Super Solar Power Up Instructions

Power Up with Super Solar:

1. Make sure unit is unplugged from shore power and the interior disconnect switch is Off or Unplugged.
2. After all power is disconnected turn On the disconnect switch inside the unit.
3. Unit will be powered by Super Solar System now.

Power Up with Shore Power:

1. Make sure unit is unplugged and the interior disconnect switch is Off or Unplugged.
2. After all power is disconnected turn On the disconnect switch inside the unit (unit will power up from the lithium batteries).
3. Now plug the unit into shore power.
4. Unit will now be powered by shore hook up and will be charging the batteries.

Notes: If you plug the unit into shore power before turning on the interior disconnect switch, the unit will still power up, but the batteries will NOT charge.

*** Please Refer to the Next Page for Troubleshooting***

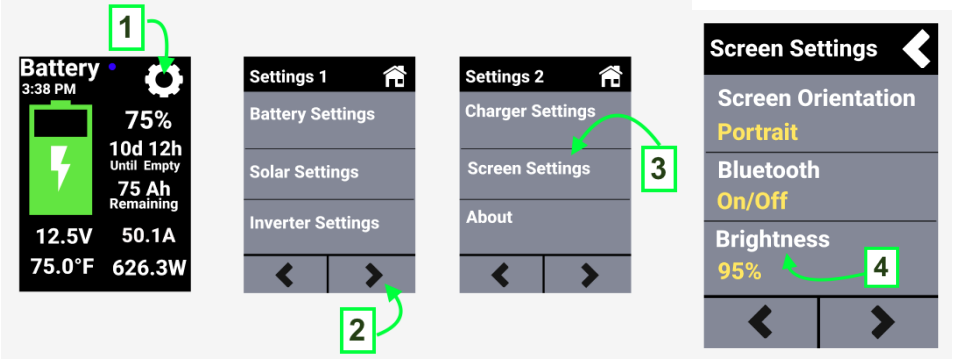
For Troubleshooting Make Sure All Settings on Super Solar System Match the Settings Below:

PowerTrak Display Setup

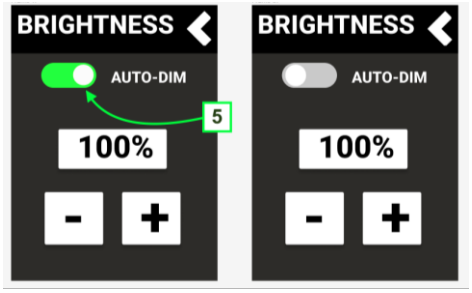
The screen is a resistive touch display. You need to press firmly against it to get a response.
Press = Short Press, < 1 second release
Hold = Hold for 2-3 seconds and release

Display (Auto-Dim) Settings:

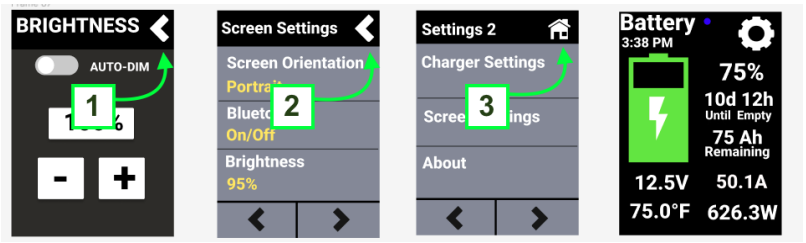
1. First enter the screen settings to turn off the Auto-Dim, **press** the labels in the order shown below.



2. **Press** the “AUTO-DIM” toggle button to turn it OFF and confirm it is in the left position.

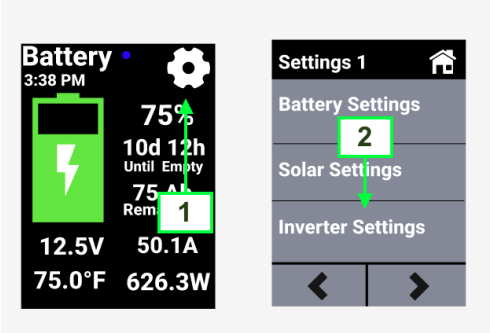


3. **Press** the top right icon 3 times to return to the home screen.

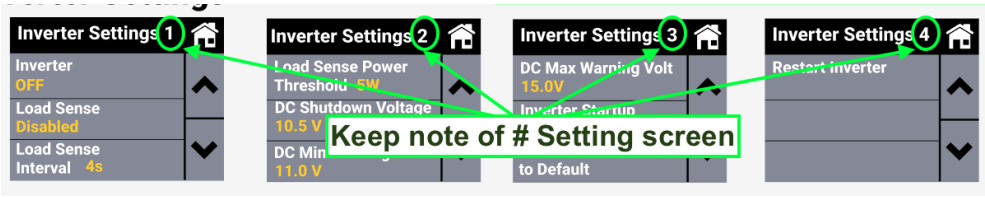


Inverter Settings:

1. First enter the Inverter Settings, by **pressing** the settings cog on the top right then **pressing** “Inverter Settings”.

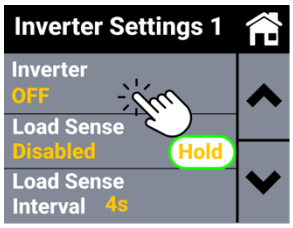


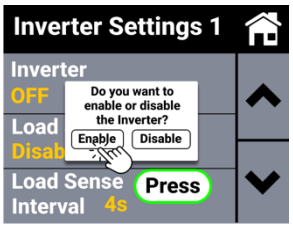
2. You will enter the Inverter Settings; each Inverter Settings screen will be numbered. Please keep note of this for how to set individual Inverter settings.



3. Use the arrows pictured below to navigate between numbered “Inverter Setting” pages.

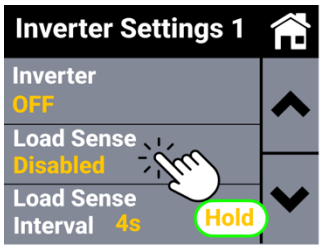
Inverter Settings 1:

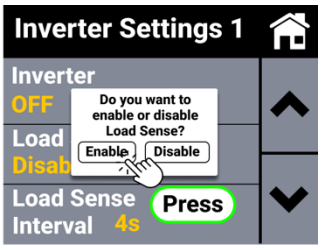




Inverter:

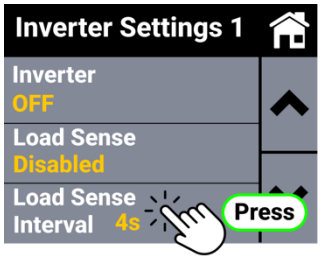
Hold to change. This allows you to start or stop inverting through the IC3000/2000.

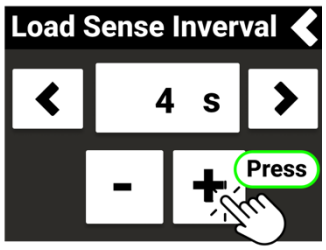




Load Sense:

Hold to change. This allows the inverter to turn off if a small load less than the load sense threshold is met even though the Inverter is “enabled”.



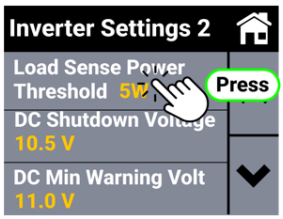


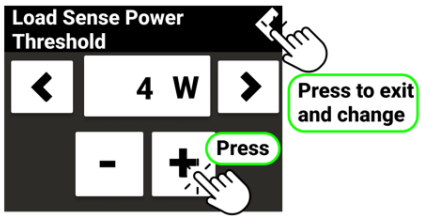
Load Sense Interval:

Press to change. This setting is the time the Inverter waits for the load sense threshold to trigger and turn off the Inverter automatically. Once desired value is set, click the top right icon (back arrow) for it to set.

