22-COMM-D DeviceNet Adapter Firmware v1.011

This release note describes major revision 1, minor revision 11 of firmware for 22-COMM-D DeviceNet adapters.

Introduction

The following information is included in this document:

Enhancements

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

- Improved the reliability of the DSI communication between the adapter and the drive(s).

- Improved the reliability of fragmented explicit message transactions on the network.
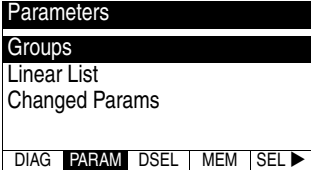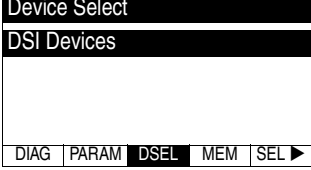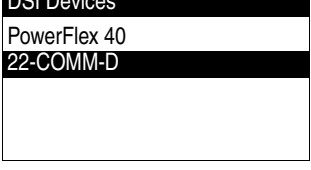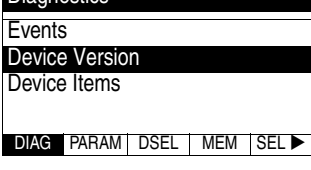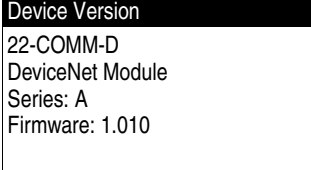
Corrected Anomalies

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

- In Multi-Drive mode, corrected an issue with the integrity of the I/O data transferred between the network and the drive.

Determining Firmware Revision

This section describes procedures to determine the firmware revision of your 22-COMM-D DeviceNet adapter.

Using the Optional, External LCD HIM (22-HIM-**)

Step	Example Screens
1. Power up the drive. Then plug the external HIM into the bottom of the drive. The **Parameters** menu for the <u>drive</u> will be displayed.	Parameters Groups Linear List Changed Params DIAG PARAM DSEL MEM SEL ▶
2. Press **Sel** key once to display the **Device Select** menu.	Device Select DSI Devices DIAG PARAM DSEL MEM SEL ▶
3. Press ⏎ (Enter) key to display the **DSI Devices** menu. Press ▼ Arrow to scroll to **22-COMM-D**, and then press ⏎ (Enter) key.	DSI Devices PowerFlex 40 22-COMM-D
4. Press **Sel** key until the Diagnostics menu is displayed. Press ▼ Arrow to scroll to **Device Version**, and then press ⏎ (Enter) key.	Diagnostics Events Device Version Device Items DIAG PARAM DSEL MEM SEL ▶
5. The present firmware version of the converter is shown on the Firmware line.	Device Version 22-COMM-D DeviceNet Module Series: A Firmware: 1.010

Using DriveExplorer Lite/Full

1. Launch DriveExplorer and go online (via 1203-USB or 22-SCM-232 converter) with the drive that is connected to the adapter.

2. In the DriveExplorer treeview, click on 22-COMM-D DeviceNet Module 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, 1.010) of the adapter firmware.

