

Virtual switch - Generator start/stop

This document explains how to make a MultiPlus, Quattro, or other VE.Bus enabled inverter/charger, automatically start and stop a generator, by configuring the Virtual Switch option in VEConfigure. This is one of the available options to automatically start and stop a generator. See the [auto-generator-start-stop](#) document for an overview of all options.

More general information about using a generator in combination with Victron is available [here](#).

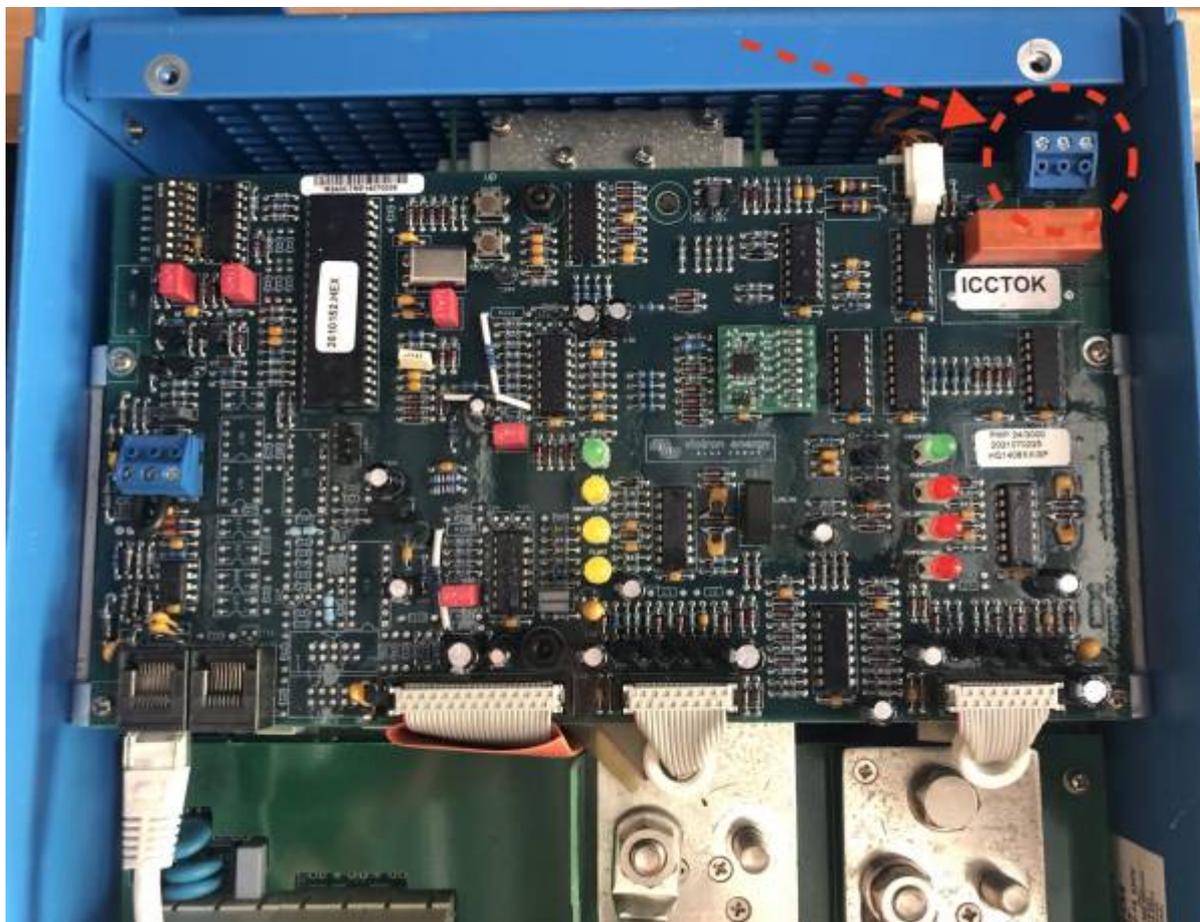
1. Wiring

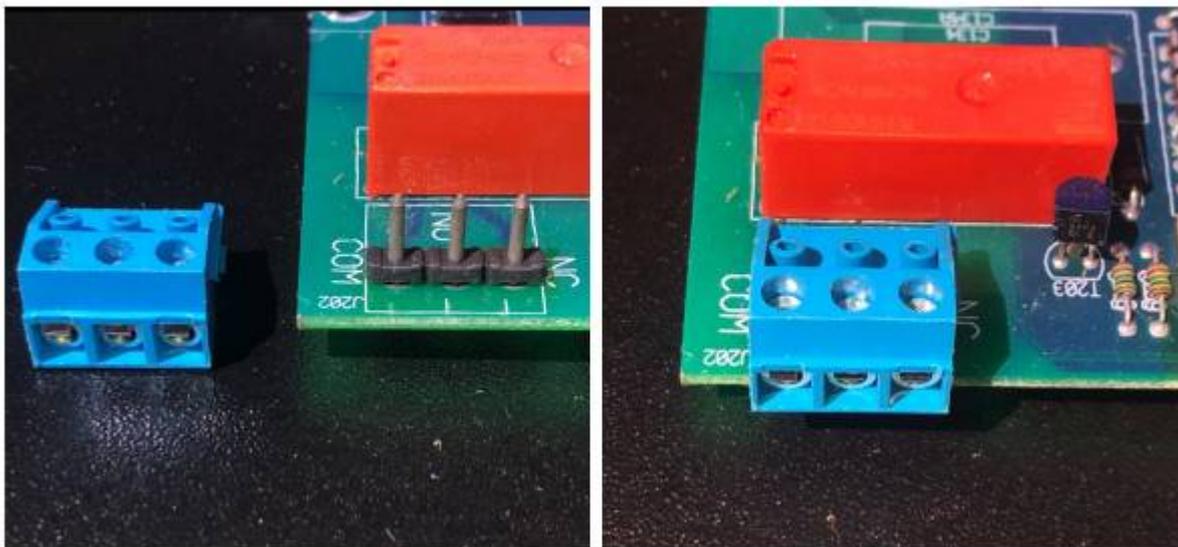
The relay and connector block that needs to be wired to the generator control input is named the Alarm relay; in the various manuals.

1.1 MultiPlus and Quattro models of 3000VA and above

Be aware that this relay block is detachable. You can pull the block off, removing it from the board. This makes it easier to wire connections, and then push it back on.

Note that there are three contacts; left to right: Normally Closed (NC) , Normally Open (NO), Common (COM).





1.2 MultiPlus-II models

The contact order for MultiPlus-II is left to right: NO, NC, COM.



1.3 MultiPlus 500VA to 1600VA models

On our Multi 500, 800, 1200 and coming 1600, the order from left to right is COM, NC, NO. Contact is



here:

1.4 MultiPlus Compact models

This relay block is also removable (by pulling) for easier wiring.

