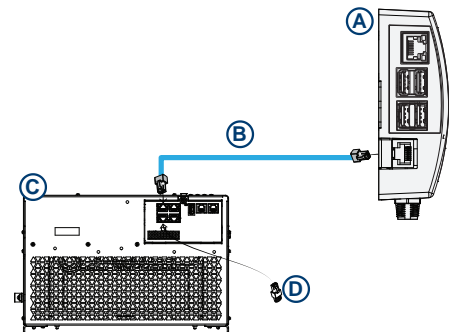
A	Xantrex Gateway (PN: 808-1888)	C	Freedom SW (PNs: 815-2012-03 815-3012-02)
B	RVC 4P-RJ45 (PN: 808-1889)	D	Network terminator (PN: 808-1895) (supplied with the Freedom SW)

Freedom EX Inverter/Charger

NOTE: Consult the Freedom EX 4000 Owner's Guide for electrical connections to batteries, AC source, and loads.

Option 1

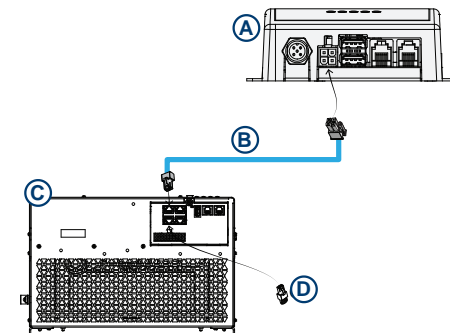
⚠ A Network terminator (PN: 808-1895) may be required.



A	Xantrex Gateway (PN: 808-1888)	C	Freedom EX 4000 (PN: 820-4080-41)
B	RJ45 Ethernet Straight-through Cable	D	Network terminator (PN: 808-1895) (supplied with the Freedom EX 4000)

Option 2

⚠ A Network terminator (PN: 808-1895) may be required.

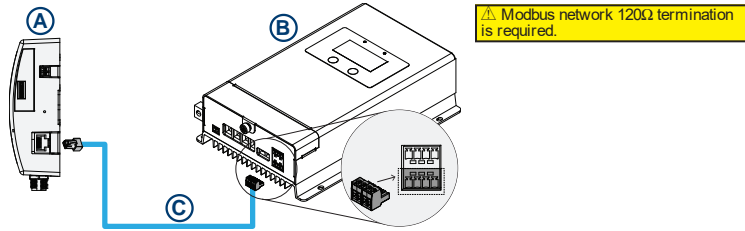


NOTE: For the Wake command to operate on the Xantrex Gateway a 12VDC power signal must be provided on pin 1 of the RJ45 connector. The 12VDC output of the Xantrex Gateway cannot be used for this purpose since it is turned off during Sleep state. See *Sleep & Wake Button* on page 43 for reference.

A	Xantrex Gateway (PN: 808-1888)	C	Freedom EX 4000 (PN: 820-4080-41)
B	RVC 4P-RJ45 (PN: 808-1889)	D	Network terminator (PN: 808-1895) (supplied with the Freedom EX 4000)

MPPT 30 Solar Charge Controller

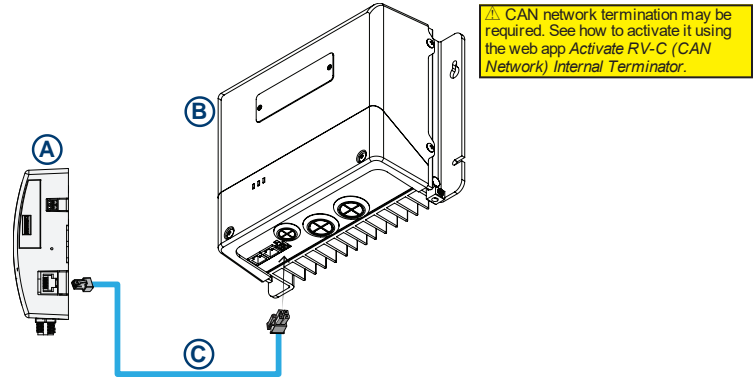
NOTE: Consult the Xantrex MPPT Charge Controller 30A Owner's Guide for electrical connections to batteries, solar panel, and loads.



A	Xantrex Gateway (PN: 808-1888)	C	MODBUS 4P-RJ45 (PN: 808-1890) ⚠️ Connect to the bottom row terminal only.
B	Xantrex MPPT Charge Controller 30A (PN: 710-3024-01)		

MPPT 60 Solar Charge Controller

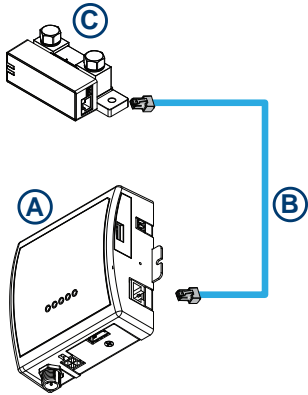
NOTE: Consult the Xantrex MPPT Charge Controller 60A Owner's Guide for electrical connections to batteries, solar panel, and loads.



A	Xantrex Gateway (PN: 808-1888)	C	RVC 4P-RJ45 (PN: 808-1889)
B	Xantrex MPPT Charge Controller 60A (PN: 710-6048-01)		

XanLink Battery Monitor

NOTE: Consult the XanLink Battery Monitor Owner's Guide for electrical connections to batteries and loads.

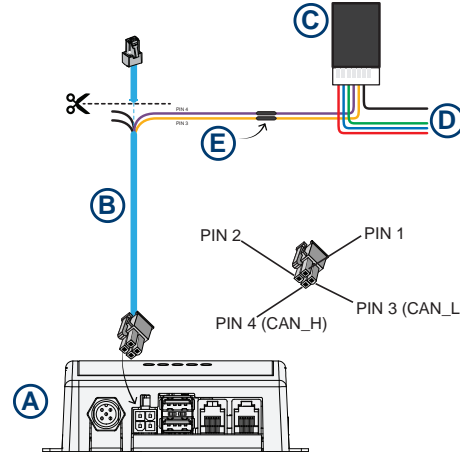


⚠ CAN network termination may be required. See how to activate it using the web app *Activate RV-C (CAN Network) Internal Terminator*.

A	Xantrex Gateway (PN: 808-1888)	C	XanLink Battery Monitor (PN: 854-2033)
B	XanLink RVC cable RJ45-RJ45 (PN: 854-2035)		

Tanks

NOTE: The SeeLevel™ Soul is a Data Link Module built for tank monitoring, designed to integrate with multiplex systems via an RV-C bus (a communication protocol common in recreational vehicles and vessels). For specific information about the Garnet Tank Monitor/s, go to [Garnet Instruments](#).

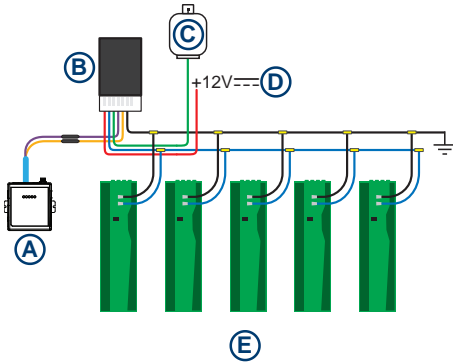


⚠ CAN network termination may be required. See how to activate it using the web app *Activate RV-C (CAN Network) Internal Terminator*.

Instructions for splicing B and C

1. Trim the cable (B) near the RJ45 connector.
2. Strip back the outer jacket to expose the internal conductors, then identify and isolate the wires that lead to pin 3 and pin 4.
3. Identify and isolate the yellow and purple wires of harness (C).
4. Splice the purple wire and pin 4 wire together (CAN_H) and splice the yellow wire and pin 3 wire together (CAN_L) using a splice method (E).

