



PowerFlex 7-Class HIM Series B (20-HIM-A3 / -A5 / -C3S / -C5S) Firmware v5.004

This release note describes major revision 5, minor revision 4 of firmware for PowerFlex 7-Class Series B Human Interface Modules.

Introduction

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Enhancements

This section describes the enhancement provided in this revision of firmware.

- Allows you to configure the drive to switch smoothly from a communicated speed reference to a local speed reference produced by the HIM. When the drive is commanded to switch from the automatic (communicated) speed reference to the manual reference via a digital input, it preloads the last value from the communicated reference into the HIM. Then you can modify the manual reference on the HIM. This avoids a step change in speed that would otherwise occur from the switchover.

This HIM enhancement is only supported by these two PowerFlex 7-Class drives:

- PowerFlex 700 (firmware v7.001 or higher)
- PowerFlex 700H (firmware v5.001 or higher)

Corrected Anomalies

There are no anomalies corrected in this revision of firmware.

Determining Firmware Revision

This section describes procedures to determine the firmware revision of your PowerFlex 7-Class HIM.

Using the HIM (20-HIM-A3 / -A5 / -C3S / -C5S)

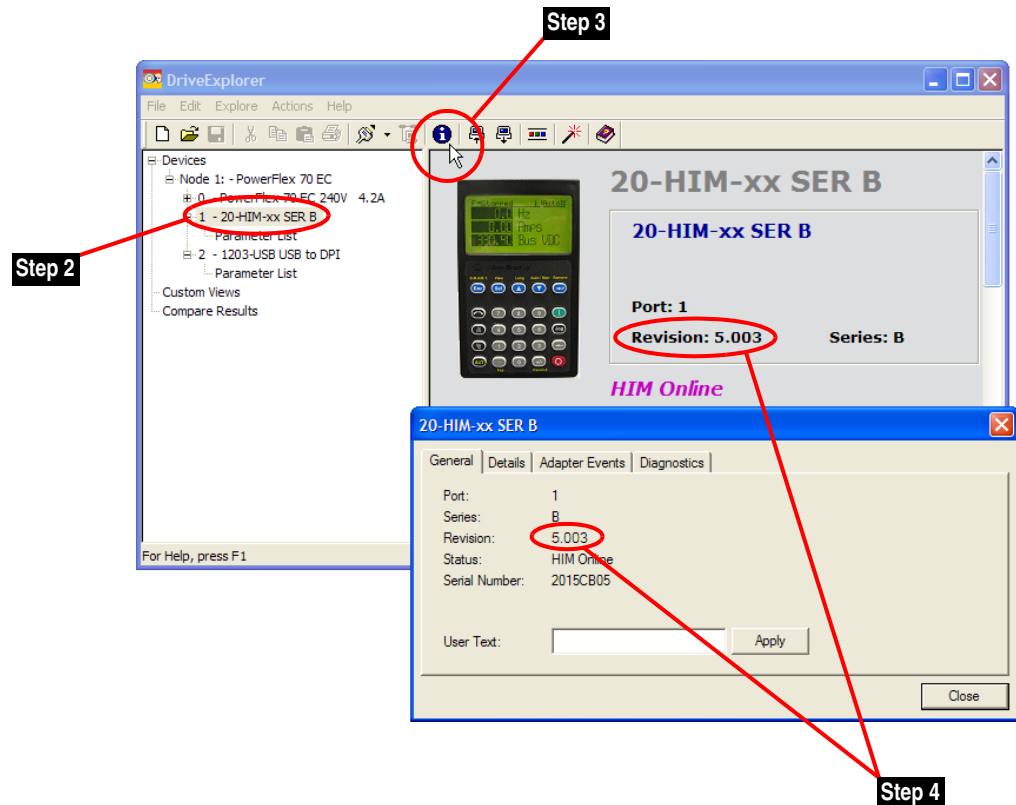
Step	Example Screens																		
1. In the Main Menu, press the  or  key to scroll to Device Select .	<table><tr><td>F-></td><td>Stopped</td><td>Auto</td></tr><tr><td colspan="2">0.0</td><td>Hz</td></tr><tr><td colspan="3">Main Menu:</td></tr><tr><td colspan="3">Parameter</td></tr><tr><td colspan="3">Device Select</td></tr><tr><td colspan="3">Memory Storage</td></tr></table>	F->	Stopped	Auto	0.0		Hz	Main Menu:			Parameter			Device Select			Memory Storage		
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2. Press the  (Enter) key to enter this selection.																			
3. Press the  or  key to scroll to 20-HIM-xx SER B .	<table><tr><td>F-></td><td>Stopped</td><td>Auto</td></tr><tr><td colspan="3">Pt1: 20-HIM-xx SER B</td></tr><tr><td colspan="3">Main Menu:</td></tr><tr><td colspan="3">Diagnostics</td></tr><tr><td colspan="3">Parameter</td></tr><tr><td colspan="3">Device Select</td></tr></table>	F->	Stopped	Auto	Pt1: 20-HIM-xx SER B			Main Menu:			Diagnostics			Parameter			Device Select		
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4. Press the  (Enter) key to display the HIM Main Menu.																			
5. In the HIM Main Menu, press the  or  key to scroll to Diagnostics .	<table><tr><td>F-></td><td>Stopped</td><td>Auto</td></tr><tr><td colspan="3">Pt1: 20-HIM-xx SER B</td></tr><tr><td colspan="3">Main Menu:</td></tr><tr><td colspan="3">Diagnostics</td></tr><tr><td colspan="3">Parameter</td></tr><tr><td colspan="3">Device Select</td></tr></table>	F->	Stopped	Auto	Pt1: 20-HIM-xx SER B			Main Menu:			Diagnostics			Parameter			Device Select		
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7. Press the the  or  key to scroll to Device Version .	<table><tr><td>F-></td><td>Stopped</td><td>Auto</td></tr><tr><td colspan="3">Pt1: 20-HIM-xx SER B</td></tr><tr><td colspan="3">Diagnostics:</td></tr><tr><td colspan="3">Events</td></tr><tr><td colspan="3">Device Items</td></tr><tr><td colspan="3">Device Version</td></tr></table>	F->	Stopped	Auto	Pt1: 20-HIM-xx SER B			Diagnostics:			Events			Device Items			Device Version		
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8. Press the  (Enter) key to display the Product Data screen.	<table><tr><td>F-></td><td>Stopped</td><td>Auto</td></tr><tr><td colspan="3">Pt1: 20-HIM-xx SER B</td></tr><tr><td colspan="3">▲Prev ▼Next</td></tr><tr><td colspan="3">20-HIM-xx SER B</td></tr><tr><td colspan="3">FW: 5.003</td></tr><tr><td colspan="3">HW: B Date: 01/14/2008</td></tr></table>	F->	Stopped	Auto	Pt1: 20-HIM-xx SER B			▲Prev ▼Next			20-HIM-xx SER B			FW: 5.003			HW: B Date: 01/14/2008		
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Using DriveExplorer Lite/Full

