

PowerFlex 700H Drive Firmware Revision 6.001

These release notes correspond to major revision 6, minor revision 1 of firmware for PowerFlex 700H drives.

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Determining the Firmware Revision Level

To determine the firmware revision for a PowerFlex 700H Drive, view parameter 29 [Control SW Ver].

PowerFlex 700H Main Control Board Version and Firmware Revision Compatibility

The following table identifies which PowerFlex 700H main control board versions and firmware revisions are compatible.

Main Control Board Version	Compatible Firmware Revisions
561x	6.001 and lower
761x	6.001 and higher

See [Figure 1 on page 3](#) for location of version number on the main control board.

Firmware Upgrades

This section describes the procedures necessary to flash upgrade your PowerFlex 700H drive firmware. You can download the required PowerFlex 700H Flash Update Tool and firmware on the Allen-Bradley Web Updates site located at <http://www.ab.com/support/abdrives/webupdate>.

Note: Control Flash and 1203-SSS and 1203-USB serial adapter support through the DPI are not yet available for PowerFlex 700H drives.



ATTENTION: Risk of drive damage exists if drive power is removed during the Boot Flash segment of the upgrade/download. To guard against damage, Do Not Remove Power to the drive until the download is complete and the drive has been reset.

IMPORTANT Once a flash update has been started, do not remove drive power until the download is complete and the drive has been reset. If power is removed during Boot Flash, the drive may be permanently damaged. A drive that has been damaged in this way cannot be repaired. If power is removed during Application Flash, the drive will remain in Boot and can be reflashed.

Using the PowerFlex 700H Flash Update Tool

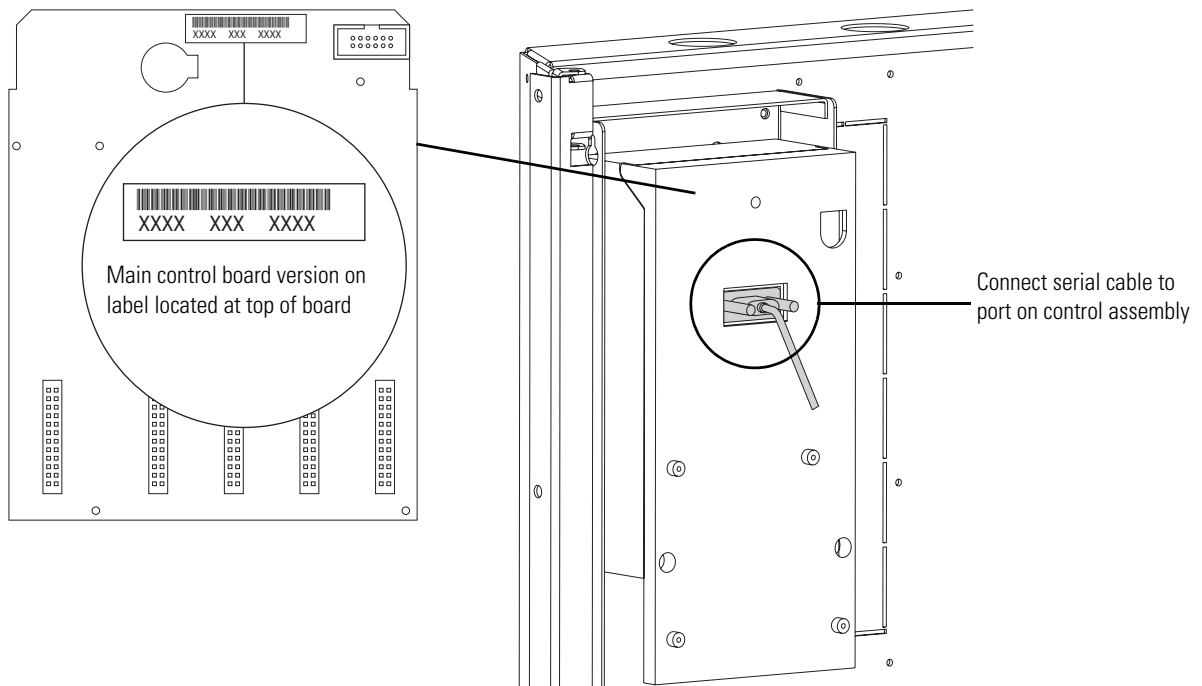
IMPORTANT The PowerFlex 700H Flash Update Tool is used with a serial cable, catalog string 20-60RS232-15M. If a regular 1:1 serial cable is used, pin 7 should be disconnected. Failure to use the recommended 20-60RS232-15M serial cable or to disconnect pin 7 on a 1:1 serial cable could result in damage to the computer's serial port. Also, do not use a crossover cable (NULL Modem) cable. If your computer only has a USB port, you must obtain a USB to serial converter cable in order to complete this procedure.