A	Xantrex Gateway (PN: 808-1888)	D	Connect to Garnet Tank Monitor/s
B	RVC 4P-RJ45 (PN: 808-1889)	E	Butt connector, inline splice connector, wire nut, electrical tape, or heat-shrink tubing
C	SeeLevel™ Soul (708-RVC-H Pigtail Harness)		



⚠ The following wiring diagram is for SeeLevel™ Soul (708-RVC-H Pigtail Harness)

Pigtail wire pins

1	Red	+12VDC power (D)
2	Blue	Tank senders (E)
3	Green	LPG (C)
4	Purple	CAN_H
5	Yellow	CAN_L
6	Black	Ground
7	--	

A	Xantrex Gateway (PN: 808-1888)	D	To +12VDC power source
B	SeeLevel™ Soul (708-RVC-H Pigtail Harness)	E	To Tank senders
C	To LPG Tank		A tank sender is a sensor device mounted on a tank to measure the level of liquid inside—typically water, wastewater, or LPG (liquefied petroleum gas) in RVs and vessels. It is the part that “sends” data about how full (or empty) the tank is to a monitoring system, like the SeeLevel Soul module, which then relays it to Xantrex Gateway.

3 INTERFACE INSTALLATION

This chapter explains how to set up and connect to the various Xantrex Gateway application interfaces. This chapter includes the following topics:

Wi-Fi Connection	22
Xantrex App Connection	23
Gateway Touchscreen	27
Web Application	28

Wi-Fi Connection

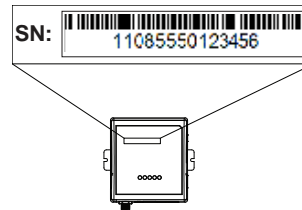
Requirement: To interact with this system, use a smart device such as an iPhone/iPad with iOS 11 or newer OR an Android phone/tablet with Android 7.0 or newer or a laptop computer.

Connect to the Xantrex Gateway Wi-Fi


1. Make sure that the Xantrex Gateway is powered. Observe the Power LED and be sure it is on.
2. Open your smart phone, tablet, or laptop and navigate to its Wi-Fi settings.



3. Search for the Xantrex Gateway SSID in the list of Wi-Fi networks.
SSID: "XGW1108550123456" where the digits of the serial number of your device is prefixed with XGW.



4. Enter the factory default password "**12345678**" and tap Join or Connect.
5. Once joined or connected to Xantrex Gateway, proceed to *Web Application on page 28*.

 Do not connect to guest Wi-Fi networks.

Xantrex App Connection

Requirement: To interact with this system, use a smart device such as an iPhone/iPad with iOS 11 or newer OR an Android phone/tablet with Android 7.0 or newer.

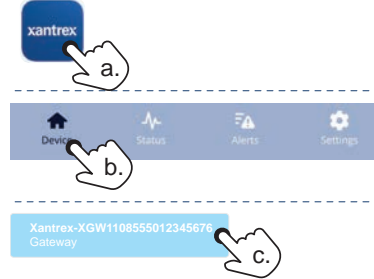
The Xantrex App is a smart device app that interfaces with the Xantrex Gateway via Bluetooth. You can operate Xantrex Gateway and any connected component. For full functionality and to take advantage of cloud capabilities you must connect the Xantrex Gateway to the internet. See below.

Connect Xantrex Gateway to the Internet

1. Make sure that Xantrex Gateway is powered. Observe the Power LED and be sure it is on.
2. Download the **Xantrex App** and install it on your smart device.

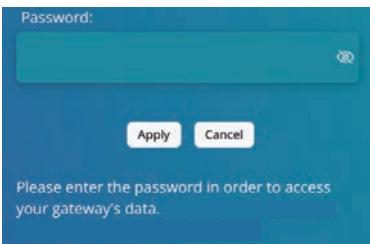
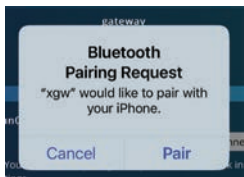


3. Connect to Gateway:



- a. Tap to launch the Xantrex App.
- b. Tap **Device** to search for available Bluetooth devices.
- c. Tap to select the Gateway.

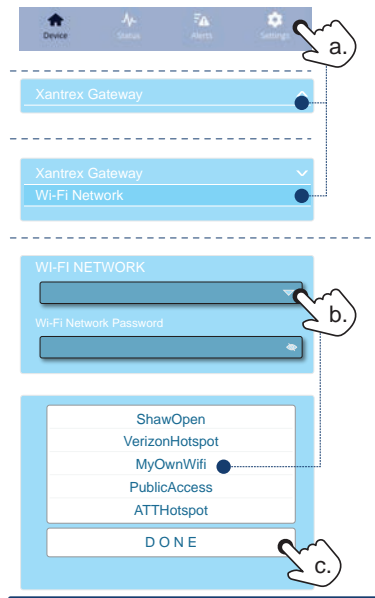
The following pairing request may show up on first connection.



- d. Tap **Pair**.
- e. When the Password is requested, enter the pairing code which is the last six digits of the serial number found on the Xantrex Gateway unit. Tap **Apply**.

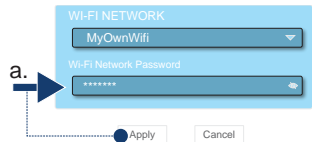


4. Connect to Wi-Fi:



- a. Tap **Settings** > **Xantrex Gateway** > **Wi-Fi Network**.
- b. Tap to pull down on **Wi-Fi NETWORK**, select your local network (for example, **MyOwnWifi**).
- c. Tap **DONE**.

5. Connect the app to Gateway.



a. Enter the Wi-Fi password for your network and tap **Apply**.

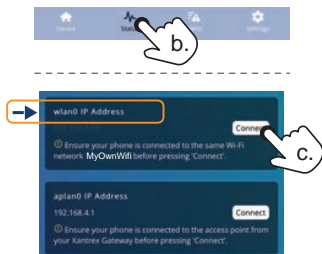
Your Gateway is now connected to the internet via your local router.

b. Tap **Status** in the navigation bar to connect the app to Gateway.

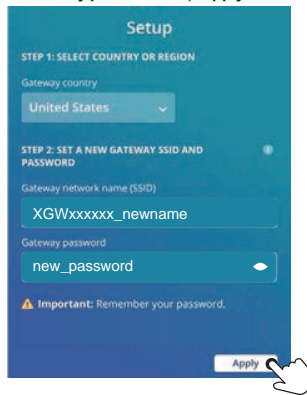
c. Tap **Connect** to wlan0 IP Address.

Make sure your smart device is on the same network.

Your smart device will find the Gateway at its new IP address and show the Gateway initial set up screen.



6. It is recommended to change the **Gateway country** (if applicable). For better security, change the default **SSID** and **Gateway password**. Tap **Apply**.



Connect to Xantrex Gateway through Xantrex App without a router

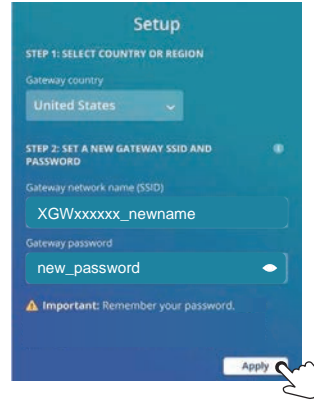
NOTE: On initial connection, accept any succeeding prompt that the internet is not available.

1. Go to your smart device's Wi-Fi settings, look for the **XGW11085550123456** SSID.
2. Connect to Gateway:



- a. Tap the **Xantrex App**.
- b. Tap **Gateway** device.
- c. Tap **Status**.
- d. Tap **Connect** to **aplan0 IP Address**.

3. For better security, change the default **SSID** and **Gateway password**. Tap **Apply**.



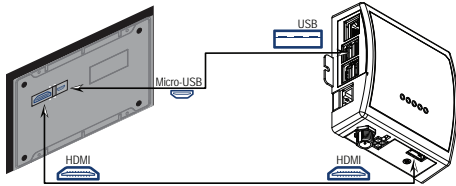
4. Reconnect to the new SSID from your smart device's Wi-Fi setting.
5. Repeat steps 1 and 2.

