

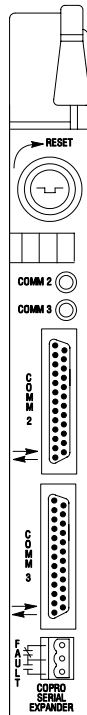


1771 Control Coprocessor Serial Expander Module

(Cat. No. 1771-DXPS)

Installation Data

Serial Expander Module Overview



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The following table describes the optional serial expander module (cat. no. 1771-DXPS).

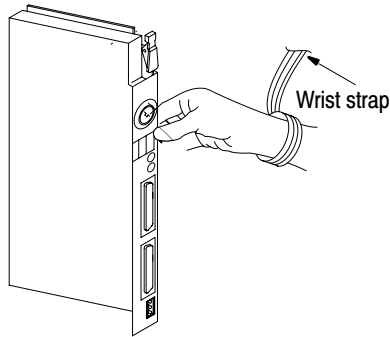
Hardware Element:	Description:
COMM2 and COMM3 ports	These are 25-pin, optically isolated, serial communication ports that support communication defined by EIA RS-232C, -423, and -485 standards. You can also use the port with most RS-422A equipment as long as: termination resistors are not used and the distance and transmission rate are reduced to comply with RS-423 requirements. Use these communication ports to connect peripheral devices such as: <ul style="list-style-type: none"> • terminals • personal computers • bar code readers • weigh scales • printers
Keyswitch	This is a 2-position, spring-loaded keyswitch. The RESET position is used to reinitialize the control coprocessor without cycling power.
ASCII display	The 4-character alphanumeric display provides information on the state of the control coprocessor.
LEDs	The two status indicators provide information on COMM2 and COMM3.
Fault relay	The relay contact switches upon a detected module fault. The relay will handle 500 mA at 30 Vac/dc (resistive).

What You Need to Install the Serial Expander Module

You need the following items to install the serial expander module:

- ESD grounding wrist strap
- chassis keying bands
- power supply (see publication 1771-6.5.95 for determining size)
- chassis (properly grounded)

Prevent Electrostatic Discharge Damage



The control coprocessor serial expander module is sensitive to electrostatic discharge (ESD). ESD can damage integrated circuits or semiconductors in the module. ESD can also damage the module when you set configuration switches.



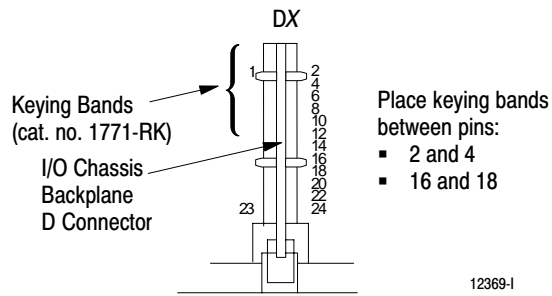
ATTENTION: Do not handle the control coprocessor serial expander module without approved ESD protection. Wear a wrist strap that is attached to an approved grounding point and remains attached during the installation procedures.

Observe the following precautions to avoid ESD damage while performing any task in this chapter.

- Remain in contact with an approved ground point while handling the control coprocessor serial expander module (by wearing a properly grounded wrist strap).
- Place the control coprocessor expander module in a static-safe bag when it is not installed in the I/O chassis.
- Do not touch the backplane connector or connector pins.

Install the Keying Bands

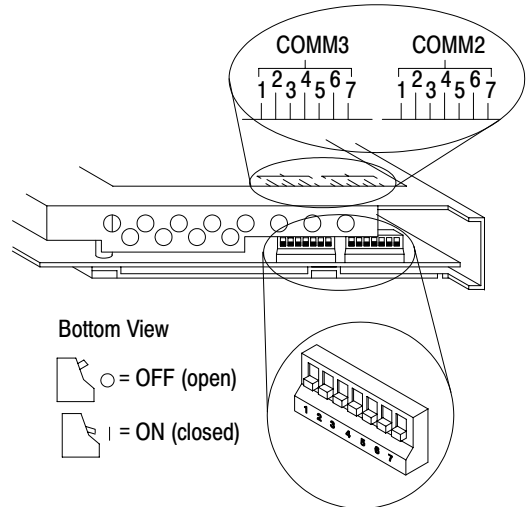
You receive plastic keying bands with each I/O chassis. For the serial expander module slot, place a keying band between the pins indicated below. Use the I/O chassis D connector on the bottom of the backplane.



Set Switch Configurations

Set COMM2 and COMM3 switches.

