



PowerFlex 700 Drive w/Vector Control Option (Revision 4.005)

These release notes correspond to minor revision 4.005 of firmware for PowerFlex 700 Drive with the Vector Control option. Refer to publications 20B-RN001A and 20B-RN002A for a complete description of the changes implemented in previous firmware versions.

Enhancements

Two additional faults have been added:

- Fault 925 (FATAL_DUALPORTDIAG) indicates a handshake error between the motor control processor and the PWM processor. This fault is a diagnostic code indicating a drive malfunction. Contact technical support for assistance.
- Fault 930 (FATAL_DUALPORTCHECK) indicates a runtime error in the FPGA dual port RAM. The dual port is checked continuously for any error. This fault is a diagnostic code indicating a drive malfunction. Contact technical support for assistance.

Corrected Anomalies

This section describes the anomalies corrected in this revision.

Function	Anomaly	Correction
All	Fatal hardware fault (noted by fault codes: 122, 131, and 900 series faults) A PowerFlex 700 drive with series B Vector Control may experience a Fatal Fault (fault codes 900-925), an I/O Failure Fault (fault code 122), or a Hardware Fault (fault code 131) that is due to a defect in a programmable IC. The fault is not application dependent and it can be intermittent.	The firmware has been modified to use redundant paths in the programmable IC to permit a defective IC to execute the firmware properly and operate without a fault.

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 “**v4.005 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