



MyGreen Solar Monitor PC Software Operation

Table of Contents

1. Precautions Before Connecting.....	2
2. Installation Steps	2
3. Real-time communication monitoring	3
4. Introduction to PC software buttons & functions.....	7
4.1. Battery Parameter settings:	7
4.2. Load Parameter Settings.....	8
4.3. Password :	9
4.4. Real-Time Control	9
4.5. History Data	10
4.6. Event Log	11
4.7. Language Setting	11

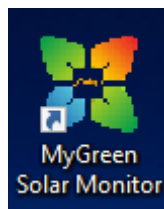
1. Precautions Before Connecting

- 1.1. Make sure the RS485 communication cable is a Tycon PN TP-SC-USB-RS485. (Note: Because the protocols used by different manufacturers are different, they are not universally compatible)
- 1.2. Compatible Windows system: Windows XP; Windows VISTA; Windows2003(32-bit & x64-bit); Windows2008(32-bit & x64-bit); Windows 7 (32-bit & x64-bit); Windows8 (32-bit & x64-bit); Windows10 (32-bit & x64-bit)
- 1.3. Note: This guide is geared toward Windows 10. Other versions of Windows will be similar.
- 1.4. Compatible with the following Tycon MPPT controllers:
 - TP-SC24-30N-MPPT**
 - TP-SC24-60N-MPPT**
 - TP-SC48-60P-MPPT**



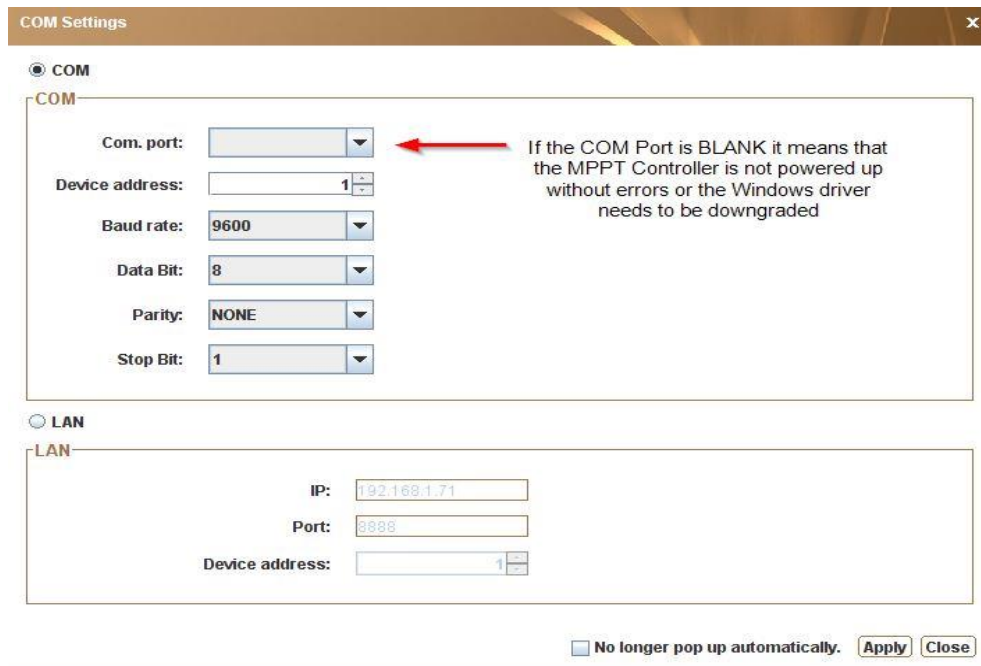
2. Installation Steps

- 2.1. The MPPT Solar Controller must be powered up and no errors present on the upper right corner of the display.
- 2.2. Insert the TP-SC-USB-RS485 cable USB connector to a USB port on the PC.
- 2.3. Connect the RJ45 connector to either of the MPPT Solar Controllers RS485 Ports.
- 2.4. Install MyGreen Solar Monitor software to your windows PC from the Tyconsystems.com website:
https://tsi.tyconsystems.com/Assets/MyGreenSolarMonitor_Install-PC.zip
- 2.5. Double-click the MyGreen Solar Monitor PC software icon to launch the software.