1. Launch DriveExplorer and go online (via 1203-USB or 1203-SSS converter) with the drive that is connected to the HIM. As an alternative when using DriveExplorer Full, you can go online with the drive on Ethernet through a connected 20-COMM-E communication adapter.
2. In the DriveExplorer treeview, click on the 20-HIM-xx SER B as shown in [Figure 1](#).
3. Click the information icon to display the HIM's Properties screen.
4. The "Revision:" field shows the present revision (for example, 5.003) of the HIM firmware.

► **TIP:** When clicking on the 20-HIM-xx SER B using version 5.01 or higher DriveExplorer Lite/Full, the HIM firmware revision is also shown in the right pane of the DriveExplorer window.

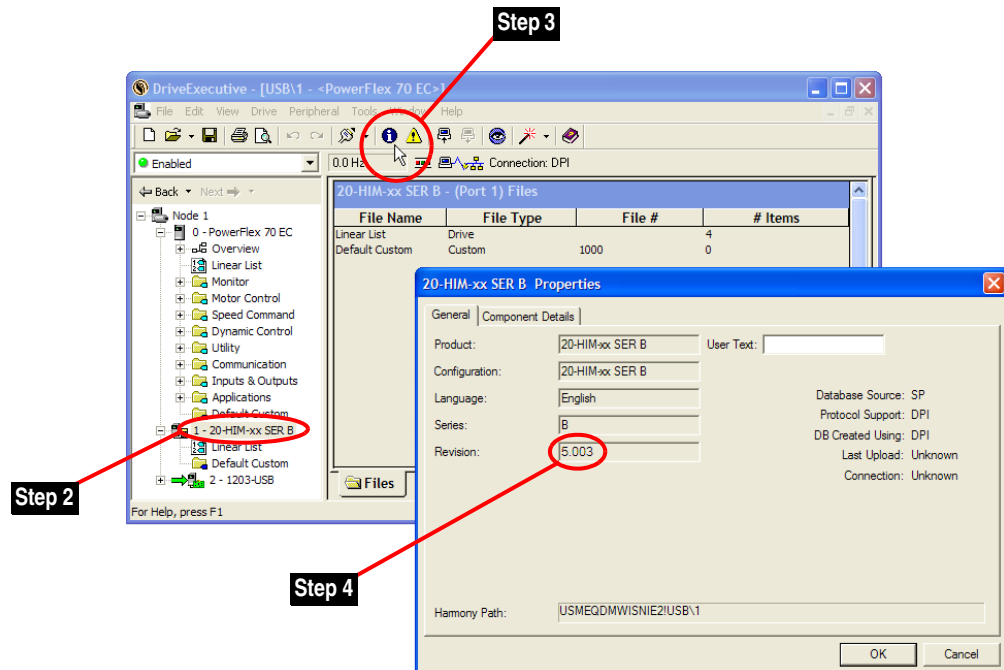
Figure 1 Information Icon in DriveExplorer Window



