



Compact I/O DeviceNet Scanner Module

(Cat. No. 1769-SDN/B)

These release notes correspond to 1769-SDN firmware major revision 2, minor revision 2.

On power up, the 1769-SDN displays the major and minor revision numbers on the numeric LED. Both the major and the minor revision numbers are the same, so it can be difficult to determine which number is being displayed. The indicator displays the major revision (2) for 1 second and then displays the minor revision number (also 2) for 1 second. There is no space or blank between the numbers.

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Enhancements

These enhancements are only supported when the 1769-SDN is used with a 1769-L35E CompactLogix controller. Other controllers do not support these features, even when used with the most current 1769-SDN firmware.

This revision adds:

Enhancement:	Description:
Explicit messaging via a 1769-L35E CompactLogix controller.	<p>You can:</p> <ul style="list-style-type: none"> connect to the Ethernet port of a 1769-L35E and bridge across the backplane and out the 1769-SDN connect to the serial port of a 1769-L35E and bridge across the backplane and out the 1769-SDN program a MSG instruction in the 1769-L35E with a destination to a device on the local 1769-SDN DeviceNet network <p>Use any of these above paths to reach a device on the local DeviceNet network. Or you can use these paths to send the scanlist to the local 1769-SDN, update the firmware of the local 1769-SDN, or change a configuration setting (such as DeviceNet baud rate) of the local 1769-SDN.</p>
You can use a 1769-L35E controller to configure a 1769-SDN in a remote chassis.	<p>Connect to the Ethernet port of a 1769-L35E controller. Bridge across the backplane, out the local 1769-SDN, and across DeviceNet to a remote 1769-SDN and configure its scanlist.</p> <p>Important: You cannot start from a DeviceNet connection and bridge through the 1769-SDN to program a controller.</p> <p>Older 1769-SDN firmware 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-L35E controller.</p>

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 processor to a DeviceNet device.

Messaging and Bridging Over a 1769-L35E Controller

Keep these considerations in mind when developing an application that bridges messages through a 1769-L35E controller.

- Each 1769-L35E controllers has 4 pending buffers and 4 active buffers. The pending buffers are for messages that have not sent. The active buffers are for messages that were sent but the controller is waiting for replies.
- The controller moves one message per RPI from pending to active, provided that the 1769-SDN (or other device) is ready to receive the message.
- Once pending buffers are full, subsequent messages are dropped.
- Do not send more than 4 simultaneous messages to any single module on the backplane.
- RSLinx also uses the pending and active buffers. If there is significant RSLinx bridging, reduce the number of explicit messages to no more 2 messages. This leaves 2 active buffers and 2 pending buffers for RSLinx bridging.
- 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, such as RSLinx or RSNetWorx software bridging from EtherNet/IP across the backplane and configuring a device on a DeviceNet network.

Corrected Anomalies

This firmware revision:

- Fixed the problem where the 1769-SDN would stop producing packets if the EPR was set to zero and then set to a non-zero value.
- Added the capability to view and configure devices connected to the bus side of a 1734-ADN module.

Install EDS Files

If you are using RSLinx version 2.41.00, you must install the 1769-SDN EDS files. 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 from the web. Download:

0001000C00690200.eds at:

<http://www.ab.com/networks/eds/DN/0001000C00690200.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. Shutdown all applications that use RSLinx, then shutdown RSLinx.
- 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 you saved all the above EDS files.

Load 1769-SDN Firmware

If you have an existing 1769-SDN module, you must upgrade the module's firmware to take advantage of the new features. You must download the new firmware from the support website or copy it from the RSLogix 5000 CD. To load firmware, you can use the ControlFlash utility that ships with RSLogix 5000 programst sheaf0

Using the RSNetWorx Node Commissioning Tool

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

The commissioning tool does not let you select a node address for a 1769-SDN if that number 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 via Ethernet, through a 1769-L35E controller, and onto the 1769 bus (not via DeviceNet), the tool says that the “nodes” occupied by 1769 I/O modules are not available for DeviceNet node numbers.

To work around this, go on to the DeviceNet network and select the 1769-SDN module.



