

Compact I/O DeviceNet Scanner Module

Catalog Number 1769-SDN/B

About This Publication

These release notes correspond to 1769-SDN scanner module firmware major revision 3, minor revision 10 and earlier.

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2 Compact I/O DeviceNet Scanner Module

Enhancements

These enhancements are supported only when the 1769-SDN scanner module is used with a 1769-L3x or 1769-L4x CompactLogix controller. Other controllers do not support these features, even when used with the most current 1769-SDN scanner module firmware.

IMPORTANT

The 1769-L35E controller does not support the ability to configure the controller via a connection originating on a DeviceNet device. Bridging is only supported in one direction - originating from the controller to a DeviceNet device.

This release of the firmware includes these enhancements.

Firmware Revision	Enhancement	Description
3.9	DeviceNet Easy Backup on CompactLogix	Allows easy scanner backup on the DeviceNet network masters. This feature lets you use CompactLogix controllers in small backup controller applications that require a fast switchover from primary to secondary controller. For more information on using this feature, refer to the Compact I/O DeviceNet Scanner Module User Manual, publication 1769-UM009 . The Easy Backup feature is not supported on MicroLogix 1500 controllers.
	Increases explicit message size	Explicit message size has been increased to 330 bytes from 250 bytes.

Firmware Revision	Enhancement	Description
2.2	Explicit messaging via a 1769-35E or 1769-L43 CompactLogix controller.	<p>Use any of these paths to reach a device on the local DeviceNet network. You can also use these paths to send the scanlist to the local 1769-SDN scanner module, update the firmware of the local 1769-SDN scanner module, or change a configuration setting (such as DeviceNet baud rate) of the local 1769-SDN scanner module.</p> <ul style="list-style-type: none"> • Connect to the Ethernet port of a 1769-L35E or 1769-L43 controller and bridge across the backplane and out the 1769-SDN scanner module. • Connect to the serial port of a 1769-35E and 1769-L43 controller and bridge across the backplane and out the 1769-SDN scanner module. • Program a MSG instruction in the 1769-35E and 1769-L43 controller with a destination to a device on the local 1769-SDN scanner module DeviceNet network.
	You can use a 1769-35E or 1769-L43 controller to configure a 1769-SDN scanner module in a remote chassis.	<p>Connect to the Ethernet port of a 1769-35E or 1769-L43 controller. Bridge across the backplane, out the local 1769-SDN scanner module, and across DeviceNet to a remote 1769-SDN scanner module and configure its scanlist.</p> <p>Important: You cannot start from a DeviceNet connection and bridge through the 1769-SDN scanner module to program a controller.</p> <p>1769-SDN scanner module firmware earlier than revision 2.2 does not support this bridging feature, so you must initially use a DeviceNet connection to update the firmware to revision 2.2. Any subsequent updates can then be done via a bridged connection through a 1769-35E and 1769-L43 controller.</p>
	You can use the 1769-SDN scanner module to view and configure devices.	This revision adds the capability to view and configure devices connected to the bus side of a 1734-ADN module.

Corrected Anomalies

This release of the firmware includes these corrected anomalies.

Firmware Revision	Anomaly	Description
3.10	RSNetWorx software communication error	Resolved unsuccessful scanlist download to the 1769-SDN scanner module that occurred if a DeviceNet networked device has more than 130 bytes of mapped input or output data.
3.9	1769-SDN scanner module stops producing packets	Corrected a situation that occurred when the 1769-SDN scanner module stopped producing packets if the EPR was set to zero and then set to a non-zero value.

Known Anomaly

This release of the firmware includes this known anomaly.

Firmware Revision	Anomaly	Description
3.9	Error code 91 displayed	The alphanumeric display on the 1769-SDN scanner module could display error code 91 under these conditions: <ul style="list-style-type: none">• When power to the scanner module is cycled• When a DeviceNet network cable becomes disconnected or broken

Application Notes

Keep these considerations in mind when developing an application that will have either bridged messages through the CompactLogix controller or messages that originate from the CompactLogix controller to the DeviceNet network.

- Do not send more than 4 simultaneous messages to any single module on the backplane.
- Write code to monitor for failed message delivery and to properly handle retries.
- The controller properly handles simultaneous messaging from message instructions and bridging messages from an EtherNet/IP connection.

For example, RSLinx or RSNetWorx software bridging from the EtherNet/IP network across the backplane to configure a device on a DeviceNet network.