Using DriveExecutive

1. Launch DriveExecutive and go online (via 1203-USB or 1203-SSS converter) with the drive that is connected to the HIM.
2. In the DriveExecutive treeview, click on the 20-HIM-xx SER B as shown in [Figure 2](#).
3. Click the information icon to display the HIM's Properties screen.
4. The "Revision:" field shows the present revision (for example, 5.003) of the HIM firmware.

Figure 2 Information Icon in DriveExecutive Window



Firmware Flashing

This section describes procedures to flash upgrade your HIM firmware. Flash kits for drives, communications adapters, and peripherals are provided on the Allen-Bradley Web Updates site located at <http://www.ab.com/support/abdrives/webupdate>. Flashing can only be performed using a 1203-USB or 1203-SSS converter. For information about how to connect to your drive, please refer to the 1203-USB or 1203-SSS User Manual. They can be viewed/downloaded on the Literature Library web site located at www.literature.rockwellautomation.com.



ATTENTION: Risk of permanent equipment damage exists. Once a flash update has been started, do not remove power from the drive until after the download has completed and the HIM has re-initialized with the connected drive. If power is removed before this occurs, the HIM may be permanently damaged. A HIM that has been damaged in this way cannot be repaired.

Installing the Flash Kit

1. Install the flash kit utility from the Allen-Bradley Web Updates site for the PowerFlex 7-Class HIM Series B. (This also automatically installs the latest version of the ControlFLASH utility and deploys the firmware files for use with HyperTerminal on your computer.)
2. You are now ready to use DriveExplorer, DriveExecutive, ControlFLASH or HyperTerminal to update the HIM. Refer to the respective section below and follow the instructions.

Using DriveExplorer Lite/Full to Flash Update

1. With the Flash Kit installed (see [Installing the Flash Kit](#)), launch DriveExplorer and go online (via a 1203-USB or 1203-SSS converter) with the drive that is connected to the HIM.
2. In the DriveExplorer treeview, click on the 20-HIM-xx SER B. Then click the information icon as shown in [Figure 1](#) to display the HIM's Properties screen.
3. On the HIM Properties screen, click the Details tab.

Important: This update may cause the HIM parameters to revert to their default values. You may want to save your configuration using DriveExplorer or the HIM CopyCat feature before upgrading.

4. To start the flash update, click the **Flash Update...** button. Then select "5.004.xx" from the list of available updates and click **Next >**. Follow the remaining screen prompts until the flash update procedure completes and displays the new firmware revision (v5.004).

Using DriveExecutive to Flash Update

1. With the Flash Kit installed (see [Installing the Flash Kit](#)), launch DriveExecutive and go online (via 1203-USB or 1203-SSS converter) with the drive that is connected to the HIM.
2. In the DriveExecutive treeview, click on the 20-HIM-xx SER B. Then click the information icon as shown in [Figure 2](#) to display the HIM's Properties screen.
3. On the HIM Properties screen, click the Component Details tab.

Important: This update may cause the HIM parameters to revert to their default values. You may want to save your configuration using DriveExecutive or the HIM CopyCat feature before upgrading.

4. To start the flash update, click the **Flash Update** button. Then select the 20-HIM-xx SER B from the list of available devices and click **Next >**.

5. Select "5.004.xx" from the list of available updates and click **Next >**. Follow the remaining screen prompts until the flash update procedure completes and displays the new firmware revision (v5.004).

Using ControlFLASH to Flash Update

1. With the Flash Kit installed (see [Installing the Flash Kit on page 5](#)), launch ControlFLASH by selecting **Start > (All) Programs > Flash Programming Tools > ControlFLASH**.
2. On the ControlFLASH Welcome screen, click **Next >**.
3. Choose the 20-HIM-Ax (even though you may be, for example, flash updating a 20-HIM-CxS) from the list and click **Next >**.

