

Solis-125K-EHV-5G Commissioning Guide



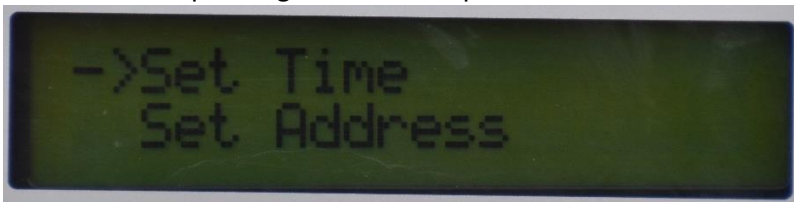
Prior to turning the DC switch on, please complete the following actions:

- A. Measure each and every DC string voltage to ensure that they are all within 50V of each other
 - a. If they are not within 50V of each other, the strings must be fixed so that they are
- B. Check the polarity of every string – reverse polarity of even one string will cause problems
- C. Take the inverter cover off and visually inspect the fuse holders to verify they are all pushed in properly

Start by first connecting at least one PV string to the inverter. **For the inverter screen to turn on, a minimum of 900Vdc is required - AC power is not required at this time.** Turn the DC switch to the “On” position and then wait approximately ten to fifteen seconds for the inverter screen to power up.

1. Set the Time, Date, and Address

- a. Press Enter, then Down to “Settings” then press Enter
- b. With the arrow pointing at “Set Time” press Enter



- c. Use the Up, Down, and Enter buttons to adjust the date and time



- d. Press Escape once the date and time have been set correctly
- e. Press Down so that the arrow is pointing at “Set Address” then press Enter
- f. The default address is “01” but if there are multiple inverters daisy-chained together with RS485 then the addresses for each unit in the system will need to be changed



- g. Use the Up button to change the address and then press Enter to save it

2. Set the Grid Standard

- a. From the main screen, press Enter and then Down until the arrow is next to “Advanced Settings” then press Enter – you will be asked to put in the password
- b. The easiest way to enter the password is to press these buttons in this order: Down, Down, Up, Enter
- c. You should immediately see “Select Standard” with the arrow to the left of it – press Enter

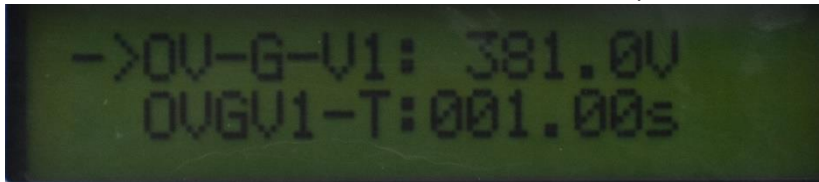
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- d.
- e. The default grid standard for 125K inverters being installed in the US is "UL-600V" – use the Up and Down buttons to find "UL-600V" and then press Enter



- f. The screen will show "OV-G-V1: 381.0V" – Press Escape, when "Save and Send" is displayed, press Enter



- g.
- h. The screen will then show "Restore-VH: 381.0V" – press Escape and then Enter again when "Save and Send comes up" the grid standard has now been set successfully



Note: If custom parameters (set points) are required then please select "User-Def" instead of "UL-600V"



For a more detailed guide on how to set a custom grid standard, please click [here](#)

3. Change any additional settings (Output Power, Reactive Power, etc.)

a. Adjusting Output Power

- i. The default output power setting is often times 110% - this means that if you have a 125K inverter, it will generate a maximum of 137.5 kW (110% x 125 kW) if it has enough PV power to do so – ***it is recommended to adjust this value to 100%***
- ii. To adjust the output power please follow these steps:

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1. First go to Advanced Settings
2. Use the Down button to select "Power Control" then press Enter



3. Press Down to "Out_P With Restore" then press Enter



4. Use the Down button to adjust the Output Power percentage and then press Enter to save the value – when "Gradient: NULL" appears, press Enter again



b. Adjusting Reactive Power

- i. The reactive power should not typically need to be adjusted. However, if it does need to be changed to something other than +1.00 then please follow the instructions:



1. Go to Advanced Settings, then to Power Control, and then to "Rea_P With Restore"
2. Press Enter, then use the Down and Up buttons to adjust the value



3. Press Enter to save the change, when "Gradient: NULL" appears, press Enter again

4. Verify the firmware version and update if necessary

- a. Please see [Current Firmware Versions](#) to verify what version the inverter should be on
- b. Solis inverters have two types of firmware: HMI and DSP – the updates for these must be done separately using firmware files provided by Solis
- c. From the main screen, press Enter and then go to Advanced Settings and press Enter
- d. Use the Up button until you see "DSP Update" then press Enter – the "Current Version" will be displayed, compare it with the Current Firmware Versions chart to see if you need to update to a newer version or not

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- e. Please use the 125K update guides to update the firmware. The latest firmware files are included in these guides: [DSP Update Procedure & Files](#) and [HMI Update Procedure & Files](#)

5. Power on the inverter and let it run to see if there are any alarm codes or issues

- a. Ensure that the inverter(s) have proper AC voltage and all of the DC strings have been tested for correct polarity and DC voltage balance (no more than 50V difference between the strings)
- b. With the inverter(s) completely off, turn the AC switch on first and then turn on the DC switch
- c. Give the inverter(s) about five minutes each to begin generating power
- d. Use a multimeter to measure the AC/DC voltages and match them to the values displayed in the “Information” menu
- e. Monitor the system over the course of several hours to ensure that no alarm codes get thrown
- f. Now is also a good time to test communication to the inverter(s) as you wait
- g. Please use the [Alarm Code Overview](#) guide to troubleshoot any alarms that you get. Each alarm should be hyperlinked to the individual article that explains how to troubleshoot that alarm.

Commissioning is now complete