

Allen-Bradley 1747-SDN

DeviceNet Scanner Module

Allen-Bradley 1747-SDN is an SLC 500 DeviceNet scanner that exchanges mapped network I/O data with an SLC processor.



01 / SYSTEM CAPABILITY

Connects the SLC program to distributed DeviceNet devices

02 / SYSTEM CAPABILITY

Supports master, slave and dual operating arrangements

03 / SYSTEM CAPABILITY

Offers poll, strobe, cyclic and change-of-state exchanges

04 / SYSTEM CAPABILITY

Displays module, network and numeric diagnostic states

The scanner occupies an SLC 1746 chassis slot alongside the processor. RSNetWorx scan-list mapping defines the network data exchanged with the controller application.

INSTALLATION RECORD

Retain the node address, scanner series, firmware revision and configured scan-list mapping together for the installed SLC station.

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Technical data / operating boundaries

Host platform	SLC 500 / SLC 1746 chassis
Interface	DeviceNet
Supported processor	SLC 5/02 or later
Module modes	Null / Master / Slave / Dual
I/O exchange types	Poll / Strobe / Change of State / Cyclic
Default node address	63
Default data rate	125 kbps
Backplane supply (Series D)	5 V DC
Backplane current (Series D)	500 mA
Network supply (Series D)	24 V DC Class 2
Network current (Series D)	90 mA
Continuous isolation (Series D)	30 V, basic insulation
Isolation test (Series D)	500 V AC, 60 s
Operating temperature (Series D)	0 to 60 C

SERIES SCOPE

Electrical and environmental rows marked Series D come from the Series D installation table. Do not assign that series or firmware to an unidentified unit.

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Integration / configuration decisions

Storage temperature (Series D)	-40 to 85 C
Humidity (Series D)	5 to 95%, non-condensing
Connector (Series D)	1787-PLUG10R, 10-pin linear plug
Connector torque (Series D)	0.6 to 0.8 N m
Enclosure (Series D)	Open style
Series A/B firmware	Up to FRN 7.006
Series C firmware	FRN 8.001 to 8.006
Series D firmware	FRN 9.001 and later

Read module code

Separate supply faults

Inspect network media

CODE 92 / NETWORK SUPPLY

Check the network supply and scanner drop cable. Backplane power alone does not establish a powered DeviceNet port.

CODE 91 / BUS OFF

Inspect DeviceNet connections and physical media; investigate failed devices and interference sources before releasing the network.

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Model-specific engineering questions

Can 1747-SDN operate in a remote chassis with a 1747-ASB adapter?

No. That adapter cannot transfer the M-files required by the scanner.

Which slot must remain free of 1747-SDN in an SLC chassis?

The leftmost slot is reserved for the SLC processor.

Why does an unrecognized 1747-SDN need an EDS file?

RSLink Classic and RSNetWorx use the EDS to identify the scanner. Embedded EDS upload is available from FRN 8.002.

What distinguishes cyclic exchange from change-of-state on 1747-SDN?

Cyclic exchange uses a timed interval; change-of-state sends changed data and a configured heartbeat.

How should numeric code 92 on 1747-SDN be investigated?

Check the DeviceNet supply and drop cable: code 92 means network power is absent.

Does 1747-SDN pass-through replace a dedicated DeviceNet configuration adapter?

No. Pass-through serves network adjustment; complete configuration and real-time monitoring use the supported network adapter connection.

Can every 1747-SDN series use the same firmware?

No. A/B stop at 7.006; C uses 8.001-8.006; D uses 9.001 onward.

How does slave operation change 1747-SDN data exchange?

The scanner exchanges data with one master, using the configured scan list and mapping.

RETURN-TO-SERVICE CHECK

Compare the preserved node address and data rate with the configured network. Review the module and network indicators, clear supply or bus faults, and prove the mapped input and output response before returning the SLC process to operation.

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Service boundaries and related SLC portfolio

Match the hardware series, firmware, chassis position, network supply and scan-list configuration before replacement. A remote chassis using a 1747-ASB adapter does not support the required M-file transfer.

1747-SDN DeviceNet Scanner Module Installation Instructions

1747-IN058F-EN-P, December 2010 - series-specific limits retained where applicable.

Related products - navigation, not interchangeability

[View Allen-Bradley 1747-DCM page](#)

[View Allen-Bradley 1746-OW4 page](#)

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[View Allen-Bradley 1746-OG16 page](#)

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