3. Real-time communication monitoring

3.1. When the software is opened, the com port setup screen will show.



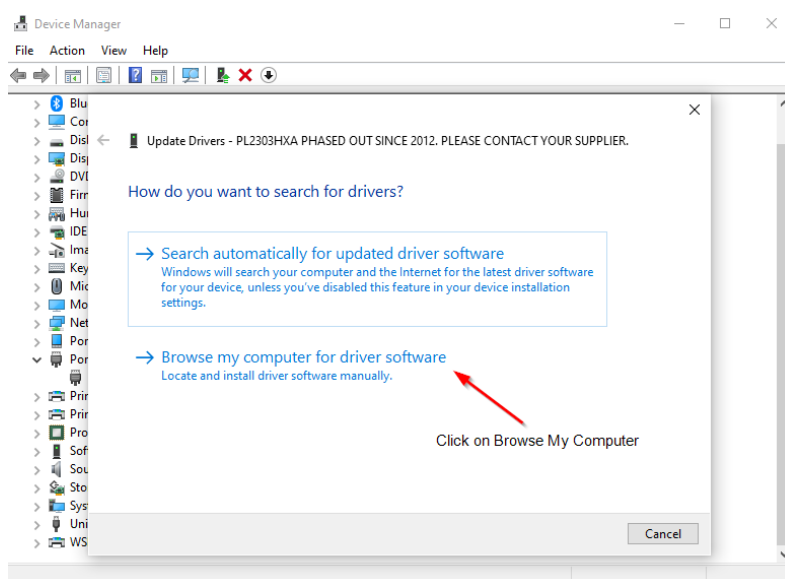
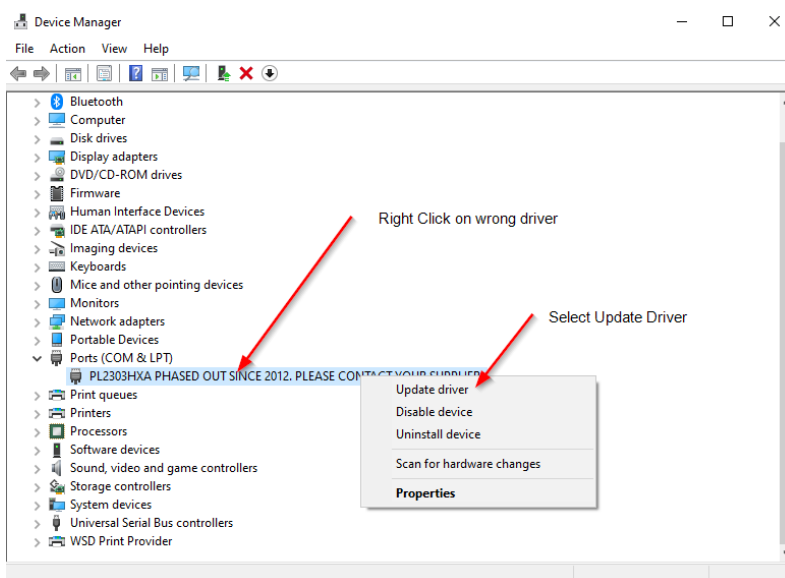
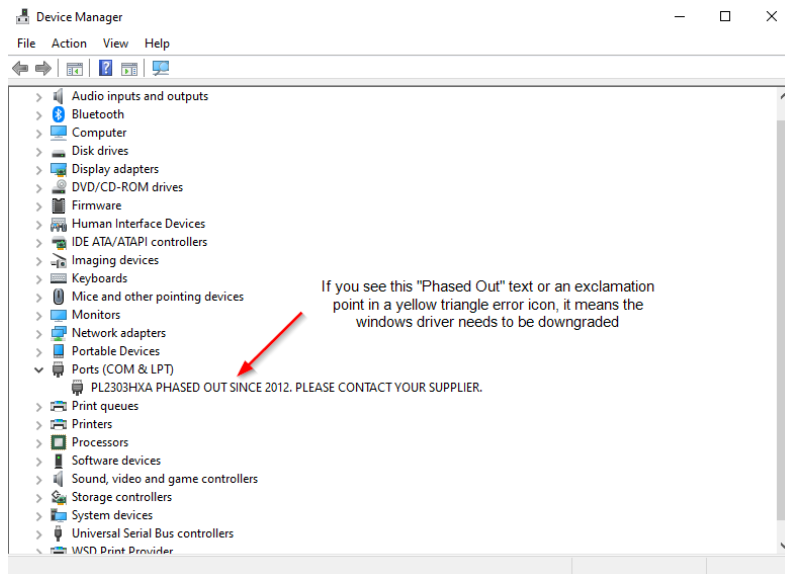
3.2. If the COM port is blank it means that MPPT Controller is not powered up without errors in the upper right corner of the screen or the Windows Driver needs to be downgraded.