- The 1768-L43 and 1768-L45 controllers support as many as eight simultaneous messages to the Compact I/O subsystem and as many as four simultaneous messages to any one module in the Compact I/O configuration.

Installing the 1769-SDN Scanner Module Firmware Upgrade

Perform the following tasks to install the firmware upgrade.

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Install EDS Files

If you are using RSLinx software, version 2.41.00 or later, you must install the 1769-SDN scanner module EDS files.

Follow these steps to install the EDS files.

1. Locate the appropriate EDS files and copy all the files to a temporary subdirectory on your hard drive.
 - EDS files are available on the RSLogix 5000 software CD.
 - You can also download the EDS files at

<http://www.ab.com/networks/eds/DN/0001000C00690300.eds>.

2. Install the EDS files.

Use the EDS Hardware Installation tool. It is installed with RSLinx software under the RSLinx Tools directory. It is also installed with RSLogix 5000 software under the Utils directory.

 - a. Shut down all applications that use RSLinx software, then shut down RSLinx software.
 - b. Start the EDS Hardware Installation Tool by selecting Start>Programs>Rockwell Software>Tools>EDS Hardware Installation Tool.
 - c. Follow the on-screen instructions.

Make sure to select Register a directory of EDS files and point to the directory where you saved the above EDS files.

Install 1769-SDN Scanner Module Firmware

If you have an existing 1769-SDN scanner module, you must upgrade the module's firmware to take advantage of the new features.

1. Locate the appropriate firmware and copy all the files to a temporary subdirectory on your hard drive.

- Firmware files are available on the RSLogix 5000 software CD.

Use the ControlFlash utility that ships with RSLogix 5000 programming software.

- You can also download the firmware upgrade files at <http://support.rockwellautomation.com>

TIP

You must use a DeviceNet network connection to update the 1769-SDN scanner module firmware to revision 3.10. After the firmware is updated to revision 3.10, subsequent updates to the 1769-SDN scanner module firmware can be initiated via a controller backplane connection.

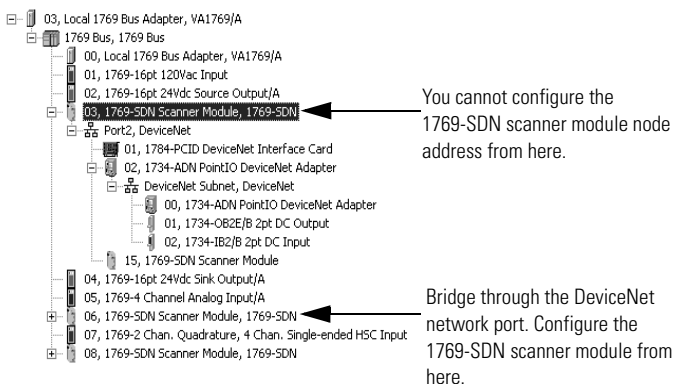
Change or Configure the Node Address

You can use the Node Commissioning Tool in RSNetWorx for DeviceNet software to change or configure the node address of a local 1769-SDN scanner module.

The commissioning tool does not let you select a node address for a 1769-SDN scanner module if that node address is being used by a local module, even though the two addresses are completely independent of one another.

For example, if you try to set the node address for a 1769-SDN scanner module via the Ethernet network, through a 1769-L35E controller, and onto the 1769 bus (not via the DeviceNet network), the tools says that the nodes occupied by 1769 I/O modules are not available for DeviceNet node numbers.

To work around this, in RSNetWorx for DeviceNet software, access the DeviceNet network and select the 1769-SDN scanner module.



Additional Resources

These documents contain additional information concerning related Rockwell Automation products.

Resource	Description
Logix5000 Controllers Common Procedures, publication 1756-PM001	Developing projects for Logix5000 controllers
Compact I/O DeviceNet Scanner Module User Manual, publication 1769-UM009	Configuring, bridging, connecting, and controlling your DeviceNet network.
1769-SDN Compact I/O DeviceNet Scanner Module Installation Instructions, publication 1769-IN060	Installing the 1769-SDN scanner module and technical specifications.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	General guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, http://ab.com	Declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://literature.rockwellautomation.com>. To order paper copies of technical documentation, contact your local Rockwell Automation distributor or sales representative.

Notes:

Notes:

Rockwell Automation Support

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 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 product up and running.

United States	1.440.646.3434 Monday – Friday, 8 a.m. – 5 p.m. EST
Outside United States	Please contact your local Rockwell Automation representative for any technical support issues.

New Product Satisfaction Return

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