For initial setup, set the Inverter to OFF, Load Sense Disabled, and Load Sense interval to 4s.

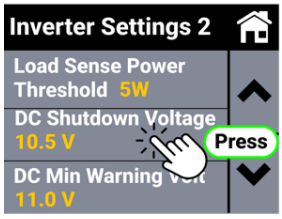
Inverter Settings 2:

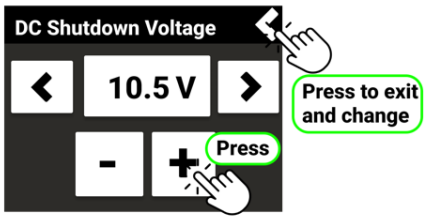




Load Sense Power Threshold:

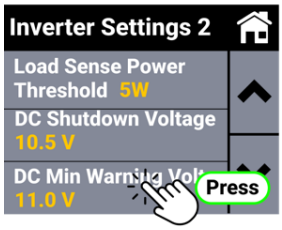
Press to change. This is the minimum power threshold that triggers the load sense for the inverter to disconnect.

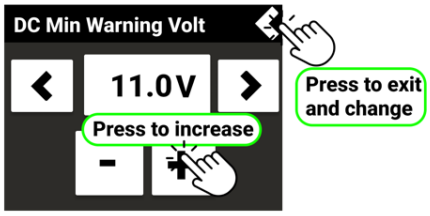




DC Shutdown Voltage:

Press to change. This is the voltage that the Inverter will automatically disconnect.



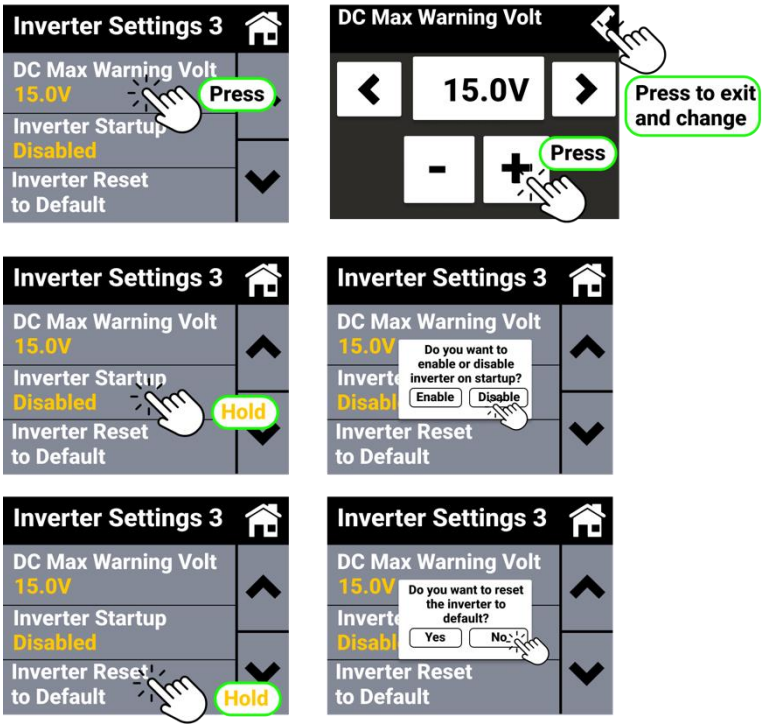


DC Min Warning Voltage:

Press to change. This is the voltage the Inverter will broadcast a warning voltage notification prior to disconnecting.

For initial setup, please set the Load sense power threshold to 5W, DC Shutdown Voltage to 10.5V and DC Min Warning Voltage to 11.0V.

Inverter Settings 3:



DC Max Warning Voltage:

Press to change. This is the warning voltage when the battery is being over-charged.

Inverter Startup:

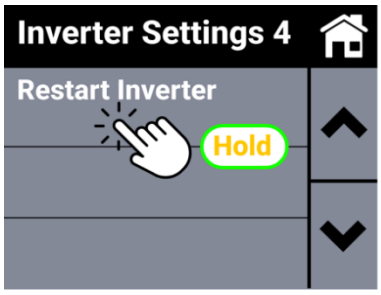
Hold to change. This allows the inverter to start inverting the moment it power-cycles (turns fully off, then back on).

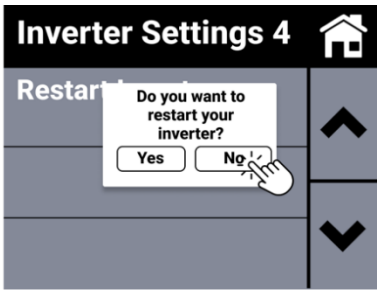
Inverter Reset to Default:

Hold to change. This resets all the Inverter/Charger settings back to default.

For initial setup, set the DC Max Warning voltage to 15.0V and Inverter Startup to Disabled.

Inverter Settings 4:





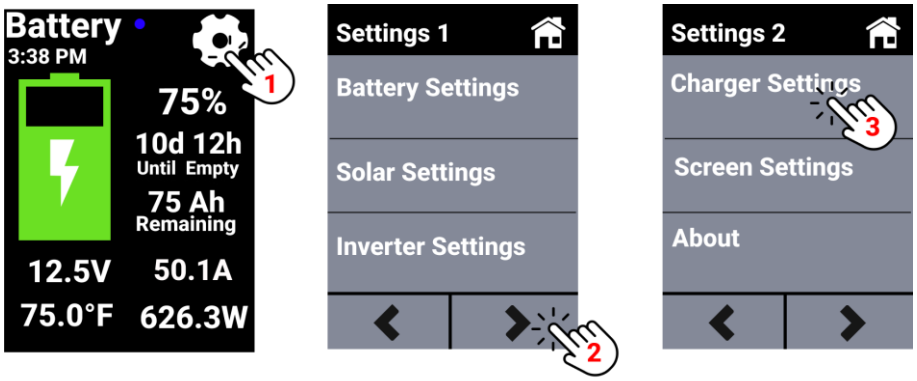
Restart Inverter:

Hold to change. This resets the Inverter Charger RV-C adapter.

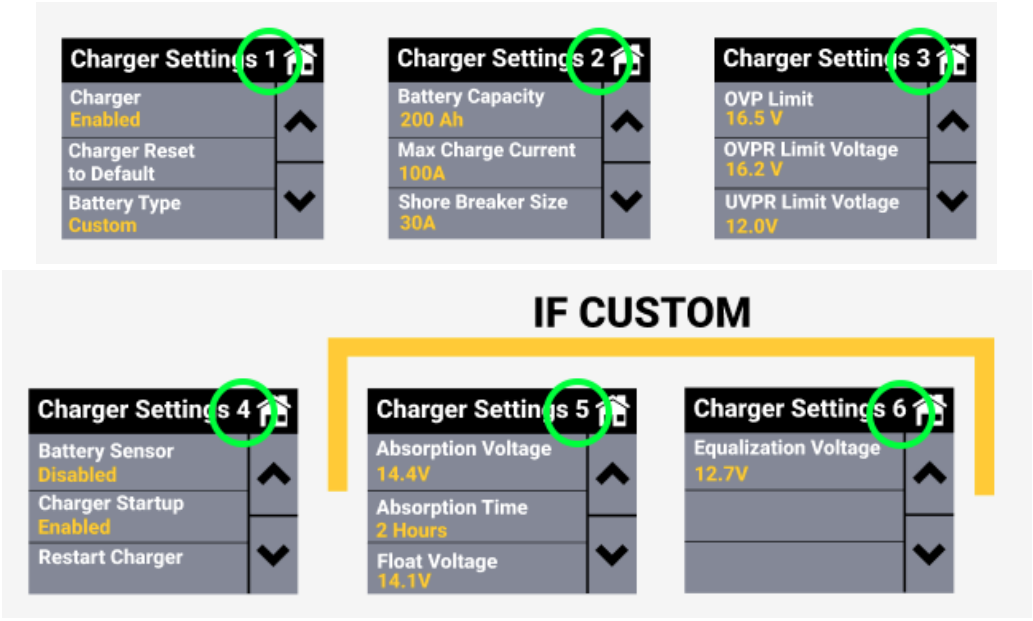
For initial setup, ignore this setting as there is no need to restart the Inverter.

