22-COMM-D DeviceNet Adapter Firmware v1.010

This release note describes major revision 1, minor revision 10 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.

- Added support for flashing a PowerFlex 4M drive directly through the 22-COMM-D adapter or indirectly using a 22-SCM-232 serial converter module (firmware v2.005 or higher).

- Added support for the Get Scattered (service code 0x32) and Set Scattered (service code 0x34) services for the DSI Parameter object (class ID 0x93). These services enable up to 22 parameters to be read or written in a single explicit message transaction. The tables below show the Service Data Format and Instance Number mapping that are used for these services:

Word	Description
0	Parameter Number 1
1	Parameter Value 1
⋮	⋮
40	Parameter Number 21
41	Parameter Value 21

Instances (Dec.)	Single Mode	Multi-Drive Mode
0 – 16383	Instances 0 – 16383 in the drive	Instances 0 – 16383 in Drive 0
16384 – 17407	Instances 0 – 1023 in the adapter	Instances 0 – 1023 in the adapter
17408 – 18431	Instances 0 – 1023 in the adapter	Instances 0 – 1023 in Drive 1
18432 – 19455	Instances 0 – 1023 in the slave	Instances 0 – 1023 in Drive 2
19456 – 20479	Not supported	Instances 0 – 1023 in Drive 3
20480 – 21503	Not supported	Instances 0 – 1023 in Drive 4
21504 – 22527	Not supported	Instances 0 – 1023 in the adapter

Corrected Anomalies

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

• When the adapter is used in Multi-Drive mode, this firmware upgrade corrects communication errors in networks consisting of PowerFlex 4-Class drives whose total number of parameter groups (Display, Basic Program, Advanced Program, etc.) are different. The previous attempt to correct this anomaly with firmware v1.009 was unsuccessful.

Determining Firmware Revision

This section describes procedures to determine the firmware revision of your 22-COMM-D DeviceNet adapter.
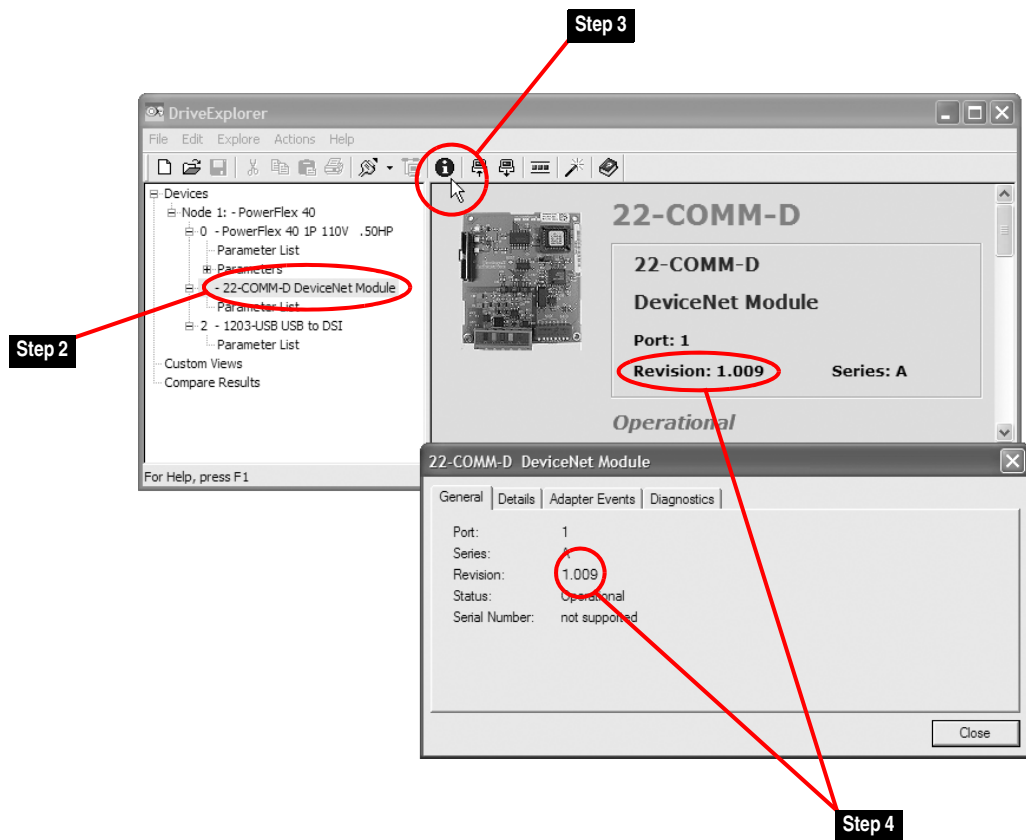
Using the External LCD HIM (22-HIM-**)