Contact order is NO, COM, NC

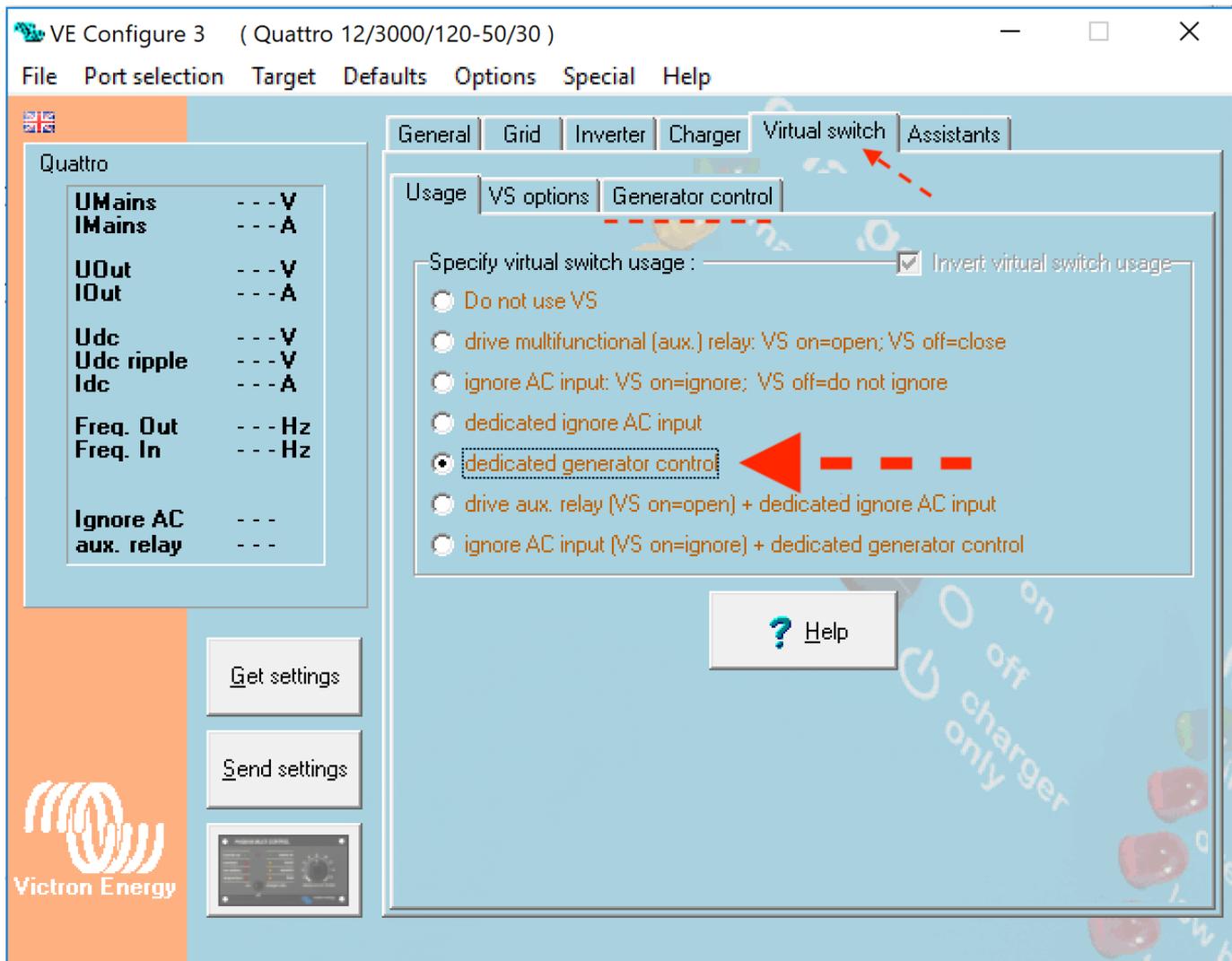




2. Configuration

2.1 Enable the feature

Open VEConfigure, navigate to the Virtual Switch, and there select 'dedicated generator control'.



2.2 Configure the feature

Note that below are just example values; configure them to match the type of batteries and rest of system.

The 'stop generator when AC2 available' feature is for Quattros; used in a backup system with generator. Wire the generator to AC-in 1; and mains to AC-in 2. With that box checked; the system will automatically stop the generator once mains is available again.

VE Configure 3 (Quattro 12/3000/120-50/30)

File Port selection Target Defaults Options Special Help

General Grid Inverter Charger Virtual switch Assistants

Usage VS options Generator control

Load conditions

Start generator when load higher than:
2548 W for 30 seconds

Once started due to load condition, stop generator when load lower than:
637 W for 2 minutes

Battery conditions

Start generator
when Udc lower than: 11.75 V for 20 seconds
or when state of charge lower than: 50.0 %

Once started due to a battery condition, stop generator when:
Udc higher than 14.00 V for 30 minutes

stop generator when AC2 available
 invert driving of auxiliary relay
(i.e. generator starts when relay NOT driven)

Quattro

UMains --- V
IMains --- A

UOut --- V
IOut --- A

Udc --- V
Udc ripple --- V
Idc --- A

Freq. Out --- Hz
Freq. In --- Hz

Ignore AC aux. relay ---

Get settings
Send settings

Victron Energy

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