

Virtual switch - Generator start/stop

This document explains one of the ways to automatically start and stop a generator. See [here](#) for the other options.

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

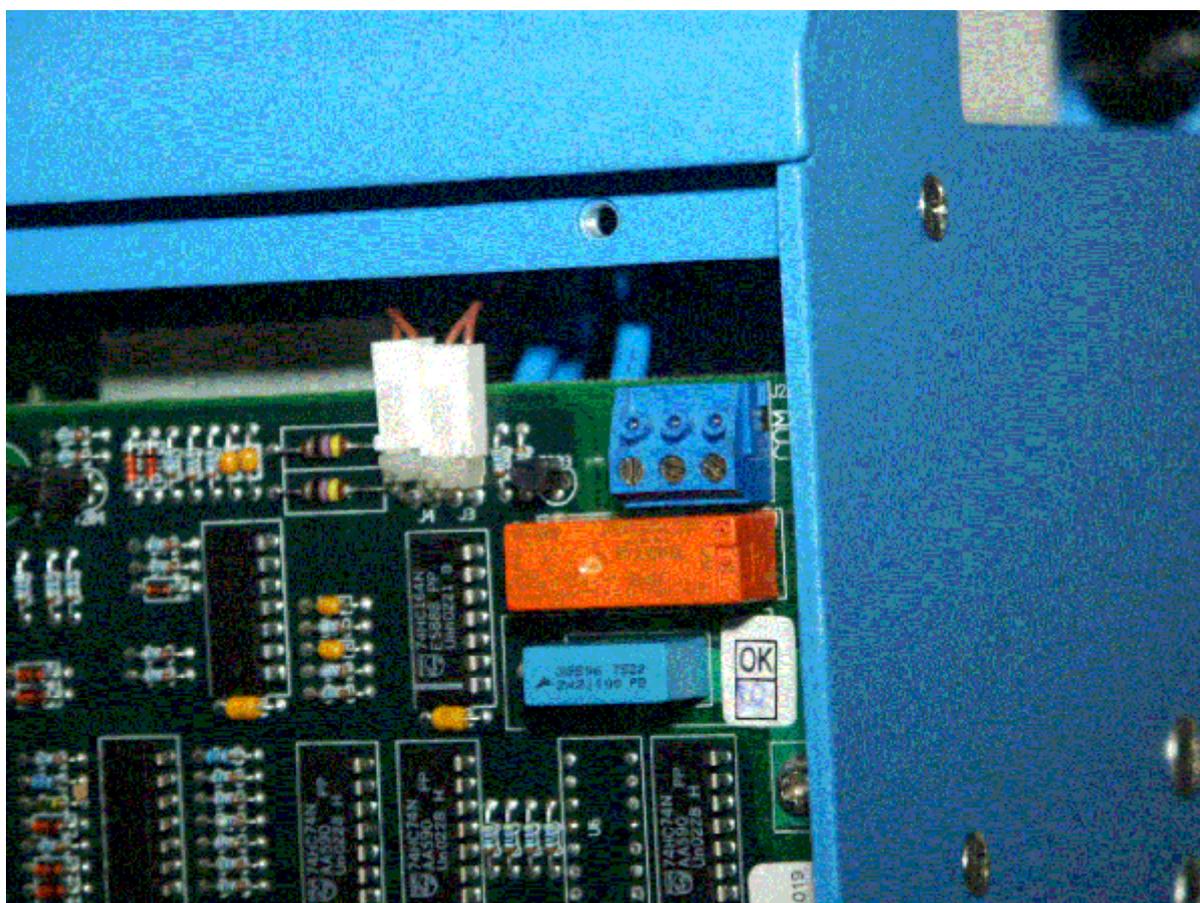