Charger Settings:

1. To enter the Charger settings, enter the main settings from the home screen, and **press** the right arrow to go to “Settings 2”. **Press** “Charger Settings”.

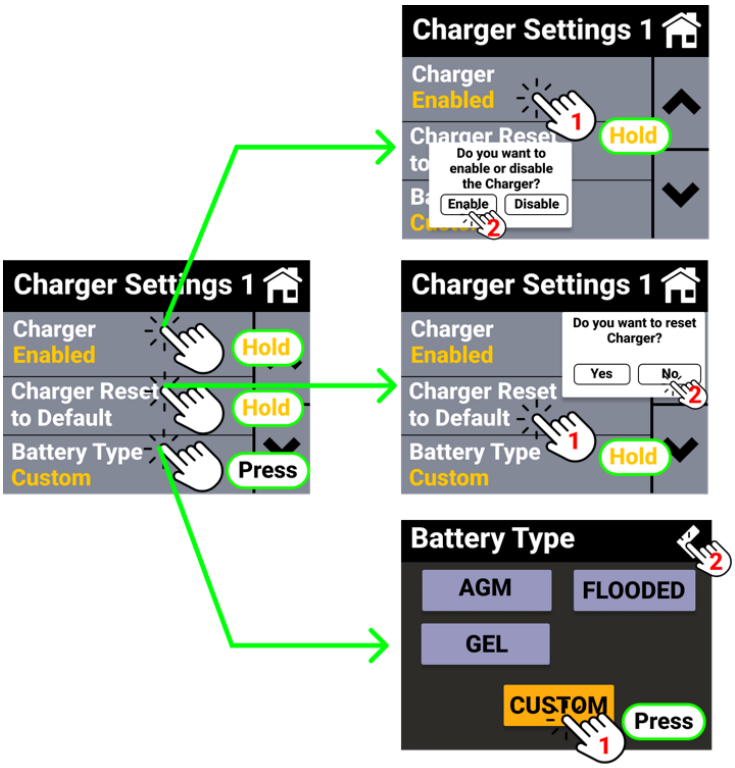


2. You will enter the Charger Settings; each Charger Settings screen will be numbered. Please keep note of this for how to set individual Charger settings. Charger Settings 5 and 6 will only be displayed if you set the battery type to custom.



3. Use the arrows pictured below to navigate between numbered “Charger Setting” pages.

Charger Settings 1:



Charger (Enable/Disable):

Hold to change. This starts or stops charging through the IC3000/2000. Please note for the IC3000/2000, the Inverter must be enabled for the Charger to be enabled.

Charger Reset to Default:

Hold to change. This resets the charger to its default profile (AGM).

Battery Type:

Press to change. This allows you to select the battery type that is connected to your system.

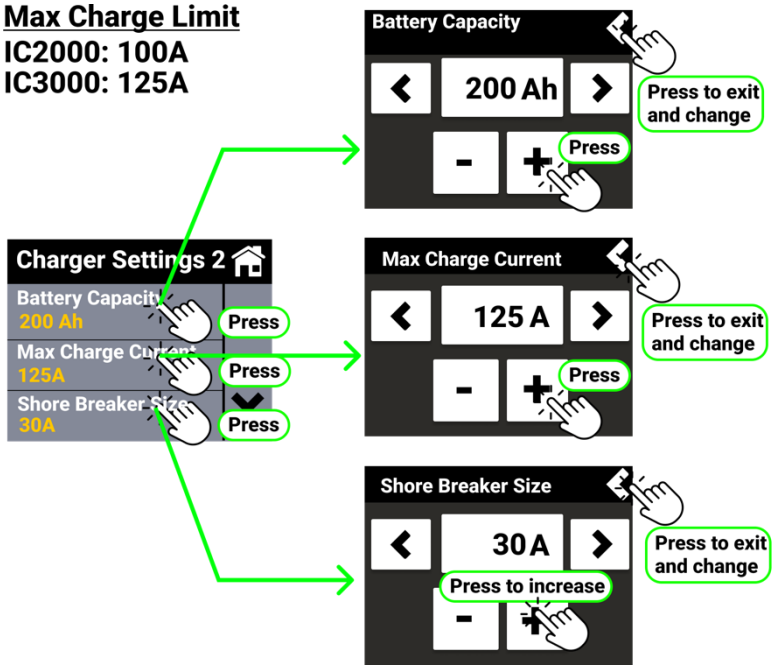
For initial setup, enable the charger. Set the battery type to Custom if you are using the Go Power! Advanced Lithium Batteries. If you are using third-party batteries, select the corresponding battery type. There is no need to reset the charger to default.

Note: If the manufacturer of your third-party battery recommends charging parameters that differ from the parameters in the table below, select the custom battery option to manually set your charging profile.

PARAMETER	GEL	AGM	FLOODED	LIFEPO4	CUSTOM
High Voltage Disconnect	16.0 / 32.0 V	16.0 / 32.0 V	16.0 / 32.0 V	14.6 / 29.2 V	8..32 V
Equalize Voltage	-	-	14.9 / 29.8 V	-	8..32 V
Bulk-Absorption Voltage	14.1 / 28.2 V	14.4 / 28.8 V	14.4 / 28.8 V	14.4 / 28.8 V	8..32 V
Float Voltage	13.7 / 27.4 V	13.7 / 27.4 V	13.7 / 27.4 V	14.0 / 28.0 V	8..32 V
Recharge Voltage	13.2 / 26.4 V				8..32 V
Over-Discharge Return Voltage	12.8 / 25.2 V	12.8 / 25.2 V	12.8 / 25.2 V	12.2 / 24.4 V	8..32 V
Under-Voltage Warning Level	12.0 / 24.0 V				8..32 V
Over-Discharge Voltage	11.0 / 22.0 V				8..32 V
Discharge Limit Voltage	10.5 / 21.0 V				8..32 V
Over-Discharge Time Delay	5 seconds				0..120 seconds
Equalize Duration	-	-	120 minutes	-	0..600 minutes
Absorption Duration	120 minutes	120 minutes	120 minutes	120 minutes	10..600 minutes
Equalize Interval	-	-	30 days	-	0..250 days
Temperature Compensation Factor	-24 mV/°C	-24 mV/°C	-24 mV/°C	-	0..-30 mV/°C

Charger Settings 2:

Max Charge Limit
IC2000: 100A
IC3000: 125A



Battery Capacity:

Press to change. This allows you to set the battery capacity of your system.

