# Venus GX (VGX) manual

In many ways the **Venus GX (VGX)** and the **Color Control GX (CCGX)** are the same device. They share a lot of hardware, and they run on identical software - our 'Venus OS' - therefore firmware numbering is the same; and new version releases always apply to both devices at the same time.

This manual refers to the latest firmware version. A device connected to the internet will perform new-version updates automatically. Check the latest firmware version here.

Venus GX/CCGX comparison table

See Victron GX product range.

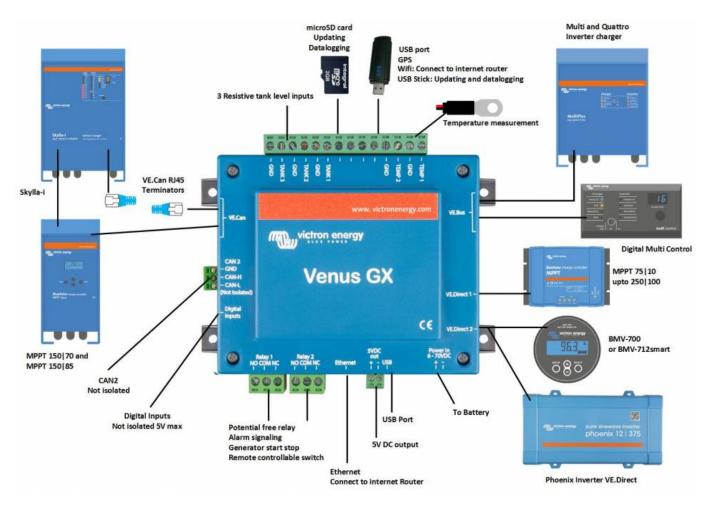
# 1. What's in the Box?

- Venus GX (VGX)
- VE.Can terminator (2 pcs).
- Power cable with inline fuse and M8 terminal eyes for battery- or DC busbar-attachment.
- Terminal Blocks for all the connectors on each side.
- Label showing WiFi key and product details.





## **1.1 Overview of connections**



# 2. Accessing the device

Because the Venus GX has no visual display or buttons, it is accessed for setting-up and monitoring by using the 'Remote Console' feature. You can do this through VRM, using the built-in WiFi Access Point, or by using the local LAN/WiFi network.

## 2.1 Accessing 'Remote Console' via VRM

Connect the Venus GX to the internet by plugging it into a working Ethernet network which as a DHCP

server (most networks do). It will immediately connect to VRM.

Go to https://vrm.victronenergy.com/ and follow the instructions to add the device. More information about this is available in the VRM Manual.

When you've done that, click the 'Remote Console' link to open the window, like this:

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$\leftarrow$ $\rightarrow$ C $\blacksquare$ Secure   https://vrm.vic	tronenergy.com/installation/1495/dashboard		
wictron energy			C
Q thuis X	Device List	12:44	
	BMV-702	90% 52.42V 16.2A >	esc 🗸
< васк	BlueSolar Charger MPPT 150/70	ow >	
Dashboard	Fronius Galvo 3.1-1	1757W >	
୍ଷ Advanced	Grid meter	14W >	
🛇 Device list	MultiPlus 48/5000/70-50	Bulk >	
l Settings +	Notifications	>	
🗟 Remote Console	<u> 네</u> Pages 🗸 🗸	<b>⊒</b> Menu	Matthijs Thuis
🖉 Notes			Remote <b>Console</b>
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More information about 'Remote Console' on VRM is explained here.

## 2.2 Accessing 'Remote Console' via the built-in WiFi Access Point

#### Steps:

- 1. Make sure you are no further than a few metres away from the Venus GX
- 2. Go to the WiFi settings on your phone / tablet / laptop.
- 3. After searching, it will show up in the list:
- 4. Connect to WiFi using the 'WiFi key' which you will find printed on the side of the box ...and also on a card in the plastic bag which you should keep in a safe place.
- 5. Once connected, navigate to 172.24.24.1

Note that for added security it is possible to disable the WiFi Access Point. See Settings  $\rightarrow$  Wi-Fi  $\rightarrow$  Create access point.

**Caution**: Once WiFi Access is disabled the only way to get it back is by using 'Remote Console' on VRM -which requires a working internet connection; or via 'Remote Console' on LAN which requires a working network connection (but no internet).

## 2.3 Finding the IP address

If you've accidentally disabled Remote Console on VRM, the only way to re-enable it is via Remote

Console on LAN. And to do that you'll need to find the IP address of the Venus GX. There are several ways of finding it:

#### IP Address on VRM

On VRM, you'll find the IP address on the Device List page of the installation. Note that this does require the Venus GX to be connected to the internet.

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m	victron energy			
O,	Search an installation	Device list for Home		
	BACK			
0	Dashboard	Gateway		
N.	Advanced	_		
0	Device list	Product	Color Control GX	
0	Settings +	Firmware version	v2.07-7	
۵	Remote Console	Remote on LAN	192.168.4.71	
ď	Notes	Firmware updates	Automatic upore	
8	Photos	Last connection	5 minutes ago	
<	Share	Logging interval	15 minutes	
49	Alarm logs	Last power up or restart	2017-04-19 15:36	
		Remote Console on VRM	Enabled but not online Learn more	
	🖒 Log out	Two way communication	Disabled	
		Remote support	Enabled and online	

#### Network (on Microsoft Windows)

In a local network, for example at home, you can also find the Venus GX in the Windows 'Network' overview:

Double-clicking the icon will open up Remote Console on LAN.

