

SIEMENS

SIMATIC

S7-1200

CPU firmware update V3.0.2

Product Information

Description

Key features supported by S7-1200 CPU firmware V3.0.2 include:

- Enhanced Web server security
- Correction to problems with some S7-1200 V3.0 CPUs powering up in manufacturing test mode: The problem can only occur after multiple downloads or multiple IP address changes. When the CPU enters the test mode, you must return the CPU for repair. The CPU indicates test mode by displaying the RUN/STOP LED in solid yellow, the ERROR LED in solid red, and the MAINT LED in flashing yellow. The V3.0.2 firmware update prevents this problem from occurring.

Required software: STEP 7 V11 SP2 Basic or Professional Update 4

Table 1 CPU models affected by firmware update V3.0.2

CPU model	Description	Order number
CPU 1211C	CPU 1211C DC/DC/DC	6ES7 211-1AE31-0XB0
	CPU 1211C AC/DC/Relay	6ES7 211-1BE31-0XB0
	CPU 1211C DC/DC/Relay	6ES7 211-1HE31-0XB0
CPU 1212C	CPU 1212C DC/DC/DC	6ES7 212-1AE31-0XB0
	CPU 1212C AC/DC/Relay	6ES7 212-1BE31-0XB0
	CPU 1212C DC/DC/Relay	6ES7 212-1HE31-0XB0
CPU 1214C	CPU 1214C DC/DC/DC	6ES7 214-1AG31-0XB0
	CPU 1214C AC/DC/Relay	6ES7 214-1BG31-0XB0
	CPU 1214C DC/DC/Relay	6ES7 214-1HG31-0XB0
CPU 1215C	CPU 1215C DC/DC/DC	6ES7 215-1AG31-0XB0
	CPU 1215C AC/DC/Relay	6ES7 215-1BG31-0XB0
	CPU 1215C DC/DC/Relay	6ES7 215-1HG31-0XB0

Note

If after applying the firmware update according to the following instructions, your CPU does not boot successfully, or STEP 7 does not display V3.0.2 for the firmware version, return the CPU to Siemens for replacement.

Required user action

You can update the CPU firmware from either the Web server or from the Service and Support site.

Installing the firmware update from the Web server

To install the CPU firmware update using the Web server, enable the Web server in STEP 7 and log in to the CPU with the "admin" log in. Follow the directions in the Web server chapter of the S7-1200 System Manual to install the firmware update.

Installing the firmware update from the Service and Support site

NOTICE

Do not use the Windows formatter utility to reformat the memory card.

If you reformat a Siemens memory card using the Microsoft Windows formatter utility, then the memory card is no longer usable by a S7-1200 CPU.

To install the CPU firmware update, follow these steps:

1. Insert a blank SIMATIC MC 24 MB memory card into an SD card reader/writer attached to your computer.

You can reuse a SIMATIC memory card that contains a user program or another firmware update, but you must delete some of the files on the memory card.

NOTICE

Do NOT delete the hidden files "__LOG__" and "crdinfo.bin" from the memory card.

The "__LOG__" and "crdinfo.bin" files are required for the memory card. If you delete these files, you cannot use the memory card with the CPU.

To reuse a memory card, you **must** delete the "S7_JOB.S7S" file and any folder (such as "SIMATIC.S7S" or "FWUPDATE.S7S") before downloading the firmware update. However, do **not** delete the files "__LOG__" and "crdinfo.bin". (These files are typically hidden and are required.) Use Windows Explorer to display the contents of the memory card and to delete the file and folders.

2. Download the CPU firmware update file for your CPU model. Double-click the update file, set the file destination path to be the root directory of the SIMATIC memory card, and start the extraction process. After the extraction is complete, the root directory of the memory card will contain a "FWUPDATE.S7S" directory and the "S7_JOB.S7S" file.



WARNING

Verify that the CPU is not actively running a process before installing the CPU firmware update.

Installing the firmware update will cause the CPU to go to STOP mode, which could affect the operation of an online process or machine. Unexpected operation of a process or machine could result in death or injury to personnel and/or property damage.

Before inserting the memory card, always ensure that the CPU is offline and in a safe state.

3. Insert the memory card into the CPU. If the CPU is in RUN mode, the CPU then goes to STOP mode. The maintenance (MAINT) LED flashes to indicate that the memory card needs to be evaluated.
4. Power-cycle the CPU to start the firmware update. Alternative methods for rebooting the CPU are to perform either a STOP-to-RUN transition or a memory reset (MRES) from STEP 7.
After the CPU reboots, the firmware update is copied to the load memory. The RUN/STOP LED alternately flashes green and yellow to indicate that the update is being copied. When the RUN/STOP LED turns on (solid yellow) and the MAINT LED flashes, the copy process has finished. You must then remove the memory card.
5. After removing the memory card, reboot the CPU again (either by restoring power or by the alternative methods for rebooting) to load the new firmware.

The user program and hardware configuration are not affected by the firmware update. When the CPU is powered up, the CPU enters the configured start-up state. (If the startup mode for your CPU was configured to "Warm restart - mode before POWER OFF", the CPU will be in STOP mode because the last state of the CPU was STOP.)

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