Max Charge Current:

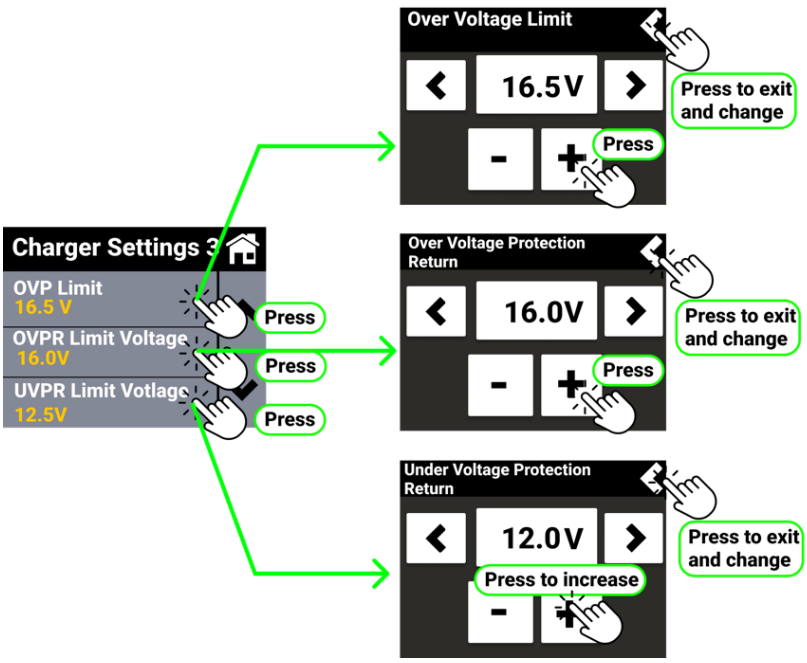
Press to change. This allows you to adjust the maximum charge current.

Shore Breaker Size:

Press to change. This allows you to set the shore breaker size.

For initial setup, please set the battery capacity to match the capacity of your battery bank, max charge current to 100A for the IC2000 or 125A for the IC3000, and shore breaker size to 30A.

Charger Settings 3:



Over Voltage Protection (OVP) Limit:

Press to change. This allows you to set the OVP limit. If the voltage of the battery bank reaches this value, the system will enter an error state.

Over Voltage Protection Return (OVPR) Limit:

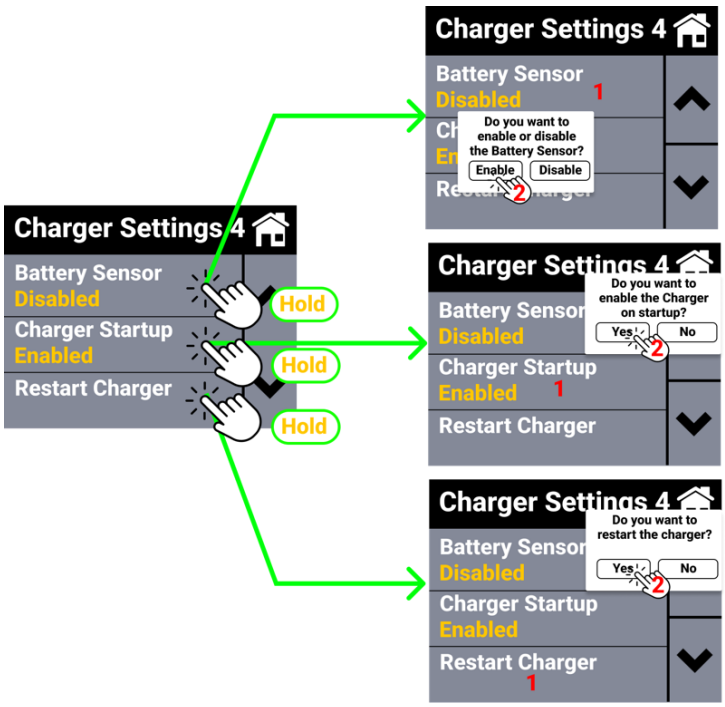
Press to change. This allows you to set the OVPR limit. If the system is in an over voltage protection state, it will recover once it reaches this voltage.

Under Voltage Protection Return (UVPR) Limit:

Press to change. This allows you to set the UVPR limit. If the system is in an under voltage protection state, it will recovery once it reaches this voltage.

For initial setup, please set the OVP to 16.5V, OVPR to 16.0V and UVPR to 12.5V.

Charger Settings 4:



Battery Sensor:

Hold to change. The battery sensor is only needed when there is a battery temperature sensor connected to the IC3000/2000.

Charger Startup:

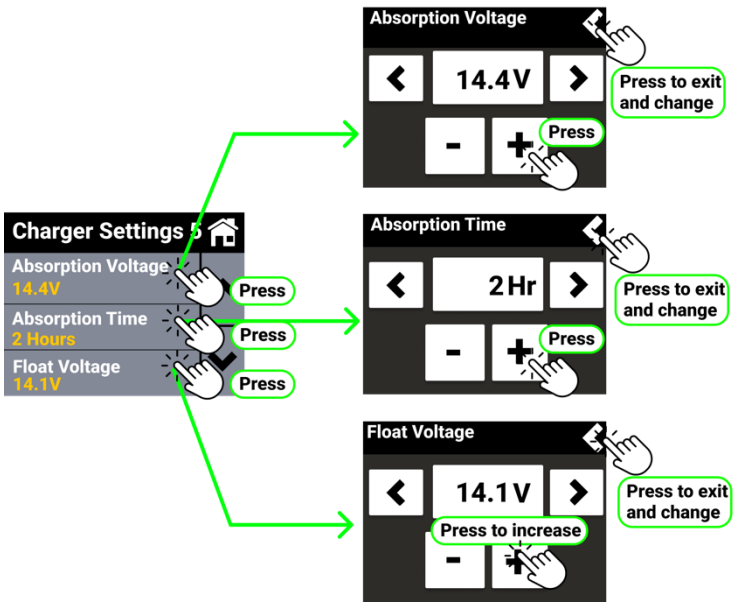
Hold to change. This allows the charger to begin charging on start up when shore power is connected.

Restart Charger:

Hold to change. This restarts the charger. Restarting the charger should only be used if there is an issue/fault.

For initial setup, enable the charger on start-up, and enable battery sensor if you have one in your system. There is no need to restart the charger.

Charger Settings 5 (If battery is set to CUSTOM):



Absorption Voltage:

Press to change. This allows you to increase/decrease the value to set the battery's absorption voltage.

Absorption Time:

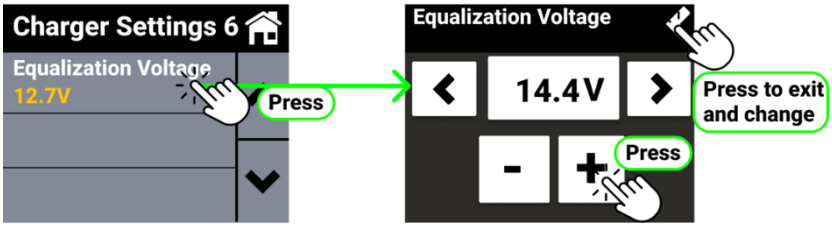
Press to change. This allows you to increase/decrease the value to set the absorption time.

Float Voltage:

Press to change. This allows you to increase/decrease the float voltage.

For initial setup, if you are using Go Power! Advanced Lithium Batteries, set the absorption voltage to 14.4V, absorption time to 2 hours, and float voltage to 14.1V. If you are using custom third-party batteries, refer to the manufacturer's recommendations.

Charger Settings 6 (If battery is set to CUSTOM):



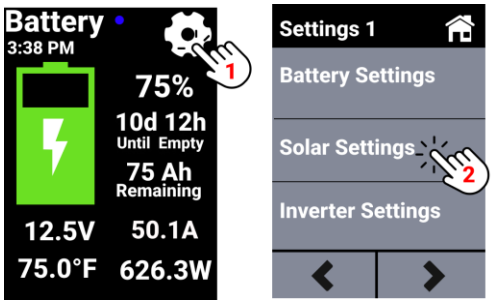
Equalization Voltage:

Press to change. This allows you to increase/decrease the equalization voltage.