Gateway Touchscreen

Requirement: Gateway Touchscreen (PN: 808-0890)

Connect to Xantrex Gateway

1. Install the Gateway Touchscreen.
2. Using the cables that came with the Gateway Touchscreen, connect it to Xantrex Gateway.



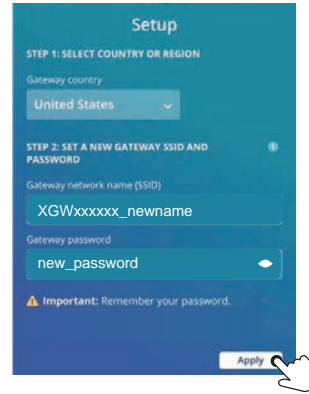
3. Follow the instructions on the initial set up screen of the Xantrex Gateway.



4. It is recommended to change the **Gateway country** (if applicable). For better security, change the default **Gateway password**.

In order to secure your Gateway from unauthorized access, change the Gateway password following the guidelines.

- a. Letters
- b. Numbers
- c. Up to eight (8) characters long
- d. May not contain quotation marks



5. Tap **Apply**.

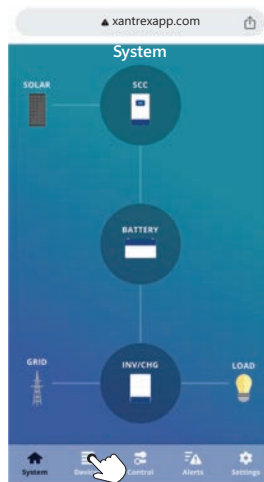
Web Application

Requirement: To interact with this system, use an iPhone/iPad with iOS 11 or newer, an Android phone/tablet with Android 7.0 or newer, or a laptop computer.

The *xantrexapp* web application is an HTML-based interface that enables seamless interaction with the Xantrex Gateway using any standard web browser. To get started, refer to *Wi-Fi Connection* on page 22.

Open the *xantrexapp* Web application

xantrexapp.com





1. Setup and connect to the Xantrex Gateway Wi-Fi hotspot. See *Wi-Fi Connection* on page 22.
2. Open the *xantrexapp* web application from your smart device or laptop by using a web browser to go to **xantrexapp.com** or by aiming the mobile device camera to the QR code above and tapping the link.
3. Upon initial set up, you will be prompted to change the password and give you a choice to bridge a Wi-Fi network with internet access. Bridging a Wi-Fi network with internet connection allows your smart device continuous access to the internet without losing the Wi-Fi connection to Xantrex Gateway.

NOTE: This System screen appears. Tap Devices to show the Xantrex Gateway as well as other devices that are connected through RV-C or a Modbus network.


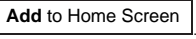
Create and add Web app icon on an iOS mobile device




1. From your iOS mobile device, open Safari and go to xantrexapp.com or aim the mobile device camera to the QR code on the left and tap the link.
2. Tap  from the bottom of the screen.
3. Tap .

Create and add Web app icon on an Android mobile device

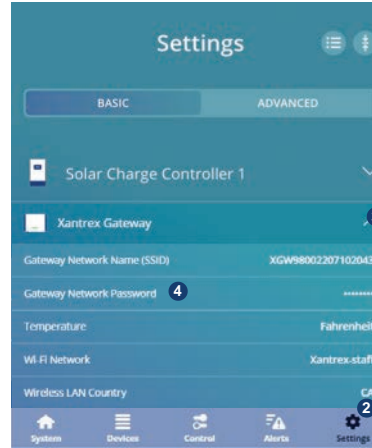


1. From your Android mobile device, open a web browser and go to xantrexapp.com or aim the mobile device camera to the same QR code on the left and tap the link.
2. Tap  from the upper right hand corner of the screen.
3. Tap .

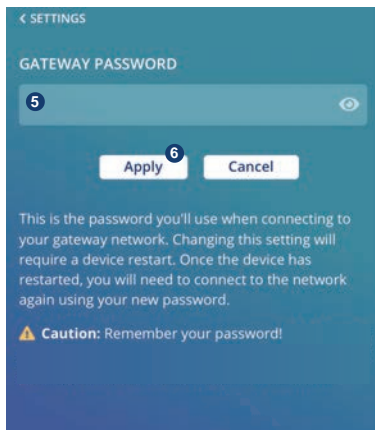
Access from a laptop

1. From your laptop's web browser, go to xantrexapp.com.
2. Press .

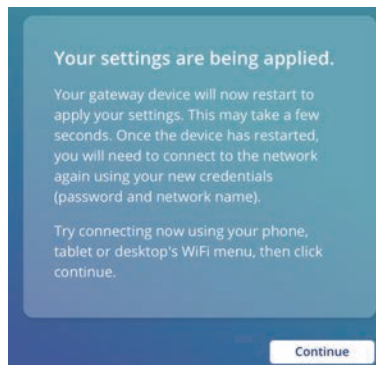
Change the Xantrex Gateway Wi-Fi password



1. Open the [xantrexapp](http://xantrexapp.com) web application from your smart phone, tablet, or laptop.
2. Tap **Settings**.
3. Tap **Xantrex Gateway**.
4. Tap **Gateway Password**.



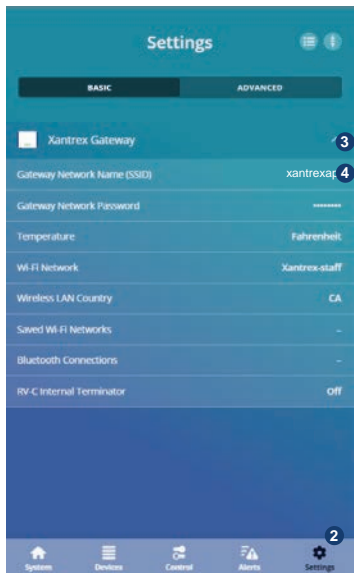
5. Enter the new **Gateway Password**.
6. Tap **Apply** to save the new password.



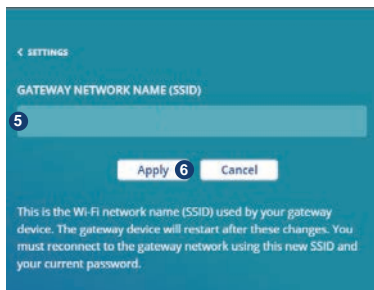
The succeeding dialog screen appears.

7. Return to the Wi-Fi settings of your smart phone, tablet, or laptop.
8. Re-connect with the Xantrex Gateway SSID and enter the new password.
9. Return to the **xantrexapp** web application.
10. The dialog screen in step 6 will have disappeared. If not, tap **Continue**.
11. Write down the new **Gateway Password** on a piece of paper to help you remember.

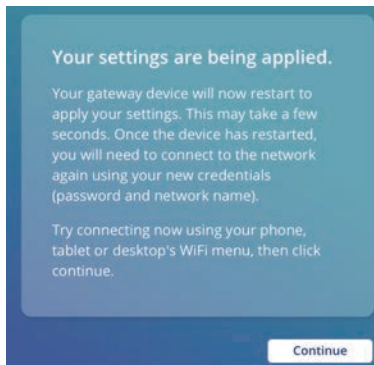
Change the Xantrex Gateway SSID



1. Open the *xantrexapp* web application from your smart phone, tablet, or laptop.
2. Tap **Settings**.
3. Tap **Xantrex Gateway**.
4. Tap **Gateway Network Name (SSID)**.



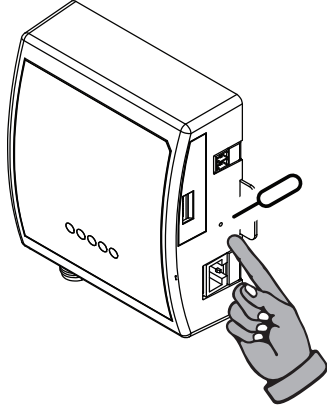
5. Enter the new **Gateway Network Name (SSID)**.
6. Tap **Apply** to save the new **SSID**.



