



Foundation Fieldbus Linking Device Firmware Upgrade

Catalog Numbers 1757-FFLD2, 1757-FFLD4

This release note describes enhancements and corrected anomalies in the 1757-FFLD firmware, revision 1.6 and earlier. This document also describes firmware upgrade procedures and system requirements.

IMPORTANT

When you upgrade your 1757-FFLD firmware to revision 1.6, if you have not already done so, you must also upgrade RSFieldbus software to version 1.5. Previous versions of RSFieldbus software are not compatible with revision 1.6 firmware.

Enhancements in Revision 1.6

We made two enhancements to the 1757-FFLD firmware:

- diagnostic web pages
- new functions to the reset button

This firmware revision contains web pages that provide 1757-FFLD status and diagnostic information:

- Home page with general information
- H1 Live List
- Virtual Communication Relationship (VCR) Pages
- Ethernet Network Settings
- Ethernet Statistics
- Configure H1/HSE Captures

To capture information about the communication between the computer and the 1757-FFLD, an additional driver must be installed.

Refer to KnowledgeBase Tech Note ID G128737547 at <http://support.rockwellautomation.com/> for more information.

- Web Server Log
- 1757-FFLD Log
- set the time, date, and time zone
- restore the 1757-FFLD to its factory default settings

With this firmware revision, new functions have been added to the hardware reset button. The reset button lets you restore the linking device's factory default settings:

- Dynamic Host Configuration Protocol (DHCP) network configuration
- the administrative account user name and password will be cleared
- no downloaded Fieldbus configurations

To perform a reset, the linking device's power must be on with the H1 status indicators flashing.

For more information on these enhancements, refer to the Foundation Fieldbus Linking Device User Manual, publication 1757-UM010. To get a copy, you can:

- View or download an electronic version from the Internet at www.rockwellautomation.com/literature
- Contact your local distributor or Rockwell Automation representative to place an order

Enhancements in Revision 1.5 - April 2005

The 1757-FFLD firmware includes its electronic data sheet (EDS) file. This lets RSNetWorx for EtherNet/IP software, version 5 or later, upload and register the EDS file directly from the 1757-FFLD. Previously, you had to find the file on a CD or a web site and manually install the EDS file.

The 1757-FFLD can now synchronize to a Simple Network Time Protocol (SNTP) server that lets you synchronize all fieldbus devices attached to a 1757-FFLD across all channels. For more information, see the RSFieldbus Application Guide, publication RSFBUS-AT001.

Corrected Anomalies in Revision 1.5 - April 2005

The 1757-FFLD operates correctly on systems where multiple devices are configured as link masters.

We corrected anomalies that caused watchdog faults.

Before You Upgrade

Be sure your system meets the following requirements before upgrading:

- RSLinx software, version 2.42 minimum
- RSFieldbus software, version 1.5

If your system meets the requirements above, complete the following steps before upgrading:

1. Save and close all running RSFieldbus projects.

All data stored in the 1757-FFLD will be lost during upgrade.

2. Disconnect the 1757-FFLD from the fieldbus network so that the 1757-FFLD is not controlling an active process.
3. Close all running programs.
4. Verify connectivity between your computer and all 1757-FFLDs using RSLinx software.
5. Use the BOOTP/DHCP server to reassign each 1757-FFLD to its original IP address.
6. Leave DHCP enabled.

See the Foundation Fieldbus Linking Device Installation Instructions, publication 1757-IN021, for information on using BOOTP.

IMPORTANT

Do not close BOOTP. The 1757-FFLDs must be able to communicate with BOOTP to complete the firmware upgrade.

7. Go to the Flash Firmware Updates site:
(<http://support.rockwellautomation.com/ControlFlash/>)
8. Extract the .zip file to a folder on your hard drive.

Upgrade Firmware

After completing the preparations, follow these steps to install ControlFlash software and upgrade your firmware. If you have another version of ControlFlash software, you must install this version for compatibility.

1. Locate the new folder to which you extracted the .zip files and double-click the setup.exe file to run the ControlFlash setup wizard.
2. At the Welcome to ControlFlash Setup window, click next.

3. Click Yes to accept the license agreement.
4. Click Next to accept the default location.
5. At the Setup Complete window:
 - a. Uncheck the Yes, I want to view the README file checkbox.
 - b. Check the Yes, I want to launch ControlFlash checkbox
 - c. Click Finish.
6. At the Welcome to ControlFlash window, click Next.
7. Click 1757-FFLD and click Next.
8. Browse to the 1757-FFLD that you want to upgrade, select it and click OK.
9. Select Revision number 1.6 and click Next.
10. Click Finish.
11. Click Yes to confirm the upgrade.
12. Click OK.

The firmware upgrade begins and may take 10 minutes or more to complete. After the firmware upgrade is complete, the status window opens. The Status box is green if the upgrade is successful.

13. Click OK.

The Welcome screen opens again.

14. Once steps 6 through 13 have been completed on all 1757-FFLDs, click Cancel then Yes to exit ControlFlash.
15. Cycle power on the upgraded 1757-FFLDs.

IMPORTANT

Cycle power on each of the 1757-FFLDs you have upgraded. While it may appear that the module functions properly, it will not communicate on High Speed Ethernet (HSE) if you do not recycle power.

A 1757-FFLD module reset (equivalent to a power cycle) can be completed from RSLogix 5000 software. For information, see the RSFieldbus User Manual, publication RSFBUS-UM001.

16. Reload the fieldbus configuration.

Limitations

The first time you right-click the 1757-FFLD in RSLinx software, selecting any of the available menu options will return an error stating that the RSLinx software could not communicate with the module. Once you click OK to clear the error, RSLinx software functions normally and you are able to select the available options after right-clicking the 1757-FFLD.

In some cases a time-out error may occur when Assigning Tags. In all known cases, this error is not accurate and you can verify that tags have been assigned.

A 1756-ENBT Ethernet module in a ControlLogix redundancy rack cannot communicate with a 1757-FFLD. This is because the 1757-FFLD is considered I/O in this configuration and a 1756-ENBT module in a redundancy rack does not support I/O communication. To communicate with a 1757-FFLD in a redundant ControlLogix system with an 1756-ENBT, use the following configuration:

- Place the 1756-ENBT module that communicates with the 1757-FFLD in a separate rack that is not part of the redundant pair. The separate rack can be one of the 1756 I/O racks connected to the redundant pair via the ControlNet network.
- Place a ControlLogix controller in the same rack as the 1756-ENBT module. The controller communicates with the 1757-FFLD through the 1756-ENBT module. Use messaging or produce/consume tags in this controller to communicate over ControlNet to the controllers in the redundant system.

If you perform any of the following functions, you must reboot the linking device to continue normal operation:

- change IP Ethernet network settings (via Bootp or RSLinx software)
- change mode (Static IP, Dynamic/DHCP, Bootp)
- change subnet

You should only perform these changes after you have taken the linking device offline.

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Rockwell Automation provides technical information on the web to assist you in using its products. At <http://support.rockwellautomation.com>, you can find technical manuals, a knowledge base of 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.

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>.

Installation Assistance

If you experience a problem with a hardware module within the first 24 hours of installation, please review the information that's contained in this manual. You can also contact a special Customer Support number for initial help in getting your module up and running:

United States	1.440.646.3223 Monday – Friday, 8am – 5pm EST
Outside United States	Please contact your local Rockwell Automation representative for any technical support issues.

New Product Satisfaction Return

Rockwell tests all of its 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 in order to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for return procedure.

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