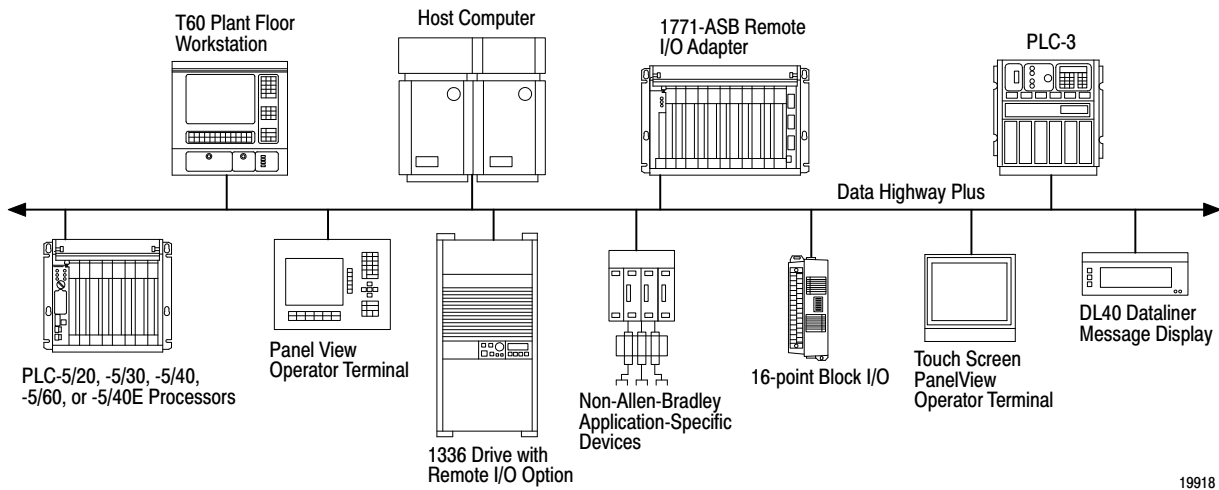




Remote I/O Adapter Module

Cat. No. 1771-ASB Series D

Product Data



19918

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

The 1771-ASB/D remote I/O adapter module serves as an interface between I/O modules in a remote I/O chassis and programmable controllers. The adapter module 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 module provides 2-slot, 1-slot, and 1/2-slot I/O addressing. This allows it to interface to I/O modules of any density while using a minimum number of words in the I/O image table.

Lowers your installation and wiring costs. You can easily install the 1771-ASB/D with a 3-wire connection. This means you reduce the wire and labor costs when you wire your system.

Lets you customize the I/O portion of your control system.

The 1771-ASB/D gives you flexibility when placing and grouping I/O. You can locate the adapter module up to 10,000 feet from the processor/scanner. In certain applications, you can link up to 32 adapters per remote I/O link. These features let you configure large or small clusters of I/O to meet your application requirements.

Compatible with many products

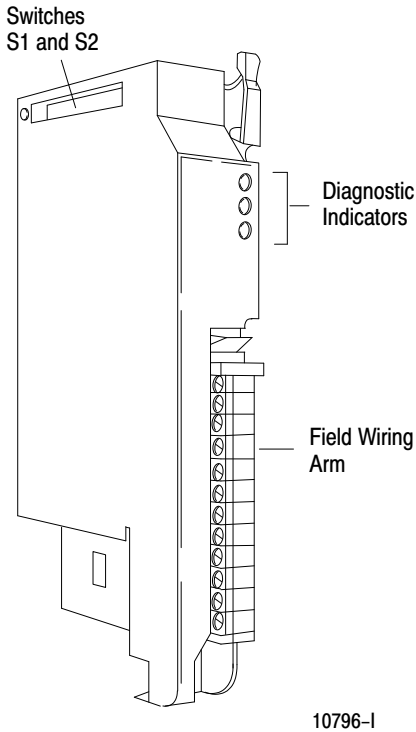
The 1771-ASB/D remote I/O adapter module is one of many hardware components that make up a programmable controller system. Table 1 lists the hardware components and products which are compatible with the adapter module.