Important: This update may cause the HIM parameters to revert to their default values. You may want to save your configuration using the HIM CopyCat feature, DriveExplorer or DriveExecutive before upgrading.

4. Expand the treeview for the communications path you are using, and select the drive icon that represents the drive connected to the HIM you are flash updating. Then click **OK**.
5. With the Multiple Assemblies Found window displayed, select "Port X - 20-HIM-xx SER B" from the list and click **OK**.
6. With the Firmware Revision window displayed, select "5.004.xx" from the list of available updates and click **Next >**. Follow the remaining screen prompts until the flash procedure completes and displays the new firmware revision (v5.004).

Using HyperTerminal to Flash Update

1. With the Flash Kit installed (see [Installing the Flash Kit on page 5](#)), launch HyperTerminal and go online (via 1203-USB or 1203-SSS converter) with the powered drive that is connected to the HIM.
2. Press the **Enter** key until the main menu ([Figure 3](#)) appears.

Figure 3 Main Menu

```
Main Menu - Enter Number for Selection
1> Display Setup Parameters
2> Display Event Queue
3> Flash Upgrade
```

3. In the main menu, press **3** to flash upgrade. Then press the number key that corresponds to the "20-HIM-xx SER B" in the list, and press **Y** (for Yes) to update the flash code. The terminal program will start displaying the letter "C". This signals the XMODEM protocol that the download may proceed. You then have one minute to start the transfer.

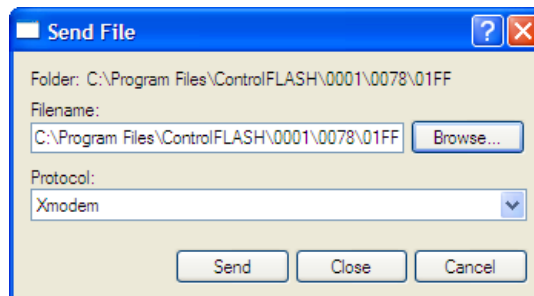


ATTENTION: Risk of injury or equipment damage exists. When you perform a flash update, the drive will fault if it is receiving control I/O. Verify that the drive has stopped safely before beginning a flash update.

4. Select **Transfer > Send File** to display the Send File screen ([Figure 4](#)).
5. Click **Browse** and navigate to the flash file located in:

C:\Program Files\ControlFLASH\0001\0078\01FF

Figure 4 Send File Screen



6. In the Select File to Send window list, click on the “20-HIM-BOOT_2_002_01.bin” file. Then click **Open**. This file name now appears in the Filename box in the Send File screen.
7. In the Protocol box, select “Xmodem.”
8. Click **Send**. A dialog box appears and reports the progress of the update. When it is complete, the message “Flash Complete” appears. Press any key to continue.

Important: Keep the HIM powered for 15 seconds after the operation has completed or until the HIM has re-initialized with the connected drive.



TIP: To cancel the flash update at any time, press **CTRL-X**.

9. Repeat steps 2 through 8 for the “20-HIM-APP_5_004_01.bin” file.
10. Press the **Enter** key to return to the main menu.

Restrictions

No restrictions apply to this revision of firmware.

Compatible Revisions

To use this revision of firmware, update your system tools as follows:

Update this:	To this Firmware or Higher:
DriveExplorer Lite/Full	4.01
DriveExecutive	3.01
PowerFlex 7-Class Drive	all versions compatible
20-HIM-xx Series B HIM	all versions compatible
RSLinx Classic	2.43

Rockwell Automation Support

Rockwell Automation provides technical information on the web to assist you in using our products. At <http://support.rockwellautomation.com>, you can find technical manuals, a knowledge base of Frequently Asked Questions (FAQs), technical and application notes, sample code and links to software service packs, and a MySupport feature that you can customize to make the best use of these tools.

Rockwell Automation also provides complimentary phone support for drives, communication adapters, and peripherals. If you experience a problem with the HIM, please review the information in its User Manual. For further help in getting your HIM operational, contact a Customer Support representative:

United States	(1) 262.512.8176 Monday – Friday, 7am – 6pm CST
Outside United States	Please contact your local Rockwell Automation representative for any technical support issues.

For an additional level of technical phone support for installation, configuration and troubleshooting, we offer TechConnect Support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit <http://support.rockwellautomation.com>.

Product Satisfaction Return

Rockwell Automation tests all products to ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning and needs to be returned:

United States	Contact your distributor. You must provide a Customer Support case number (see phone number above to obtain one) to your distributor to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for return procedure.

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

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