Emergency Stop Installation and Testing

Overview

Starting February 1, 2025, NV14 systems will include a new Emergency Stop (E-Stop) function.

This removes the need for additional disconnects inside of garages or other locations where Authorities Having Jurisdiction (AHJs) have such requirements. Activation of the E-Stop button will terminate all power connections to the NeoVolta inverter including battery or solar, AC and/or DC; and critical loads.

- Note this E-Stop is not a substitute where a lockable disconnect is required by the AHJ or by the Electric Service Requirements (ESR) per each utility.

Installers must use a UL certified and NEMA Type 3R rated E-Stop.

NeoVolta stocks these E-Stop buttons and can provide them with 10 feet of appropriate wiring upon request. The NeoVolta supplied E-Stop comes with one (1) normally open (NO) and one (1) normally closed (NC) contact.

Installation Process

1. Per most AHJs, the E-Stop **(Image 3)** shall be located within 3 feet (0.91m) of the Main Service Panel.
2. Connect the E-Stop to the NeoVolta NV14 cabinet via conduit and two (2)14-gauge wires.
    - Conduit Types: EMT, PVC, Metallic Flex, Non-Metallic Liquid Tight/Flex.
    - Conduit Size: There are (3) knockouts on the E-Stop Box (1) on three side of the box. The knockout size is M20 which converts to approximately a three-quarter inch (¾”) opening.
3. For “Push/NC” wiring to keep the system on in Normal Mode, insert the wires into terminals 1 and 2 **(Image 2)** in the E-Stop. This is the normally closed (NC) side of E-Stop. This means that the inverter will operate as normal when the E-Stop Button is pushed in. To disengage the E-Stop shutdown for any rapid shutdown transmitter and/or the inverter, turn the red button/knob clockwise (follow the arrows).
4. To wire the E-Stop:
    - open the bottom panel of the inverter via the 4 hex bolts
    - insert the wires through a comms opening in the bottom of the inverter
    - push the wires in to the ports one (1) wire per port.
5. Under the battery communications port and under the ports where you connect the current Transformers, there are four RSD ports **(Image 1).**

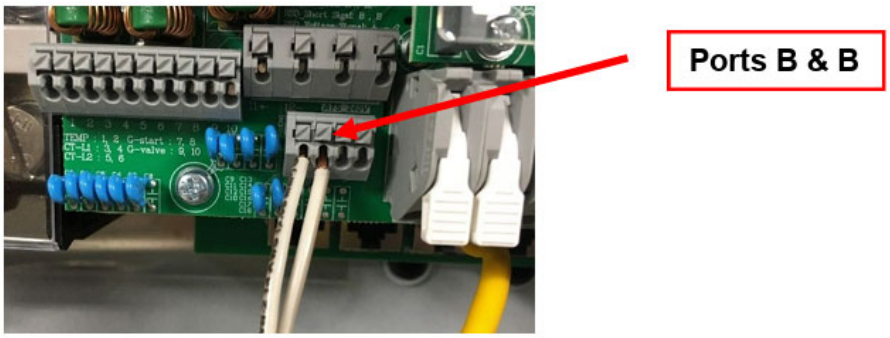

Image 1. E-Stop wires in B Ports.

6. These are 12V connections labeled B & B. Connect either of the 14-gauge wires to connections B & B.
7. Connected wires should look like **Image 1** above.
8. If additional wire length is needed, splice an additional 14-guage wire up to a maximum length

of 100 feet. This is a 12 Volt circuit.

The E-Stop button must be mounted to the home within 3 feet of the MSP. You will need to wire the E-Stop and connect the conduit.

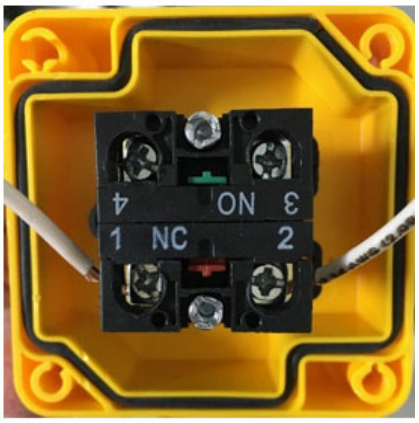

Image 2: Wiring to NC side of E-Stop

Image 3: E-Stop Button/Knob

The Stop Button must be set "IN" and the NeoVolta inverter must have normal power readings, and the Normal Light will be on when the E-Stop is wired correctly.

TESTING:

- Disengage the Stop Button (clockwise turn and the button pops out 3/8 inch).
- You should hear the NV14 inverter click, the Alarm light will come on, there will be an F22 (Tz_EmergStop_Fault) Error Code **(Image 4)** in the center of the LCD screen, and there will be no power going into or coming out of the inverter - no AC or DC solar, no grid power, no loads, and no battery.

Test complete, reset the E-Stop Button (counterclockwise and push in). When testing is finished, twist the E-Stop button counterclockwise then press it in to return it to the normal operating position. The inverter will return to normal operations within two minutes.

- Normal operation is confirmed when the normal indicator is illuminated, the alarm indicator is no longer illuminated, the center of the screen displays "ON", then the power output is restored **(Image 4).**

Image 4: F22 Error Code

Version	Revision Date	Brief Description of Change
V1.0	12/29/2025	Updated Version for formatting and clarity.