Uploading Firmware for G59/3 – FLX Pro 15 and FLX Pro 17

An installers´ guide

Dear Customer,

Thank you for considering SMA inverters for your project.

The regulation of G59/3 for installation of applicable PV system becomes mandatory on 01.12.2014 (CW 49). In order to perform the Firmware (FW) update to the FLX Pro 15 and FLX Pro 17 inverter you may need to consider the following points:

- No hardware update is necessary.
- To upgrade the inverters, you just need to install the newest firmware version 3.10 (the firmware will be available at https://www.sma-uk.com/osc/downloads.html).
- The G59/3 certificate will be available for selection in the download area.
- For older Inverters produced before 1st September, before week 36 (not born with 3.05) it is mandatory to first update to the software version 3.05 (also available in the download area) before installing software 3.10 or later SW versions. The last 3 positions of the serial number contain the date of production: WWY (Week/ Week / Year). So all inverters with 364 or higher have 3.05.

Required equipment to update the firmware:
- Computer
- Cat5 Ethernet cable
- Newest firmware version
   - Extract the downloaded .zip onto the computer and note the location. The zipped file contains one .dcf file comprising the update.
- Level 2 login (user name and password) in case the inverters are already installed
   - Obtain from SMA Serviceline. See Appendix B for contact details.

We look forward to support you through a smooth transition.
Kind Regards,

SMA Solar UK Ltd

1. Disclaimer

Perform software update of the inverter at your own risk. SMA does not warrant that a software program produced according to the guidelines provided in this manual will function properly in every physical, hardware or software environment. In no event shall SMA be liable for direct, indirect, special, incidental, or consequential damages arising out of the use, or the inability to use information contained in this manual; in particular SMA is not responsible for any costs including but not limited to those incurred as a result of lost profits or revenue, loss or damage of equipment, loss of computer programs, loss of data, the costs to substitute these, or any claims by third parties.

Note:

The software update process can take up to 20 minutes. At the end of the update the inverter will restart. Do not press any buttons on the inverter display or the PC while the update is in progress.

2. Introduction

This document explains how to update the software for

- FLX Pro 15 and FLX Pro 17
- Software version 3.10 to achieve G59/3 compatibility

Note:

The software update process can take up to 20 minutes. At the end of the update the inverter will restart. Do not press any buttons on the inverter display or the PC while the update is in progress.

If an FLX inverter is delivered with G59/2 settings, you can change the settings without password within the first hours after the installation. If you want to change the parameters of installed devices, you may be asked for a password. You can receive the password from the SMA UK Service department. Please see the Appendix B for contact details.

3. Update Guide for FLX Pro

3.1 Verify the Inverter Type

- Verify that the network of inverters comprises FLX Pro types only.
  - Check front cover and product label to find the inverter type.
  - Proceed only when the inverters are of type FLX Pro.
- Ensure Ethernet connection is established between the inverters.
  - Check cabling

    Note: For illustrations please see the 'Appendix A'.

3.2 Perform Software Update (Single Inverter)

Procedure

1. Connect the PC to the inverter
2. Open an internet browser (Internet Explorer or Firefox).
3. Type the inverter IP address in the address field.
   - To find the IP address go to [Setup → Communication Setup → IP Setup] in the display.
4. On the Web Server welcome page, enter the login.
   - Comprising user name and password.
5. Go to [Plant → Setup → Plant details]
6. Click on the 'Browse' button to navigate to the location of the extracted .dcf file.
7. Select the file
8. Click on the 'Start update' button and confirm the update.
9. Do not press any buttons on the inverter display or the PC while the update is in progress.
   The inverter will restart and return to the welcome page.
10. If you need to change the GridCode settings a level 2 password is required.
11. Go to [Setup → Inverter details → Regional settings].
12. Select [Country →SAVE]. Wait for the webpage to refresh, then different Gridcodes can be chosen.
13. Select [Grid → SAVE]. You can select [Show Grid List] to get additional information for each GridCode.

3.3 Perform Software Update (Network with Master)

Procedure:

1. Connect the PC to the master inverter in the network of inverters.
2. Open an internet browser (Internet Explorer or Firefox).
3. Type the inverter IP address in the address field
   - To find the IP address go to [Setup → Communication → Ethernet] in the display.
   - Alternatively, type "masterinverter" in the internet browser address field.
4. On the Web Server welcome page, enter your login (comprising user name and password).

5. Go to [Plant overview → Setup → Plant details]

6. Click on the Master inverter name.

7. Go to [Inverter → Setup → Inverter details]

8. Click on the 'Show list' button. If inverters are missing click on the 'Scan network' button

9. A list of inverters will be displayed. Check that all connected inverters are present in the list.

10. Go to [Plant overview → Setup → Service→ SW update].

11. Click on the 'Browse' button to navigate to the location of the extracted .dcf file.

12. Select the file

13. Check the box 'All' to update all inverters in the network.

14. Click on the 'Start update' button and confirm the update.

15. Do not press any buttons on the inverter display or the PC while the update is in progress. The inverter will restart and return to the welcome page.