The succeeding dialog screen appears.

7. Return to the Wi-Fi settings of your smart phone, tablet, or laptop.
8. Re-connect with the new Xantrex Gateway SSID and enter the password.
9. Return to the *xantrexapp* web application.
10. The dialog screen in step 6 will have disappeared. If not, tap **Continue**.
11. Write down the new **SSID** on a piece of paper to help you remember.

Reset to Factory Settings



This resets the Xantrex Gateway SSID and password including all customized settings to factory values.

⚠ ALL SETTINGS WILL BE RESTORED TO FACTORY VALUES. PROCEED WITH CAUTION.

Press and hold the pinhole reset button for more than five (5) seconds on the Xantrex Gateway as shown to restore the SSID and password to its factory values of SSID=***XGW123456***, where 123456 is the serial number of your device and Password=***12345678***.

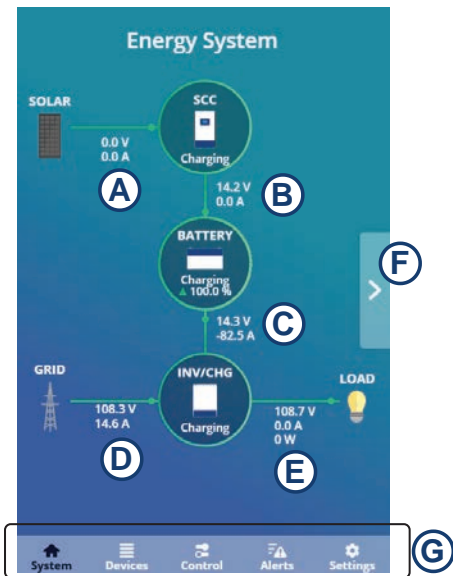
4 MONITORING

This chapter explains the Energy System Home screen which serves as the landing page for various monitoring operations using the Gateway Touchscreen or using the Xantrex web app from a smart device such as a smart phone or tablet. This chapter includes the following topics:

Energy System Home Screen	34
Devices Screen	35
Control Screen	37
Alerts	37

Energy System Home Screen

The Energy System Home screen provides a comprehensive overview of the electrical network within your power system. This screen captures the key components of a typical mobile power setup, including shore power (grid), a robust inverter/charger, solar panels (renewable energy), a battery storage system, and AC loads. Designed as a snapshot, the Energy System screen delivers an at-a-glance summary of system activity and essential data, allowing you to quickly assess the status and performance of your power network.



A	Displays the inflow of voltage (V) and current (A) from the solar panels to the Solar Charge Controller (SCC).
B	Displays the outflow of voltage (V) and current (A) from the Solar Charge Controller (SCC) to the Battery bank.
C	Displays the inflow/outflow of voltage (V) and current (A) from the Battery bank to/from Inverter/Chargers.
D	Displays the inflow of voltage (V) and current (A) from shore power (GRID) to the inverter/charger (INV/CHG).
E	Displays the outflow of voltage (V), current (A), and power (W) from the inverter/charger (INV/CHG) to the AC LOADS.
F	Tap to display the next screen. See <i>Tank Monitor</i> on page 35.
G	Major screen tabs. Tap each icon to display all other screens essential for monitoring (System , Devices , and Alerts), controlling (Control), and configuring (Settings) components including Xantrex Gateway.

A badge with a number appears when two or more devices are active and connected to the energy system. For example, when two inverter/chargers are connected, a badge with a number 2 appears (as shown below).

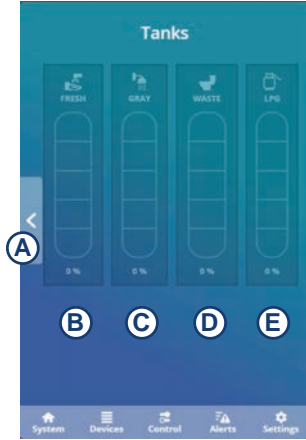


NOTE: If you tap any component group with a green ring, you will go to the **Devices** screen that shows the list of active components.

Tank Monitor

The Tank Monitor screen provides an at-a-glance summary of various sensor-monitored liquid or gas tanks, allowing you to quickly assess the remaining capacity of these materials.

For hardware and wiring information, see *Tanks on page 20*.



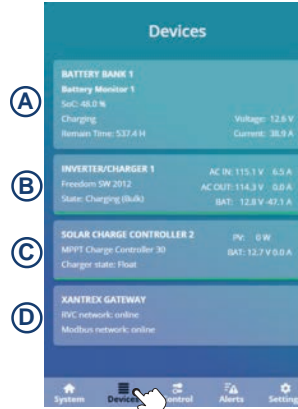
A	Tap to display the previous screen.
B	Displays remaining capacity (%) for FRESH water tank.
C	Displays remaining capacity (%) for GRAY water tank.
D	Displays remaining capacity (%) for WASTE water tank.
E	Displays remaining capacity (%) for LPG tank.

Devices Screen

The **Devices** screen provides a comprehensive overview of real-time metrics for each component in the energy system. This screen delivers an at-a-glance summary of component activity and essential data, allowing you to quickly assess the status and performance of your energy system. Only connected and active components will be displayed.

The following example shows four different components—battery, inverter/charger, solar, and Xantrex Gateway.

From any screen, tap **Devices**.



A	In this screen shot, BATTERY BANK 1 is monitored via the XanLink Battery Monitor. It displays the battery bank's SoC, status (Charging), Remain Time, Voltage, and Current.
B	INVERTER/CHARGER 1 is a Freedom SW 2012. It displays its State [Charging (Bulk)], AC IN, AC OUT, and BAT.
C	SOLAR CHARGE CONTROLLER 2 is an MPPT Charge Controller 30A. It displays the Charger state (FLOAT), PV, and BAT.
D	XANTREX GATEWAY displays the status of the RVC network and Modbus.

Status Screen

The **Status** screen provides a graphical overview of the component in relation to other components in the energy system. It has two tabs—**OVERVIEW** and **MONITOR**.

From the **Devices** screen, tap any component. In this example, Inverter/Charger 1 is tapped.



- A** The Overview tab displays an animated network diagram that shows how the component (in this example, Inverter/Charger 1) is connected to the other components and if there is activity between them. This tab is selected initially.
- B** The Monitor tab displays the outflow of voltage (V) and current (A) from the Solar Charge Controller (SCC) to the Battery bank.
- C** Animated network diagram
- B** The Monitor tab displays the outflow of voltage (V) and current (A) from the Solar Charge Controller (SCC) to the Battery bank.

From the **Status** screen, tap the **MONITOR** tab.



- A** In this Status screen example, the **MONITOR** tab shows general information about Inverter/Charger 1.
- B** This shows various settings about Inverter/Charger 1 that you can monitor in real-time.

Control Screen

The **Control** screen provides manual controls for important settings of components that are connected to the energy system.

From any screen, tap **Control**.



A In this example, **Inverter/Charger 1** displays two operational controls.

Inverter Mode	Off	Disables inverter function. The inverter will not output power to the loads. It will continue to charge the batteries if Charging is enabled.
	On	Enables inverter function. The inverter will output power to the loads assuming there is a power demand. It will continue to charge the batteries if Charging is enabled.
AC Breaker Rating	8A	Tap Change to modify the setting.

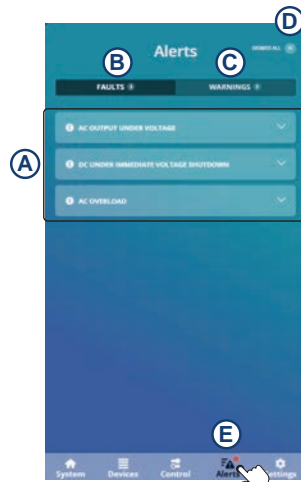
B **Xantrex Gateway** displays the current Wi-Fi network for internet access. Tap **Change** to modify the setting.