1. Wiring

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

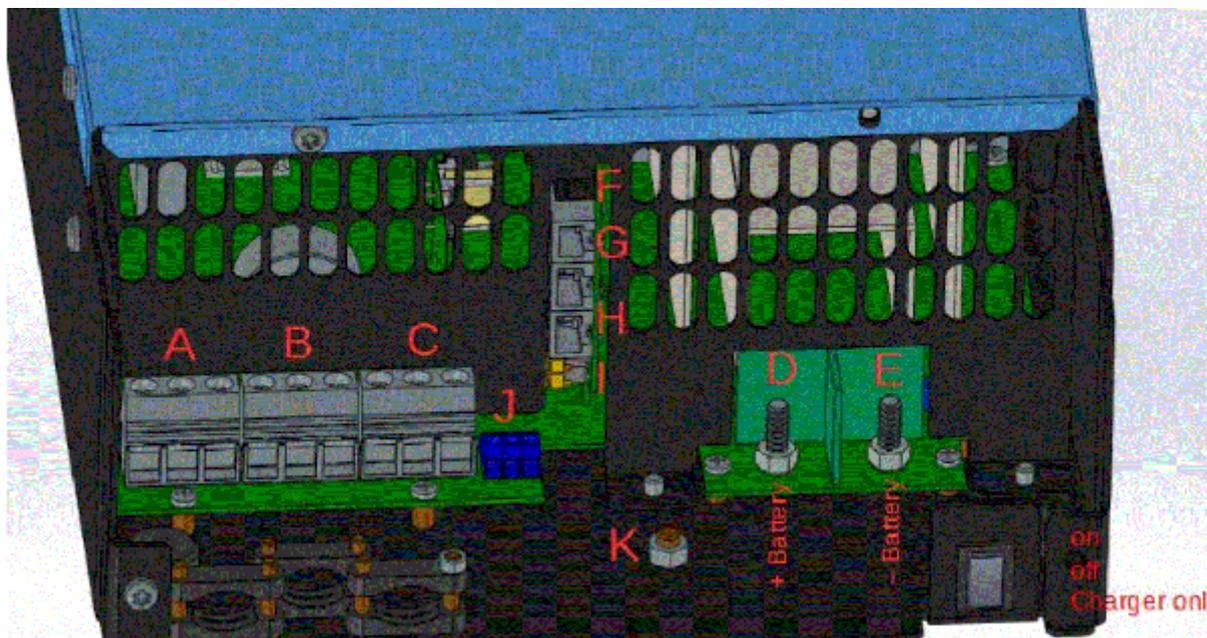
To do the wiring easily; be aware that its detachable: you can pull the block off; do the wiring; and then push it back on.