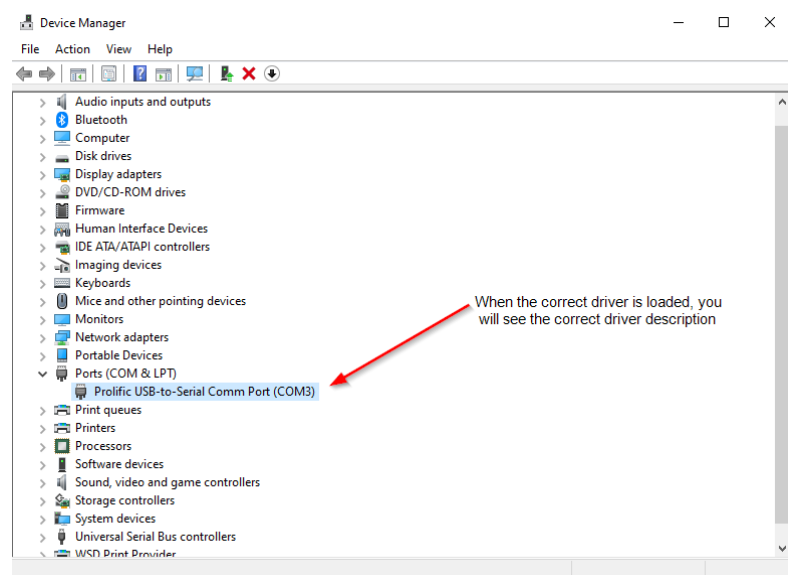
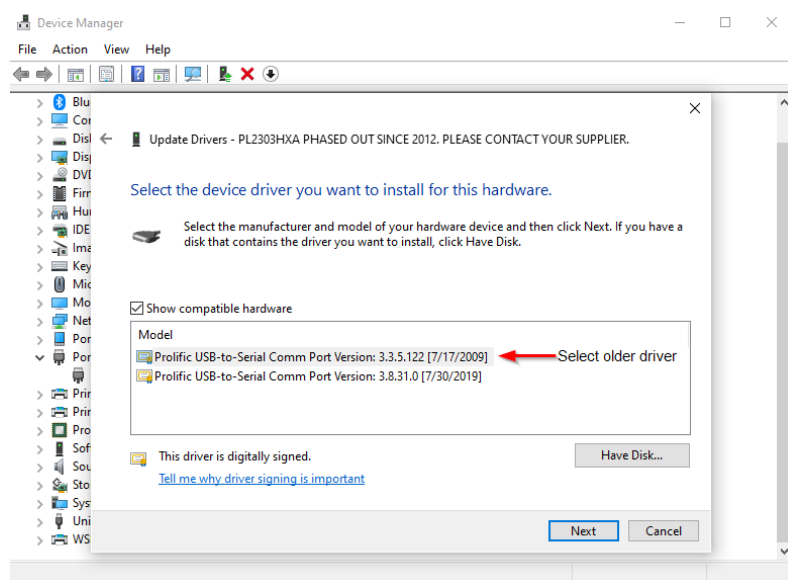
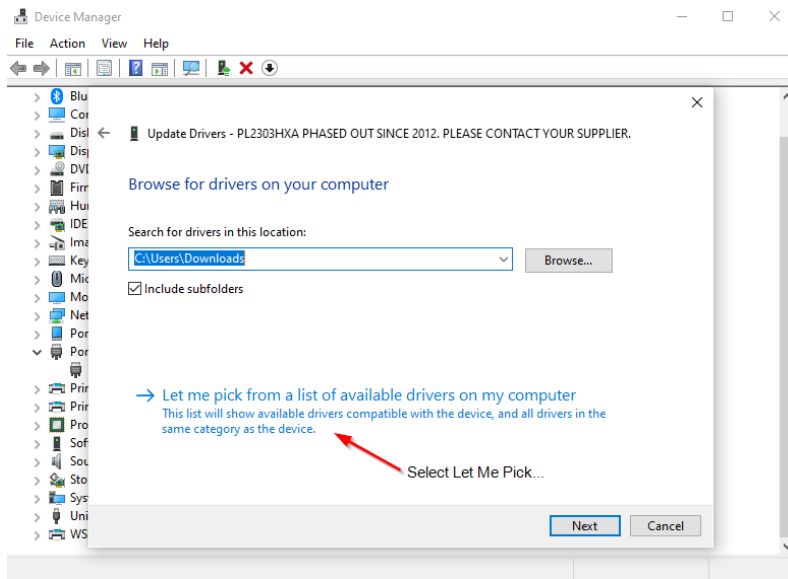
3.2.1. **MPPT Controller Issue:** Check upper right corner of display for any errors. Refer to user guide for error description. Clear any errors.

