



20-COMM-M Modbus/TCP Adapter Firmware v2.001

This release note describes major revision 2, minor revision 1 of firmware for 20-COMM-M Modbus/TCP adapters.

Introduction

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Enhancements

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

- Added support for accessing the additional ports (Ports 7 through 14) available in PowerFlex 750-Series drives.

Important: The CIP Parameter object (class ID = 0x0F) is not supported when the 20-COMM-M adapter is connected to a PowerFlex 750-Series drive.

- Added support for Chinese, Japanese, and Korean languages when the 20-COMM-M adapter is connected to a PowerFlex 750-Series drive.

Corrected Anomalies













This section describes the anomalies corrected in this revision of firmware:

- Corrected the descriptor of Parameter 2 - [DPI Data Rate] from being uploaded/downloaded when using a software tool or HIM (Human Interface Module).
- Corrected a bug on the adapter web pages where pressing the browser's refresh button returned the user to the adapter Home Page.
- Corrected a bug on the adapter web pages where incorrectly-formatted text could be entered, which caused changes in what was displayed on the web page.

Determining Firmware Revision

This section describes procedures to determine the firmware revision of your 20-COMM-M Modbus/TCP adapter.

Using the LCD HIM

| Step | Example Screens |
|---|---|
| 1. In the Main Menu, press the  or  key to scroll to Device Select . | <pre> F-> Stopped Auto ----- ----- ----- 0.0 Hz ----- ----- ----- Main Menu: Parameter Device Select Memory Storage </pre> |
| 2. Press the  (Enter) key to enter this selection. | <pre> F-> Stopped Auto ----- ----- ----- Port 5: 20-COMM-M ----- ----- ----- Main Menu: Diagnostics Parameter Device Select </pre> |
| 3. Press the  or  key to scroll to the 20-COMM-M adapter. | <pre> F-> Stopped Auto ----- ----- ----- Port 5: 20-COMM-M ----- ----- ----- Diagnostics: Events Device Items Device Version </pre> |
| 4. Press the  (Enter) key to display the adapter Main Menu. | <pre> F-> Stopped Auto ----- ----- ----- Port 5: 20-COMM-M ----- ----- ----- Port 5: 20-COMM-M ^Prev vNext 20-COMM-M FW: 1.002 HW: A Date: 12/14/2007 </pre> |
| 5. In the adapter Main Menu, press the  or  key to scroll to Diagnostics . | |
| 6. Press the  (Enter) key to enter this selection. | |
| 7. Press the  or  key to scroll to Device Version . | |
| 8. Press the  (Enter) key to display the Product Data screen. | |

