



## SUNNY ISLAND 4.4M / 6.0H / 8.0H

Executing a firmware update

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# 1 Validity

This document is valid for:

- SI4.4M-12 (Sunny Island 4.4M)
- SI4.4M-13 (Sunny Island 4.4M)
- SI6.0H-12 (Sunny Island 6.0H)
- SI6.0H-13 (Sunny Island 6.0H)
- SI8.0H-12 (Sunny Island 8.0H)
- SI8.0H-13 (Sunny Island 8.0H)

This document supplements the operating manual. All warnings and safety information contained therein also apply to this document.

## 2 Firmware Update

### 2.1 LED displays during the update

The inverter LEDs keep going on and off during the update. This is a normal part of the update.

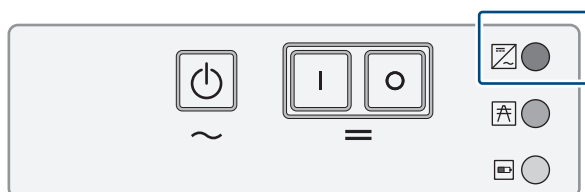






Figure 1: Position of the inverter LED

LED signal		Explanation
Glowing green		The inverter is in operation.
Glowing orange		The inverter is in standby or energy-saving mode.
Glowing red		The update is running.
Flashing green or orange		The inverter is waiting for a configuration.

### 2.2 Information on the update

- Several processors are updated during the update:
  - Master: 4 processors (main processor, communication assembly, logic component, webUI version)
  - Slave: 2 processors (main processor, logic component)
- The inverter LED of the slaves glows red during the update.
- The update of an inverter takes about 15 minutes. The update of a cluster takes about 30 minutes.
- Leave the system and battery switched on during the entire update.
- Once the master has been updated successfully and detects that other firmware versions are installed on the slaves, the update of the slaves starts automatically.
- The updates of all slaves are each controlled via the master.

- For an Island multicluster system, each cluster must be updated individually. The procedure is the same as for a single cluster.
- When the update is complete, the inverter LEDs of the slaves flash orange and the event **Communication Error IPC** is reset on the user interface.

## 2.3 Update Procedure

The firmware update of cluster systems must be started with the update of the master. The update of the slaves is controlled via the master.

Procedure	See
1 Prepare the firmware update and download the current firmware version of the Sunny Island from the product page.	Section 2.4, page 4
2 Configure the automatic update.	Section 2.5, page 4
3 Upload the firmware update to the master and thus automatically execute the update.	Section 2.6, page 5
4 When updating from version 1.xx to version 3.xx or higher, a system configuration of the master is required, in which all parameter settings of the inverters have to be made again.	Section 2.7, page 6
5 The update of the slaves starts automatically when the master detects that the slaves do not have the same firmware version.	
6 In a cluster system, the slaves must also be reconfigured via the master during the update.	Section 2.7, page 6
7 During an update, wait until the process is complete for all inverters in the system. This can take up to 30 minutes for 1 cluster.	
8 To carry out a firmware update on a multicluster system, each cluster must be updated individually. Several clusters can be updated at the same time.	

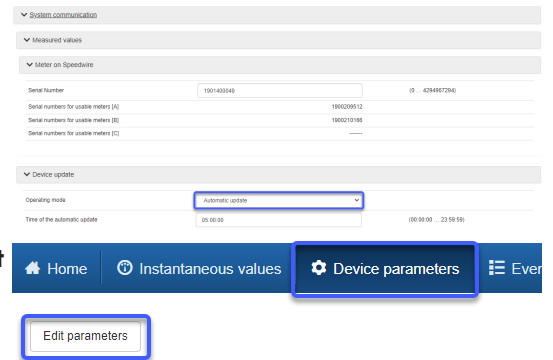
## 2.4 Preparing the Firmware Update

1. Ensure that the communication bus is equipped with a terminator on both ends.
2. Make sure that the communication cables and the power cables are routed separately from each other.
3. Ensure that CAT5 cables are used for the communication connection.
4. Download the current firmware version of the inverter on the product page at <https://www.SMA-Solar.com>. Make sure that the appropriate power class is selected.
5. Unzip the downloaded file.
6. Copy the update file (\*.up2) in a local folder of the laptop.
7. Establish a direct connection via Ethernet between laptop and inverter using a CAT5 cable. This will prevent the connection from being interrupted during the update.
8. Log in to the user interface of the inverter as installer (see the inverter operating manual).

## 2.5 Configuring the Automatic Update

1. Call up the menu **Device parameters**.
2. In the **System communication** area open the context menu **Device update**.

3. Check whether the parameter **Operating mode** is set to **Automatic updates**.



4. If a different operating mode has been selected, in the menu [**Edit parameters**], select the operating mode **Automatic updates**. This ensures that the update starts as soon as a firmware version is uploaded to the inverter.
5. To apply the changes, select [**Save all**].

