

GX Manual v2.60

This draft manual contains notes and/or new texts for the various sections that need changing after releasing v2.60.

A) For in chapter 1.4 - Multiple GX Devices for increasing number of tank inputs

(or to be put in a separate chapter)

Introduction

The number of tank inputs of a GX Device, such as the Cerbo GX and the Venus GX can be expanded by connecting multiple GX devices together in a VE.Can network.

Make sure to designate one GX device to be the “main” one; and the other(s) to be the “secondary” one(s). There is no practical limit on how many can be used - most likely the number of source addresses on a VE.Can network is the limit, which is 252 addresses. A Cerbo GX, with 4 tank inputs, will use up 5 addresses: one for itself, and one for each tank input.

More details regarding the Main unit versus Secondary units:

1. Only enable the MQTT settings (part of MFD App integration) on one of the GX Devices, not multiple.
2. Only connect the main GX device to the Ethernet network - do not connect the others. For example the MFD App on Marine MFDs is not designed to work with multiple GX devices on one Ethernet network.
3. (optional - only when using ModbusTCP protocol): only enable ModbusTCP on one of the GX Devices
4. Only connect the main GX Device to VRM; it will also transmit tank levels received from the secondary units.
5. We recommend to connect all VE.Bus and VE.Direct products to the main GX Device. Connecting the via a secondary device will work, but has limitations. For example that Remote configuration doesn't work, DVCC control will not work, and neither will remote firmware updates. Expanding the VE.Direct ports through USB does give full functionality, which is therefor the recommended method. More information about thus in chapter 1.4.?

Steps to configure

First, on all GX devices, configure all tank inputs:

1. In Settings → I/O → Analog input, only enable the inputs in use, disable the others.
2. In the Device list → Tank input → Device → Custom name, give each tank input its own unique proper name, ie Fresh water 1, Gray water SB, Diesel Port, and so forth. This is the only way to make sure they are distinguishable once all connected together.

Then, connect each GX Device together on its VE.Can port. Make sure to terminate on both ends. There is no need to power the VE.Can network externally: while the GX devices don't power the VE.Can network, they do power their own internal CAN circuitry.

Now, on each GX Device, go to Settings → Services → VE.Can, and there:

1. Verify that the chosen profile is VE.Can & Lynx Ion BMS (250 kbit/s) or VE.Can & CAN-bus BMS (250 kbit/s)
2. Enable the NMEA2000-out feature on all GX Devices
3. Assign each GX Device its own unique number. Use the test feature when to make sure all went well

Lastly, on the main GX Device, check if all sensors show up in the Device list and work well.

B) Changes to the NMEA2000-out chapter

Many wording changes: “Send data to VE.Can” was reworded to “NMEA2000-out” and much more.

Also there is now a menu to change the VE.Can/N2K Device Instances.

Which means that this document needs amending as well:

https://www.victronenergy.com/live/ve.can:changing_nmea2000_instances.

C) Tank input configuration

tbd. Include the new min /max, as well as ten point calibration and so forth. Include screenshots.

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