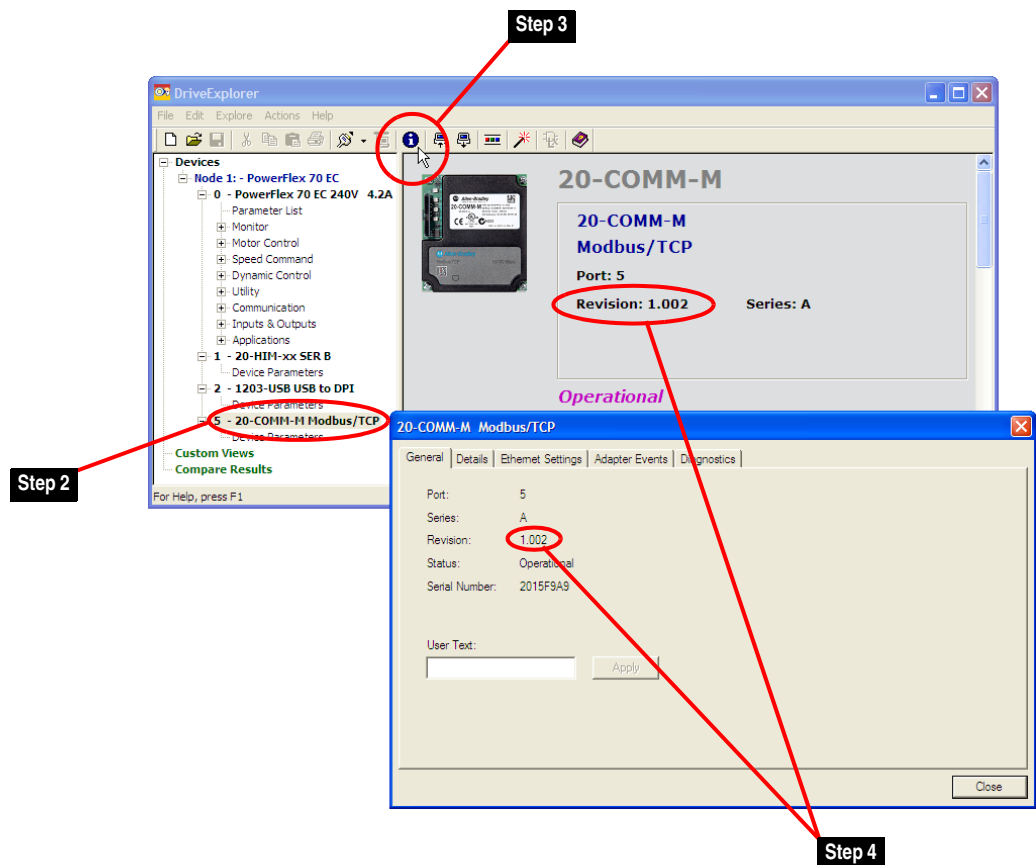
Using DriveExplorer Lite/Full

1. Launch DriveExplorer and go online (via 1203-USB or 1203-SSS converter) with the drive that is connected to the adapter.
2. In the DriveExplorer treeview, click on the 20-COMM-M Modbus/TCP adapter as shown in [Figure 1](#).
3. Click the information icon to display the adapter's Properties screen.
4. The "Revision:" field shows the present revision (for example, 1.002) of the adapter firmware.



TIP: When clicking on the 20-COMM-M adapter using version 5.01 or higher DriveExplorer Lite/Full, the adapter firmware revision is also shown in the right pane of the DriveExplorer window.

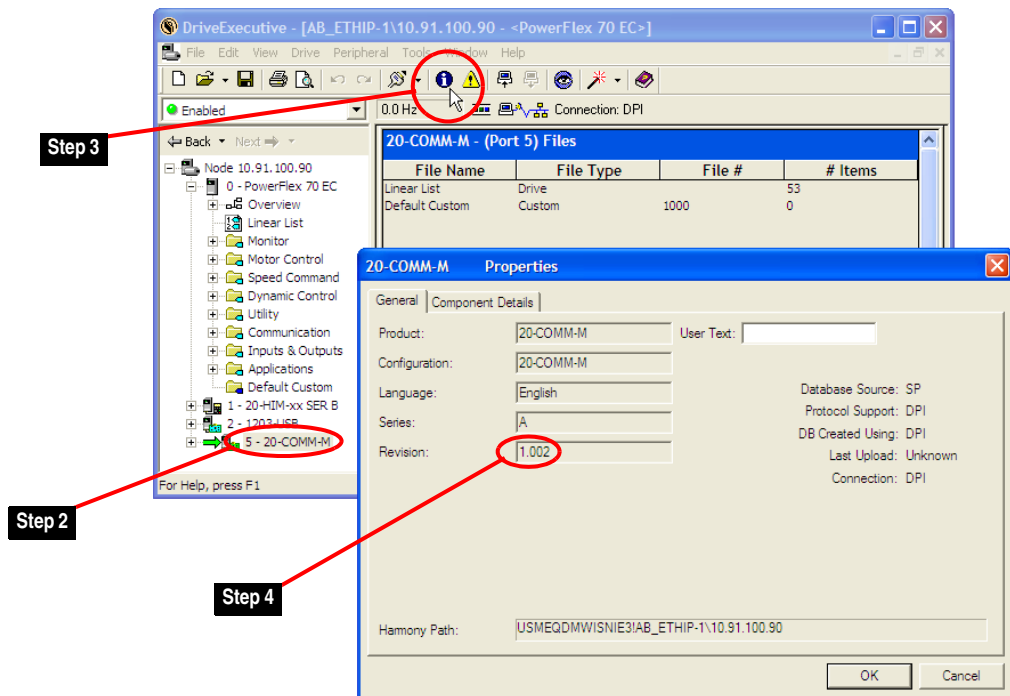
Figure 1 Information Icon in DriveExplorer Window



