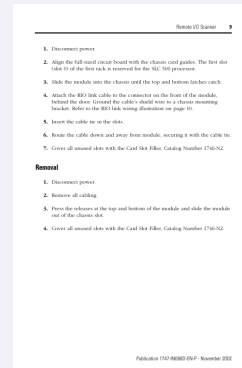


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

1747-SN

Remote I/O Scanner



PRODUCT	1747-SN
FAMILY	SLC 500
FUNCTION	Remote I/O Scanner
SOURCE	Rockwell 1747-IN060D, Remote I/O Scanner

01 OFFICIAL MOUNTING AND WIRING

- Set the documented DIP-switch rate and isolate power before fitting the scanner.
- Connect the Remote I/O cable and the rate-appropriate terminating resistors.
- Ground the cable shield according to the scanner installation diagram.

AMIKON PRODUCT SUPPORT

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Required Tools and Equipment

Have the following tools and equipment ready:

- medium blade screwdriver
- termination kit (the package, containing resistors and a ring lug, which was included with the scanner)
- approximately 38 cm (15 inches) of #20 AWG wire for grounding the drain shield to the SLC chassis (for Series A retrofits)
- adequate length of RIO communication cable (Belden™ 9463) for your specific application

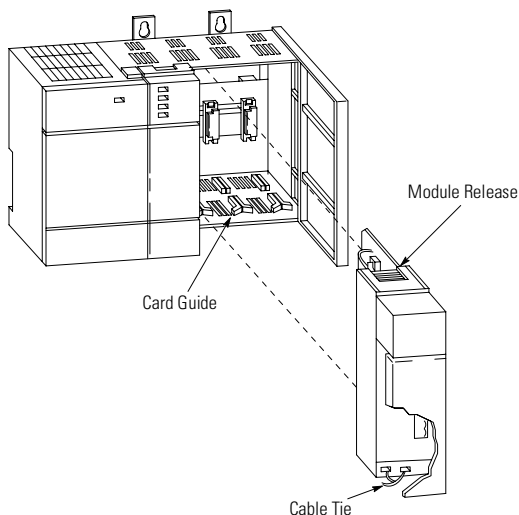
Installation

Make sure you have set the DIP switch properly before installing the scanner.

IMPORTANT

Before installation, make sure that your modular SLC power supply has adequate reserve current capacity. The scanner requires 600 mA at 5V dc.

Insertion



1. Disconnect power.
2. Align the full-sized circuit board with the chassis card guides. The first slot (slot 0) of the first rack is reserved for the SLC 500 processor.
3. Slide the module into the chassis until the top and bottom latches catch.
4. Attach the RIO link cable to the connector on the front of the module, behind the door. Ground the cable's shield wire to a chassis mounting bracket. Refer to the RIO link wiring illustration on page 10.
5. Insert the cable tie in the slots.
6. Route the cable down and away from module, securing it with the cable tie.
7. Cover all unused slots with the Card Slot Filler, Catalog Number 1746-N2.

Removal

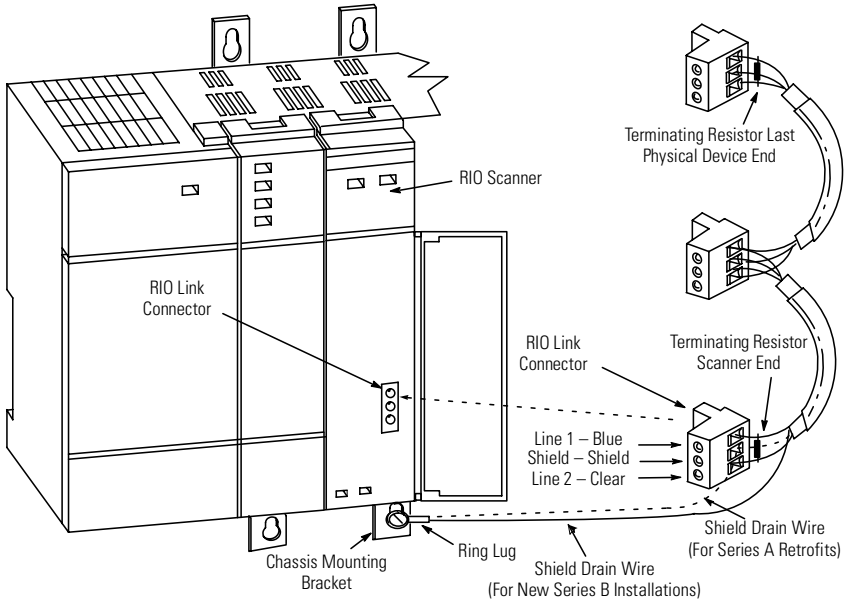
1. Disconnect power.
2. Remove all cabling.
3. Press the releases at the top and bottom of the module and slide the module out of the chassis slot.
4. Cover all unused slots with the Card Slot Filler, Catalog Number 1746-N2.

RIO Link Wiring

The scanner is connected to other devices on the RIO link in a daisy-chain (serial) configuration. There are no restrictions governing the space between each device, provided the maximum cable distance (Belden 9463) is not exceeded. A 1/2 watt terminating resistor (included with the module) must be attached across line 1 and line 2 of the connectors at each end (scanner and last physical device) of the RIO link. The size of the resistor depends on the baud rate and extended node capability, as shown in the table below.

Note: To use extended node, all devices on the RIO link must support it. Refer to each device's user manual.

	Baud Rate	Max. Cable Distance (Belden 9463)	Resistor Size
Using Extended Node Capability	57.6K baud	3048 m (10,000 ft.)	82 Ω 1/2 Watt Gray-Red-Black-Gold
	115.2K baud	1524 m (5,000 ft.)	
	230.4K baud	762 m (2,500 ft.)	
Not Using Extended Node Capability	57.6K baud	3048 m (10,000 ft.)	150 Ω 1/2 Watt Brown-Green-Brown-Gold
	115.2K baud	1524 m (5,000 ft.)	
	230.4K baud	762 m (2,500 ft.)	82 Ω 1/2 Watt Gray-Red-Black-Gold



For New Installations

To ensure a proper earth ground of the cable shield, follow these steps:

1. While the RIO link connector is plugged into the scanner and lines 1 and 2 are connected, strip the cable back to expose enough shield drain wire to reach a chassis mounting bracket.
2. Attach the ring terminal lug (supplied) to the end of the shield drain wire.
3. Attach the ring terminal lug to the SLC chassis mounting bracket. Note that for new installations the middle (shield) terminal is not used when connecting to the scanner.

IMPORTANT

The RIO cable shield must be grounded at the scanner end only.

For Series A Scanner Retrofits

Refer to the illustration on page 10. To eliminate the need to strip the cable back, follow these steps:

1. Attach the shield wire and a short piece of #20 AWG wire (dotted line) to the shield lug of the RIO link connector.
2. Attach the other end of the #20 AWG wire to the ring terminal lug.
3. Attach the ring terminal lug to a chassis mounting bracket.

IMPORTANT

The RIO cable shield must be grounded at the scanner end only. Ensure that the unshielded portion of the link communication wire (blue and clear) is as short as possible.