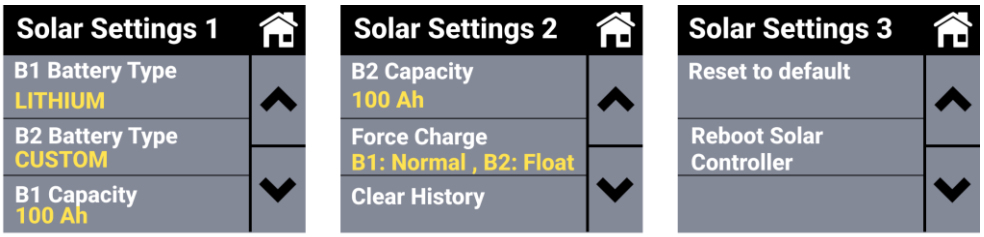
For initial setup, if you are using Go Power! Advanced Lithium Batteries, set the equalization voltage to 14.4V. If you are using custom third-party batteries, refer to the manufacturer's recommendations.

Solar Controller Settings:

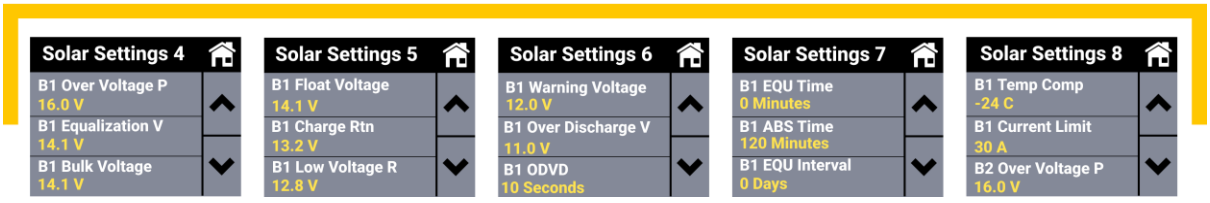
1. To enter the Solar Controller settings, enter the main settings from the home screen and **press** “Solar Settings”.



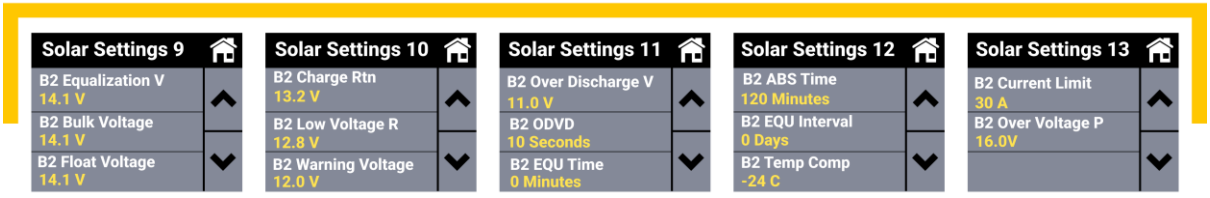
2. You will enter the Solar Settings; each Solar Settings screen will be numbered. Please keep note of this for how to set individual Solar Controller settings. Screens 4-8 and 9-13 will only be displayed if the B1 and/or B2 battery type(s) are set to custom.



IF B1 CUSTOM

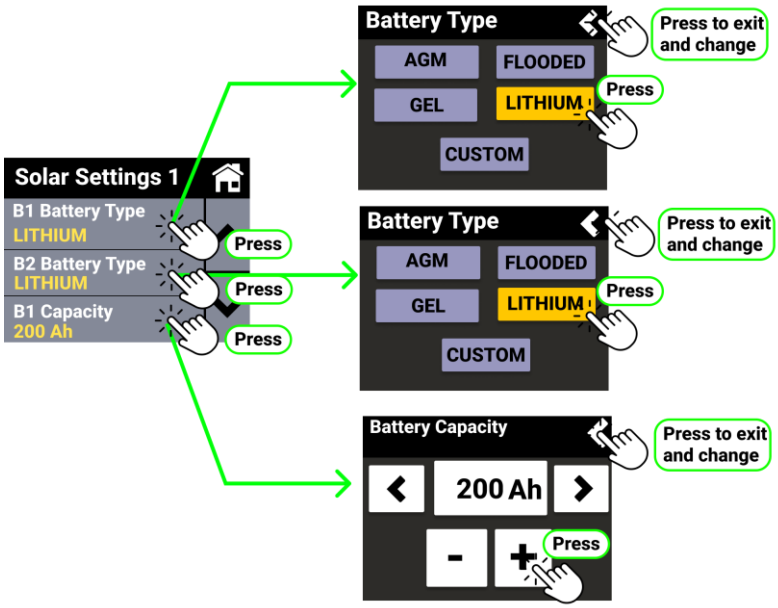


IF B2 CUSTOM



3. Use the arrows pictured below to navigate between numbered “Charger Setting” pages.

Solar Settings 1:



B1 Battery Type:

Press to change. This allows you to select the battery type that is connected to your system.

B2 Battery Type:

Press to change. This allows you to select the secondary battery type that is connected to your system (if applicable).

B1 Capacity:

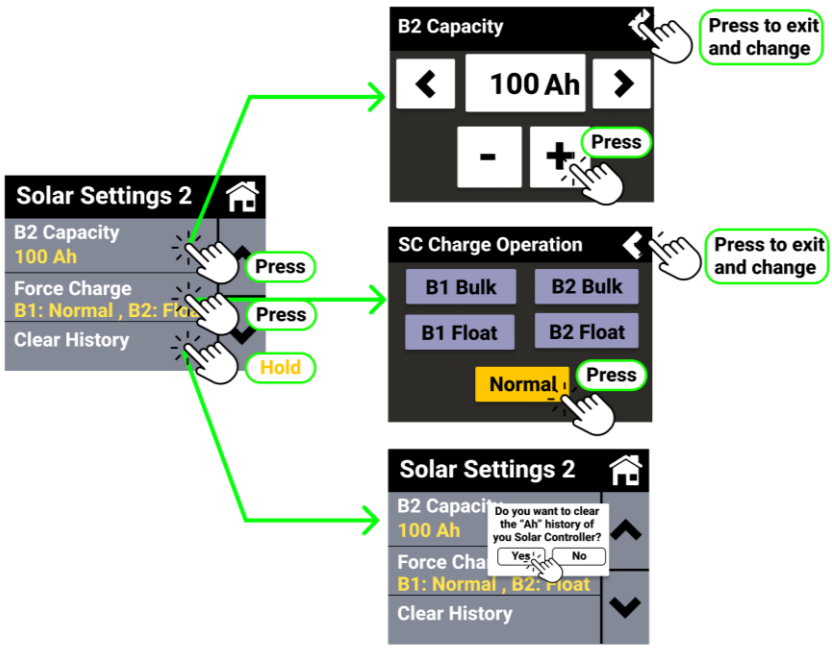
Press to change. This allows you to set the battery capacity of your system.

For initial setup, set B1 Battery Type to Lithium if you are using Go Power! Advanced Lithium Batteries. If you are using third-party batteries, select the corresponding battery type. Set the battery capacity to match the capacity of your battery bank.

Note: If the manufacturer of your third-party battery recommends charging parameters that differ from the parameters in the table below, select the custom battery option to manually set your charging profile.

