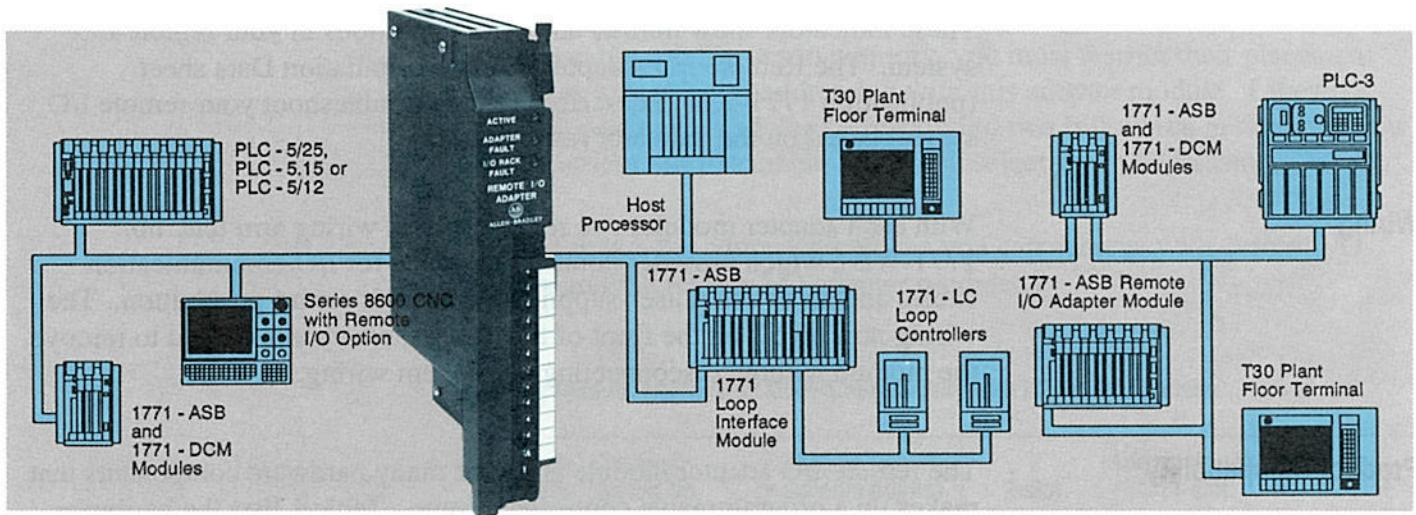




Allen-Bradley Remote I/O Adapter Module (Cat. No. 1771-ASB)

Product Data



Supports a wide variety of Allen-Bradley Universal I/O products.

The 1771-ASB remote I/O adapter module serves as an interface between I/O modules in a remote I/O chassis and programmable controllers. The 1771-ASB can interface to any mix of 8-, 16-, and 32-point I/O modules in an I/O chassis, plus a wide variety of intelligent or specialized modules and I/O scanners. The adapter provides 2-slot, 1-slot, and 1/2-slot I/O addressing. This allows the adapter to interface to I/O modules of any density while using a minimum number of words in the I/O image table.

Saves on installation and wiring costs. You can easily install the 1771-ASB with a 3-wire connection. This means you reduce the wire and labor costs associated with wiring your system.

Lets you customize the I/O portion of your control system. The 1771-ASB gives you flexibility when placing and grouping I/O. You can locate the 1771-ASB up to 10,000 feet from the processor/scanner. In certain applications, you can link up to 16 adapters per remote I/O link. These features let you configure large or small clusters of I/O to meet your application requirements.

Indicators

On the front of the module are three diagnostic indicators:

- ACTIVE (green)
- ADAPTER FAULT (red)
- I/O RACK FAULT (red)

These indicators show normal and error conditions in your remote I/O system. The Remote I/O Adapter Module Installation Data sheet (publication 1771-2.162) describes how to troubleshoot your remote I/O system based on the indicator responses.

Wiring

With each adapter module, you receive a field wiring arm (cat. no. 1771-WB), which provides connection points for I/O communication cables and an optional user-supplied I/O chassis restart pushbutton. The wiring arm pivots on the front of the chassis, which allows you to remove the module without disconnecting the system wiring.

Product Compatibility

The remote I/O adapter module is one of many hardware components that makes up a programmable controller system. Table 1 lists the hardware components with which you can use the adapter module.

