

# Quick Tips for Programming EPsolar and Victron Controllers

## Programming the EPsolar MPPT Tracer BN or Xtra-N Series Solar Controller using the MT50 Remote Meter

The key parameters to program on this display are the **battery type, the battery bank amp hours, the date and the time**. Other parameters such as length of time the back light is on, can be found in the manual.

1. Esc left most button
2. Down to 4. Control Para
3. OK right most button
4. OK skip password
5. UP, DOWN to battery type See note at bottom for LiFePO4 batteries
6. RIGHT to Battery Amp Hours
7. UP,DOWN on each digit
8. OK Save
9. OK Save success message
10. Esc to Menu
11. DOWN to 6. Device Para
12. OK
13. DOWN to Backlight and Date
14. OK to set
15. RIGHT to Date and Time
16. UP,DOWN to set
17. RIGHT to next digit
18. OK Save
19. OK Save success message
20. Esc to Menu
21. OK 1. Monitoring
22. UP,DOWN for monitoring pages (first page with graphics and page with Watt Hrs are most used)

## Programming the EPsolar MPPT Xtra-N Series Solar Controller using the Built-in Meter (Advanced Display Unit XDS2)

The key parameters to program on this controller are the **battery type, the battery bank amp hours (capacity), and the temperature units**. Other parameters such as length of time the back light is on, can be found in the manual.

**Note: Li Battery Types** - The optional BLE Bluetooth module and Bluetooth app or the optional computer cable and computer app are necessary to program the Xtra-N controller for Li and LiFePO4

battery types. Absent one of these modules, the GEL setting will work for most LiFePO4 batteries. The USER type option can also be used to custom set the parameters specific to the Li battery type. See instructions for programming Li and LiFePO4 batteries using the USER option at the end of this document.

#### Battery Type

1. Press the SET button
2. Press and hold the BATT button for 5 seconds
3. Press the PV + or the LOAD – to select the battery type. (See note at bottom for Li battery types)
4. Press the SET button to save.

#### Battery Capacity (Amp Hours)

1. Press the SET button
2. Press and hold the BATT button for 5 seconds
3. Press the SET button to enter the battery capacity page
4. Press the BATT button to advance to the digit desired
5. Press the PV + or the LOAD – to select the value
6. Press the SET button when all digits are correct to save

#### Temperature Units

1. Press the SET button
2. Press and hold the BATT button for 5 seconds
3. Press the SET button twice to the temperature page
4. Press the PV + or the LOAD – to select the C or F value
5. Press the SET button when all digits are correct to save

## Programming the EPsolar MPPT DuoRacer Series Solar Controller using the Built-in Meter or Remote Display Unit

The key parameters to program on this controller are the **battery type and the temperature units**. The battery capacity in Ah is calculated automatically. Other parameters such as length of time the back light is on, can be found in the manual.

#### Battery Type

1. Press the MENU button until the battery data arrow appears
2. Press the DOWN/SET button until the gear icon and Battery Type appear
3. Press the DOWN/SET button for 5 seconds or until the symbol is flashing
4. Press the MENU button until the desired battery type appears
5. Press the DOWNSET button to save.

#### Temperature Units

1. Press the MENU button until the battery data arrow appears

2. Press the DOWN/SET button until the gear icon and temperature icon appear
3. Press the DOWN/SET button for 5 seconds or until the symbol is flashing
4. Press the MENU button to select the temperature units
5. Press the DOWNSET button to save.

#### Clear Generated Energy

Press and hold the MENU and the DOWN/SET buttons for 5 seconds to clear the generated energy data.

## Programming the EPsolar PWM Duo Dual Output Controller

There are three parameters to program from the button on the controller. These are the **battery type**, **the percentage of charge to each battery bank** and **the charging frequency**. The default charging frequency is fine as programmed. Change the frequency only if the controller is interfering with radio transmission.

1. The programming button is to the upper right on the front of the controller. Select the setting you wish to change by pressing the Programming Button. A red LED light will indicate which of the three settings is selected. • Battery type • Battery bank charging priority • Charging frequency
2. Press the Programming Button for 5 seconds until the value of the selected setting is displayed.
3. Press the Programming Button as many times as necessary to select the value desired. The values are highlighted on the top of the controller.
4. Wait 3 seconds until the LED light turns off. The value will be saved by the system.
5. Repeat steps 1-4 to program another setting.