PARAMETER	GEL	AGM	FLOODED	LIFEPO4	CUSTOM
High Voltage Disconnect	16.0 / 32.0 V	16.0 / 32.0 V	16.0 / 32.0 V	14.6 / 29.2 V	8..32 V
Equalize Voltage	-	-	14.9 / 29.8 V	-	8..32 V
Bulk-Absorption Voltage	14.1 / 28.2 V	14.4 / 28.8 V	14.4 / 28.8 V	14.4 / 28.8 V	8..32 V
Float Voltage	13.7 / 27.4 V	13.7 / 27.4 V	13.7 / 27.4 V	14.0 / 28.0 V	8..32 V
Recharge Voltage	13.2 / 26.4 V				8..32 V
Over-Discharge Return Voltage	12.8 / 25.2 V	12.8 / 25.2 V	12.8 / 25.2 V	12.2 / 24.4 V	8..32 V
Under-Voltage Warning Level	12.0 / 24.0 V				8..32 V
Over-Discharge Voltage	11.0 / 22.0 V				8..32 V
Discharge Limit Voltage	10.5 / 21.0 V				8..32 V
Over-Discharge Time Delay	5 seconds				0..120 seconds
Equalize Duration	-	-	120 minutes	-	0..600 minutes
Absorption Duration	120 minutes	120 minutes	120 minutes	120 minutes	10..600 minutes
Equalize Interval	-	-	30 days	-	0..250 days
Temperature Compensation Factor	-24 mV/°C	-24 mV/°C	-24 mV/°C	-	0..-30 mV/°C

Solar Settings 2:



B2 Capacity:

Press to change. This allows you to select the secondary battery bank capacity (if applicable).

Force Charge:

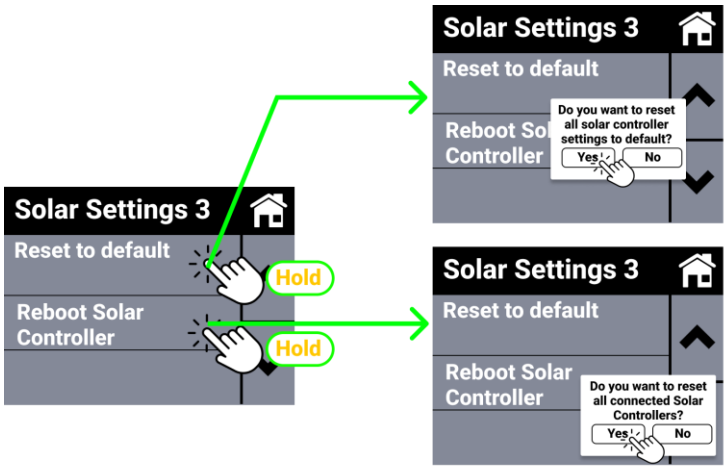
Press to change. This forces the Solar Controller(s) into either bulk or float charge state on battery bank 1 or 2.

Clear History:

Hold to change. This clears the history from the Solar Controller(s).

For initial setup, if you only have one battery bank connected to your Solar Controller(s), you can ignore all the settings on the Solar Settings 2 page. If you have a second battery bank, the settings should be assigned as necessary.

Solar Settings 3:



Reset to Default:

Hold to change. This allows you to reset the Solar Controller(s) to default charging profile (AGM).

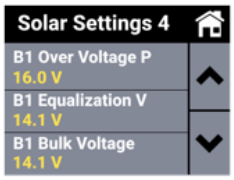
Reboot Solar Controller:

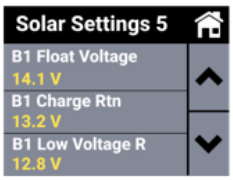
Hold to change. If all Solar Controllers are not communicating to the display, this allows you to reset all the Solar Controllers.

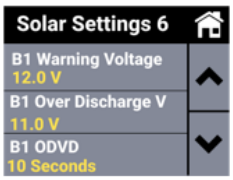
For initial setup, the Solar Settings 3 page is not necessary as there is no need to reset the solar controller(s).

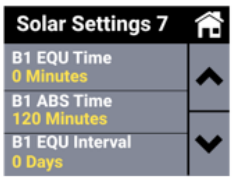
Solar Settings 4-8 (If B1 Battery Type is set to CUSTOM):

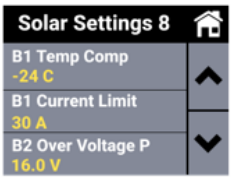
Solar Settings 4-8 will only appear if the B1 Battery Type is set to custom. If you have a custom battery bank set up, the values on Solar Settings 4-8 must be set. Refer to the battery manufacturers recommendations when setting these values.





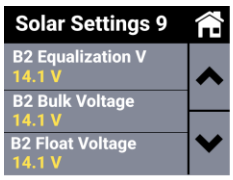


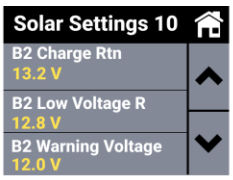


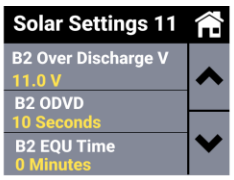


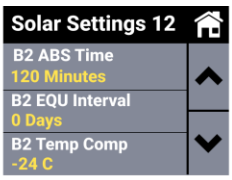
Solar Settings 9-13 (If B2 Battery is set to CUSTOM):

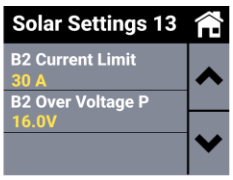
Solar Settings 9-13 will only appear if the B2 Battery Type is set to custom. If you have a custom secondary battery bank set up, the values on Solar Settings 9-13 must be set. Refer to the battery manufacturers recommendations when setting these values.





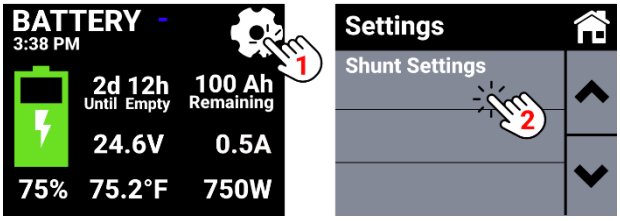




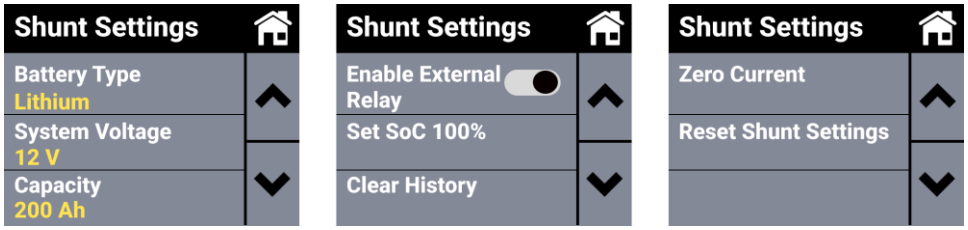


Shunt Settings:

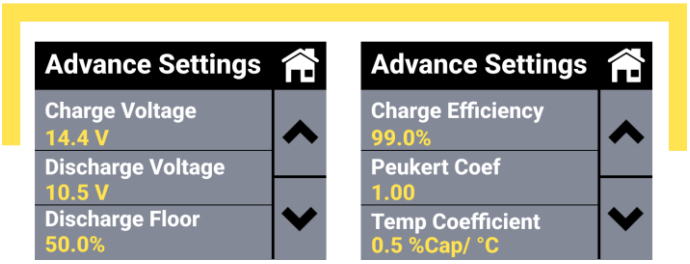
1. To enter the Shunt Settings, enter the main settings from the home screen and **press** “Shunt Settings”.



