



A-B Station Module

Installation Instructions

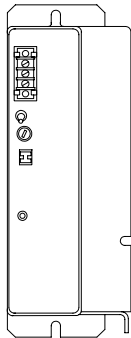
Contents

Use these instructions to help you:

- determine the equipment needed for installing the A-B station module
- install the A-B station module

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Select A Power Supply



1771-P7

Add current for:

1. I/O modules	_____
2. PLC-5 processor	+ _____
3. A-B station module	+ <u>2.5 Amps</u>
4.. Total current req'd	= _____

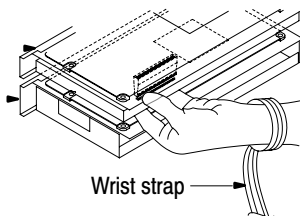
Before installing the A-B station module, select an appropriate power supply. See the Allen-Bradley Automation Products Catalog, publication AP-100, for backplane current requirements of any A-B product you are using.

To determine the required power supply size, do the following:

1. Record the total current draw for all I/O modules in the chassis.
2. Record the current draw for the PLC-5® processor in the chassis.
3. Record 2.50 Amps for the A-B station module.
4. Total the values recorded in steps 1 through 3.
5. Select a power supply dependent on the input voltage required and on the total current requirements calculated in step 4.
6. Select a cable for the power supply.

Important: You cannot use an external power supply and a slot-based power supply to power the same chassis. They are not compatible.

Handle the Equipment Properly



Wrist strap

The module is sensitive to electrostatic discharge (ESD). ESD can damage integrated circuits or semiconductors in the module.



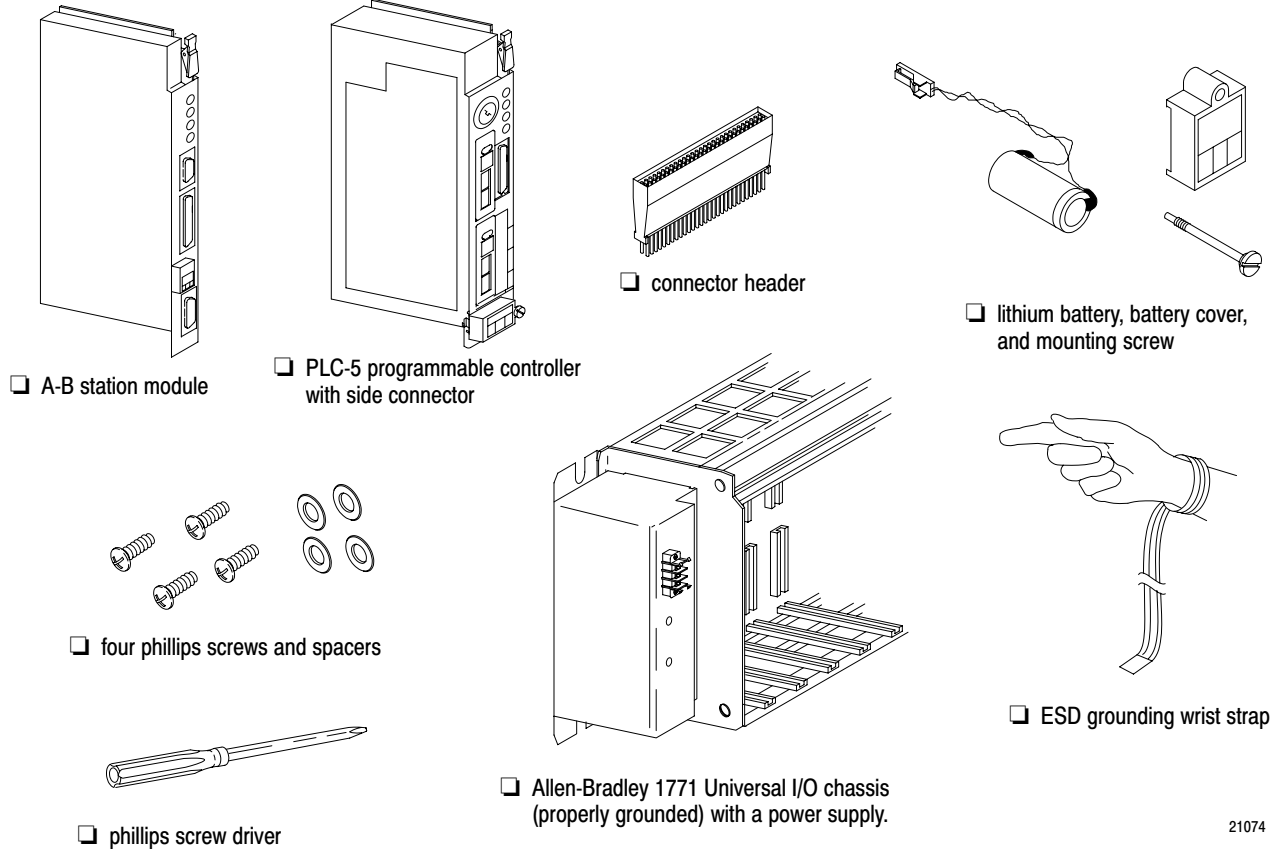
ATTENTION: Do not handle the module or the programmable controller without approved ESD protection. Wear a wrist strap that is attached to an approved grounding point and that remains attached at all times during the installation/removal procedures.