Step	Key(s)	Example Screens
1. Power up 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 until the Device Select menu is displayed, and then press Enter.	Sel and ↵	Device Select DSI Devices DIAG PARAM DSEL MEM SEL ▶
3. Press Down Arrow to scroll to the **22-COMM-D** adapter, and then press Enter.	▼ and ↵	DSI Devices PowerFlex 40 22-COMM-D
4. Press Sel key until the Diagnostics menu is displayed. Press Down Arrow to scroll to **Device Version**, and then press Enter.	Sel ▼ and ↵	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 Adapter Series: A Firmware: 1.009

Using DriveExplorer Lite/Full

1. Launch DriveExplorer and go online (via 22-SCM-232 or 1203-USB 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, 1.009) 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.
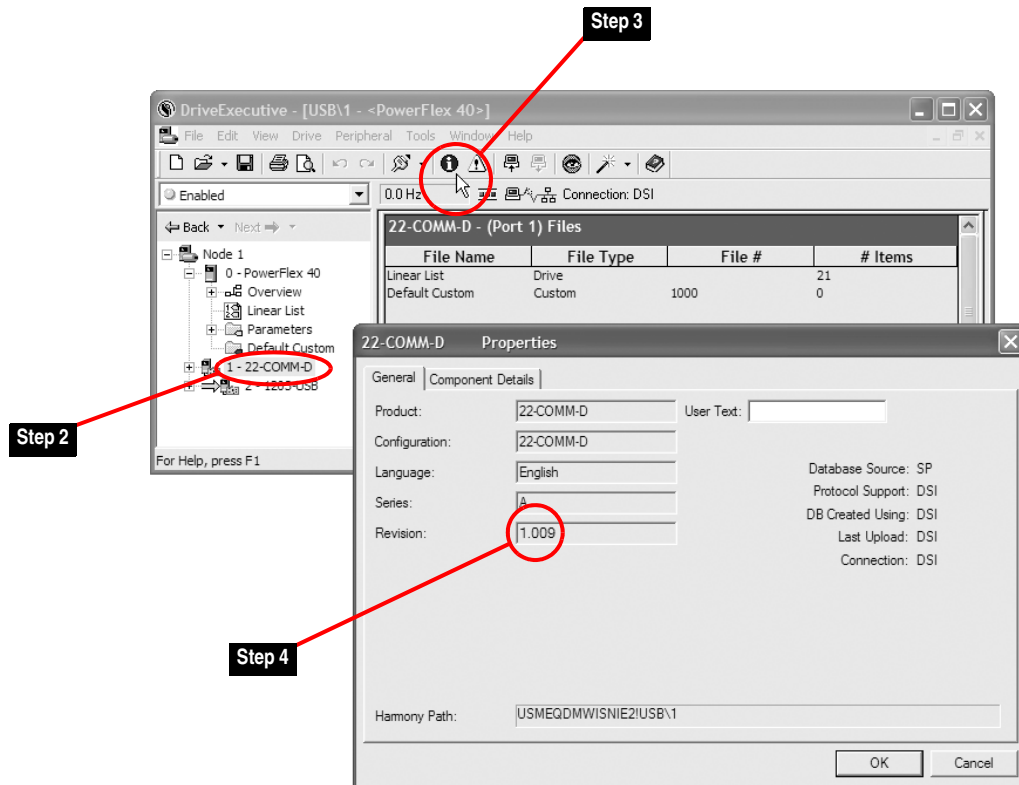
Figure 1   Information Icon in DriveExplorer Window

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, 1.009) 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.

> ⚠️ **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 MOD status indicator on the adapter becomes 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 latest version of the ControlFLASH utility on your computer.)

2. You are now ready to use DriveExplorer, DriveExecutive or ControlFLASH to update the adapter. Follow the instructions in the appropriate section below.

Using DriveExplorer Lite/Full

1. With the Flash Kit installed (see Installing the Flash Kit), launch DriveExplorer and go online (via 22-SCM-232 or 1203-USB 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. Follow the screen prompts until the flash update procedure completes and displays the new firmware revision (v1.010).

Using DriveExecutive

1. With the Flash Kit installed (see Installing the Flash Kit), launch DriveExecutive and go online with the drive that is connected to the adapter.

2. In the DriveExecutive treeview, click on 22-COMM-D. 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. Follow the screen prompts until the flash update procedure completes and displays the new firmware revision (v1.010).

Using ControlFLASH

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. Choose the 22-COMM-D v1.010 update from the list of available updates.

    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.

3. Follow the screen prompts until the flash procedure completes and displays the new firmware revision (v1.010).

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 converter 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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