

https://www.gobelpower.com

Connect Gobel Power Battery

with Victron





1 Battery Set-up

1.1 Turning Battery ON

The battery can be switched on by pressing the power button labeled ON/OFF.

- Choose Inverter
 In the battery screen, Parameter Settings -> Set CAN Prot, choose
 VICTRON.
- 1.3 Apply Battery Address

In the battery front panel, find red DIP Switch labeled as ADS, set address for each battery as following table:



Address	1#	2#	3#	4#	Battery
0	OFF	OFF	OFF	OFF	No Parallel
1	ON	OFF	OFF	OFF	Master B1
2	OFF	ON	OFF	OFF	B2
3	ON	ON	OFF	OFF	B3
4	OFF	OFF	ON	OFF	B4
5	ON	OFF	ON	OFF	B5
6	OFF	ON	ON	OFF	B6
7	ON	ON	ON	OFF	B7
8	OFF	OFF	OFF	ON	B8
9	ON	OFF	OFF	ON	B9
10	OFF	ON	OFF	ON	B10
11	ON	ON	OFF	ON	B11
12	OFF	OFF	ON	ON	B12
13	ON	OFF	ON	ON	B13
14	OFF	ON	ON	ON	B14
15	ON	ON	ON	ON	B15



2 Connect Communication Cable

- 2.1 A Victron Type B VE.Can to CAN-bus BMS cable is required for CAN-Bus communication between the Gobel Power battery and the Victron GX device. [https://www.victronenergy.com/cables/ve-can-to-canbus-bms]
- 2.2 Connect BMS-Can port of Victron with CAN port of battery.

3 Battery Set-up on Victron GX Device

- 3.1 In Settings -> Services -> BMS-Can Port -> CAN-bus profile, make sure CAN-bus BMS (500 kbit/s) is chosen.
- 3.2 In Settings -> DVCC, make following settings:
 - DVCC: Forced on
 - Limit charge current: ON
 - Max charge current: 0.5 * Battery Capacity (for a 51.2V 280Ah battery, Max charge current is 0.5 * 280 = 140A)

<	DVCC	ল্ 12:3 1
CAUTION: Read the r	manual before ad	justing
DVCC		Forced on
Limit charge current		
Maximum charge curr	rent	140A
Limit managed batter	y charge voltage	
SVS - Shared voltage	sense	Forced off
<u>네</u> Pages	~	≡ Menu



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<	DVCC	লি 12:32
Limit charge current		
Maximum charge curre	nt	140A
Limit managed battery	charge voltage	
SVS - Shared voltage se	nse	Forced off
STS - Shared temperatu	ire sense	Forced off
SCS - Shared current se	nse	
<u>ااا</u> Pages	^	≡ Menu

3.3 A battery will show up in device list, data will show in the battery Parameters.

<	Parameters	1	13:31
Charge Voltage Limit	(CVL)		56.0V
Charge Current Limit	(CCL)		145.0A
Discharge Current Lin	nit (DCL)		155.0A
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4 Victron MPPT Device Set-up (VictronConnect app)

← Settings	
Battery voltage	48V
Max charge current	100A
Charger enabled	
Battery preset	User defined 🔻
Remote Mode	Remote on/off
Expert mode	
Charge voltages	
Absorption voltage	56.00V
Float voltage	55.00V
Equalization voltage	Disabled
Equalization	
Automatic equalization	Disabled
Manual equalization	Start now
Voltage compensation	
Temperature compensation	Disabled
Battery limits	
l ow temperature cut-off	Disabled

Make following settings:

- Charger Enabled: ON
- Battery preset: User defined
- Absorption Voltage: value of
- Charge Voltage Limit (CVL)
- Float voltage: slightly lower than
 Absorption voltage
- Low temperature cut-off: Disabled



5 Victron Inverter/Charger Set-up (VictronConnect app)

← Charger	
Enable charger	
Charge current	70A
Absorption voltage	56.00V
Float voltage	55.00V
Repeated absorption interval The charger will enter in repeated absorption mode at specified interval to "refresh" the battery.	the 7.00d
Repeated absorption time	1.00h
Absorption time	8h
Low temperature cut-off	Disabled
Charge curve Charge curves description.	
Lithium batteries Click here to know the effect of enabling or disabling Lithum battery mode	
Storage mode When is fully charged keeps the battery at reduced constant voltage to limit gassing and corrosion.	
Use equalization Traction batteries require regular additional charging. Read more	
Weak AC input	
Should be checked in cases where problems during charge arise. Read more	
Stop after excessive bulk	