▶ **TIP:** When clicking on the 22-COMM-D 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
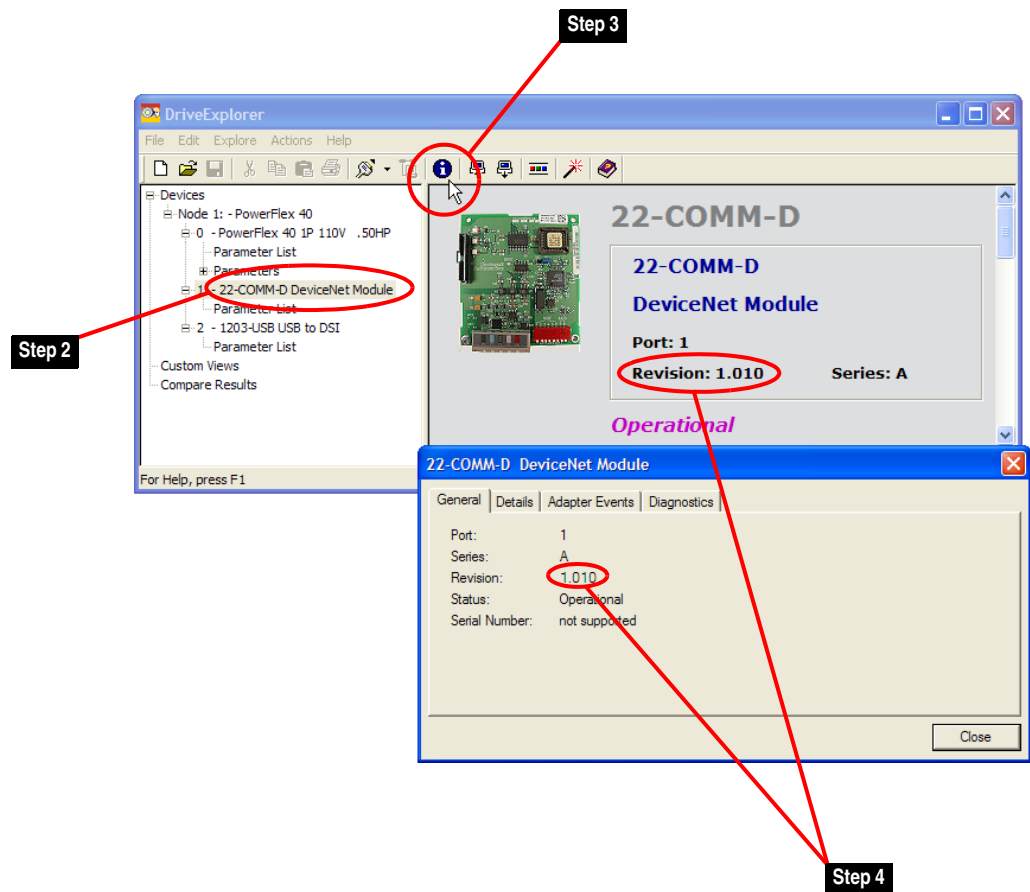
Using DriveExecutive

1. Launch DriveExecutive and go online with the drive that is connected to the adapter.

2. In the DriveExecutive treeview, click on 22-COMM-D 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, 1.010) of the adapter firmware.

Figure 2   Information Icon in DriveExecutive Window
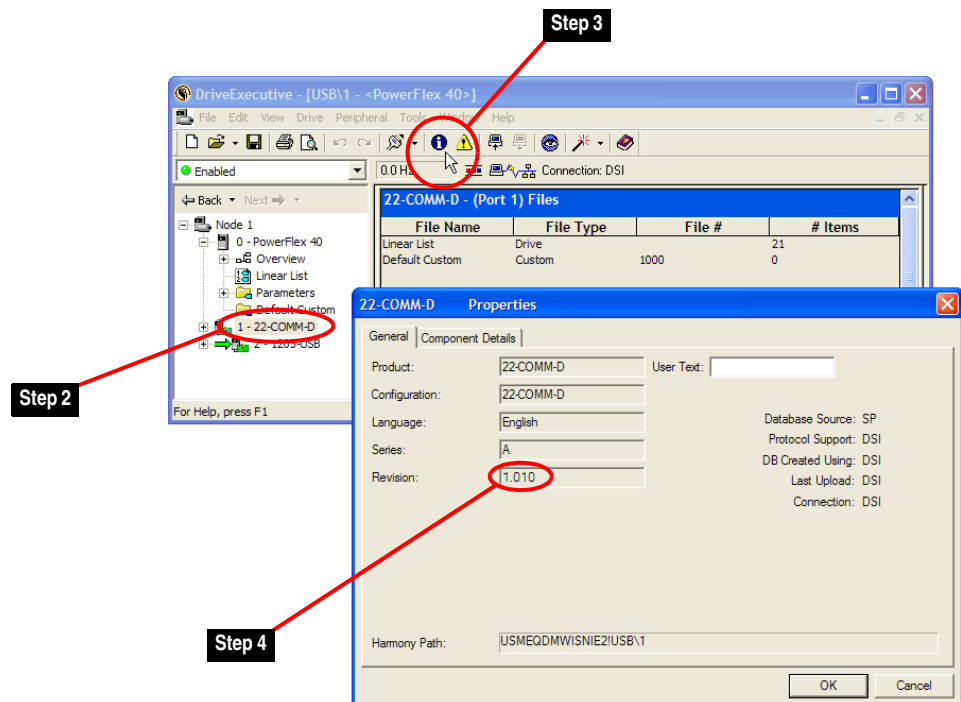
Firmware Flashing

