Using BMV state of charge in an Assistant

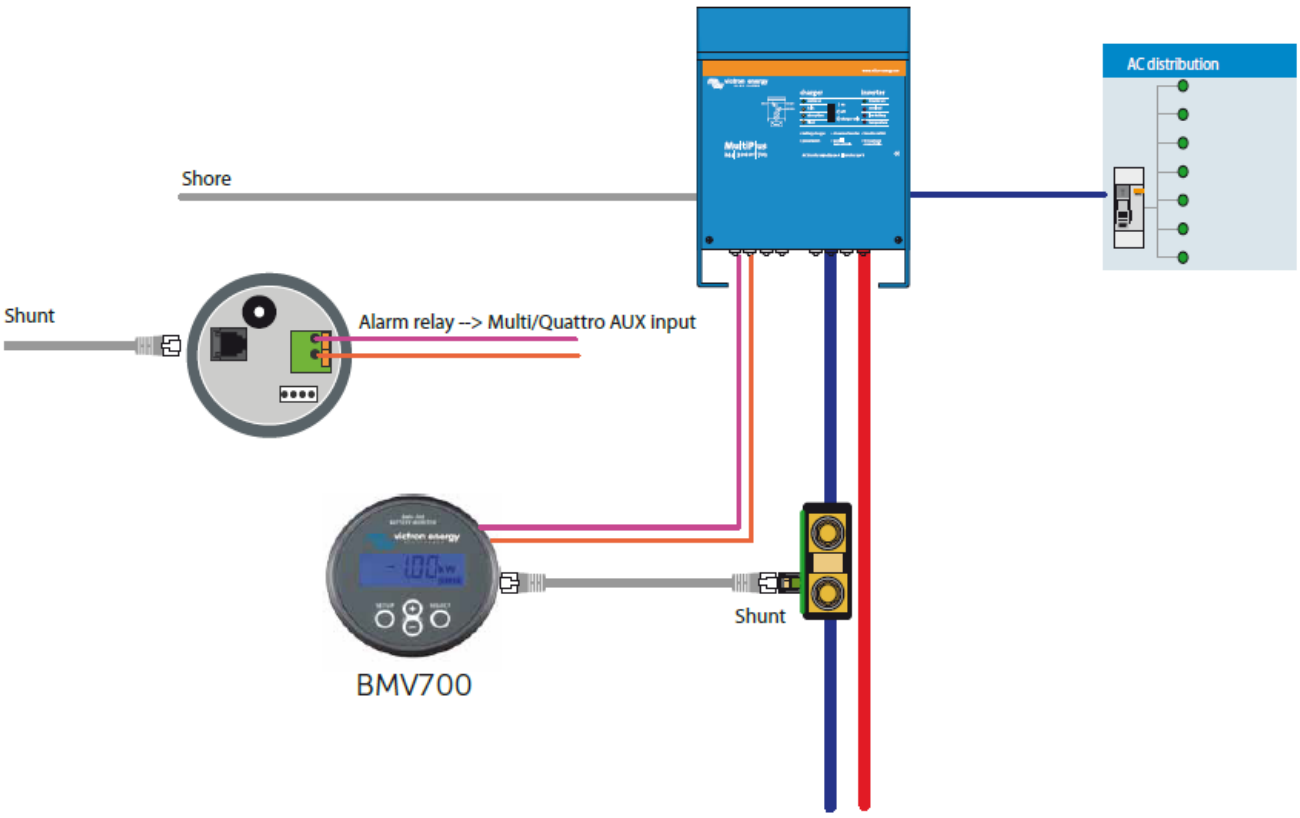
Introduction

This can be very useful for DC connected solar energy systems where the VE.Bus SOC is not accurate. The goal is to ignore AC in (force Inverter mode), unless the battery SOC measured via the BMV falls below 50%. Configure the BMV to close its relay when the SOC falls below 50%. For the BMV 700 read the manual section, 4.2.2 relay settings

Now the BMV will close the relay when the battery SOC is below 50% and this signal can be connected to Aux1 or the temperature input, for example, on the Multi.

Wiring

For this to happen we need two wires between the BMV relay and Aux1 on the Multi:



Load and configure the Assistants

The next step is to load 3 assistants in the Multi.

1st assistant “programmable relay” to give the condition when to set the General Flag ON.

- Use General flag
- Set Relay on
- When auxiliary input 1 is open for 1 seconds

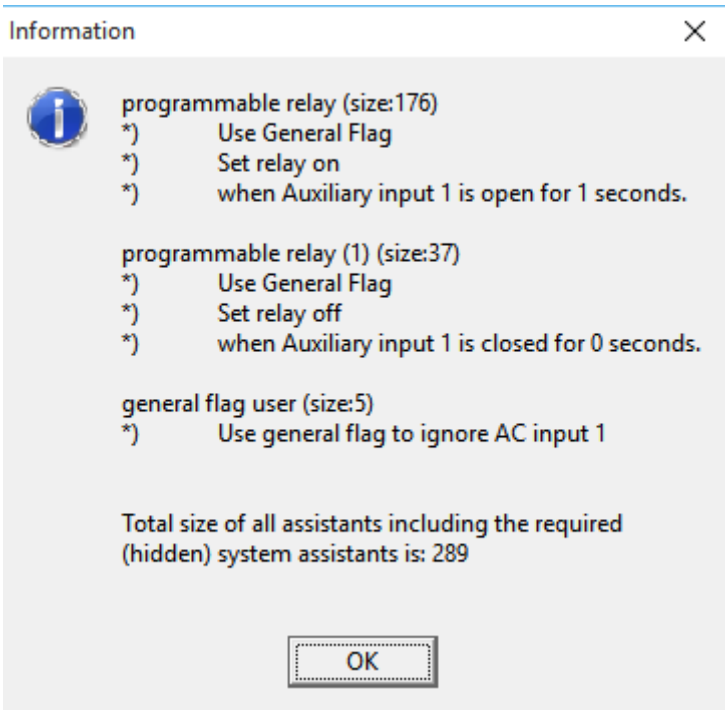
2nd assistant “programmable relay” to give the conditions when to set the General Flag OFF

- Use General flag
- Set Relay off
- When auxiliary input 1 is closed for 0 seconds

3rd assistant “general flag user”

- Use general flag to ignore AC input 1

With these three assistants used together AC input 1 will be used (not ignored) when the BMV closes its relay.



Related info

1. Using ESS instead of above

For many applications, ESS will be a better solution than above explained configuration.

ESS - Start page

2. Adding the PV Inverter Assistant

For those people who do not want to use the ESS Assistant, but want to add AC-Coupled PV on the

output of the Multi, they can use the above three assistants, plus at the bottom position add the “PV Inverter support” Assistant. By doing this you will have also AC connected solar taken care of and still be using your BMV SOC as the deciding factor to accept grid energy or not. This will also work well in case there is AC connected solar and DC connected solar energy.

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