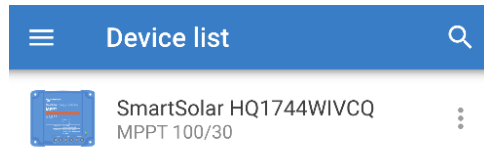
## Using the EPsolar Bluetooth Option with the BLE Module

The Bluetooth option is available using the BLE module which plugs into the RJ45 port of the controller. Either the remote meter, the BLE module or a cable to the USB port of a computer can use this port.

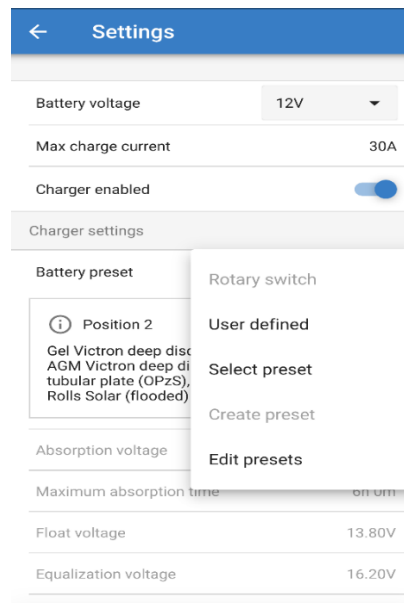
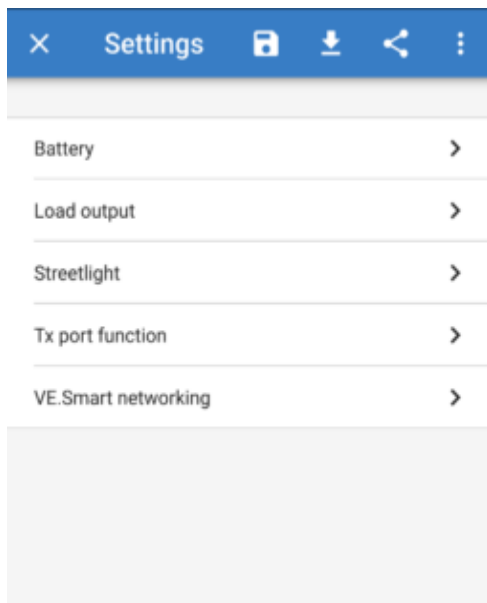
1. Plug in the BLE module
2. Download the EPsolar app from the app store for either iOS or Android.
  - a. Android: Google Play – Search: EPEVER – Install Charge Controller (Li)  
Note: Permissions must be changed on the Android phone for the software to pair properly. Here are the steps: ♣ Go to SETUP ♣ Select APPS ♣ Select Charge Controller (Li) ♣ Select Permissions ♣ Permit Location and Storage
  - b. Apple: Apple Store – EPEVER – Install EPEVER (EP-01)
3. Open the app
4. Select BLE
5. Press the gear icon in the upper right corner to read the controller data
6. For detailed instructions on using the app, go to [custommarineproducts.com](http://custommarineproducts.com), SUPPORT, Solar Controller Bluetooth, Manual

# Programming a Victron SmartSolar Charge Controller Using the Victron Connect app

1. Download the app called *VictronConnect* onto your phone.
2. Search for the controller on the phone app



3. If your firmware needs to be updated, use pin code "000000".
4. Select the gear icon in the top right corner of the main screen.
5. Select the battery menu then select the battery type



6. If you are using our LiFePO4 batteries, select "User Defined" and make changes as shown at the bottom of this document.
7. Go back to the main screen and select the disc icon at the top right to save your settings.

## Use the “USER” function to program for LiFePO4 or Li battery types and set the following parameters:

- **Absorption voltage:** 14.6 volts (acceptable range is 14.4 to 14.6 volts)
- **Absorption Time:** The recommended settings for our LiFePO4 batteries is half an hour per 100ah of LiFePO4 battery (for example if you have 2 -100ah batteries select 1 hour).
- **Float Voltage:** 13.5 volts (13.6 volts or lower is acceptable for LiFePO4 batteries)
- **Equalization voltage:** 14.4 volts (LiFePO4 batteries do not need to be equalized. The equalize function should be turned off)
- **Temperature Compensation:** Leave this off. LiFePO4 batteries do not need to be temperature compensated.
- **Low Temperature cut-off:** 0 C