



PowerFlex 700 Drive w/Vector Control Option (Revision 6.008)

These release notes correspond to minor revision 6.008 of firmware for PowerFlex 700 Drives with the Vector Control option. Refer to publications 20B-RN001 through 20B-RN0012 for a complete description of the changes implemented in previous firmware versions.

Corrected Anomalies

This section describes the anomalies corrected in this revision.

Function	Anomaly	Correction
Torque proving, encoderless operation	When ... <ul style="list-style-type: none"> Torque proving is enabled: [TorqProve Cnfg], parameter 600, bit 0, "Enable" = 1 and <ul style="list-style-type: none"> SVC or FVC encoderless operation is selected: [Motor Cntl Sel], parameter 053 is set to "4, FVC Vector" or "0, Sensrls Vect" and <ul style="list-style-type: none"> [TorqProve Cnfg], parameter 600, bit 1, "Encoderless" = 1, and <ul style="list-style-type: none"> Brake proving is disabled: [TorqProve Cnfg], parameter 600, bit 5, "NoEnclsBkSlp" = 1 and <ul style="list-style-type: none"> a Stop command is issued the drive ramps down to near zero speed and ramps up through the braking system.	The torque proving routine was modified to correct this anomaly.
Drive operating at a speed higher than base speed of the motor	A torque disturbance may occur when the drive is operating at a speed slightly higher than base speed of the motor.	The drive current regulator was modified to provide improved torque performance above motor base speed.
Position/speed profiling	When a start command is issued during position/speed profiling and the torque proving routine is performing brake proving, the re-start command may not be accepted.	The torque proving routine was modified to accept a start from the position/speed profiler during brake proving.

Determining Firmware Revision Level

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

Firmware Upgrade Procedure

This section describes procedures to flash upgrade your drive firmware. Downloads are provided on the Allen-Bradley Web Updates site located at <http://www.ab.com/support/abdrives/webupdate>. For a detailed explanation of the flash procedure, refer to <http://www.ab.com/support/abdrives/powerflex700vc/phase1/firmware/index.html>.



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.

1. Remove/disconnect any HIMs before proceeding.
2. Install the “v6.008 Flash Kit” from the Allen-Bradley Web Updates site. This automatically installs the latest version of the ControlFLASH utility on your computer. ControlFLASH, DriveExplorer or DriveExecutive can now be used to update the drive using the following instructions.

Using ControlFLASH

Important: This method requires RSLinx.

1. Launch ControlFLASH (if it is not already running).
2. Follow the screen prompts until the flash procedure is completed and the new firmware version is displayed.

Using DriveExplorer Lite/Full

1. Exit the ControlFLASH program (if it is running) and launch DriveExplorer. Make a connection to the drive.
2. In the DriveExplorer treeview, select the appropriate drive. Then select the Information icon.
3. On the Properties screen, select the “Details” tab.
4. Select “Flash Update” and follow the screen prompts until the procedure is completed and the new firmware version is displayed.

Using DriveExecutive

Important: This method requires RSLinx.

1. Exit the ControlFLASH program (if it is running) and launch DriveExecutive. Make a connection to the drive.
2. In the DriveExecutive treeview, select the appropriate drive. Then select the Information icon.
3. On the Properties screen, select “Component Details.”
4. Select “Flash Update” and follow the screen prompts until the procedure is completed and the new firmware version is displayed.

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