2. You will enter the Shunt Settings. The advance settings will only be displayed if the battery type is set to custom.

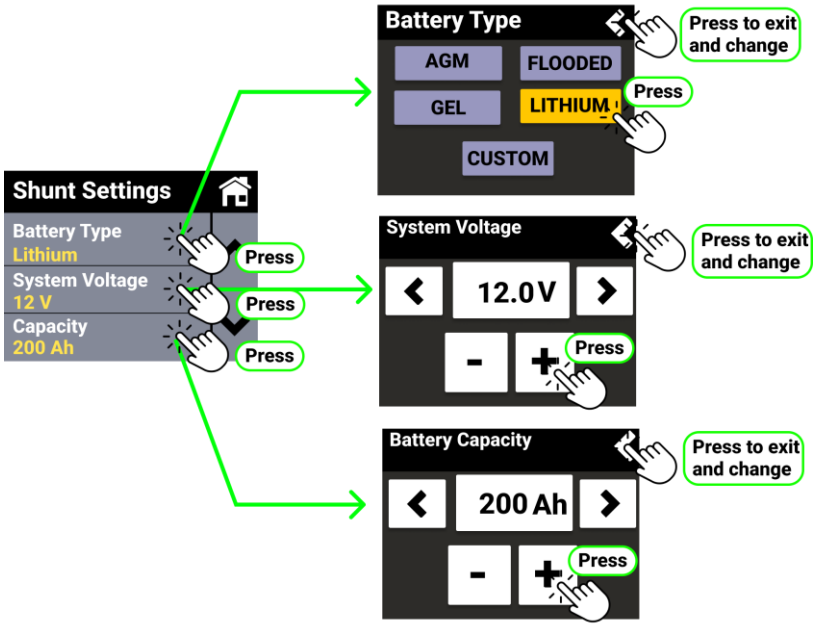


IF CUSTOM



3. Use the arrows pictured below to navigate between “Shunt Settings” pages.

Shunt Settings 1:



Battery Type:

Press to change. This allows you to select the battery type that is connected to your system.

System Voltage:

Press to change. This allows you to set the nominal voltage of your system.

Capacity:

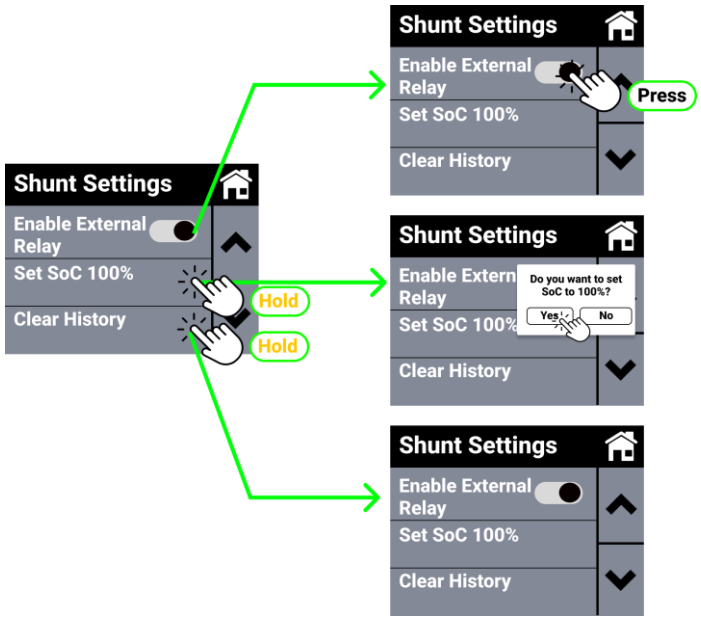
Press to change. This allows you to set the battery capacity of your system.

For initial setup, set Battery Type to Lithium if you are using Go Power! Advanced Lithium Batteries. If you are using third-party batteries, select the corresponding battery type. Set the system voltage and battery capacity to match the voltage and capacity of your battery bank.

Note: If the manufacturer of your third-party battery recommends charging parameters that differ from the parameters in the table below, select the custom battery option to manually set your charging profile.

PARAMETER	GEL	AGM	FLOODED	LIFEPO4	CUSTOM
High Voltage Disconnect	16.0 / 32.0 V	16.0 / 32.0 V	16.0 / 32.0 V	14.6 / 29.2 V	8..32 V
Equalize Voltage	-	-	14.9 / 29.8 V	-	8..32 V
Bulk-Absorption Voltage	14.1 / 28.2 V	14.4 / 28.8 V	14.4 / 28.8 V	14.4 / 28.8 V	8..32 V
Float Voltage	13.7 / 27.4 V	13.7 / 27.4 V	13.7 / 27.4 V	14.0 / 28.0 V	8..32 V
Recharge Voltage	13.2 / 26.4 V				8..32 V
Over-Discharge Return Voltage	12.8 / 25.2 V	12.8 / 25.2 V	12.8 / 25.2 V	12.2 / 24.4 V	8..32 V
Under-Voltage Warning Level	12.0 / 24.0 V				8..32 V
Over-Discharge Voltage	11.0 / 22.0 V				8..32 V
Discharge Limit Voltage	10.5 / 21.0 V				8..32 V
Over-Discharge Time Delay	5 seconds				0..120 seconds
Equalize Duration	-	-	120 minutes	-	0..600 minutes
Absorption Duration	120 minutes	120 minutes	120 minutes	120 minutes	10..600 minutes
Equalize Interval	-	-	30 days	-	0..250 days
Temperature Compensation Factor	-24 mV/°C	-24 mV/°C	-24 mV/°C	-	0..-30 mV/°C

Shunt Settings 2:



Enable External Relay:

Press to change. This will enable/disable an external relay if the system has one.

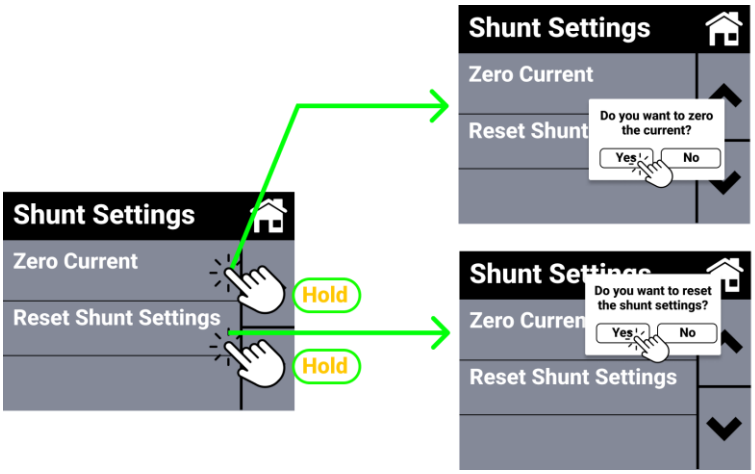
Set SoC 100%:

Hold to change. This calibrates the battery's state of charge. Only use this function if you are sure that the battery is fully charged, and the display is not showing the correct charge level.

Clear History:

This setting is not necessary for setup.

Shunt Settings 3:



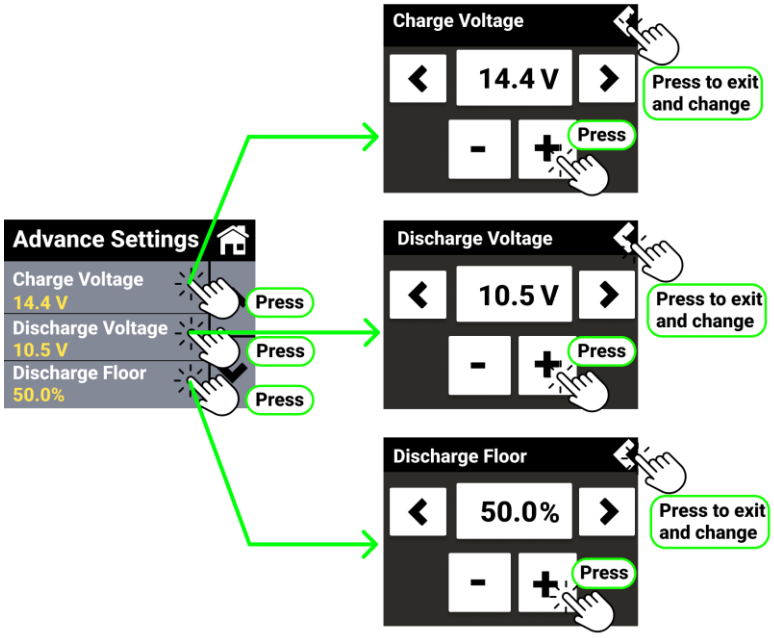
Zero Current:

Hold to change. This allows you to reset the current to calibrate the quiescent current drawn from the battery. If the current is zeroed, more accurate results are displayed for calculating remaining time with the shunt.