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



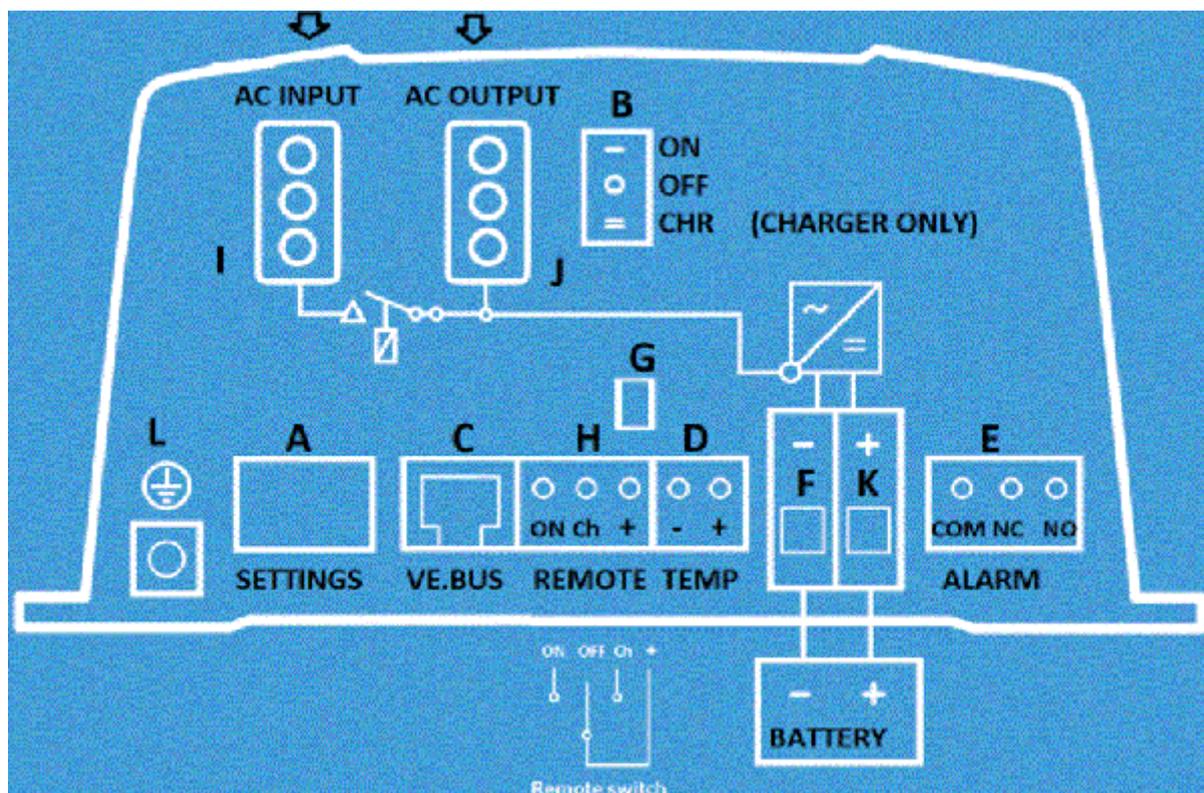
1.2 MultiPlus-II models

The connector is J in the picture. Left to right: NO, NC, COM.

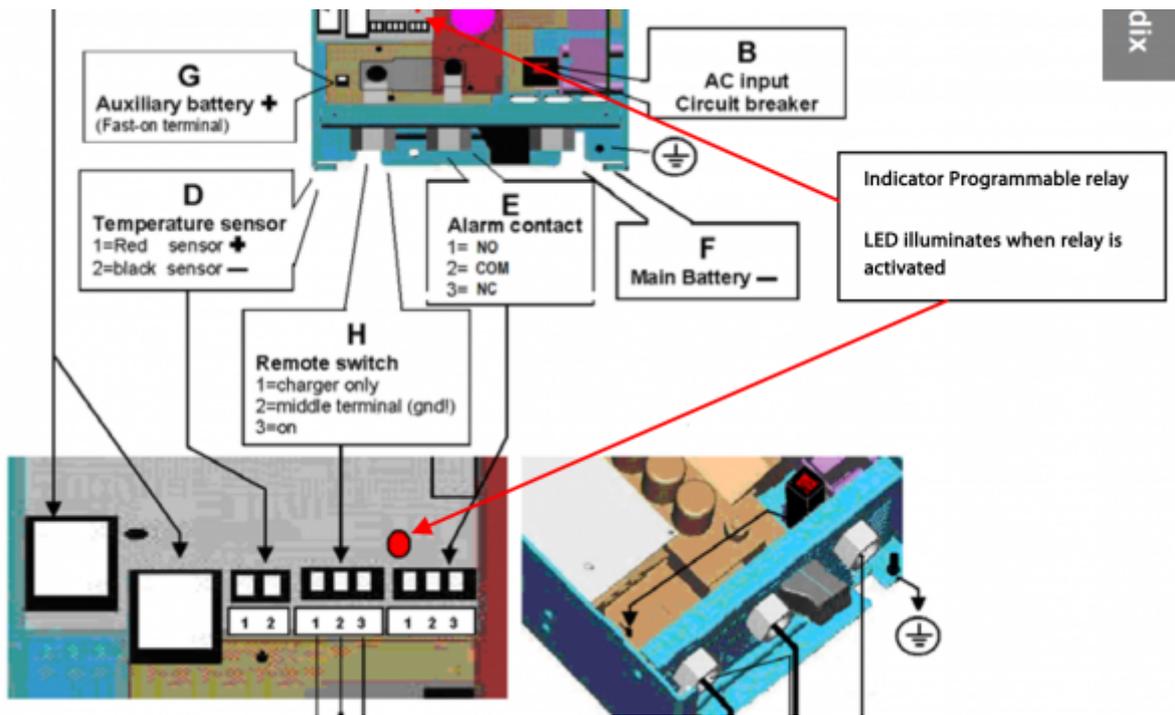


1.3 MultiPlus 500VA to 1600VA models

And, on our Multi 500, 800, 1200 and coming 1600, is contact E; here:



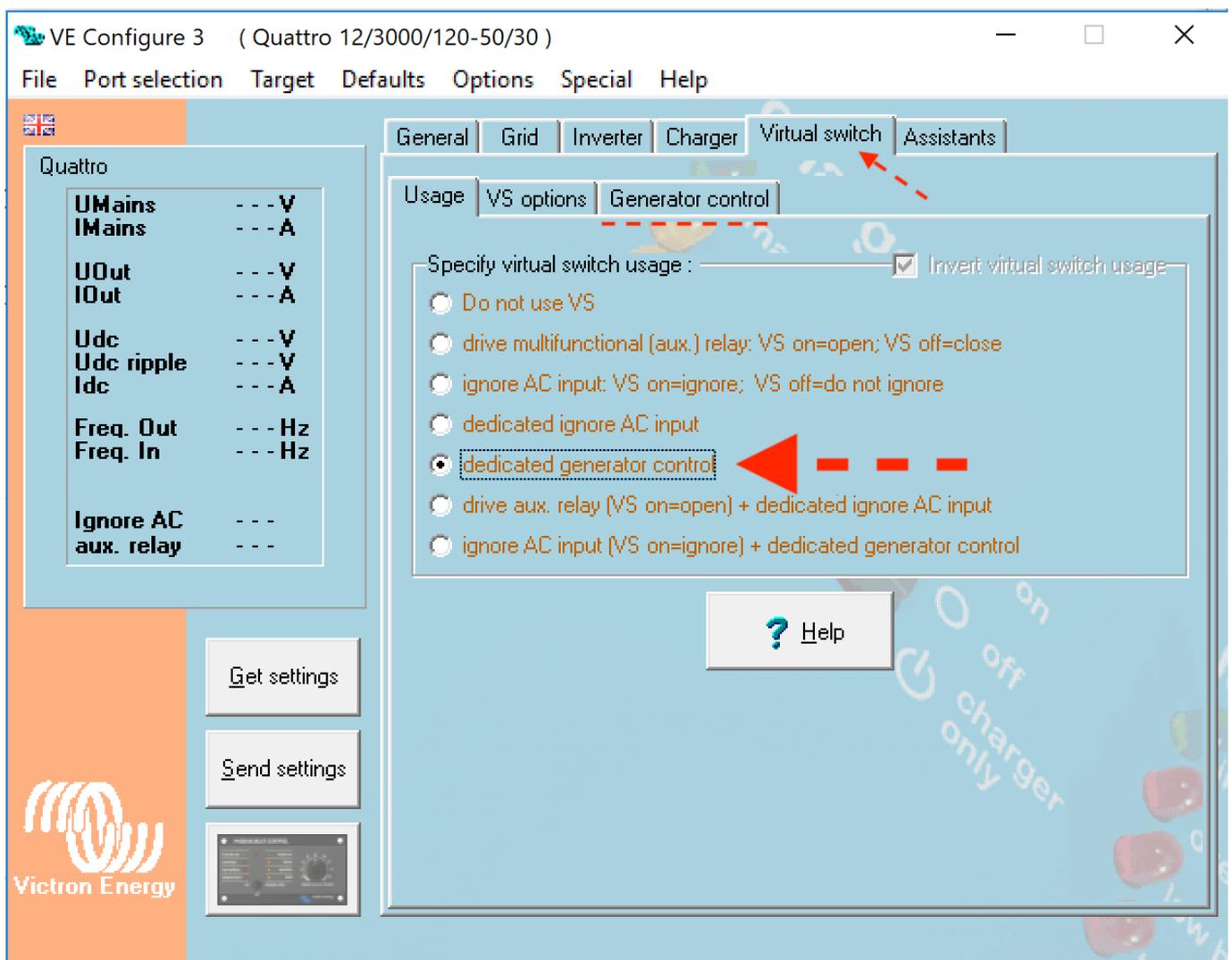
1.4 MultiPlus Compact models



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.

The screenshot shows the 'VE Configure 3' software window for a 'Quattro 12/3000/120-50/30' system. The 'Virtual switch' tab is active, and the 'Generator control' sub-tab is selected. The interface is divided into several sections:

- Quattro Parameters:** A list of system parameters including UMains, IMains, UOut, IOOut, Udc, Udc ripple, Idc, Freq. Out, Freq. In, Ignore AC, and aux. relay.
- Usage:** A section for monitoring system usage.
- VS options:** A section for virtual switch options.
- Generator control:** The main configuration area for the generator, containing:
 - Load conditions:** Settings for starting the generator when load is higher than 2548 W for 30 seconds, and stopping it when load is lower than 637 W for 2 minutes.
 - Battery conditions:** Settings for starting the generator when Udc is lower than 11.75 V for 20 seconds, or when state of charge is lower than 50.0%. It also includes settings for stopping the generator when Udc is higher than 14.00 V for 30 minutes.
 - Additional options:** Two checkboxes: 'stop generator when AC2 available' and 'invert driving of auxiliary relay (i.e. generator starts when relay NOT driven)'. Both are currently unchecked.

Buttons for 'Get settings' and 'Send settings' are located below the parameter list. The Victron Energy logo is visible in the bottom left corner of the software window.

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