



# Approved Lithium Chargers & Settings: 48V & 51V

## SECTION I: RECOMMENDED INVERTER/CHARGER SETTINGS WHEN USED IN COMBINATION WITH SOLAR CHARGING SOURCES

Parameter	15S / 48V	16S / 51V	Value
Low Battery Cut Out	45.40	48.40	V
Low Battery Cut Out Delay	10.00	10.00	s
High Battery Cut Out	55.50	59.20	V
Maximum Search Watts	25.00	25.00	W
Search Delay	2.00	2.00	s
Low Battery Cut Out Hysteresis	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	46.50	49.60	V
Note: User adjustable based on usage preferences			
Absorption Time	30.00	30.00	Minutes
Equalize Support	No Equalization		
Equalize Voltage Set Point	54.00	57.60	V
Bulk/Boost Voltage Set Point	54.00	57.60	V
Absorption Voltage Set Point	54.00	57.60	V
Float Voltage Set Point	50.30	53.60	V
Battery Temperature Coefficient	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
Victron Multiplus	12/24/51V	2000-3000W
Victron Multiplus II	12/24/51V	2000-3000W
Victron Quattro	24/48/51V	5000-10000W
Schneider Conext XW 6048	48/51V	6000W
Outback Radian GS 8048	48/51V	8000W
Magnum MS Series	12/24/48/51V	2000-4000W
Magnum MS-PAE Series	24/48/51V	4000-4400W

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	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	49.90	53.20	V
Note: This will allow solar to keep battery fully charged when present			
Absorption Time	30.00	30.00	Minutes
Default Battery Temperature	Warm		
Nominal Battery Voltage	48.00	51.20	V
Equalize Support	No Equalization		
Equalize Voltage Set Point (Disabled)	54.00	57.60	V
Bulk/Boost Voltage Set Point	54.00	57.60	V
Absorption Voltage Set Point	54.00	57.60	V
Float Voltage Set Point	50.30	53.60	V
Battery Temperature Coefficient	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

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	15S/48V	16S/51V	Value
Battery Capacity	Battery Amp Hour Capacity		
Nominal Discharge Rate	1.00		Hr
Discharge Floor	20.00		%
Full Charge Voltage	53.25	56.80	V
Charger Float Voltage	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	15S/48V	16S/51V	Value
Starting Battery Voltage (30 sec)	45.80	48.80	V
Starting Battery Voltage (15 min)	46.20	49.30	V
Starting Battery Voltage (2 hours)	0.00	0.00	V
Starting Battery Voltage (24 hours)	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.**