3.2.2. **Windows Driver Issue:**

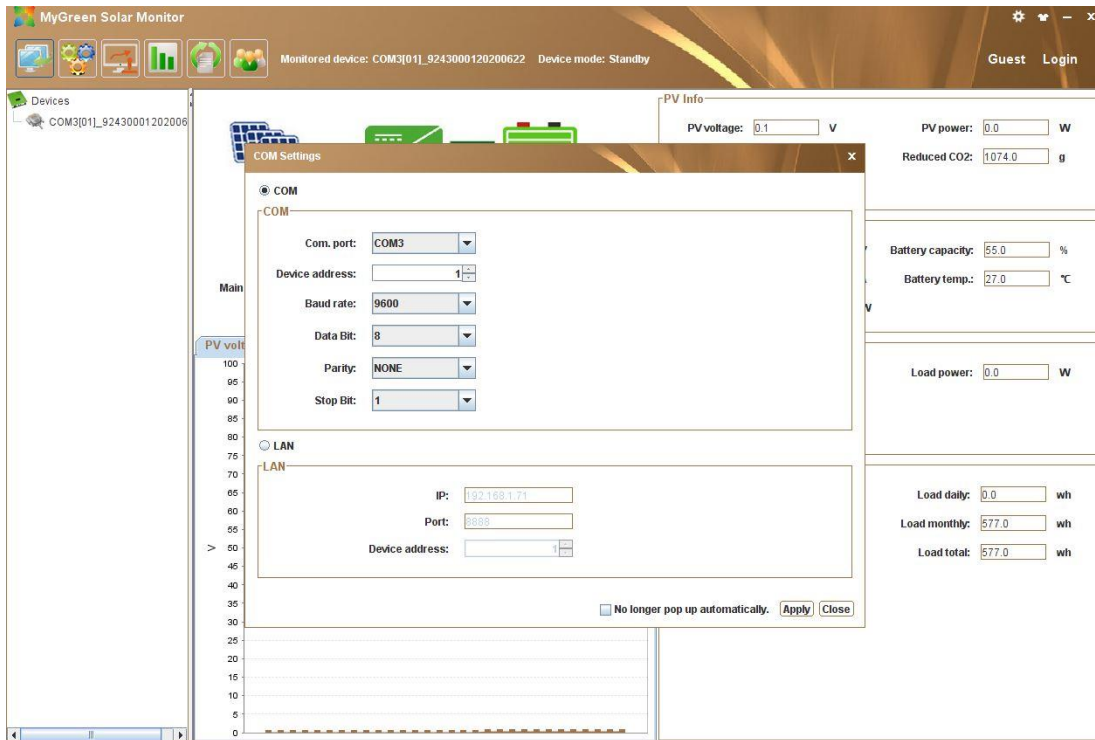
3.2.2.1. Open Windows Device Manager by typing “Device Manager” in the Windows search box or opening Control Panel and navigating to Device Manager.

