Lithionics Battery®

Approved Lithium Charge Settings & Devices

SECTION I: RECOMMENDED INVERTER/CHARGER SETTINGS

Parameter	4S / 12V	8S /24V	15S / 48V	16S / 51V	Value
Low Battery Cut Out	12.10	24.20	45.40	48.40	V
Low Battery Cut Out Delay	10.00	10.00	10.00	10.00	s
High Battery Cut Out	14.80	29.60	55.50	59.20	V
Maximum Search Watts	25.00	25.00	25.00	25.00	W
Search Delay	2.00	2.00	2.00	2.00	s
Low Battery Cut Out Hysteresis	2.00	2.00	2.00	2.00	V
Battery Type	Custom				
Battery Bank Capacity	Battery Amp Hour Capacity				
Maximum Charge Rate	Reference Battery Spec Sheet				
Maximum Bulk Charge Current	Reference Battery Spec Sheet				
Maximum Absorption Current	Reference Battery Spec Sheet				
Maximum Float Charge Current	2% Battery Amp Hour Capacity				
Charge Cycle	2 Stage				
Default Battery Temperature	Warm				
Recharge Voltage	12.40	24.80	46.50	49.60	V
Note: User adjustable based on usage preferences					
Absorption Time	30.00	30.00	30.00	30.00	Minutes
Equalize Support	No Equalization				
Equalize Voltage Set Point	14.60	29.20	54.80	58.40	V
Bulk/Boost Voltage Set Point	14.60	29.20	54.80	58.40	V
Absorption Voltage Set Point	14.60	29.20	54.80	58.40	V
Float Voltage Set Point	13.40	26.80	50.30	53.60	V
Battery Temperature Coefficient	0.00	0.00	0.00	0.00	mV/C
Maximum Discharge Current	Reference Battery Spec Sheet				
Maximum Discharge Time Interval	10.00				s

Recommended Inverter/Charger Models:

Model	Voltage	Rating
Xantrex XC 2000	12V	2000W
Xantrex Freedom SW 3012	12V	3000W
Victron Multiplus 2000	12V/24V	2000W
Victron Multiplus 3000	12V/24V	3000W
Schneider Conext XW 6048	48V/51V	6000W
Outback Radian GS 8048	48V/51V	8000W

Note: Certain devices require specific firmware versions or charge settings to be compatible with lithium. Always confirm your charging method with Lithionics Battery®.

SECTION II: RECOMMENDED SOLAR MPPT SETTINGS

Parameter	4S / 12V	8S /24V	15S/48V	16S/51V	Value
Battery Type			Custom		
Battery Bank Capacity			Battery Amp Hour Capacity		
Maximum Charge Rate			Reference Battery Spec Sheet		
Charge Cycle			3 Stage		
Recharge Voltage	13.30	26.60	49.90	53.20	V
Note: This will allow solar to keep battery fully charged when present					
Absorption Time	30.00	30.00	30.00	30.00	Minutes
Default Battery Temperature			Warm		
Nominal Battery Voltage	12.80	25.60	48.00	51.20	V
Equalize Support			No Equalization		
Equalize Voltage Set Point (Disabled)	14.40	28.80	54.00	57.60	V
Bulk/Boost Voltage Set Point	14.40	28.80	54.00	57.60	V
Absorption Voltage Set Point	14.40	28.80	54.00	57.60	V
Float Voltage Set Point	13.40	26.80	50.30	53.60	V
Battery Temperature Coefficient	0.00	0.00	0.00	0.00	mV/C

Recommended Solar Charger Models:

Model	Voltage	Rating
Victron BlueSolar MPPT	12V/24V/48V/51V	10A-100A
Victron SmartSolar MPPT	12V/24V/48V/51V	10A-100A
Outback FLEXMax MPPT	12V/24V/48V/51V	60 / 80A
Zamp Solar PWM	12V	30A / 60A

Note: Certain devices require specific firmware versions or charge settings to be compatible with lithium. Always confirm your charging method with Lithionics Battery®.

SECTION III: RECOMMENDED SHUNT/BATTERY MONITOR SETTINGS

Parameter	4S / 12V	8S /24V	15S/48V	16S/51V	Value
Battery Capacity			Battery Amp Hour Capacity		
Nominal Discharge Rate			1.00		Hr
Discharge Floor			20.00		%
Full Charge Voltage	14.40	28.80	54.00	57.60	V
Charger Float Voltage	13.40	26.80	50.30	53.60	V
Charger Float Current			2.00		%
Peukert Exponent			1.05		
Self Discharge Rate			0.00		%
Charge Efficiency Factor			98.00		%
Nominal Temperature			25.00		C
Default Temperature			25.00		C
Temperature Coefficient			0.00		Ah/C

SECTION IV: RECOMMENDED AGS SETTINGS

Parameter	4S / 12V	8S /24V	15S/48V	16S/51V	Value
Starting Battery Voltage (30 sec)	12.20	24.40	45.80	48.80	V
Starting Battery Voltage (15 min)	12.30	24.60	46.20	49.30	V
Starting Battery Voltage (2 hours)	0.00	0.00	0.00	0.00	V
Starting Battery Voltage (24 hours)	0.00	0.00	0.00	0.00	V
Generator Stop at Float Stage		Disabled			
Note: Enable if you want to minimize generator run time to take advantage of solar or other charging methods					
Generator Stop at Absorption Stage		Enabled			
Note: Enable if you want generator to run until battery is fully charged					
Stop Voltage		0.00			V
Thermostat 1/2		Disabled			
Inverter Load Start/Stop Triggers		Disabled			
AC Current Level to Start		10.00			A
AC Current Level to Stop		7.00			A
AC Current Trigger Start Delay		5.00			Minutes
AC Current Trigger Stop Delay		1.00			Minutes
Generator Auto Start on Battery SOC		Enabled			
State of Charge Level to Start		40.00			
Note: User adjustable based on usage preferences					
State of Charge Level to Stop		95.00			
Note: User adjustable based on usage preferences					

Note: The above charge settings recommended are general use settings. Some applications may require custom settings. Be sure to check your user manual or consult with the manufacturer of the charger to ensure the equipment is operated properly.