This section describes procedures to flash upgrade your adapter firmware. Flash kits for drives, 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 22-SCM-232 converter. For information about how to connect to your drive, please refer to the 1203-USB or 22-SCM-232 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 22-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 22-COMM-D adapter. (This also automatically installs 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 22-SCM-232 converter) with the drive that is connected to the adapter.

2. In the DriveExplorer treeview, click on 22-COMM-D DeviceNet Module. Then click the information icon as shown in Figure 1 to display the adapter's Properties screen.

3. On the 22-COMM-D 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 "v1.011.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 version (v1.011).

Using DriveExecutive to Flash Update

1. With the Flash Kit installed (see Installing the Flash Kit), launch DriveExecutive and go online (via a 1203-USB or 22-SCM-232 converter) with the drive that is connected to the adapter.

2. In the DriveExecutive treeview, click on 22-COMM-D adapter. Then click the information icon as shown in Figure 2 to display the adapter's Properties screen.

3. On the 22-COMM-D 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 22-COMM-D from the list of available devices and click **Next >**.

5. Select "v1.011.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 version (v1.011).

Using ControlFLASH to Flash Update

1. With the Flash Kit installed (see <u>Installing the Flash Kit on page 5</u>), launch ControlFLASH by selecting **Start > (All) Programs > Flash Programming Tools > ControlFLASH**.

2. On the ControlFLASH Welcome screen, click **Next >**.

3. Choose the appropriate 22-COMM-D update from the list of available updates 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 22-COMM-D adapter you are updating. Then click **OK**.

5. With the Multiple Assemblies Found window displayed, select "Port X - 22-COMM-D" from the list and click **OK**.

6. With the Firmware Revision window displayed, select "1.011.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 (v1.011).

Using HyperTerminal to Flash Update

1. Verify that adapter jumper J2 is set to Single operating mode.

2. With the Flash Kit installed (see <u>Installing the Flash Kit on page 5</u>), launch HyperTerminal and go online (via a 1203-USB or 22-SCM-232 converter) with the powered drive that is connected to the adapter.

3. Press the **Enter** key until the main menu (<u>Figure 3</u>) appears.

Figure 3   Main Menu

```
Main Menu - Enter Number for Selection
1> Display Setup Parameters
2> Display Event Queue
3> Flash Upgrade
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4. In the main menu, press **3** to flash upgrade. Then press the number key that corresponds to the "22-COMM-D" 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.

5. Select **Transfer > Send File** to display the Send File screen (Figure 4).

6. Click **Browse** and navigate to the flash file located in:

    C:\ Program Files\ControlFLASH\0001\0079\8100

Figure 4   Send File Screen
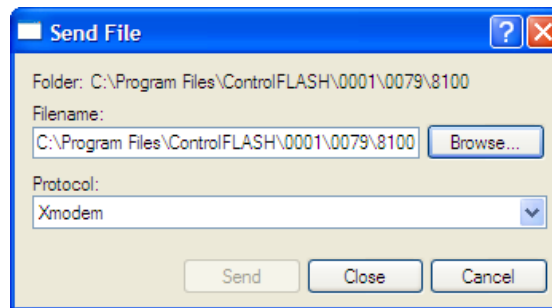
7. In the Select File to Send window list, click on the "22-COMM-D_1_011_01_Full.bin" file. Then click **Open**. This file name now appears in the Filename box in the Send File screen.

8. In the Protocol box, select "Xmodem."

9. 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**.

10. Press the **Enter** key to return to the main menu.

11. After the flash successfully completes, set adapter jumper J2 to the desired Single or Multi-Drive operating mode position.

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 4-Class Drive	all versions compatible
External LCD HIM (22-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.

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