3.2.2.2. Find “Ports (COM & LPT)” and expand the selection to see all COM devices.

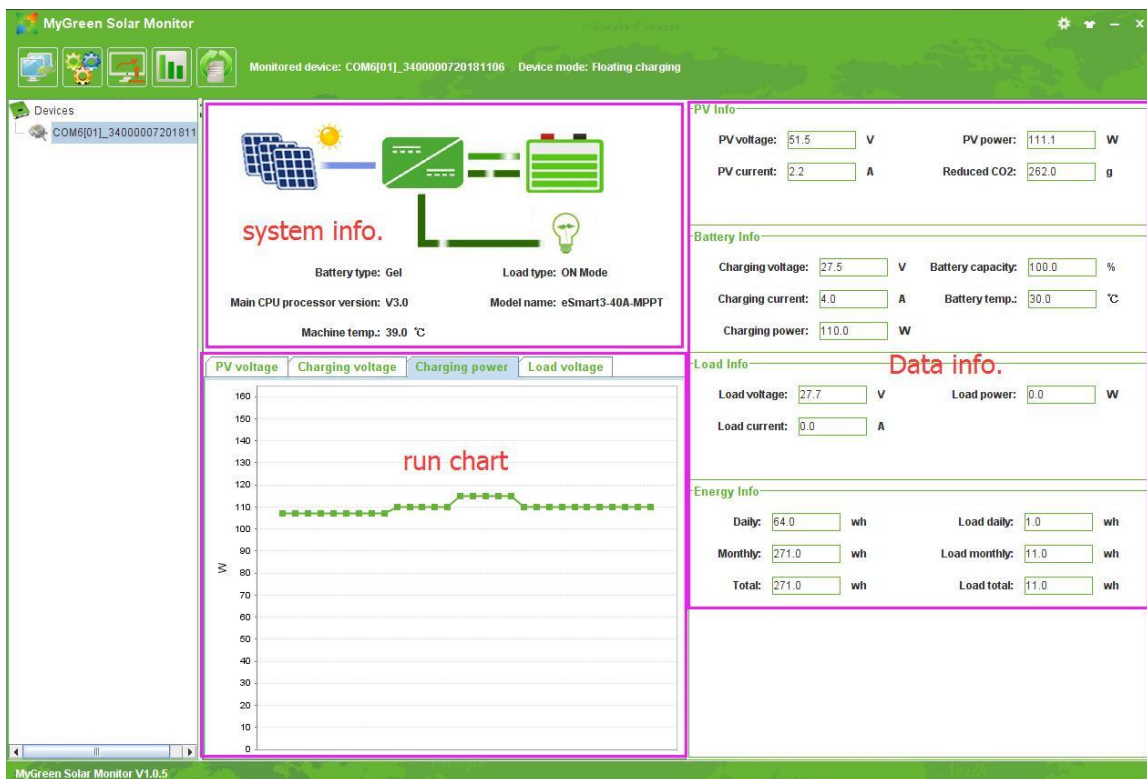




3.3. If the COM Port shows a specific port like COM1, COM2, COM3, etc, then the communications between the Windows PC and the MPPT Solar Controller is good.



3.4. Click on Apply, enter the password (Default = mpptsolar). After about 5 seconds the display should update and start showing real-time parameter readings from the MPPT Solar Controller.