Reset Shunt Settings:

Hold to change. This allows you to reset all shunt settings.

Shunt Settings 4 (If battery is set to CUSTOM):



Charge Voltage:

Press to change. This allows you to set the voltage at which the battery is displayed as fully charged.

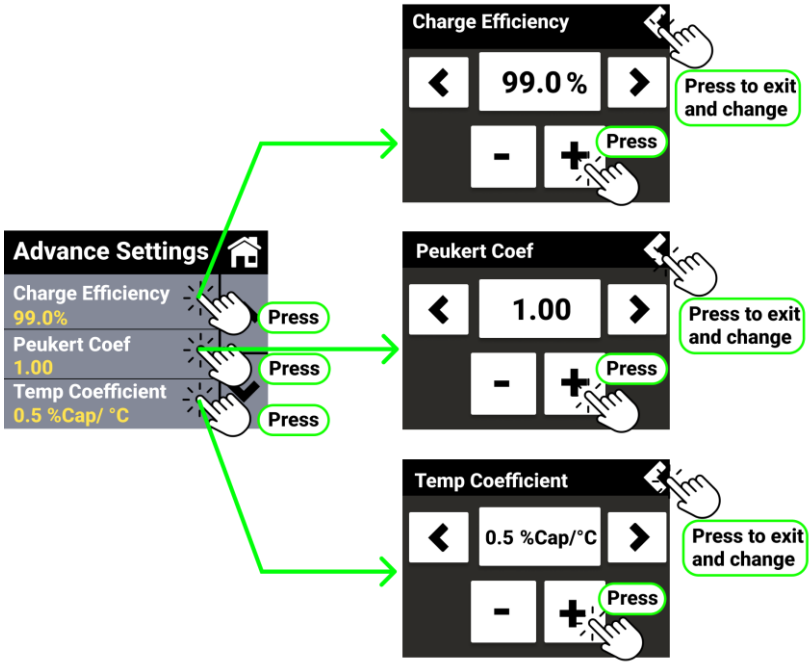
Discharge Voltage:

Press to change. This allows you to set the voltage at which the battery is displayed as fully discharged.

Discharge Floor:

Press to change. This allows you to set the SoC value at which the external relay of the battery is activated and displayed.

Shunt Settings 5 (If battery is set to CUSTOM):



Charge Efficiency:

Press to change. This allows you to set the charging efficiency of the battery that is connected to the system.

Peukert Coef:

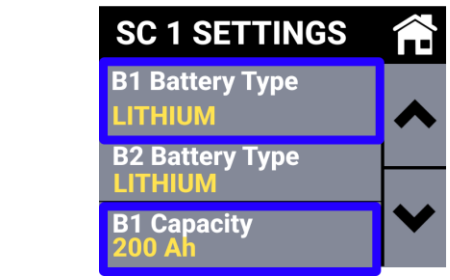
Press to change. This allows you to set the Peukert coefficient of the battery that is connected to the system.

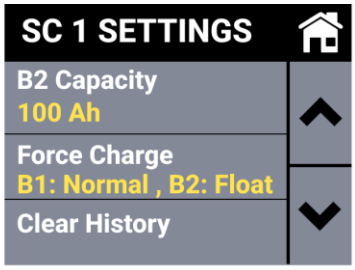
Temp Coefficient:

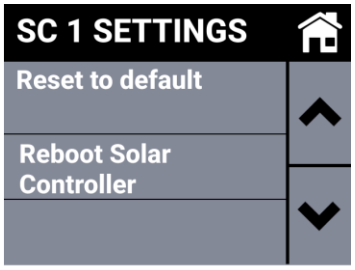
Press to change. This allows you to set the temperature coefficient, which indicates the relative change in resistance per degree of temperature change.

Final ADV-Lithium/IC/Solar Settings:

If all is done from above, the following settings are shown below. This is an example for users setting up our ADV-Lithium batteries with our MPPT30 and IC3000.

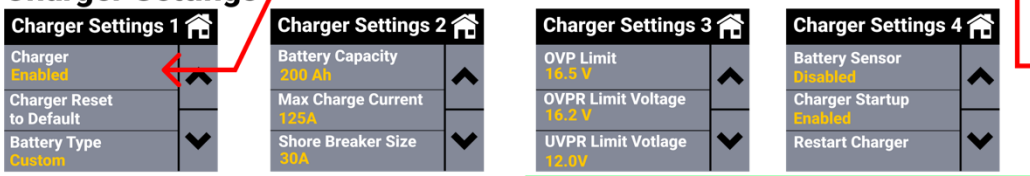






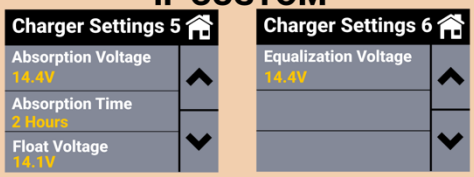
Disable Screen Auto-Dim
1. Enter Screen Settings
2. Move to page where it shows "Brightness"
3. Toggle "Auto-Dim"
4. Exit Screen

Charger Settings



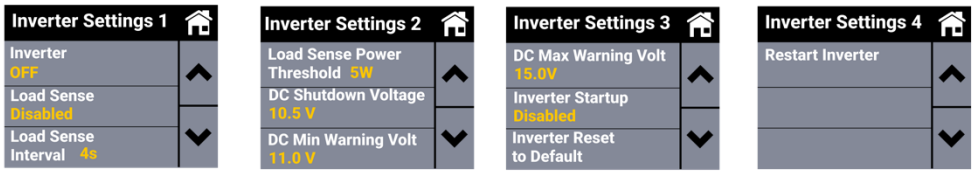
Additional Notes:
1. Some labels that are "Enable/Disable" settings
   a. You will need to "HOLD" the setting for 1-2 seconds
   b. A pop up will appear, you will then click the desired setting
2. IC3000/2000 series, Inverter must be enabled to enable Charging

IF CUSTOM



Charger Settings:
1. Set Battery Type to Custom
2. Set Battery capacity to total Battery Capacity (Ex:200Ah)
3. Set Breaker Size to 30A
4. Set Max Charge Current to 125A
5. OVP to 16.5V
6. OVP Limit to 16.0V
7. Set UVPR to 12.5V
8. Confirm Battery Sensor is Disabled
9. Confirm Charger on Startup is Enabled (Hold until popup, click Enable)
10. Set Absorption Voltage to 14.4V
11. Set Absorption Time to 2 Hours
12. Set Float Voltage to 14.1V
13. Set Equalization Voltage to 14.4V

Inverter Settings



Inverter Settings:
1. Set Inverter to off (Hold until popup, press disable)
2. Set Load Sense to Disable
3. Load Sense Interval to 4 Seconds
4. Load Sense Power Threshold to 30W
5. DC Shutdown at 10.5V
6. DC Min Warning Volt at 11.0V
7. DC Max Warning Volt at 15.0V
8. Inverter Startup Disabled