**Table 1
Compatible Hardware Products**

Components	Description	Catalog number
Processors	PLC-2/20 Programmable Controller PLC-2/30 Programmable Controller PLC-3 Programmable Controller System PLC-5 Programmable Controller Family PLC-5/250 Programmable Controller (Pyramid Integrator)	1772-LP1, -LP2 1772-LP3 1775-L3 1785-LT, -LT2, 6008-LTV 5250-LP
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 I/O Scanner Q-bus PC I/O Scanner Sub-I/O Scanner Pyramid Integrator Remote I/O Scanner	1772-SD, -SD2 1775-S4A, -S4B, -SR, -SR5, -S5 1775-S4B, -GA 6008-SV 6008-SI 6008-SQ 1771-SN 5150-RS
Universal I/O Chassis	4-slot 8-slot 12-slot 16-slot	1771-A1, -A1B 1771-A2, -A2B 1771-A3B, A3B1 1771-A4, -A4B
I/O Modules	Block transfer modules 8-point I/O Standard density I/O modules 16-point I/O High density I/O modules 32-point I/O Quad-Density I/O modules Block I/O modules (cat. no. 1791)	All modules that use the 1771 I/O structure
Adapter modules	Remote I/O Adapter Module (can mix 1771-ASB/D and 1771-AS in same remote system - limited to 115.2k Baud or less)	1771-AS
Power Supplies	System Power Supply Auxiliary Power Supply Auxiliary Power Supply module (120V AC input, 3A) Auxiliary Power Supply module (120V AC input, 8A) Redundant Power Supply module Auxiliary Power Supply module (24V DC input, 8A) Auxiliary Power Supply module (125V DC input, 8A) Auxiliary Power Supply module (220/240V AC input, 8A) Auxiliary Power Supply module (120/220V AC input, 16A) PLC-2 Power Supply (115V AC input) PLC-2 Power Supply (24V DC input) Local Power Supply PLC-3 Power Supply Auxiliary Power Supply (24V DC input)	1771-P1 1771-P2 1771-P3 1771-P4, -P4S, -P4S1 1771-P4R 1771-P5 1771-P10 1771-P6S, -P6S1 1771-PS7 1772-P1 1772-P4 1774-P1 1775-P1 1777-P4

Easy to configure

Two switch assemblies allow you to configure your adapter module.



Use the S1 switch assembly to select:

- the first I/O group number
- the I/O rack number
- I/O scanner communication with or without complementary I/O (for PLC-2 family processors)

Use the S2 switch assembly to select:

- a specific baud rate based on the maximum I/O chassis distance
- I/O scanner communication with or without complementary I/O (for PLC-2 family processors)
- scan – processor will scan all slots in the chassis, or all but last 4 slots in the chassis
- link response – establishes series B emulation response time required for compatibility with PLC-2 and PLC-3 scanners

Status indicators let you monitor your system

On the front of the adapter module are three diagnostic indicators:

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

Use these indicators to check normal and error conditions in your remote I/O system.

Easy to install

Each adapter module comes with 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, allowing you to remove the adapter module without disconnecting the system wiring.

Supports three types of addressing

The adapter module supports 2-slot, 1-slot, and 1/2 slot I/O addressing. This means that you can optimize the data table for 8-, 16-, or 32-point I/O modules.

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.

The addressing methods you can use with Series B chassis and the various remote I/O adapter modules are shown in Table 2.

Table 2
Series B Chassis/Adapter Module Combinations

Remote I/O Adapter Module Catalog Number	I/O Points Per Module	Addressing Mode		
		2-Slot	1-Slot	1/2-Slot
1771-AS	8	Yes	No	No
	16	*	No	No
	32	No	No	No
1771-ASB Series A	8	Yes	Yes	No
	16	*	Yes	No
	32	No	No	No
1771-ASB Series B, C and D	8	Yes	Yes	Yes
	16	*	Yes	Yes
	32	No	*	Yes

* Conditional module placement: you must use an input module and an output module in two adjacent slots of the I/O chassis beginning with slot 0.

IMPORTANT: Series A I/O chassis 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 series B I/O chassis. You need series B I/O chassis to use 1-slot and 1/2-slot addressing with 16-point 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

Meets industry standards

The 1771-ASB/D meets 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, UM (Flammability, Resistance to Ignition)

Specifications

Module Location	1771 I/O chassis, leftmost slot
Chassis Distance	2500 ft @ 230.4K Baud 5000 ft @ 115.2K Baud 10000 ft @ 57.6K Baud
Interconnect Cable	1770-CD
Power Dissipation	5 Watts
Thermal Dissipation	17.06 BTU/hr
Backplane Current	1.0A @ 5V
Keying	Upper connector: between 54 and 56 Lower connector: between 16 and 18
Environmental Conditions	
Operational 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)
Field Wiring Arm	Cat. No. 1771-WB

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