3.5. Real-time monitoring parameters are as follows:

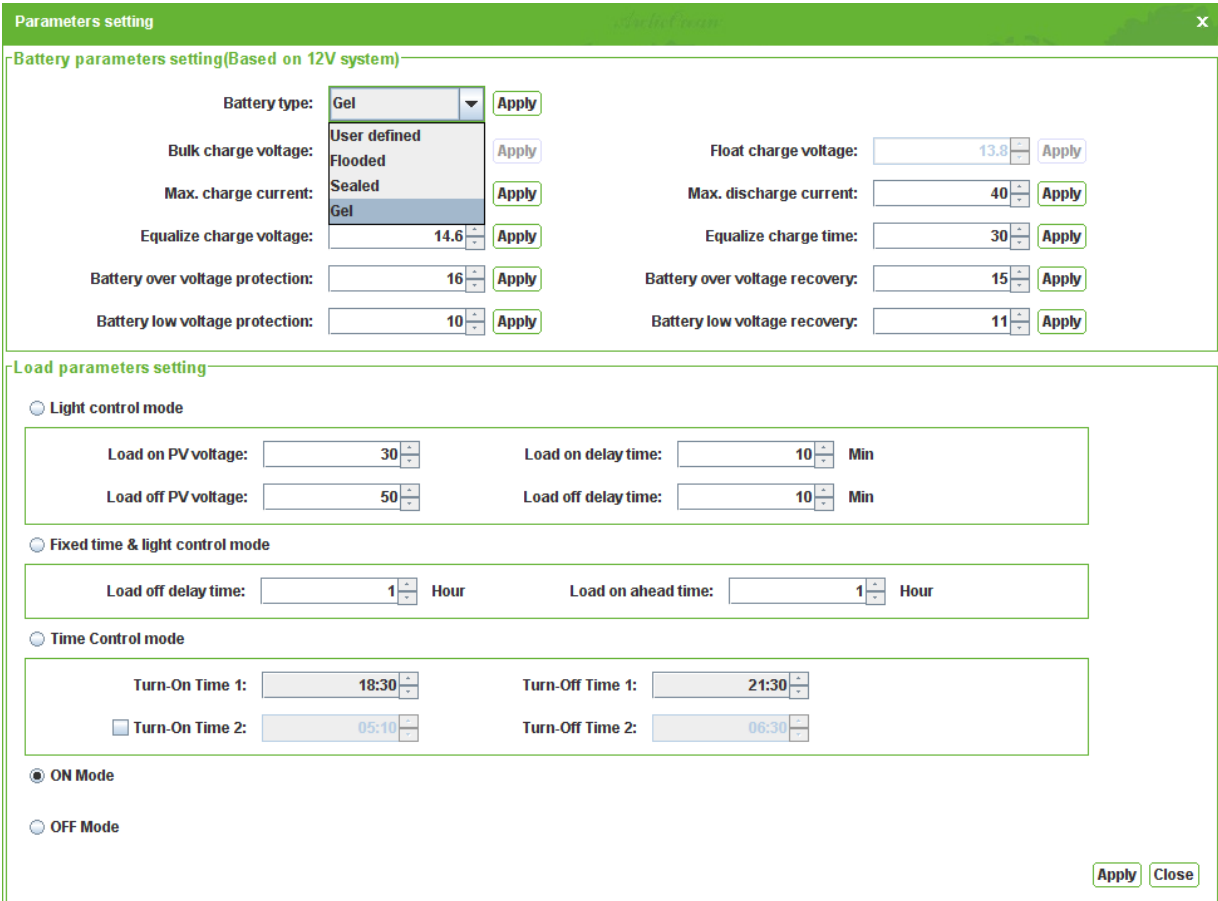
System overview: battery type, load type, program version, product name, machine temperature

Trend graph: PV voltage, charging voltage, charging power, load voltage

Data information: PV information (PV voltage / current / power, carbon dioxide emission reduction); Battery information (charging voltage, charging current, charging power, battery power, battery temperature); Load information (load voltage, load current, load power); Generation power information (day/month/total generation power, daily/month/total load power consumption)

4. Introduction to PC software buttons & functions

4.1. Battery Parameter settings:



Parameters setting

Battery parameters setting (Based on 12V system)

Battery type:

Bulk charge voltage:

Max. charge current:

Equalize charge voltage:

Battery over voltage protection:

Battery low voltage protection:

Float charge voltage:

Max. discharge current:

Equalize charge time:

Battery over voltage recovery:

Battery low voltage recovery:

Load parameters setting

Light control mode

Load on PV voltage: Load on delay time: Min

Load off PV voltage: Load off delay time: Min

Fixed time & light control mode

Load off delay time: Hour Load on ahead time: Hour

Time Control mode

Turn-On Time 1: Turn-Off Time 1:

Turn-On Time 2: Turn-Off Time 2:

ON Mode

OFF Mode

4.1.1. **Battery types supported in the PC software:** Flooded, Sealed, Gel, and User defined.