NOTE:
Other connected inverter/chargers or solar charge controllers will be displayed as appropriate with their own operational controls.

Alerts

The Alerts screen provides an at-a-glance summary of various faults and warnings detected by all connected components including system alerts detected by Xantrex Gateway. They disappear from this screen when the faults and warnings are resolved either automatically or manually on each corresponding component.

From any screen, tap **Alerts**.



A	Displays all alerts such as FAULTS and WARNINGS . Tap each alert to expand.
B	Displays all FAULTS according to Device. A badge with a number indicates how many are detected in the energy system. Tap to list all Faults.
C	Displays all WARNINGS according to Device. A badge with a number indicates how many are detected in the energy system. Tap to list all Warnings.
D	Tap to remove all alerts. Follow the prompts accordingly.
E	Tap to display the Alerts screen. A red dot (badge) shows there is at least one alert.

5 CONFIGURATION

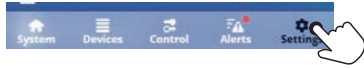
This chapter explains how to configure the Xantrex Gateway and its various features. It also presents a summary of settings that are available for each Xantrex component that may be connected to the Xantrex Gateway. This chapter includes the following topics:

Gateway Settings	39
Component Settings	47

Gateway Settings

IMPORTANT: This section shows settings applicable to the Xantrex Gateway only. See *Component Settings on page 47* to view available Settings for each compatible Xantrex component.

NOTE: Settings are also referred to as parameters.



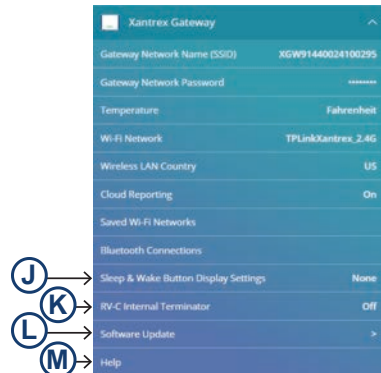
1. From any screen, tap **Settings**.
 2. Tap **Xantrex Gateway**.
- The **Xantrex Gateway Settings** screen appears below.

A	Xantrex Gateway Settings screen
B	Xantrex Gateway Network Name (SSID) . See <i>Web Application on page 28</i> for information on how to change the SSID.
C	Xantrex Gateway Password . See <i>Web Application on page 28</i> for information on how to change the password.
D	Temperature - Choose between Celsius or Fahrenheit. See <i>Temperature on page 41</i> for information.
E	Wi-Fi Network - If you want to be able to access the internet on a separate Wi-Fi network with your smart device without losing the capability to monitor and control your Xantrex components via Xantrex Gateway, select a Wi-Fi network that has an internet connection from the list and enter its SSID and password. See <i>Wi-Fi Network on page 41</i> for information.

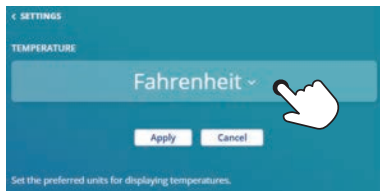


F	Wireless LAN Country - Set to the appropriate country where the Wi-Fi network is available. See <i>Wireless LAN Country</i> on page 41 for information.
G	Cloud Reporting - Reserved for future use.
H	Saved Wi-Fi Networks - Lists all available networks that have been previously saved. Choose manually to connect. See <i>Saved Wi-Fi Networks</i> on page 41 for information.
I	Bluetooth Connections - Choose a smart device to unpair from Xantrex Gateway, if you wish to reset the Bluetooth pairing between the two devices. Your smart device will disappear from the list if it has been unpaired. See <i>Bluetooth Connections</i> on page 41 for information. Please exit Xantrex App and unpair Xantrex Gateway from your smart device first in order to reset its Bluetooth pairing properly with Xantrex Gateway.
NOTE: You may retain the factory set SSID. The only functional reasons to change it are if you have multiple Xantrex Gateway networks nearby and to improve security.	

J	Sleep & Wake Button Display Settings - Select to show or hide the Sleep and Wake buttons on the System Screen. See <i>Sleep & Wake Button</i> on page 43.
K	RV-C Internal Terminator - Set to On to use the internal terminator inside Xantrex Gateway for the RV-C network. See <i>Activate RV-C (CAN Network) Internal Terminator</i> on page 44.
--	Screen Orientation - This setting only shows up with the Gateway Touchscreen. Allows you to choose either Landscape or Portrait. When using a smart device, screen orientation changes depending on how you hold your smart device.
L	Software Update - Check for a newer software version and download it from the Xantrex servers for improved performance and added features. See <i>Upgrade the Xantrex Gateway Software</i> on page 45.
M	Help - Shows a QR code that, when scanned, will link to the online Xantrex Gateway Owner's Guide. See <i>Help</i> on page 42 for information.

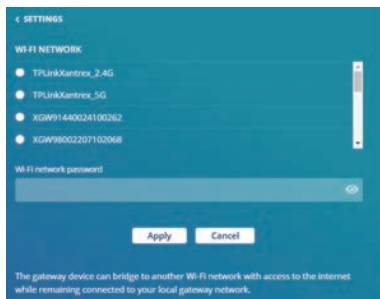


Temperature



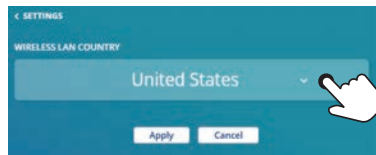
1. From the **Xantrex Gateway Settings** screen, tap **Temperature**.
2. Tap the **Temperature** pulldown menu (as shown).
3. Select **Celsius** or **Fahrenheit**.
4. Tap **Apply** to save your setting. Tap **Cancel** to ignore the changes.

Wi-Fi Network



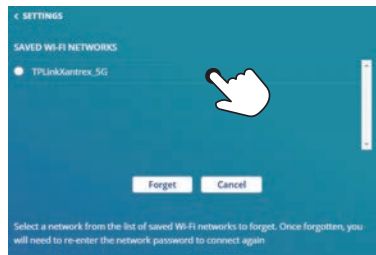
1. From the **Xantrex Gateway Settings** screen, tap **Wi-Fi Network**.
2. Select the appropriate **WI-FI NETWORK** from the list.
3. Enter the **Wi-Fi network password**.
4. Tap **Apply** to save your setting. Tap **Cancel** to ignore the changes.

Wireless LAN Country



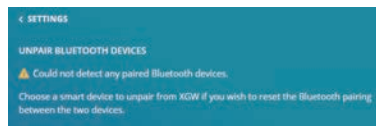
1. From the **Xantrex Gateway Settings** screen, tap **Wireless LAN Country**.
2. Tap the pulldown menu (as shown).
3. Select the country of choice.
4. Tap **Apply** to save your setting. Tap **Cancel** to ignore the changes.

Saved Wi-Fi Networks



1. From the **Xantrex Gateway Settings** screen, tap **Saved Wi-Fi Networks**.
2. Select a network from the list of saved Wi-Fi networks to forget. Once forgotten, you will need to re-enter the network password to connect again.
3. Tap **Forget** to save your setting. Tap **Cancel** to ignore the changes.

Bluetooth Connections



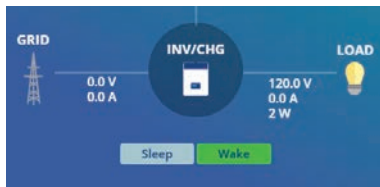
1. From the **Xantrex Gateway Settings** screen, tap **Bluetooth Connections**.
2. Select a Bluetooth device. Choose a smart device to unpair from XGW if you wish to reset the Bluetooth pairing between the two devices.
3. Tap **Unpair** to save your setting. Tap **Cancel** to ignore the changes.

Help



From the **Xantrex Gateway Settings** screen, tap **Help**.