Table 1
Compatible Hardware Products

Product name	Description	Catalog number
Processors	PLC-2/20 Programmable Controller PLC-2/30 Programmable Controller PLC-3 Programmable Controller Family PLC-5 Programmable Controller Family	1772-LP1, -LP2 1772-LP3 1775-L3, -L4 1785-LT, -LT2, 6008-LTV
I/O Scanners	Remote I/O Scanner/Distribution Panel for PLC-2 Family Processors I/O Scanner-Programmer Interface Module for PLC-3 Family Processors I/O Scanner-Message Handling Module for PLC-3 Family Processors VMEbus I/O Scanner IBM PC Bus I/O Scanner Q-bus I/O Scanner Pyramid Integrator Remote I/O Scanner Sub I/O Scanner	1772-SD, -SD2 1775-S4A, 1771-S5, -SR5 1775-S4B 6008-SV 6008-SI 6008-SQ 5150-RS 1771-SN
I/O Chassis	Superseded chassis (4-, 8-, and 16-slot)	1771-A1, -A2, -A4
	Current chassis (4-, 8-, 12-, and 16-slot)	1771-A1B, -A2B, -A3B, -A3B1, -A4B
I/O Modules	Block transfer modules 8-point I/O modules 16-point I/O modules 32-point I/O modules	All modules that use the 1771 I/O structure
Adapter modules	Remote I/O Adapter Module (can mix 1771-ASB and 1771-AS in same remote system)	1771-AS

I/O Addressing

The series B remote I/O adapter module supports 2-slot, 1-slot, and 1/2-slot I/O addressing. This means that you can configure an I/O group to occupy 2 slots, 1 slot, or 1/2 slot.

An I/O group corresponds to an input image-table word and an output-image table word in memory. Since 16-point I/O modules correspond to a full word in memory, you must restrict their placement when you select 2-slot addressing with this adapter module. Likewise, since 32-point I/O modules correspond to two full words in memory, you must restrict their placement when you select 1-slot addressing.

Table 2 shows the addressing modes you can achieve with current I/O chassis and the remote I/O adapter modules.

Table 2
Adapter Module Addressing Mode Compatibility with I/O Module Density

Remote I/O Adapter Module Catalog No.	I/O Module Density (maximum points)	Addressing Mode		
		2-slot	1-slot	1/2-slot
1771-AS	8	yes	no	no
	16	¹	no	no
	32	no	no	no
1771-ASB Series A	8	yes	yes	no
	16	¹	yes	no
	32	no	no	no
1771-ASB Series B	8	yes	yes	yes
	16	¹	yes	yes
	32	no	¹	yes

¹ Conditional module placement; you must use an input module and an output module in even-odd pairs of slots of the I/O chassis.

Important: Superseded chassis (1771-A1, -A2, -A4) let you use 2-slot addressing with 8-point I/O modules only, regardless of the type of adapter module you use. This chart is valid for current I/O chassis (1771-A1B, -A2B, -A3B, -A3B1, -A4B). You need a current I/O chassis to achieve 1-slot and 1/2-slot addressing with 16- and 32-point I/O modules.

For details on I/O addressing, refer to the following sections in your assembly and installation manual for your programmable controller or scanner.

- hardware addressing
- installing your processor and I/O

Industry Standards

The 1771-ASB is designed to meet standards of the following agencies:

- UL, CSA (Safety, Dielectric Withstand)
- DOD (Electrostatic Discharge)
- NEMA (Noise Susceptibility)
- IEEE, ANSI (Surge Transient Susceptibility)
- MIL-STD (Conducted Electromagnetic Susceptibility, Temperature, Humidity)
- ASTM, UL (Flammability, Resistance to Ignition)
- Allen-Bradley (Shock, Vibration)

Specifications

Module Location	Leftmost slot of 1771 I/O chassis
Chassis Distance	5,000 cable-feet at 115.2 k Bd 10,000 cable-feet at 57.6 k Bd
Interconnect Cable	1770-CD (Belden Cable 9463) or equivalent
Backplane Current	1.2 A at 5V dc
Keying	Upper connector between 54 and 56 Lower connector between 16 and 18
Environmental Conditions	
Operating Temperature	0 to 60 °C (32 to 140 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Relative Humidity	5 to 95% (without condensation)

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