

# Application Note - Upgrading SolarEdge Inverter Firmware

This document describes how to upgrade an inverter firmware version using the SolarEdge Configuration Tool.

## Required Software and Equipment

- A laptop with the latest version of the SolarEdge Configuration Tool installed (available for download from the Downloads section of the SolarEdge website at <http://www.solaredge.com/groups/support/downloads>, in the **Software Tools** category).
- \*.bsuf upgrade files (obtained from SolarEdge support. Refer to *SolarEdge Support Contact Information* on page 3.):

Inverter type	File	Description
Single phase	CPU_xxx.bsuf	Comm. board (CPU) update
	1phase_DSP1_xxx.bsuf	DSP1 update
Three phase	CPU_xxx.bsuf	Comm. board (CPU) update
	3phase_DSP1_xxx.bsuf	DSP1 update
	3phase_DSP2_xxx.bsuf	DSP2 update

- A cable to connect your laptop to the inverter’s mini-USB connector (type B 5-pin). If such a cable is not available or if the inverter does not have a mini-USB connector, a cable or an adaptor to connect your laptop to the inverter’s RS232 connector.
- Any necessary USB or RS232 drivers.

## Upgrading the Inverter Firmware

- 1 Turn OFF the inverter ON/OFF switch, and wait until the LCD indicates that the DC voltage is safe (<50V), or wait five minutes before continuing to the next step.



**WARNING!**

If you cannot see the inverter panel, or if a malfunction is indicated on the LCD panel, wait five minutes for the input capacitors of the inverter to discharge.

- 2 Open the inverter cover as described in the SolarEdge Installation Guide.



**WARNING!**

ELECTRICAL SHOCK HAZARD. Do not touch uninsulated wires when the inverter cover is removed.

- 3 Connect the laptop to the mini-USB or RS232 connector on the communication board. For more details, refer to the *SolarEdge Installation Guide*.

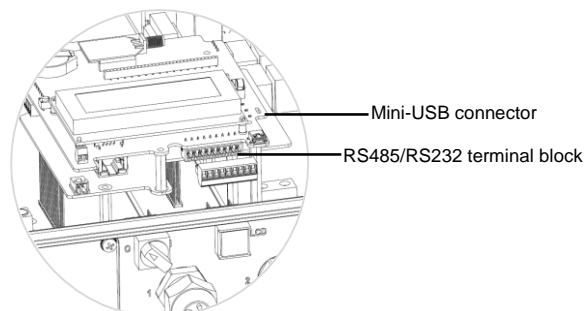


Figure 1: RS485/RS232 9-pin terminal block and mini-USB connector

- 4 Start the SolarEdge Configuration Tool application.
- 5 Select the **COM port** according to your laptop configuration and click **Connect**.

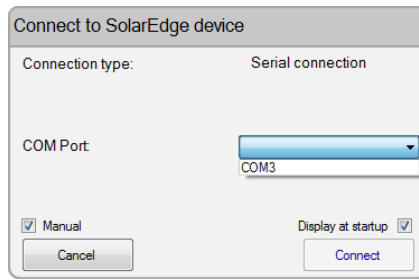


Figure 2: Connecting to the SolarEdge Configuration Tool



**NOTE:** In this window, you must specify the COM port number through which the computer is to communicate with the inverter. Verify the RS232 COM port on your computer as *described Appendix-A: Verifying the RS232 or USB Port on Windows XP or Windows 7* on page 3.

6 Click on the inverter icon on the left to display the inverter data.

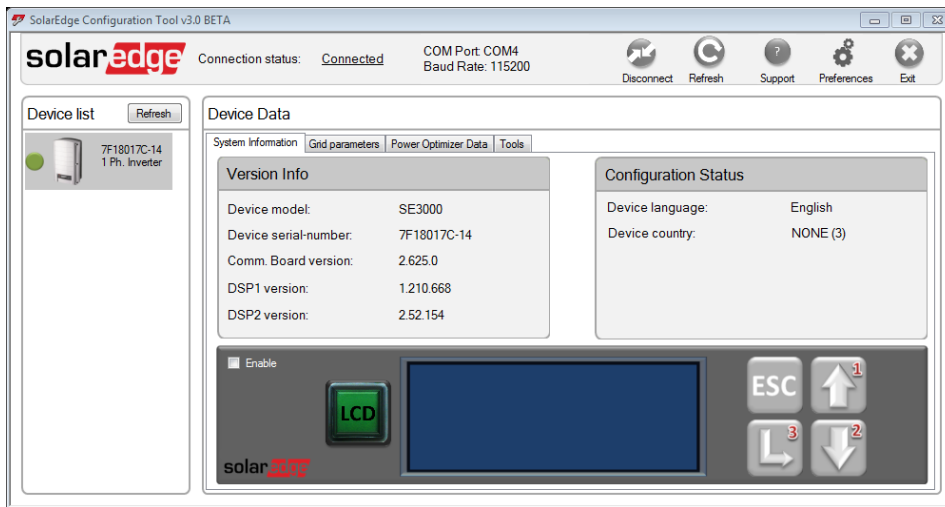


Figure 3: Configuration Tool main window

7 Select the **Tools** tab, and then the **Firmware Upgrade** tab.

8 Click **Browse** and load the appropriate \*.bsuf file. If upgrading more than 1 version, maintain the following sequence when upgrading:

- Single Phase inverters: Comm. board and then DSP1
- Three-Phase inverters: Comm. board, DSP2, and then DSP1

9 Click **Begin upgrade**. The progress is indicated by the process bar. When completed, verify that the correct version is listed in the Upgrade Status section.