Sleep & Wake Button

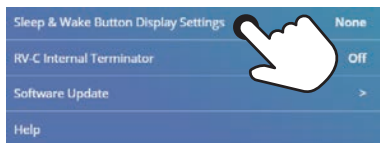


NOTE: The Sleep/Wake feature only supports Freedom X PRO, Freedom XC PRO, and Freedom EX 4000. Configuration is required to support this function. See succeeding sections about each component.

The buttons will not be shown on the Energy System screen if none of these components are in the system.

When the "Sleep" button is activated, it transmits a CANbus command to the inverter or inverter/charger, instructing it to switch to low-power mode. In this state, the inverter ceases to invert and draws minimal power. However, the inverter's communication system remains active, allowing a corresponding CANbus signal from the Gateway to "Wake" the inverter as needed.

Displaying the Sleep & Wake Buttons



1. Go to **Settings**.
2. Tap **Sleep & Wake Button Display Settings**.
3. Tap **Show** to enable the buttons on the System screen.

Putting Inverter/Chargers into Sleep Mode

1. Go to the **System** screen.
2. Tap the **Sleep** button. A pop-up window will appear; tap **Apply** to confirm.
3. Wait approximately 7 seconds for the units to enter sleep mode.

Waking Up Inverter/Chargers

⚠ Wait at least 1 minute before sending the wake command after sleep mode is activated.

1. Tap the **Wake** button to send the wake command.
2. Wait approximately 30 seconds for the inverter/charger (for example, Freedom EX) to wake up and fully communicate. For other models, wait approximately 50 seconds.

NOTE

- When Using Wake command, do not click the Wake button more than once while waiting for the unit to wake up.
- Multiple clicks may cause communication issues by resetting the RV-C network.

Freedom XC PRO Sleep/Wake Configuration

Follow the steps below to prepare the inverter to sleep and wake on command:

1. Generate a Configuration File
 - Insert a USB drive into the USB port of a powered-on Freedom XC PRO.
 - Wait as the unit automatically creates a folder on the USB drive containing log files and the configuration file.
 - After 30 seconds, safely remove the USB drive.
2. Modify the Configuration File
 - Connect the USB drive to a computer.
 - Locate and open the `fxcc_user_cfg.yaml` file using a text editor.
 - Verify or update the **PartialNetworking** section to include these critical settings:
 - **Enable: true** (ensures **PartialNetworking** is activated).
 - **WakeMask: 0xFFFFFFFF00** (sets the wake mask value).
 - If these settings are missing or incorrect, add or edit them accordingly.
3. Save the Modified Configuration
 - On the USB drive, create a new folder named **FreedomX_Config**.
 - Copy the modified `fxcc_user_cfg.yaml` file into the **FreedomX_Config** folder.
 - Safely eject the USB drive from the computer.
4. Load the Configuration into the Inverter/Charger
 - Insert the USB drive into the same Freedom XC PRO's USB port.
 - The unit will automatically begin loading the new configuration from the **FreedomX_Config** folder.
 - Wait at least 1 minute and 30 seconds, or until the LED near the USB port turns off, indicating the process is complete.
 - Remove the USB drive. The inverter/charger should now operate with the updated configuration.

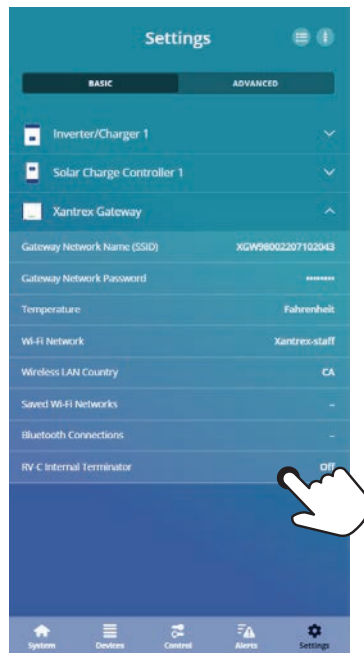
Freedom EX 4000 Sleep/Wake Configuration

Follow the steps below to prepare the inverter to sleep and wake on command:

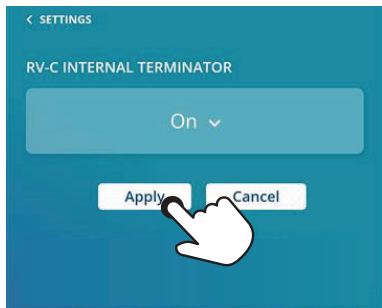
1. Generate a Configuration File
 - Insert a USB drive into the USB port of a powered-on Freedom EX 4000.
 - Wait as the unit automatically creates a folder on the USB drive containing log files and the configuration file.
 - After 30 seconds, safely remove the USB drive.
2. Modify the Configuration File
 - Connect the USB drive to a computer.
 - Locate and open the `fx4k_user_cfg.yaml` file using a text editor.
 - Verify or update the **PartialNetworking** section to include these critical settings:
 - **PartialNetworkingEnable: true** (activates **PartialNetworking**).
 - **PartialNetworkingDataEnable: false** (disables data-specific networking).
 - **PartialNetworkingWakeld: 0x00008FFD** (sets the wake ID value).
 - If these settings are missing or incorrect, add or edit them as needed.
3. Save the Modified Configuration
 - On the USB drive, create a new folder named **Freedom4K_Config**.
 - Copy the modified `fx4k_user_cfg.yaml` file into the **Freedom4K_Config** folder.
 - Safely eject the USB drive from the computer.
4. Load the Configuration into the Inverter/Charger
 - Insert the USB drive into the same Freedom EX 4000's USB port.
 - The unit will automatically begin loading the new configuration from the **Freedom4K_Config** folder.
 - Wait at least 10 seconds, or until the LED near the USB port turns off, indicating the process is complete.
 - Remove the USB drive. The inverter/charger should now operate with the updated configuration.

Activate RV-C (CAN Network) Internal Terminator

IMPORTANT: The two RV-C CANbus ports—specifically the RJ45 and the 4-pin Molex®-style connectors—are wired in parallel. As a result, the termination resistor impacts both ports simultaneously, influencing their operation as a unified system.



1. Select Xantrex Gateway from the Device list.
2. Tap **RV-C Internal Terminator**.
3. Select **On**.



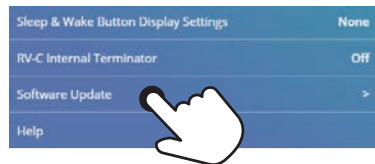
4. Tap Apply.

Upgrade the Xantrex Gateway Software

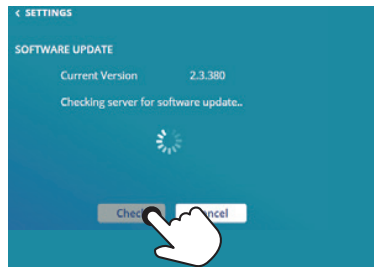
⚠ To upgrade the software, make sure that you have access to the internet when using any of the following interfaces: **Xantrex App**, **Web application**, or **Gateway Touchscreen**.

NOTE: No configurations will be lost when updating the software for the Xantrex Gateway.

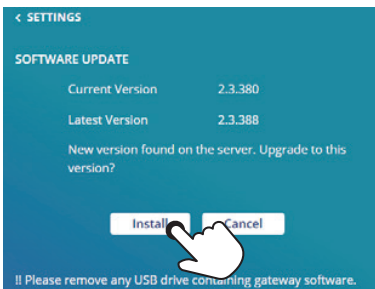
1. Go to **Settings**.
2. Tap **Xantrex Gateway**.
3. Tap **Software Update**.



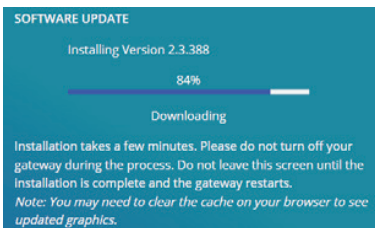
4. Tap **Check**.



