



## PowerFlex 700 Drive w/Vector Control Option (Revision 4.006)

These release notes correspond to minor revision 4.006 of firmware for PowerFlex 700 Drive with the Vector Control option. Refer to publications 20B-RN001 through 20B-RN003 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
S-Curve	When S-curve is enabled and the decel time is greater than the accel time, if the user changes the speed reference to a lower value while the drive is accelerating, the drive could overshoot the original speed reference.	The drive will properly transition from the accel rate to the decel rate for speed reference changes.
SMART start	When SMART start is executed multiple times, each time the speed units are selected the value of [Minimum Speed] increases.	The speed units selection does not cause undesired changes to parameter values.
Adjustable Voltage Control	The adjustable voltage ramp did not operate correctly when a zero ramp rate was selected.	The adjustable voltage ramp operates correctly for all ramp rates.
[Drive Status 2], DB Active bit	When the dynamic brake transistor fires, parameter 210 [Drive Status 2], bit 7 (Db Active) is set. It stays set until the drive is stopped or disabled.	[Drive Status 2], bit 7 (Db Active) will turn off when the dynamic brake is no longer active.

### 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 “**v4.006 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.

U.S. Allen-Bradley Drives Technical Support - Tel: (1) 262.512.8176, Fax: (1) 262.512.2222, Email: support@drives.ra.rockwell.com, Online: www.ab.com/support/abdrives

**www.rockwellautomation.com**

---

#### Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846