Using DriveExecutive

1. Launch DriveExecutive and go online (via Modbus/TCP, or a 1203-USB or 1203-SSS converter) with the drive that is connected to the adapter.
2. In the DriveExecutive treeview, click on the 20-COMM-M adapter as shown in [Figure 2](#).
3. Click the information icon to display the adapter's Properties screen.
4. The "Revision:" field shows the present revision (for example, 1.002) of the adapter firmware.

Figure 2 Information Icon in DriveExecutive Window



Firmware Flashing

This section describes procedures to flash upgrade your adapter firmware. Flash kits for drives and communications adapters are provided on the Allen-Bradley Web Updates site located at <http://www.ab.com/support/abdrives/webupdate>. Flashing can be performed using a drive software tool over Modbus/TCP, or 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 (or the 20-XCOMM-DC-BASE External Comms Kit, if used) until after the download has completed and the adapter MOD status indicator starts FLASHING GREEN. If power is removed before this occurs, the adapter may be permanently damaged. An adapter 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 20-COMM-M adapter. (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 adapter. 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 adapter.
2. In the DriveExplorer treeview, click on the 20-COMM-M adapter. Then click the information icon as shown in [Figure 1](#) to display the adapter's Properties screen.
3. On the 20-COMM-M Properties screen, click the Details tab.

Important: This update may cause the adapter 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 "2.001.xx Full" 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 (v2.001).

Using DriveExecutive to Flash Update

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

Important: This update may cause the adapter 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-COMM-M from the list of available devices and click **Next >**.

5. Select “2.001.xx Full” 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 (v2.001).

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-COMM-M v2.001 from the list and click **Next >**.

Important: This update may cause the adapter 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 communication path you are using, and select the drive icon that represents the drive with the 20-COMM-M adapter you are updating. Then click **OK**.
5. With the Multiple Assemblies Found window displayed, select “Port X - 20-COMM-M” from the list and click **OK**.
6. With the Firmware Revision window displayed, select “2.001.xx Full” 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 (v2.001).

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 adapter.
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-COMM-M” 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.

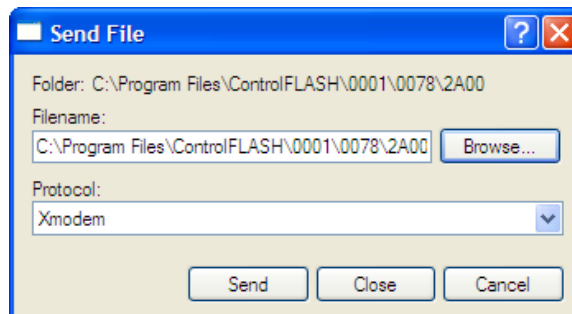


ATTENTION: Risk of injury or equipment damage exists. When you perform a flash update, the drive will fault if it is receiving control I/O from the adapter. Verify that the drive has stopped safely or is receiving control I/O from an alternate source before beginning a flash update.

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\2A00

Figure 4 Send File Screen



6. In the Select File to Send window list, click on the “20-COMM-M_01_002_12_Boot.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 device powered for 15 seconds after the operation has completed or until the adapter MOD status indicator starts flashing green.



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

9. Repeat steps 2 through 8 for the “20-COMM-M_02_001_08_App.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 version or later: |
|-------------------------|---------------------------|
| DriveExplorer Lite/Full | 4.01 |
| DriveExecutive | 3.01 |
| PowerFlex 7-Class Drive | all versions compatible |
| LCD 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 adapter, please review the information in its User Manual. For further help in getting your adapter 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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