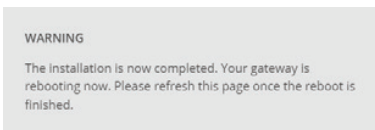
If Xantrex Gateway is connected to the internet and new software is available, the following screen shows up.



5. Tap **Install**.

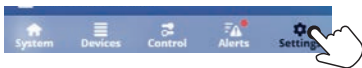


Wait until the update is complete.



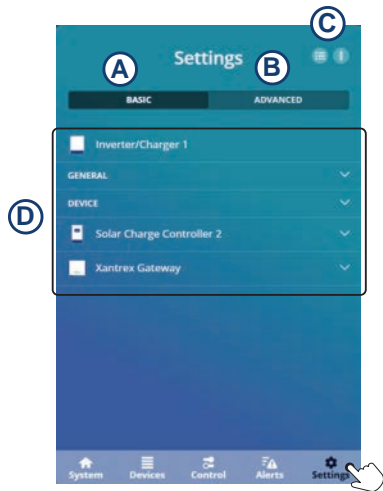
Component Settings

IMPORTANT: This section shows a subset of the settings that are available for that component when accessed using its remote panel. Note that not all settings can be configured from the Xantrex Gateway.



From any screen, tap **Settings**.

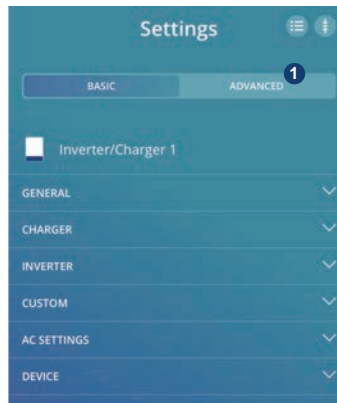
A	Basic settings for each of the components including the Xantrex Gateway.
B	Advanced settings for each of the components including the Xantrex Gateway.
C	Expand/Collapse. Tap Expand (left icon) to list all available settings for all the components displayed below. Tap Collapse (right icon) to hide the settings for all the components displayed below.
D	Displays the components including the Xantrex Gateway.



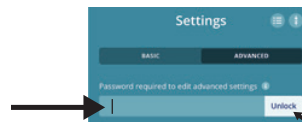
Changing Advanced Settings

NOTE: Each energy system component will have its own set of configurable settings.

BASIC appears on the left tab of the Settings screen. These settings do not require a password before you are able to change them. ADVANCED appears on the right tab of the Settings screen. For these settings, you need to enter the password.

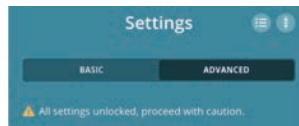


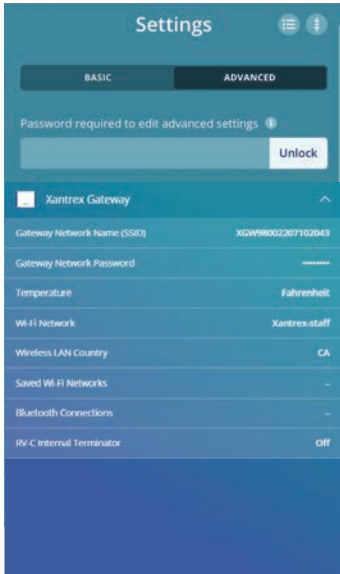
1. Tap the **Advanced** tab.



2. Enter the password **be careful** at the top of the screen.

3. Tap **Unlock** to gain access to Advanced settings.





4. Modify the setting/s you want to change.

NOTE: Leaving the Advanced screen and then coming back to it later on requires you to do step 2 again.

Inverter Charger (Freedom SW series)

NOTE: These settings reflect the most current version as of this date. Depending on your setup, some settings listed here may not appear, or additional settings might be present. To ensure you have the latest features, upgrade to the current software version. See *Upgrade the Xantrex Gateway Software on page 45*.

For details about each setting refer to the Owner's Guide for the Freedom SW.

Basic

Settings	
BASIC	ADVANCED
Inverter/Charger 1	
GENERAL	
Inverter Enable	Off
Search Mode	Off
AC Breaker Rating	30 A
Charger Enable	On
Force Charge	Undefined
Start Equalize Charging	
DEVICE	
Operating Mode	Operating
Clear Faults And Warnings	
Restore Default Settings	

Advanced

Settings	
BASIC	ADVANCED
Password required to edit advanced settings: <input type="password"/> Unlock	
Inverter/Charger 1	
GENERAL	
Inverter Enable	Off
Search Mode	Off
AC Breaker Rating	30 A
Charger Enable	On
Force Charge	Undefined
Start Equalize Charging	
CHARGER	
Battery Type	Flooded
Battery Capacity	250 AH
Maximum Charge Current As Percent	100.0 %
Charge Cycle	3 Stage
Charger Mode	Primary

Recharge Voltage	12.5 V
Absorption Time	480 Min
Default Battery Temperature	Warm (25 deg C)
INVERTER	
Low Battery Cutout (LBCO)	10.5 V
LBCO Delay	10.0 s
High Battery Cutout	16.5 V
Search Threshold	50 W
Search Delay	5.0 s
CUSTOM	
Equalization Voltage	15.5 V
Custom Bulk Voltage	14.4 V
Absorption Voltage	14.4 V
Float Voltage	13.5 V
AC SETTINGS	
AC Low Voltage Cutout	95 V
AC High Voltage Cutout	135 V
AC Low Frequency Cutout	55 Hz
AC High Frequency Cutout	65 Hz

Gen Support Enable	Off
Generator Support Current	24.0 A
MULTI-UNIT CONFIGURATION	
Device Number	1
Device Address	66
Stacking Mode	Master
AC Input Association	Shore1
AC Output Association	AC Load1
Battery Association	Secondary House Battery Bank
DEVICE	
Operating Mode	Operating
Clear Faults And Warnings	
Restore Default Settings	

Inverter (Freedom X series)

NOTE: These settings reflect the most current version as of this date. Depending on your setup, some settings listed here may not appear, or additional settings might be present. To ensure you have the latest features, upgrade to the current software version. See *Upgrade the Xantrex Gateway Software on page 45*.

For details about each setting refer to the Owner's Guide for the Freedom X.

Basic

The screenshot shows the 'Settings' application interface. At the top, there are two tabs: 'BASIC' (selected) and 'ADVANCED'. Below the tabs is a header for 'Inverter/Charger 1'. The main area contains a list of settings with their current values. At the bottom, there is a navigation bar with icons for System, Devices, Control, Alerts, and Settings.

Setting	Value
Audible Alarm	Off
Inverter Fault Recovery	Manual
Inverter Ignition Control	Off
Inverter Enable	On
Inverter Output Frequency	60 Hz
Inverter Output Power Limit	2000 W
Inverter Output Power Limit Timer	300.0 s
LBCO Delay	300.0 s
Power Save Time	6 h
Search Mode	Off
Transfer Mode	Off
Utility AC Under Voltage Level	90 V

Advanced

The screenshot shows the 'Advanced' tab for 'Inverter/Charger 1'. It displays a list of settings with their current values.

Setting	Value
Audible Alarm	Off
Inverter Fault Recovery	Manual
Inverter Ignition Control	Off
Inverter Enable	On
Inverter Output Frequency	60 Hz
Inverter Output Power Limit	2000 W
Inverter Output Power Limit Timer	300.0 s
Inverter Output Voltage	120 V
LBCO Delay	300.0 s
LBCO Recovery Voltage	26.2 V
Low Battery Cutoff (LBCO)	21.0 V
Power Save Time	6 h
Restore Default Settings	
Search Mode	Off
Transfer Mode	Off
Utility AC Under Voltage Level	90 V

Solar Charge Controller (MPPT 30A)

NOTE: These settings reflect the most current version as of this date. Depending on your setup, some settings listed here may not appear, or additional settings might be present. To ensure you have the latest features, upgrade to the current software version. See *Upgrade the Xantrex Gateway Software on page 45*.