IMPORTANT Shut down RSLinx before completing this procedure in order to avoid a COMM PORT error.

The system firmware is named RPF700HAV601.vcn and is the only file required for this update. The standard application firmware is bundled with system firmware and does not require a separate download or flash.

1. Connect the serial cable from your computer to the port on the front of the 700H control assembly as shown below.

Figure 1 - Serial Cable Connection to Control Assembly Port



2. Start the PowerFlex 700H Flash Update Tool and follow the screen prompts until the flash procedure is completed and the new firmware revision is displayed.

Enhancements

This section describes the enhancements for this revision of firmware:

“Fan Cooling” Fault (F32) now Configurable for Alarm

The “Fan Cooling” fault (F32), which indicates that a main cooling fan is not energized when a start command has been issued, can now be configured for an alarm using bit 14 “Fan Cooling” of parameter 238 [Fault Config 1]. Setting this bit to 1 will configure the fault as “Non-Resetable”. In this case, the drive must be powered-down and the cause of the fault must be corrected before the fault can be cleared. Setting this bit to 0 will configure the fault as a “Non-Configurable” alarm. In this case the drive will continue to run. In addition, a “Fan Cooling” alarm is indicated when parameter 212 [Drive Alarm 1], bit 8 “Fan Cooling” = 1.

“Fan Control” Default now “Enabled”

The default value for parameter 465 [Fan Control] has been changed to 1 “Enabled”. In this mode the main cooling fan(s) will turn off when the drive is stopped and the heatsink temperature is below 60 °C (140 °F).

Corrected Anomalies

This section describes the anomalies corrected in this revision of firmware:

“Anlg In Loss” Fault (F29) Trip Value is Incorrect in mA Mode

Anomaly:

The “Anlg In Loss” fault (F29) trip value is incorrectly set to 1 mA when the analog inputs are set to mA mode.

Correction:

The “Anlg Input Loss” fault trip level has been corrected to be 2 mA.

Offline Current Limit too Low for Frame 14 Drives

Anomaly:

The offline maximum current limit value (3200.0), set in parameter 148 [Current Lmt Val], is too low to allow for the configuration of a frame 14 drive.

Correction:

The maximum value of parameter 148 has been changed to 5000.0 (Amps) to allow for configuration of frame 14 drives.

Known Anomalies

This section describes known anomalies that are not addressed by this firmware revision:

Error when Flashing DPI Devices

Errors can occur if you attempt to flash-update a DPI peripheral, such as a communications adapter or HIM.

Parameter Translations

Parameter names and enumerations for parameters added since revision 3.001 are available only in English.

Restrictions

This section lists the known restrictions for this revision of firmware:

HIM Model Use Restricted

Smooth transfer between Auto Speed Reference and Manual Speed Reference requires a series B 20-HIM-A3 / -A4-C3S / -C5S HIM with firmware revision 5.004 (or later).

Firmware Revision 6.001 Only Compatible with Main Control Board Version 761x and Higher

See [PowerFlex 700H Main Control Board Version and Firmware Revision Compatibility on page 1](#) for details.

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Rockwell Automation also provides technical information on the web to assist you in using our products. At <http://support.rockwellautomation.com>, you can find technical manuals, a knowledge base of FAQs, technical and application notes, sample code and links to software service packs, and a MySupport feature that you can customize to make the best use of these tools.

For an additional level of technical phone support for installation, configuration and troubleshooting, we offer TechConnect Support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit <http://support.rockwellautomation.com>.

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