4.1.2. The controller is preconfigured for 3 kinds of conventional batteries and their

standard charging parameters. To charge other types of batteries, please select “User”, then set up by PC software or APP. For Li-ion, setup the parameters on the MPPT controller front panel or the Mobile App per the user manual that comes with the units.

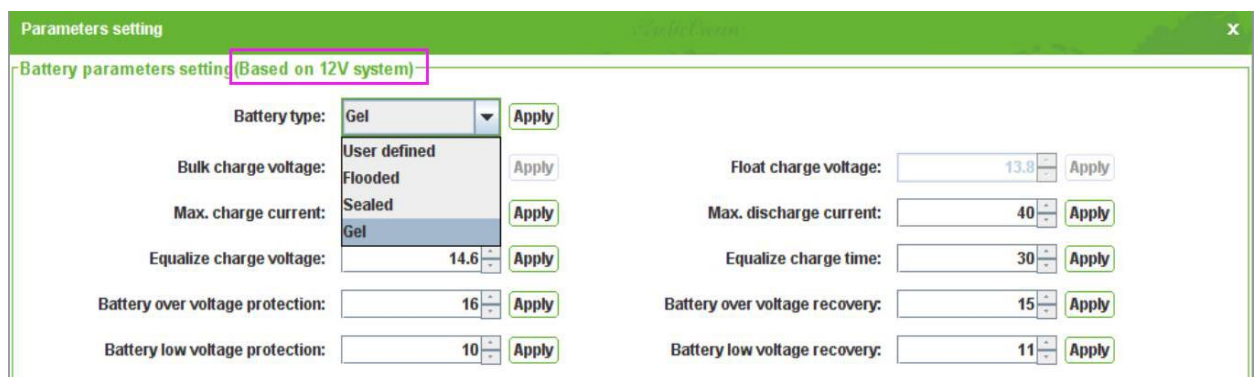
4.1.3. Note: To change battery voltage from “AUTO” to a specific voltage you need to use the Mobile App

Battery Type	Constant Voltage = C*N (V)	Float Voltage = F*N (V)	
Flooded (FLD)	14.6*N	13.8*N	1. C= Constant Voltage Charging Voltage 2. F= Float Charging Voltage 3. N= Number of 12V battery in series [e.g. N=2, battery system is 24V] 4. Example: If battery system is 48V, then N=4, If battery system is 24V then N=2, if battery systems is 12V then N=1
Sealed (SEL)	14.4*N	13.8*N	
Gel (GEL)	14.2*N	13.8*N	
User (USE)	Custom*N	Custom Float*N	

4.1.4. Users can configure battery parameters: maximum charge and discharge current, boost charge voltage and charge time, battery over voltage protection point and recovery point, low voltage protection point and recovery point.

4.1.5. If you need to set the “User Defined” parameters, please contact the battery manufacturer or dealer for the relevant battery charging parameters to be able to set the correct charging voltages.

4.1.6. Regardless of the type of battery and battery system voltage, the battery parameters of the PC software must be configured based on a single 12V battery. The controller will automatically recognize and convert the voltage values based on the actual system voltage.



4.2. Load Parameter Settings

4.2.1. Light control mode: user can set the Load on/off delay time base on the PV voltage.

4.2.2. Fixed time & light control mode: user can set the Load on time and off delay

time base on the Time & PV voltage.

4.2.3. Time control mode: user can set the Load on/off based on the dual time.

4.2.4. Manual Mode - ON Mode and OFF Mode - ON Mode turns ON the MPPT Controller's load output. OFF Mode turns OFF the MPPT Controller's Load output.