For details about each setting refer to the Owner's Guide for the MPPT 30A.

Basic

Solar Charge Controller 1	
Backlight Time	60 s
* Equalize Time	0 Min
Reset PV Harvest	

Advanced

Solar Charge Controller 1	
Backlight Time	60 s
Battery Type	Lithium-Iron-Phosphate
Battery Rated Voltage Level	12 V
Max Charging Voltage	16.0 V
Recharge Voltage	13.2 V
* Absorption Time	30 minutes
Maximum Charge Voltage	15.0 V
* Temperature Compensation Coeff <i>MV/C/2V</i>	3.0
Absorption Voltage	14.4 V
Equalization Voltage	14.0 V
Float Voltage	14.0 V
* Equalize Time	0 Min
Over-Voltage Fault Recovery	15.0 V
Reset PV Harvest	
Restore Default Settings	
Device Number	1

Solar Charge Controller (MPPT 60A)

NOTE: These settings reflect the most current version as of this date. Depending on your setup, some settings listed here may not appear, or additional settings might be present. To ensure you have the latest features, upgrade to the current software version. See *Upgrade the Xantrex Gateway Software on page 45*.

For details about each setting refer to the Owner's Guide for the MPPT 60A.

Basic

Solar Charge Controller 1	
Max Charging Voltage	15.8 V
Low Battery Cut Off Voltage	10.6 V
Re-Bulk Voltage	13.2 V
Maximum Charge Current	41 A
Custom Bulk Voltage	14.4 V
Float Voltage	13.0 V

Advanced

Solar Charge Controller 1	
Battery Type	Custom
Max Charging Voltage	15.8 V
Low Battery Cut Off Voltage	10.6 V
Re-Bulk Voltage	13.2 V
Maximum Charge Current	41 A
Temperature Compensation Factor	-3 mV/degC
Custom Bulk Voltage	14.4 V
Equalization Voltage	14.4 V
Float Voltage	13.0 V

6 TROUBLESHOOTING

This section will help you narrow down the source of any problem you encounter. This chapter includes the following topics:

Troubleshooting	54
Maintenance	56

Troubleshooting

Problem	Cause	Solution
Xantrex Gateway's Power LED indicator is not lit up.	Xantrex Gateway is not receiving power.	<ol style="list-style-type: none"> 1. Check that Xantrex Gateway is connected to a DC power source (9-58V$\overline{\text{---}}$). 2. Check inline fuses, if installed on the power connection. 3. Check connectors to make sure they are seated properly.
The Xantrex Gateway's Wi-Fi SSID is not showing up in the network list of the smart phone or tablet.	The Xantrex Gateway is not receiving power.	Follow steps above.
	The smart device or laptop is geographically too far from Xantrex Gateway.	Stay within the standard Wi-Fi range of 75 ft (~25m).
The web app [xantrexapp.com] is displaying 1-DNS problem;2-Not same subnet	The smart device or laptop was disconnected from the Xantrex Gateway's Wi-Fi network.	<p>Reconnect to Xantrex Gateway's Wi-Fi network.</p> <p>Stay within the standard Wi-Fi range of 75 ft (~25m).</p>
The auxiliary RV-C device is not showing on the device list of the web app.	The connectors on the communication cable are loose or disconnected.	<p>Check that each cable connector is seated securely in the port.</p> <p>Check also if a network terminator is installed or activated internally (see <i>Activate RV-C (CAN Network) Internal Terminator on page 44</i>).</p> <p>Fix and fasten any loose wiring.</p>

Problem	Cause	Solution
Xantrex Gateway has power but connected devices are not showing on the device list of the web app.	<p>The connected devices may not be turned on or are not receiving their own power.</p> <p>RV-C failure</p>	<ol style="list-style-type: none"> 1. Make sure the device is powered and its cable connections are secure. 2. Check if the device has a physical on/off switch. Turn on the physical switch, if there is one. 3. Remove the device from Xantrex Gateway and reconnect.
The Xantrex App cannot pair with Xantrex Gateway.	The Bluetooth server is not synchronized with the smart device.	Unpair the Xantrex App from the smart phone/tablet. Close all open apps on the smart phone/tablet. Redo the pairing process. See <i>Temperature on page 41</i> for information.
Connected devices are showing with <code>node_xxx</code> in their device names.	Device instances are duplicated in multiple units.	Configure to a unique instance number.

Maintenance

CAUTION

ELECTRICAL SHOCK HAZARD

Do not disassemble Xantrex Gateway. It does not contain any user-serviceable parts.

Failure to follow these instructions can result in injury or equipment damage.

- Make sure Xantrex Gateway remains in a dry environment.
- Clean up any accumulated dust or dirt on the unit.
- Check all the wires and cables for insulation damaged. Repair or replace, if necessary.
- Tighten all terminal connections. Inspect for loose or broken wire connections.
- Confirm that all terminals are free from corrosion

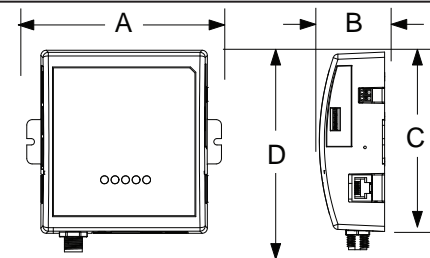
7 SPECIFICATIONS

NOTE: Specifications are subject to change without prior notice. This chapter includes the following topics:

Physical Specifications	57
Electrical Specifications	58
Regulatory	58

Physical Specifications

A - 4.2 in. (107mm) with flanges
 B - 1.4 in. (37mm)
 C - 3.7 in. (95mm)
 D - 4.1 in. (105mm) including port



Weight	0.5 lb (227 g)
Housing / Mounting System	ABS Plastic, Wall-mount: 2-screw
IP rating / Mounting Location	IP 20, NEMA Type 1, Indoor only
Status Display	5 x LEDs
Temperature	Operating: -4 to 122°F (-20 to 50°C) Storage: -40 to 185°F (-40 to 85°C)
Humidity	Operating: < 95%, non-condensing Storage: < 95%, non-condensing

Electrical Specifications

Power supply	
Battery terminal	Power input: 7W typical \pm without external USB loads Connector: 2 pins, 16-24 AWG
Communication interfaces	
RJ-45 port (same side as the battery terminal)	RS-485 Modbus
RJ-45 port (left hand panel)	RV-C CANbus
RV-C port	RV-C CANbus terminal requires a connector with 4-terminals, 16-24AWG, pin assignments to match port assignments.
NMEA 2000	NMEA 2000 (Micro-C) terminal requires matching female connector ⚠. Reserved for future use.
Data Interface Micro SDHC/XC	Micro SDHC/XC 2GB-2TB, FAT32/exFAT. Data and program storage.

Regulatory

North America (US, CA)				
EMI	CFR 47 (FCC) Part 15B, Class B			
	ISED Canada ICES-003, Class B			
RF	CFR 47 (FCC) Part 15C, FCC ID: 2ABCB-PR14B			
	ISED Canada RF, IC: 20953-RP14B			
European Union (EU)				
Type	Regulations		Test Standard	Description
E-mark	UN/EU Regulation		ECE R10.06	Automotive EMC – Regulation 10 - EMC emissions & transients
	Automotive EMC Standard		EN 50498	Automotive Electromagnetic Compatibility (EMC) – Emissions and immunity
European Union (EU)				
Type	Regulations		Test Standard	Description
CE Marking	Radio Equipment Directive 2014 / 53 / EU	EMC Directive 2014 / 30 / EU	EN 55032, Class B	Electromagnetic Emission
			EN 55035	Electromagnetic Immunity
		Low Voltage Directive 2014 / 35 / EU	EN/IEC 62368-1	Communication technology equipment Safety
		Radio Frequency Spectrum	EN 300328	Data transmission
	RoHS"3" Directive 2011 / 65 / EU and 2015 / 863 / EU		EN 62311	Human exposure
			EN 63000	Environmental

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new Password: _____

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