## 2.6 Executing the Firmware Update

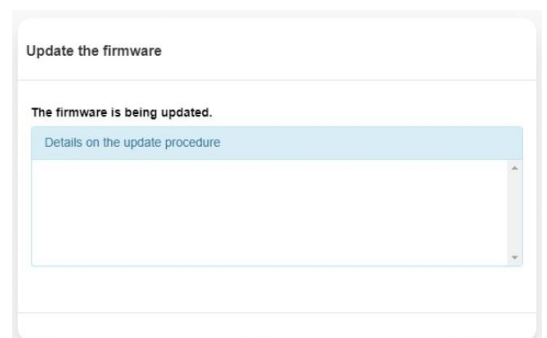
The file must be uploaded to the inverter for the firmware update. The update will start automatically after the file has been uploaded. The entire procedure can take up to 15 minutes.

### Procedure:

1. Call up the menu **Device configuration**.
  - ✓ The Sunny Island with the appropriate power class appears in the device list.
2. In the category **Settings**, select the symbol ⚙️.
3. In the context menu, select the option **Updating the firmware**.
4. In the dialog **Update the firmware**, select the appropriate firmware file from the local directory.
5. Select [**Update the firmware**] and leave the inverter and battery switched on during the entire process.



- ✓ The file is being uploaded to the inverter. The progress of the upload is shown with a blue progress bar.
  - ✓ Once the firmware has been uploaded successfully, the message **Update transport successful** appears in the dialog **Update the firmware**.
  - ✓ The update starts automatically if the operating mode has been set to **Automatic updates**.
6. While the update is being executed, do not close the dialog **No connection to the device**.
    - ✓ The inverter LED glows red during the update.
  7. If, in the event of an error, a new dialog appears in the **Update the firmware** dialog without any further message, restart the system (see Section 2.8, page 6).



8. Check whether the inverter LED glows green or orange and the update was successful.
  - ✓ When the inverter LED glows green or orange and the event **27312 - Update complete** appears in the **Events** menu on the user interface, the update was successful.
9. When the inverter LED flashes green or orange, configure the master of the cluster (see Section 2.7, page 6).
10. Log into the user interface again after the successful update.

11. Check in the **Events** area on the user interface whether an error occurred during the upload.
12. Delete the web browser cache.
13. Log into the user interface again.
14. In the menu **Device parameters** in the sections **Operation control unit**, **Communication group** and **Web User Interface**, compare the version of the software package with the version in the ReadMe file.
15. If the versions of the software package on the user interface and in the ReadMe file of the software package do not match, upload the firmware file again and repeat the update.

**Also see:**

- [LED displays during the update ⇒ page 3](#)

## 2.7 Finish update from version 1.xx to 3.xx

If the update was executed from version 1.xx to 3.xx, the inverters must be configured again after the update is complete. When a cluster system gets updated, the master must be configured.

**Procedure:**

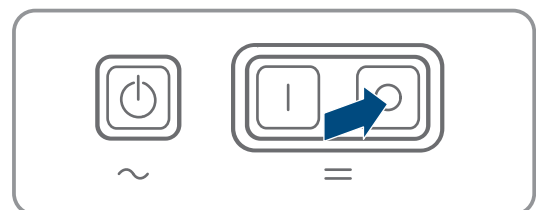
1. Reconfigure the master (see Sunny Island operating manual). Set the parameter **Operating mode** to **Automatic updates** (see Section 2.5, page 4).
  - ☒ After the configuration is complete, the master detects that the firmware version of the slaves is different from the version of the master.
  - ☒ The master starts the update of the slaves automatically and the inverter LED glows red. This can take up to 15 minutes.
  - ☒ After the configuration is complete, the inverter LEDs of the slaves flash orange or green.
2. On the user interface in the **Events** menu, check whether the event **Communication error IPC** comes and goes. This indicates that the update of the slaves is complete.
3. Reconfigure the master. This will configure the slaves via the master.
4. Check parameter settings. If the settings have been altered by the configuration, correct the parameter settings (see inverter manual).

## 2.8 Restart the system to re-upload the firmware file

If the new firmware version cannot be uploaded yet, the system must be restarted.

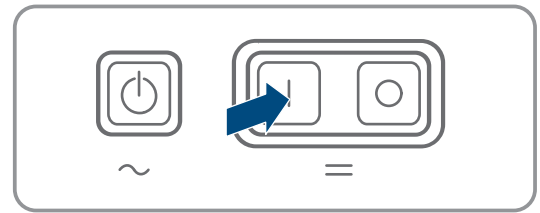
**Procedure:**

1. Switch off the system. To do this, press and hold the "Off" button on the master until an acoustic signal sounds (see inverter operating manual).



2. Open the load-break switch in the battery fuse and secure against reconnection.
3. Switch off the battery.
4. Wait 15 seconds.

5. Briefly press the "On" button.



☒ An acoustic signal sounds.

☒ All LEDs are flashing.

6. Wait until the LED goes out and the internal processors are discharged.

7. Switch on the battery.

8. Close the load-break switch in the battery fuse.

9. Switch the system on. Press and hold the activation button on the master until an acoustic signal sounds.

10. Update the firmware again (see Section 2.6, page 5).

### 3 Contact

If you have technical problems with our products, please contact the SMA Service Line. The following data is required in order to provide you with the necessary assistance:

- Type of device
- Serial number
- Firmware version
- Event message
- Mounting location and mounting height
- Type of communication
- Type and number of PV modules
- Type of the communication products connected
- Use the name of the system in Sunny Portal (if available)
- Access data for Sunny Portal (if available)
- Special country-specific settings (if available)
- Detailed description of the problem

You can find your country's contact information at:



<https://go.sma.de/service>

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