

Lithionics Battery

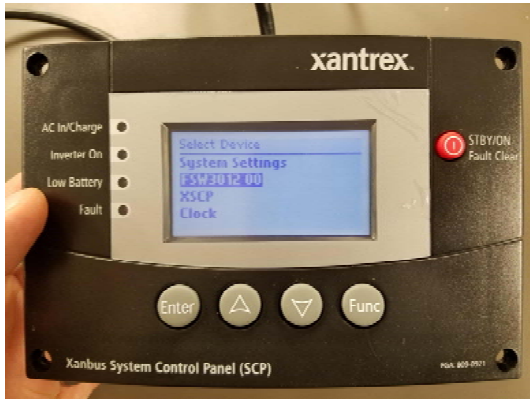
Xantrex SW3012 Programming Guide

Rev. 0 ©2017 Lithionics Battery

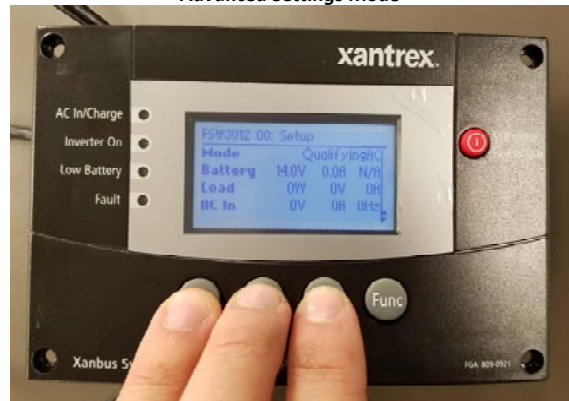


DESCRIPTION: The scope of this document is to provide tested and approved settings for the Xantrex SW3012 using a Lithionics Battery 12.8V LiFePO4 battery system. Firmware version “**3.08.00 BN 9**” **must** be used which was specifically developed with Xantrex for the SW3012 to work with the more powerful and much lower internal resistance Lithionics Battery products. Please refer to the SW3012 Owners Guide for further information on how to install and operate your SW3012 especially the section “Configuring the Freedom SW using the SCP” Page 33.

1. Using the SCP display/interface select your SW3012



2. Press the Enter, Up and Down arrow together to enter *Advanced Settings Mode*



3. Once *Advanced Settings Mode* has been enabled enter the following settings into their respective menus

Inverter Settings			
	Low Batt Cut Out	12.1V*	
	LBCO Delay	10Sec	
	High Batt Cut Out	15.2V	
Charger Settings			
	Batt Type	Custom	
	Custom Settings	Eqlz Support	Disabled
		Bulk Voltage	14.6V
		Absorb Voltage	14.6V
		Float Voltage	13.4V
	Batt Capacity	[Enter Ah of Your System]	
	Max Charge Rate	100%	
	Charge Cycle	3 Stage	
	Default Batt Temp	Warm**	
	Recharge Volts	12.4V***	
	Absorb Time	30min****	
	Auto Charge Enable	Enabled	

*Use 12.1V for systems which have "RVC" Enabled in the Lithionics Battery Management System. For systems with "RVC" Disabled this can be set lower between 11.2V – 12.0V which will allow a lower depth of discharge.

** Do NOT use the Xantrex battery temperature sensor as it is not needed with the Lithionics Battery LiFePO4 battery system.

*** This is the recommended setting but should be adjusted depending on the installation site's intended usage pattern.

Ex. 1 - Grid-Tie Home/Building UPS would use a higher recharge voltage (ex. 13.3V) to ensure the battery is fully charged and ready for when Grid power is lost.

Ex. 2 – Off-Grid Solar System where energy from the battery is stored during the day and then intentionally consumed during the night will use a lower recharge voltage setting (ex. 12.0 – 12.4V).

**** 30min setting is the recommended starting point but it may need to be reduced/increased due to varying Ah capacity sizes of different Lithionics Battery LiFePO4 battery systems. This can be determined experimentally by monitoring the absorb stage of charging cycle. Ideally absorb time should end when charging amperage is at 1/30th the capacity of the system or less.

Example: System is a 12V 600Ah, absorb time should end when amperage reduces to 600Ah/30 = 20A. So by watching the absorb cycle and timing it, when the charging amperage naturally reduces to 20A at this time point in minutes is what the absorb time should be set to.