Make following settings for

Charger:

- Enable Charger: ON
- Absorption Voltage: value of
- Charge Voltage Limit (CVL)
- Float voltage: slightly lower than
- Absorption voltage
- Low temperature cut-off: Disabled
- Charge Curve: Fixed
- Lithium batteries: ON

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6 Victron Inverter/Charger Set-up (VE Configuration tools)

🐿 VE Configure 3 (Quattro-II	48/5000/70-2x50) — 🗆 🗙
<u>File</u> Port selection <u>T</u> arget	<u>D</u> efaults Options Special <u>H</u> elp
1 Quattro-II	General Grid Inverter Charger Virtual switch Assistants Advanced
Freq. OutHz UOutV IOutA Freq. InHz UMainsV IMainsV Udc rippleV IdcA	Enable chargei Battery type: Weak AC input Stop after excessive bulk Lithium batteries Disable VSense (for diagnostic purposes) Storage mode Use equalization (tubular plate traction battery curve) Charge curve Fixed
Ignore AC aux. relay	Absorption voltage 56.00 V Repeated absorption time 1.00 Hr Float voltage 55.00 V Repeated absorption interval 7.00 Days Charge current 70 A Absorption time 8 Hr Temperature compensation -64.8 mV/deg (max abs. voltage 58.91V)
<u>Get settings</u> <u>Send settings</u> <u>Victron Energy</u>	

- 6.1 Enable charer
- 6.2 Check Lithium batteries



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File Ful	a selection Target Defaults Options special neip
💁 VE Configure :	3 (Quattro-II 48/5000/70-2x50) - 🗆 🗙
File Port select	tion <u>T</u> arget <u>D</u> efaults Options Special <u>H</u> elp
	General Grid Inverter Charger Virtual switch Assistants Advanced
Quattro-II	
Frea. Out	Hz Battery type:
UOut	V No corresponding default
IUut	Stop after excessive bulk
Freq. In	Hz
IMains	A
lease select batte	ry type
Create new type	Battery type No corresponding default Exiting the fault for the fault of the fault
nemove type	Flooded deep discharge hat plate lead antimony ACM Vision Date Discharge ((stational stational)). The lead to be being (stational). ACM stick and
	 Administration Deep Discharge (rastest recharge), Tubular plate batteries (semi rioat use), Admi spiral cell
	S Redhow ZCell
Victron Energy	

6.3 Other Settings

💁 VE Configure 3 (Quattro-II 48	8/5000/70-2x50) — 🗆 🗙	
<u>File</u> <u>Port selection</u> <u>Target</u> <u>D</u>	Defaults Options Special <u>H</u> elp	
	General Grid Inverter Charger Virtual switch Assistants Advanced	
Quattro-II	Enable charger	
Freq. OutHz UOutV IOutA	Weak AC input Stop after excessive bulk	
Freq. InHz UMainsV IMainsA	Characteries Disable VSense (for diagnostic purposes)	
UdcV Udc rippleV IdcA	Configured for VE.Bus BMS Charge curve Fixed	
Ignore AC aux. relay	Absorption voltage 56.00 V Repeated absorption time 1.00 Hr Float voltage 55.00 V Repeated absorption interval 7.00 Days	
	Charge current 70 A Absorption time 1 Hr	
<u>G</u> et settings		
Victron Energy		2
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- Charge curve: Fixed
- Absorption voltage: value of Charge Voltage Limit (CVL)



• Float voltage: slightly lower than Absorption voltage

6.4 In Virtual switch tab, check Do not use VS.

1 a <u>1</u>	/E Configure	3 (Quattro-II 4	8/5000/70-2x50) — 🗆 🗙
<u>F</u> ile	<u>P</u> ort sele	ction <u>T</u> arget <u>I</u>	2efaults Options Special <u>H</u> elp
			General Grid Inverter Charger Virtual switch Assistants Advanced
Qu	attro-II Freq. Out UOut IOut Freq. In UMains IMains Udc ripple Idc Ignore AC aux. relay	Hz V A Hz V A	Usage Specify vitual switch usage: Do not use VS drive multifunctional (aux.) relay: VS on=open; VS off=close ignore AC input: VS on=ignore; VS off=do not ignore dedicated ignore AC input dedicated generator control drive aux. relay (VS on=open) + dedicated ignore AC input ignore AC input (VS on=open) + dedicated generator control

