

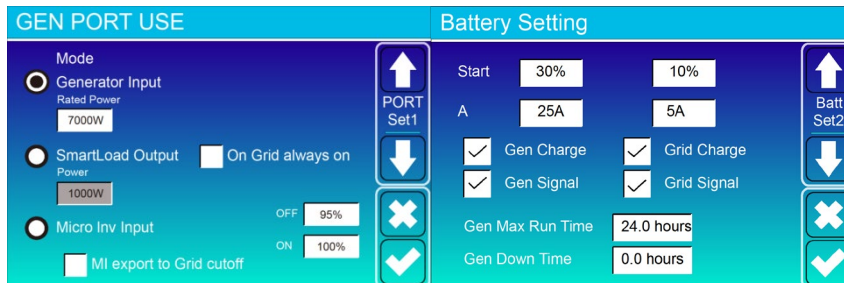
As you may know, we have been working on a capability to add an AC Generator capability to our NV14 Energy Storage System. Generator can be up to 7,500 Watts, no higher, and MUST be 240 Volts.

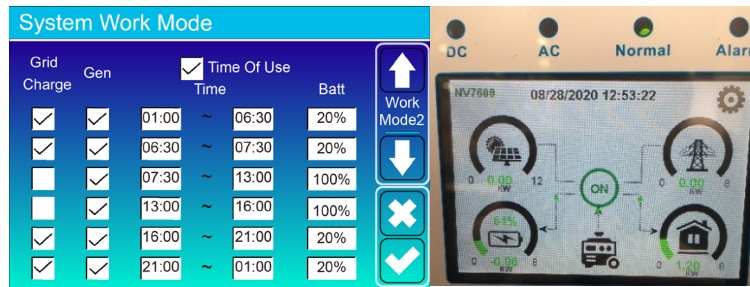
**Option 1: AC 240 Volt Generator option Powering the Critical Load Sub-Panel ONLY:**

- You can install a **manual transfer switch** in between the NV14 and the Critical Load Sub-Panel. Menards has a GE 100 Amp switch Model Number: TC10323R for \$123.71: [GE 100-Amp 240-Volt Outdoor Non-Fused Emergency Power Transfer Switch at Menards®](#)
- The NV14 Load Output connects to one side and the Generator connects on the other side of the Manual Transfer Switch. This configuration powers the Critical Load Sub-Panel but will **NOT charge the battery**. This decreases battery usage/consumption when the generator is on, especially during prolonged outages. Customer must turn manual transfer switch on/off and start/stop the generator.

**Option 2: AC 240 V Generator option with DC PV Powering Critical Load Sub-Panel and battery (cannot be combined with AC PV input):**

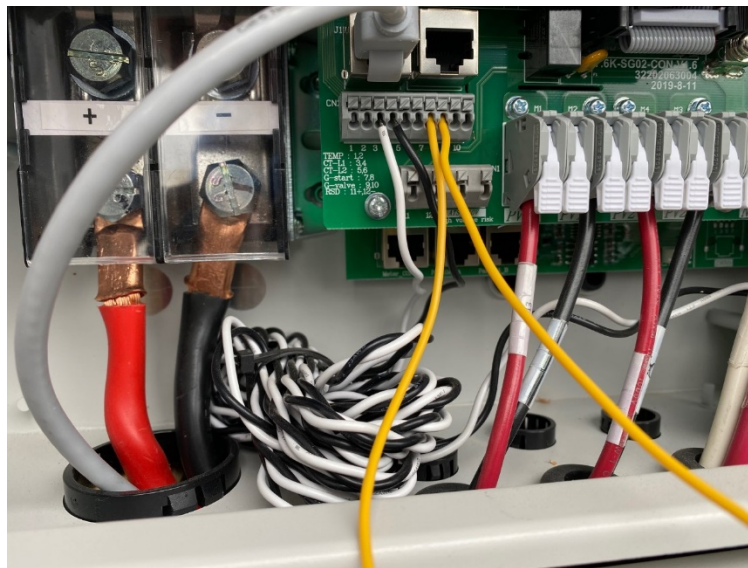
- For DC PV Only. Generator can be connected to the NV14 AC PV input. When the generator is running, it will power the Critical Load Sub-Panel and will recharge the battery. However, there are presently a few restrictions/degradations. \*
  - \* The Critical Load Sub-Panel MUST be asking for a minimum of 250 Watts of power. Otherwise, the inverter does not recognize the generator.
  - \* The maximum Amperage that the battery will allow is 40 Amps, meaning the battery will charge at a rate of 1,920 Watts per hour or less.
  - This option requires settings changes:
    - Select “Gen Port Use.” Then select “Generator Input” and set the size of the generator in Watts (or just set 7,000 W). Then press the big check in the lower right corner.
    - Battery Settings page 2. Need to check both Gen Charge, Gen Signal and make Gen Amps 25 A. Then press the big check in the lower right corner.
    - You also need to select Gen Charge on the System Work Mode page 2, which will allow the generator to charge the battery whenever it is operating.





**Generator Auto-Start capability:**

- A Generator Auto-Start capability exists for systems sold from NeoVolta after 1 May 2021 (Firmware 5.9.7.1 or 5.9.7.8).
- This capability only exists for **Option 2 (above)**: AC Generator connected to the NV14 AC PV input (**DC Solar ONLY**).
- The start at 30% means that the generator will auto-start if/when the battery system reaches 30% remaining capacity.
- Once Option 2 instructions have been achieved, then connect the two generator auto-start wires and connect them to Function Port pins 7 & 8 in the lower compartment of the inverter.
  - Remove the four hex bolts from the inverter lower cover.
  - Connect the Two Dry Contact wires to pins 7 & 8 per below (yellow example wires):
    - Be sure to pull the auto-start wires up through available seal under the inverter.



Sincerely,

Brent Willson  
CEO, NeoVolta Inc.