



DeviceNet Scanner Module

Catalog No. 1747-SDN

Use These Release Notes

Use these release notes with publication 1747-5.8, the DeviceNet™ Scanner Module Installation Instructions.

These release notes describe enhancements made to the 1747-SDN scanner module, version 4.015, and RSNetWorx™ version 2.01.03.

What Is Auto-Device Replacement (ADR)?

Auto-Device Replacement, or ADR, consists of Configuration Recovery and Auto-Address Recovery.

Configuration Recovery

Configuration Recovery (CR) refers to the scanner's ability to store a device's configuration. With this feature enabled, the scanner will download this stored configuration to the device before it begins to exchange I/O data with that device.

Auto-Address Recovery

Auto-Address Recovery (AAR) refers to the ability of the scanner to change a device's node address from 63 (the default address) to that desired by the scanner. For example, when the scanner loses a connection to the device at node address #37, it will continually query the device's identity at node address #63. When a device is found that matches the electronic key of the device that the scanner lost at node address #37, it will attempt to change its node address to node address #37. Upon success, the device's configuration will be downloaded.

To enable the ADR functionality in the scanner, you must use RSNetWorx for DeviceNet.

Restrictions

- Both Configuration Recovery and Auto-Address Recovery can only be used with devices that are in the scanlist of the scanner.
- Auto-Address Recovery can only be enabled for a device if Configuration Recovery is also enabled.
- Configuration Recovery cannot be enabled for devices that have no writeable parameters (for example, a device that is entirely configured via hardware switches). RSNetWorx will notify you of devices that have no writeable parameters.
- Auto-Address Recovery will not work for devices that do not support changing the node address over the network.



ATTENTION: RSNetWorx will let you configure a device with AAR even though the device may not support this feature, so it is best to check the device prior to enabling this in RSNetWorx.

Known Limitations

ADR does not work with the 1761-DNI.

This is a known limitation and will be fixed in the future.

1794-ADN configuration cannot be modified while ADR is enabled.

When using ADR with the 1794-ADR Flex Adapter, configuration changes made with a RSNetWorx will be overwritten by the scanner. This happens because the Flex Adapter will go offline momentarily to save the new configuration to flash memory. This causes the scanner to lose its I/O connection to the Flex. Before scanning the Flex again, the scanner will download the Flex's stored configuration, overwriting the change made with the RSNetWorx. The workaround for this problem is to disable Configuration Recovery before modifying the configuration for the 1794-ADN and re-enable it after the changes are made.

Auto-Baud must be disabled to use ADR with 871TM Inductive Proximity Sensors.

A limitation in the 871TM Inductive Proximity Sensor causes it to go offline and into Auto-Baud mode when the Autobaud parameter is set to Enabled. This causes the scanner to abort the initialization sequence (error code 72 is displayed on the scanner). The workaround is to set the Autobaud parameter to Disabled before adding the 871TM Inductive Proximity Sensor to ADR. This is a known limitation and will be fixed in the Series A Revision B release of the product scheduled for first quarter 1999.

Saving global and node ADR settings in your 1747-SDN.

You may experience a problem when configuring the 1747-SDN for ADR. The Enable Auto-Address Recovery checkbox and the Auto-Address Recovery Node ADR Setting checkbox in the ADR tab are not retained by the scanner when chassis power is cycled. This occurs if the scanlist or module configuration is not downloaded to the scanner following configuration of the ADR settings. This problem is caused by a bug in RSNetWorx that will be corrected in the next release.

We suggest the following steps to force RSNetWorx to have the information permanently saved to the scanner.

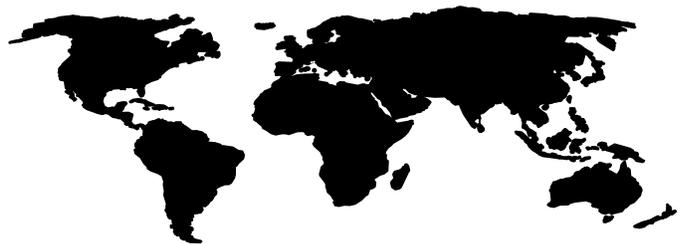
1. Configure the ADR settings as needed and “Download to Scanner.”
2. Select the Module tab.
3. Download the module settings by clicking “Download to Scanner.”

When the 1747 chassis power is cycled, all configured ADR settings should be intact.

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