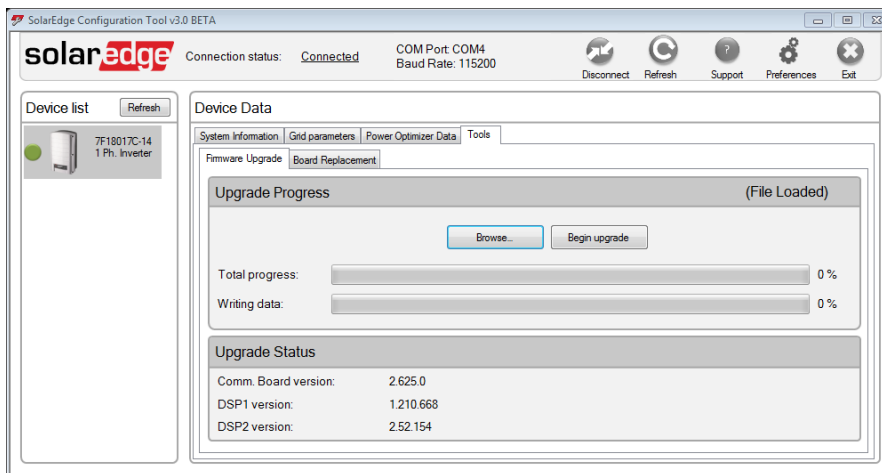


Figure 4: Firmware Upgrade window

10 Repeat steps 8-9 for each of the two (1ph inverter) or three (3ph inverter) firmware files.

## Appendix-A: Verifying the RS232 or USB Port on Windows XP or Windows 7

You can check which COM port on your computer is RS232 in order to connect to the inverter.

- 1 Open the Device Manager:
  - Windows XP: **My Computer** -> **Properties**. Select the **Hardware** tab and click **Device Manager**.
  - Windows 7: **Start** -> **Control Panel**. Open the Device Manager by clicking the **System and Security** link, and selecting **System** > **Device Manager**, or if you are using the Small or Large icons view of the Control Panel, click **Device Manager**.
- 2 Expand the Ports (COM & LPT) branch, as shown below:

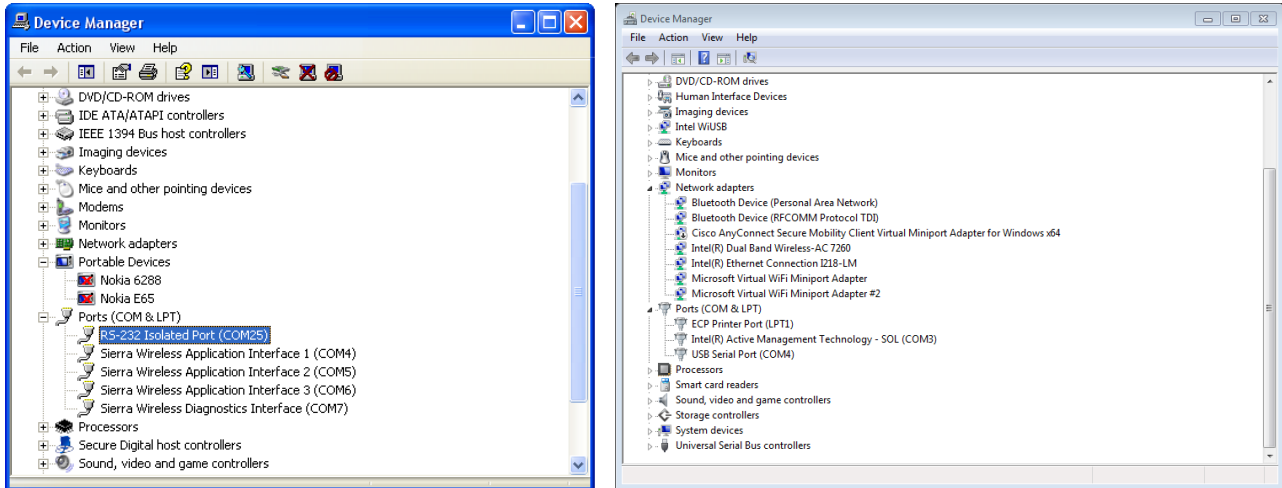


Figure 5: Device Manager (Windows XP and Windows 7)



**NOTE:**

The example above shows the RS232 Isolated Port branch, as an RS232/USB adapter is being used to connect the Inverter to the computer.  
 The RS232/USB adaptor must be installed according to its manufacturer’s specifications.

- 3 Take note of the COM port that is displayed in the RS232 or USB Port branches. For example, the left screen above shows the COM25 port for RS232, and the right screen shows COM4 for USB. Select this COM port number when you use the Configuration Tool to connect to the inverter.

## SolarEdge Support Contact Information

If you have technical queries concerning our products, please contact us:

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