For this RS communication:	Set switch 1 to:	Set switch 2 to:	Set switch 3 to:	Set switch 4 to:	Set switch 5 to:	Set switch 6 to:	Set switch 7 to:
RS-232C	ON	ON	ON	OFF	OFF	ON	ON
RS-422	OFF	OFF	ON	OFF	OFF	OFF	OFF
RS-423	ON	ON	ON	OFF	OFF	ON	OFF
RS-485	ON	ON	ON	OFF	ON	ON	ON

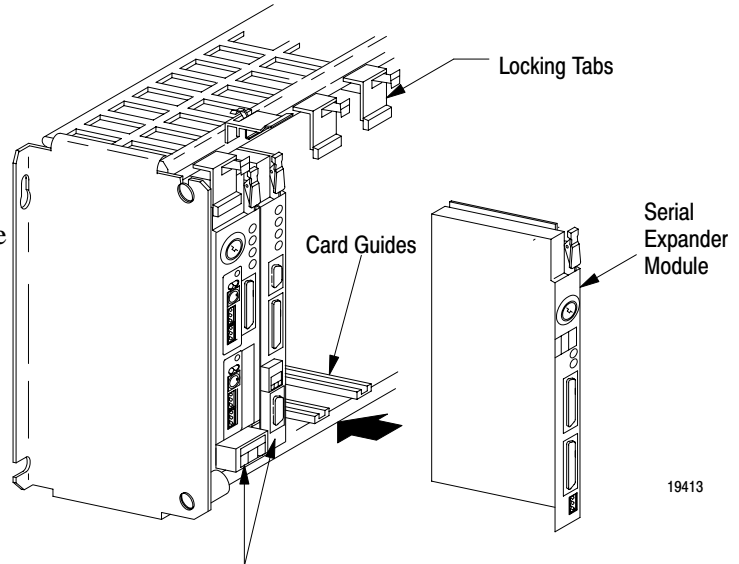


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Install the Serial Expander Module

Install the serial expander module in the 1771 I/O chassis as follows.

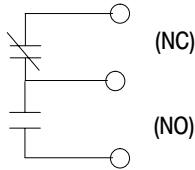
1. Verify that power is **OFF** to the 1771 I/O chassis.
2. Slide the module into the I/O chassis in the slot immediately adjacent to the main module. (Serial expander module **must** be in the same module group pair and under the same locking tab as the main module.)
3. Slide until the module fits into the backplane connector.
4. Close the locking tab.



PLC-5 Programmable Controller and Control Coprocessor main module

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Wire the Fault Relay



On the serial expander module, wire your load to either the normally open (NO) or normally closed (NC) position, as appropriate for your application.

The fault relay is activated automatically when the main module faults or a main module is not adjacent to the serial expander module. A fault condition occurs when the control coprocessor's firmware cannot keep a hardware watchdog from timing out.

The fault relay can handle a load of 500 mA at 30Vac/dc. You can use the fault relay for resistive loads without contact protection (to its rated load). For capacitive, inductive, filament, or other loads that produce surges, contact protection is recommended. Use relay manufacturer's data books to select contact protection devices or see the *1771 Discrete I/O Relay Contact Output Modules Product Data* (1771-2.181) for more information.

For Further Information

For further information about the serial expander module, see the *1771 Control Coprocessor User Manual* (1771-6.5.95).



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WORLD HEADQUARTERS
Allen-Bradley
1201 South Second Street
Milwaukee, WI 53204 USA
Tel: (1) 414 382-2000
Telex: 43 11 016
FAX: (1) 414 382-4444

EUROPE/MIDDLE EAST/AFRICA HEADQUARTERS
Allen-Bradley Europe B.V.
Amsterdamseweg 15
1422 AC Uithoorn
The Netherlands
Tel: (31) 2975/43500
Telex: (844) 18042
FAX: (31) 2975/60222

ASIA/PACIFIC HEADQUARTERS
Allen-Bradley (Hong Kong) Limited
Room 1006, Block B, Sea View Estate
28 Watson Road
Hong Kong
Tel: (852) 887-4788
Telex: (780) 64347
FAX: (852) 510-9436

CANADA HEADQUARTERS
Allen-Bradley Canada Limited
135 Dundas Street
Cambridge, Ontario N1R 5X1
Canada
Tel: (1) 519 623-1810
FAX: (1) 519 623-8930

LATIN AMERICA HEADQUARTERS
Allen-Bradley
1201 South Second Street
Milwaukee, WI 53204 USA
Tel: (1) 414 382-2000
Telex: 43 11 016
FAX: (1) 414 382-2400