6.5 Assistant Tab 1

ዄ VE Configure	3 (Quattro-II 4	48/5000/70-2x50) — 🗆 🔿	×
<u>F</u> ile <u>P</u> ort selec	tion <u>T</u> arget	<u>D</u> efaults Options Special <u>H</u> elp	
		General Grid Inverter Charger Virtual switch Assistants Advanced	
Quattro-II			
Freq. Out UOut IOut	Hz V A	Assistant Loninguration Assistant Tools Assistant Setup	
Freq. In UMains IMains	Hz V A	Add assistant ESS (Energy Storage System)	
Udc Udc ripple Idc	····V ····V ····A	Ŷ	
Ignore AC aux. relay		Ļ	
	<u>G</u> et settings		
((()))	<u>S</u> end settings	Used assistants: (approx. 57 bytes used) Start assistant Save assistant Delete assistant	
Victron Energy		Summary Load assistant	
		Changes require reset	'n,

- Add assistant, choose ESS (Energy Storage System)
- 6.6 Assistant Tab 2



VE Configur <u>F</u> ile <u>P</u> ort sele	re 3 (Quattro-II 48/5000/70-2x50) — ection <u>T</u> arget <u>D</u> efaults Options Special <u>H</u> elp		×			
Quattro-II	General Grid Inverter Charger Virtual switch Assistants A Sw ESS (Energy Storage System) – – – – – – – – – – – – – – – – – – –	dvanced				
UOut IOut Freq. In UMains	Battery system Please select your system					
IMains Udc Udc ripp Idc	System uses OPzS or OPzV batteries System uses Gel or AGM batteries System uses LiFePo4 batteries with a VE.Bus BMS System uses LiFePo4 batteries with a two-signal BMS					
Ignore A aux. rela	System uses LifePod with other type BMS (This can be either a BMS connected via CAN bus or a BMS system in which the batteries are protected from high/low cell voltages by external equipment.) System uses Redflow ZCell batteries					
	Cancel << >>	J				
<i>(((</i>	Send settings Start assistant Save assistant Dele	te assistant				
Victron Energy	Summary Load assistant					
	Changes require reset					

• Click Start assistant, choose 5th option.

• Input total capacity of battery system.

💁 VE Configure 3 (Quattro-II 48/5000/70-2x50) — 🗆 🗙												
<u>F</u> ile	<u>P</u> ort sele	ection <u>T</u> arget	<u>D</u> efaults (Options	Special	<u>H</u> elp						
			General	Grid Inv	erter Ch	arger	Virtual switch	Assistar	nts Adv	anced		
Qu	Jattro-II		Assistant Configuration									
	Freq. Out	Hz	Assistant	Assistant Fully								
	IOut Freq. In UMains IMains Udc	Normal Storage System) - 🗆 🗙										
		Battery capacity Please enter the correct battery capacity.										
	Ignore A aux. rela									+		
		X C	ancel		«		>>>			J		
Send settings												
Victron Energy				an assistant Summary		Loa	ad assistant		Delete	assistant		
Changes require reset												

• Choose Do not change battery type.





• Set Sustain voltage 51V.



• Set Dynamic cut-off.





• Use default Restart offset.

See VE Configure 3 (Quattro-II 48/5000/70-2x50) − □ ×											
<u>F</u> ile	<u>P</u> ort sel	ection <u>T</u> arget	<u>D</u> efaults	Options	Special	<u>H</u> elp					
			General	Grid	nverter Ch	arger V	/irtual switch	Assistant	ts Adv	anced	
Qu	uattro-II						- 5 .5	_			
	Freg. Ou UOut	ESS (Energy	Storage Syste	em)			_	U	×		
	10ut	Restart	offset								
	Imains When inverting is stopped due to low battery, the battery voltage must rise above a certain level before inverting is allowed again. This level is determined as an offset to cut-off(0).										
											. II
	Udc Udc ripp	(cut-off(0) is the o	out-off voltage	correspond	ling with a D	C discha	rge of UA.)			T T	
	Idc	Note: This same value is used as an offset to the cut-off voltage to determine the low bat									
	Ignore A	Pre-Alarm indicat	ion)								
	aux. rela	rek 🗸									
	_	Inverting is allowed again when voltage rises 1.20 V above cut-off(0).									
							ſ				
1		×	Cancel		<<		<u> </u>			assistant	
	WIII	* ************************************		Summary		Loa	d assistant				
	ron Energy									-	
			1 Cha	nges reg	<u>uire reset</u>					6	Th b