16. If you need to change the GridCode settings a level 2 password is required.

17. Go to [Plant overview → Setup → Plant details → Regional settings].

18. Select [Country →SAVE]. Wait for the webpage to refresh, then different Gridcodes can be chosen.

19. Select [Grid → SAVE]. You can select [Show Grid List] to get additional information for each GridCode.

Recommended: Check the Software Version of all inverters in the Network

Procedure:

1. Click on each "Inverter Group" in the Web Server header and then 'Inverters'.

2. Select each inverter individually.

3. For each inverter go to [Status → Inverter] to view the current software in the field 'General'

4. Appendix A

4.1 Single Inverter Update
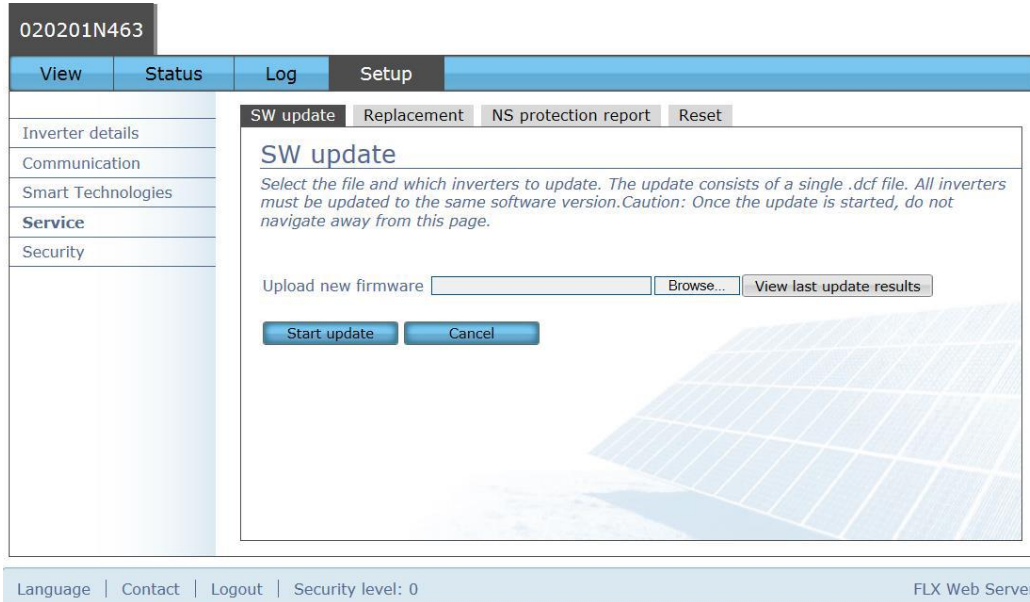
Figure 1 Single Inverter – Software update
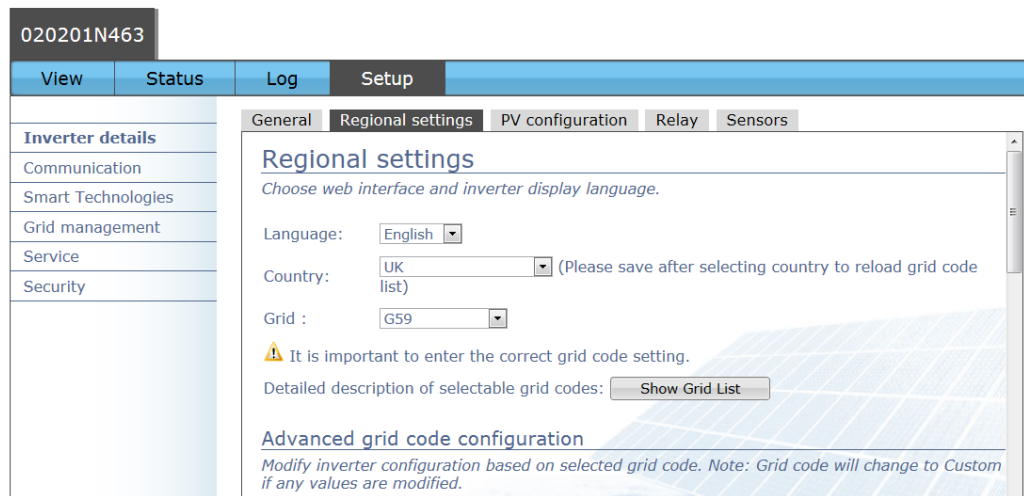
Figure 2 Single Inverter - Change of GridCode setting

4.2 Multiple Inverter Update through Master Inverter

Figure 3 Master Inverter - Identify Master inverter

Figure 4 Master Inverter - Identify associated Follower inverters

Figure 5 Master Inverter - Software update through master to all followers

Figure 6 Master Inverter - Verification of software update 1/2

Figure 7 Master Inverter - Verification of software update 2/2

Figure 8 Change Security level when already logged in

Figure 9 Master Inverter - Change of GridCode setting

5. Appendix B

Contact details SMA UK Service department:

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SMA Solar Academy

If you´re interested in finding out more about SMA, you can join our FREE training courses at our office in Milton Keynes or attend a Webinar. Our full course list and schedule can be viewed here:

https://www.sma-uk.com/installers/sma-solar-academy/overview.html

Technical Documents

Datasheets, catalogues and user manuals can be found here:

https://www.sma-uk.com/osc/downloads.html