Load parameters setting

Light control mode

Load on PV voltage: Load on delay time: Min

Load off PV voltage: Load off delay time: Min

Fixed time & light control mode

Load off delay time: Hour Load on ahead time: Hour

Time Control mode

Turn-On Time 1: Turn-Off Time 1:

Turn-On Time 2: Turn-Off Time 2:

ON Mode

OFF Mode

Apply Close

4.3. Password :

Set a new password. For security reasons, we recommend setting a new password once you are familiar with the operation of the PC software

4.4. Real-Time Control

On this page users can configure time synchronization, clear power generation and load power consumption, LCD backlight time, Controller LCD button disable, battery temperature units.

Real-time control [X]

Time synchronization:

Clear generated energy:

Clear load used energy:



LCD back light delay: s

LCD button switch: On Off

Temp. unit: °C °F

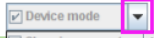
4.5. History Data


Data

Device type: **Charger** Device: **3400000720181106** Display item: Device mode Time period: **2018-11-06** -- **2018-11-06**   **Browse**

Device mode	Time	PV voltage	Charging volta...	Charging curr...	Machine temp...	Battery temp...	Charging power	Load voltage	Load current	Load power	Battery capacity
Floating char...	2018-11-06 1...	51.6	27.6	3.1	38.0	30.0	85.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.2	39.0	30.0	88.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.2	40.0	30.0	91.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.2	40.0	30.0	88.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.3	40.0	30.0	91.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	2.3	41.0	29.0	63.0	27.6	1.4	38.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	2.8	36.0	30.0	77.0	27.6	1.1	30.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.4	35.0	30.0	93.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.7	36.0	30.0	102.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.6	36.0	30.0	99.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.8	37.0	30.0	104.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.8	37.0	30.0	104.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.9	38.0	30.0	107.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.9	38.0	30.0	107.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.0	39.0	30.0	110.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.0	39.0	30.0	110.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	4.0	39.0	30.0	110.0	27.6	0.0	0.0	100.0



Export **Clear** **Close**

4.5.1. Click the button "Display item"  to select items to display: working mode, time, PV voltage, charge voltage, charge current, machine temperature, battery temperature, charge power, load voltage, load current, load power, battery power;

4.5.2. Click the "Time period" icon  to view history data for a certain time period.

4.5.3. Click the "Browse" button to view the selected data.

Data

Device type: **Charger** Device: **3400000720181106** Display item: Device mode Time PV voltage Charging voltage Charging current Machine temp. (°C) Battery temp. (°C) Charging power Time period: **2018-11-06** -- **2018-11-06**   **Browse**

Device mode	Time	PV voltage	Charging volta...	Charging curr...	Mach...	Device mode	Charging power	Load voltage	Load current	Load power	Battery capacity
Floating char...	2018-11-06 1...	51.6	27.6	3.1	38.0	5.0	27.6	0.0	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.2	39.0	8.0	27.7	0.0	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.3	40.0	11.0	27.6	0.0	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.2	40.0	8.0	27.6	0.0	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.3	40.0	1.0	27.7	0.0	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	2.3	41.0	3.0	27.6	1.4	38.0	100.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	2.8	36.0	7.0	27.6	1.1	30.0	100.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	3.4	35.0	13.0	27.7	0.0	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.7	36.0	102.0	27.7	0.0	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.6	36.0	30.0	99.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.8	37.0	30.0	104.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.8	37.0	30.0	104.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.9	38.0	30.0	107.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.9	38.0	30.0	107.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.0	39.0	30.0	110.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.0	39.0	30.0	110.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.6	4.0	39.0	30.0	110.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	3.9	39.0	30.0	107.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.6	27.5	3.9	39.0	30.0	107.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.0	39.0	30.0	110.0	27.7	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.5	3.9	39.0	30.0	107.0	27.5	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.1	39.0	30.0	113.0	27.6	0.0	0.0	100.0
Floating char...	2018-11-06 1...	51.5	27.6	4.2	40.0	30.0	115.0	27.6	0.0	0.0	100.0

Export **Clear** **Close**

