



PowerFlex 700 Drive w/Vector Control Option (Revision 4.004)

These release notes correspond to minor revision 4.004 of firmware for PowerFlex 700 Drive with the Vector Control option. Refer to publication 20B-RN1A for a complete description of the changes implemented in firmware version 4.003.

Determining Firmware Revision Level

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

Firmware Upgrade Procedure



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.

Firmware 1.001.01 or later:

1. Remove/disconnect any HIMs before proceeding.
2. Install ControlFLASH file **PF700VCB_CTRLFLASH_4_004_111.exe**.
3. Run ControlFLASH.

Corrected Anomalies

This section describes the anomalies corrected in this revision.

Function	Anomaly	Correction
Copycat	In firmware version 4.003, the Copycat function may not download all parameters correctly when numerous parameters are changed from default. The number of parameters that triggers this anomaly varies with the type of parameter and the sequential order of the parameters. This anomaly was introduced in firmware version 4.003 and does NOT exist in previous versions.	The Copycat function has been corrected to properly download parameters when multiple blocks of parameters are transferred from the HIM to the drive. The user should not download a parameter file that was saved to the HIM from firmware version 4.003. If a 4.003 parameter file is downloaded, all parameters must be verified. Refer to the Knowledge Base Document #G146952119 for additional details.
Speed Profiling	The following occurs in RPM mode (not Hz mode) for an Encoder Abs/Incr step: If a STOP is executed during the step, a subsequent START will not use the step's Accel Rate, but instead will use an accel rate of "0."	When a subsequent START is issued, the profile will use the step's Accel Rate (regardless of RPM or Hz mode).
Speed Profiling	For the following scenario, instead of moving to the next step in the sequence, step 1 is executed. During the execution of an Encoder Abs step and before the target position is reached, a HOLD INPUT is enabled, which prohibits moving on to the next step. The RUN input is disabled and later enabled. When the HOLD INPUT is disabled, step 1 is executed instead of moving to the next step in the sequence.	For the scenario described, Speed Profiling will continue to the next step in the sequence.
Speed Profiling	While in profiling mode, if a STOP command is issued while executing a Profile Step, the [Current Profile Step] could be inaccurate.	If a STOP command is issued while executing a Profile Step, the profile will resume at the correct [Current Profile Step] when a START is re-issued.
Torque Proving	When using speed profiling and torque proving . . . If a homing function is not performed after power up and a jog function is performed, a type 2 alarm (Brake Slipped) will occur and can't clear without a cycle power.	The Brake Slipped alarm has been corrected to be independent of the homing alarm.

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