Release Notes

PowerFlex® 700H Drive Firmware (Revision 2.001)

These release notes correspond to major revision 2.001 of firmware for PowerFlex® 700H Drives.

Determining Firmware Revision Level

To determine the firmware version for a PowerFlex 700H 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.

Note: This procedure uses the PowerFlex Flash Update Tool. Control Flash and Anacanda support through the DPI are not yet available.

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 Flash Update Tool

Important: The PowerFlex Flash Upgrade Tool is used with a straight serial cable with male-female connectors. Do not use a crossover cable (NULL Modem) cable.

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

The system firmware is named RPF700HAV022.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.

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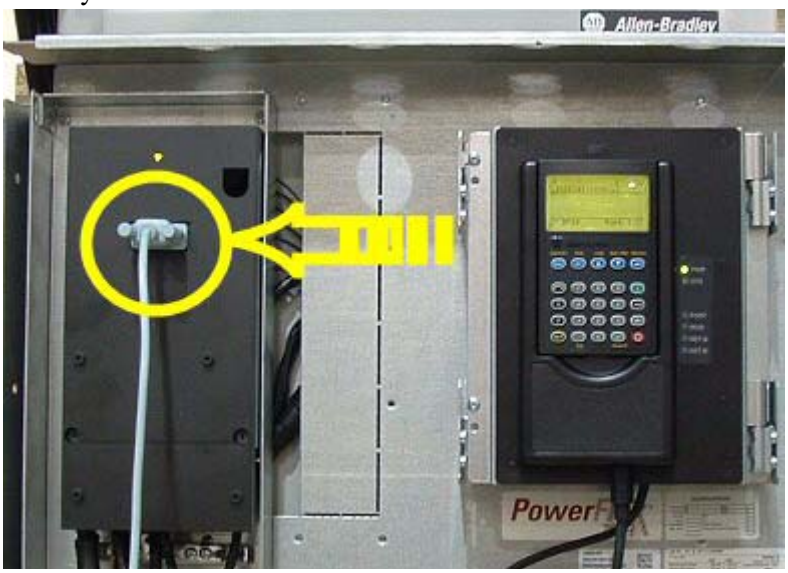
1. Connect the serial cable to the port on the front of the 700H control assembly as shown below.



2. Follow the screen prompts until the flash procedure is completed and the new firmware version is displayed.

Enhancements

This section describes the enhancements included in this revision:

Added Invert Mode for Sleep/Wake Function

The “Invert” mode of the Sleep/Wake Function is used to invert the analog input signal used by the [Wake Level] and [Sleep Level] parameters. In this mode, the drive will start (wake) when the analog input signal is less than or equal to the value set in [Wake Level] and the drive will stop (sleep) when the analog input signal is greater than or equal to the value in [Sleep Level]. In “Direct” mode, the drive will start (wake) when the analog input signal is greater than or equal to the value set in [Wake Level] and the drive will stop (sleep) when the analog input signal is less than or equal to the value in [Sleep Level]. To enable the Invert mode, set parameter 178 [Sleep-Wake Mode] to 2 “Invert” (new bit).

Implement Gate Disable I/O Board for ATEX

A new option board 20C-DG1 (Gate Disable) has been implemented to accommodate the requirements for ATEX certified drives. This board utilizes two independent 24V DC inputs to keep the drive from being disabled.

If used, this board replaces option board 20C-DO1 in slot B on the 700H control box.

The following parameters have been modified to support this enhancement:

- Bit 15 “Gate Disable” has been added to parameter 211 [Drive Alarm 1]
- Bit 15 “HDW OverTemp” has been added to parameter 212 [Drive Alarm 2]
- Bit 15 “Gate Disable” has been added to parameter 229 [Alarm 1 @ Fault]
- Bit 15 “Gate Disable” has been added to parameter 230 [Alarm 2 @ Fault]
- Bit 10 “Gate Disable” has been added to parameter 238 [Fault Config 1]
- Bit 15 “Gate Disable” has been added to parameter 259 [Alarm Config 1]

The following new parameters have been added to support this enhancement:

- Parameter 358 [20C-DG1 Remove]
- Parameter 359 [20C-DG1 Status]

The following faults and alarms have been modified to support this enhancement:

- 59 “Gate Disable” can be configured as a fault or an alarm
- 60 “Hrdwr Therm” can be configured as a fault

Refer to the *Service Bulletin - Instructions for ATEX Approved PowerFlex 700H Drives in Group II Category (2) Applications with ATEX Approved Motors*, publication 20C-SB001…, for instructions and setup and to the *Programming Manual - PowerFlex 700H Adjustable Frequency AC Drive*, publication 20C-PM001…, for detailed information on updated and new parameters.

Corrected Anomalies

This section describes the anomalies corrected in this revision.

Function	Anomaly	Correction
Reset To Defaults	Reset to "Low Voltage" or "High Voltage" for 600/690V drives did not select the correct voltage level. The drive would retain the factory setting.	The firmware has been modified to accommodate the requested voltage level.
PTC Analog Input	The analog input would not respond to a PTC input.	The firmware has been modified to turn on PTC and accommodate the voltage levels for the PTC input. See *Installation Instructions - PowerFlex 700S/H High Power Drives, Frame 9-13*, publication PFLEX-IN006…, for setup and configuration. The following parameters have been modified to support this enhancement: • Bits 14 “PTC Cflct” and 15 “HDW OverTemp” have been added to parameter 212 [Drive Alarm 2] • Bits 14 “PTC Cflct” and 15 “HDW OverTemp” have been added to parameter 230 [Alarm 2 @ Fault] • Bit 14 “PTC Config” has been added to parameter 259 [Alarm Config 1]

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Notes:

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