System configuration



Software needed for programming

Victron Connect is used for updating firmware

VE configuration tools for VE.Bus Products contains:

- **VEConfigure 3** is used for system settings
- VEBus Quick Configure or VEBus System Configurator are used to set up 3-phase and/or parallel systems

Software is available from the Victron downloads page: <u>https://www.victronenergy.com/support-and-</u> <u>downloads/software</u>



🕼 Setup - VE Configure tools		_			
Select Additional Tasks Which additional tasks should be performed	?				
Select the additional tasks you would like Se tools, then click Next.	tup to perform while inst	alling VE	Configure		
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VEConfig					
VE.Bus Quick Configure					
✓ VE.Bus System Configurator					
✓ VEFlash					
Set file associations					
✓ open *.VSC and *.RVSC files with VEConfig					
✓ open *.VAP files with VEConfig					
\checkmark open *.VMS and *.RVMS files with VE.B	us System Configurator		\checkmark		
	< <u>B</u> ack <u>N</u> ex	t >	Cancel		



Before programming

- Update all units to the latest firmware version
- Interconnect the units with RJ45 cables
- Connect a MK₃-USB interface



- Make sure the GX device is disconnected.
- If the system will be using a Digital MultiControl it will need to be connected during programming
- In a 3-phase system the AC out neutrals will need to be connected





VEBus quick configure -

For systems up to 3 units

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3-phase, split phase or parallel





VEBus system configurator -

- For systems with 4 or more units
- For special systems , like 1-phase in and 3-phase out







VEConfigure

- The final settings are done via VE.Configure.
- Use a VE.Bus program to access the VE configure settings
- VE.Configure will ask you to send the settings to this unit or to all units?





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General Grid Inverter Charger Virtual switch Assistants

WE Configure 3 'phase L1' (MultiPlus 12/3000/120-50)

File Target Persons

MultiPlus

VE.Configure master of L1

- System frequency
- Ignore AC input function
- Weak LOM
- All charger settings, such as:
 - Absorption voltage
 - Float voltage
 - Charge current

Note: The maximum charge current multiplied by the number of units in the system. Example: To get a 450A maximum charge current in a 9 unit system set the charge current to 50A per unit





VE.Configure master of each phase

- Inverter output voltage
- UPS function on/off
- Power Assist settings
- Accept wide input frequency range
- Input current limit(s)



Note: The input current limit used by the system is multiplied by the number of units in the system. For example; a current setting of 30A in two Multis means a total current limit of 60A. This multiplication factor is also used by the remote control panel or GX device. It is possible to set a different input current limit per phase.



VE.Configure each unit

- Country/grid code standard or grid related values (AC high/ low values)
- DC input low shut-down values
- Virtual switch settings (with exception of AC ignore)
- All assistants
- Note that the programable relay and K relay(s) can be uniquely programmed in each unit.
- A quick way to make settings in all units is use the "send to all units" feature.





VE.Bus error codes

- A VE.Bus error code is a blinking inverter LED in combination with a charger status LED
- The blinking is always in anti phase! If LEDs blinks in phase it is NOT an error
- If one or more systems shut own after a fault or alarm, all units have to be switched off and back on again!
- If there is an alarm in a one of the units of a 3-phase system, like low battery, overload, temperature or ripple, all units will switch off.
- The GX device will tell you in which phase the alarm occurred.





Error overview

For a list of the VE.Bus error codes see:

- The manual of the Multi or Quattro
- The VE.Bus Quick configure software
- The Toolkit App
- VE.Bus error code document: <u>https://www.victronenergy.com/live/ve</u> <u>.bus:ve.bus_error_codes</u>

Quick	Configure				
סו	Required an Setup a Change Reset a Open d	ction otion v VE.Bus system e settings of an existing u Multi to standalone m ialog box with info abo	g VE.Bus system node out LED codes		
m			Error codes	×	
Cancel K Back		< Back	 Please read the information below carefully before contacting Victron Energy. First of all, in a running VE Bus parallel system, all slaves blink their Inverter on and Mains on LEDs alternating. This is as it should be and does not indicate an error! It just indicates that these devices are slaves. Please look at the LEDs on the master to determine the state of the corresponding phase. Besides this there are 2 types of LED codes in a VE. Bus system. OK codes and Error codes. OK codes If the internal state in a device is OK, but the device cannot start yet due to the failing of other devices, this device will display an OK code. This feature will make it more easy to discover which unit fails in a certain situation. For a Multi: A blinking Bulk LED indicates that this device can invert. A blinking Float LED indicates that this device can charge. 		
			chargerinverter	Error Info	

VE.Bus (

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