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G V Networ	k »	- 49	Search	Net	٩
Organize • Search	Active Directory Network and Sharing Canter Add a printer Add a wireless device	10	•	8 (	8
★ Favorites ■ Desktop Downloads Meccent Places Libraries	Computer (2)     VE-TST-BPC     Other Devices (55)				-
Cocuments  Music  Pictures  Videos  Computer	U Venus GX				2
Wetwork Network					
Venus GX (b	0d5cd1f779) Categories: Other Devices Network location:				*

Open the 'Properties' window to see the IP address.

This uses Universal plug-and-play broadcast technology.

# 3. LEDs and Push-button - explanation

## 3.1 LEDs

#### Boot-up

On the side of the Venus GX, there is an LED. During power-up it it goes through these states:

- Stage 1: Both green and red illuminate briefly and faintly (it's hard to see the green) for approximately 1 second.
- Stage 2: Red illuminates for approximately 1 second.
- Stage 3: Green illuminates for approximately 0.5 seconds.
- Stage 4: Both green and red illuminate briefly and faintly (it's hard to see the green) for approximately 1 second.

After that the LED will be blinking green continually.

#### Factory re-install

During a forced factory re-install - a very uncommon operation - the LED has these definitions:

- Off: No action is being taken.
- Red blinking: Re-install in progress.
- Green illuminated: Re-install complete.
- Red illuminated: Error.

# **3.2 Small button located to the right of the green 14-Terminal Connector Block**

This button has no function allocated at present.

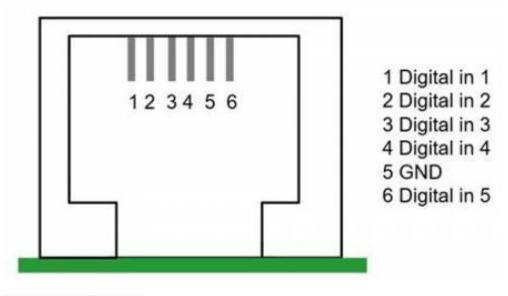
## 4. Digital Inputs

The Venus GX has five digital inputs. The channels are accessible via the RJ-12 socket on the side. This is available for self-wiring by the user/installer.

## 4.1. Wiring details

The inputs are non-isolated. They operate at 3V3 levels, and can withstand up to 5V input. Each input has an internal 10k pull-up resistor to 3V3. We recommend wiring it to a potential free relay or

otherwise open collector/optocoupler output.



RJ12 pinout	Input
pin1	input1
pin2	input2
pin3	input3
pin4	input4
pin5	gnd
pin6	input5

## 4.2. Configuration

Each of the digital inputs can be configured as a pulse meter, or as one of a number of predefined sensors that can also be configured as alarms.

The possible configurable functions are:

Function	States
Pulse meter	N/A
Door alarm	Open/Closed
Bilge pump	On/Off
Bilge alarm	Ok/Alarm
Burglar alarm	Ok/Alarm
Smoke alarm	Ok/Alarm
Fire alarm	Ok/Alarm
CO2 alarm	Ok/Alarm
Generator	Running/Stopped

The function of each input can be configured in the GUI under Settings  $\rightarrow$  I/O  $\rightarrow$  Digital Inputs.

<	Digital inputs	11:37
Digital input 1		Disabled
Digital input 2		Disabled
Digital input 3		Pulse meter
Digital input 4		Door alarm
Digital input 5		Disabled
<u>네</u> Pages		<b>⊒</b> Menu

Once the input is configured for its intended purpose, it will show up with other devices.

	Device List	08:45
Bilge alarm		Ok >
Bilge pump		On >
Pulse meter		145m <sup>3</sup> >
Notifications		>
Settings		>
<u>ااا</u> Pages		<b>≡</b> Menu

Other parameters related to that function can be configured by entering the device menu and selecting Setup. For pulse meters, you can configure the unit, the multiplier (the volume represented by each pulse) and reset the counter.

<	Setup	11:48
Volume unit		Cubic metre
Inverted		OFF
Multiplier		0.1
Reset counter		0
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- To swap the labels attached to the alarm, set *Inverted* to on.
- If a logical low input (0V) should be considered a positive condition, set *Inverted alarm logic* to on.

<	Setup		09:40
Enable alarm		ON	
Inverted			OFF
Invert alarm logic		O	OFF
<u>ااا</u> Pages		<b>≣</b> Menu	

## 4.3. ModbusTCP

The values/states of the digital inputs are available on ModbusTCP. For more details about this, please download a copy of the document "Modbus-TCP register list" from our website.

# 5. How does the Venus GX compare with the CCGX?

See products\_running\_venus\_os

# 6. More information

- ccgx
- generator\_start\_stop
- CCGX Frequently asked questions
- How to update a GX device
- CCGX Remote VEConfigure and remote firmware updates
- VRM Portal
- VRM Portal trouble shooting Remote Console
- Open source

# DISQUS

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Permanent link: https://www.victronenergy.com/live/venus-gx:start?rev=1549667169



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