Observe the following precautions to avoid ESD damage while performing any task in this document:

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

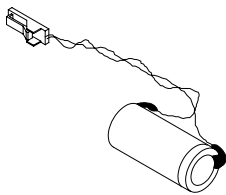
Before Installing the A-B Station Module

You need the following items for installation:



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Install the Battery



You receive one 3.0 volt lithium battery with your A-B station module. You can install the battery either before or after you install the module in the I/O chassis.

The following applies to both installing and replacing the lithium battery.



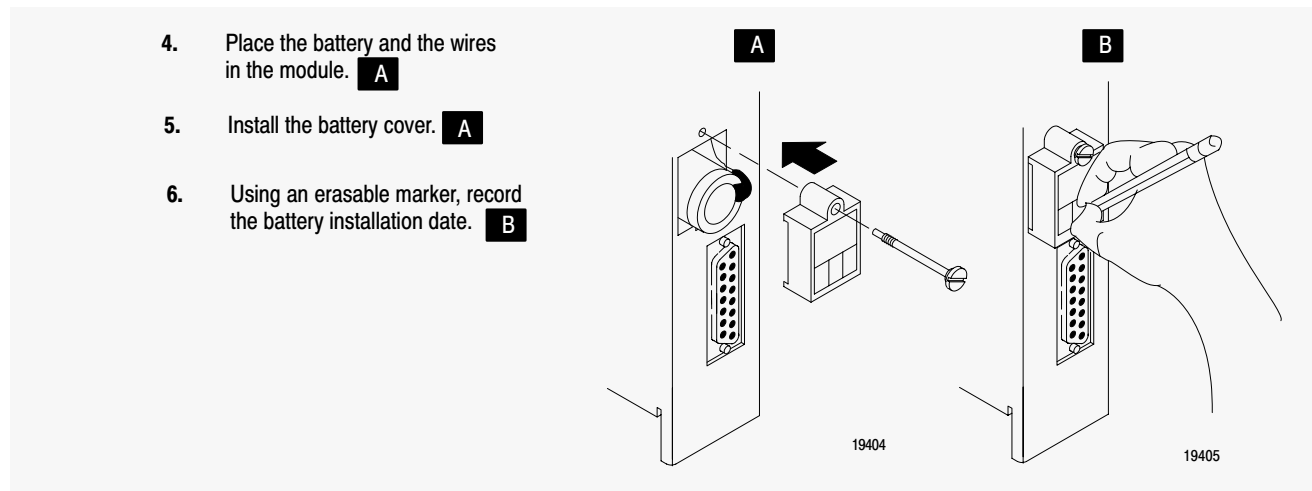
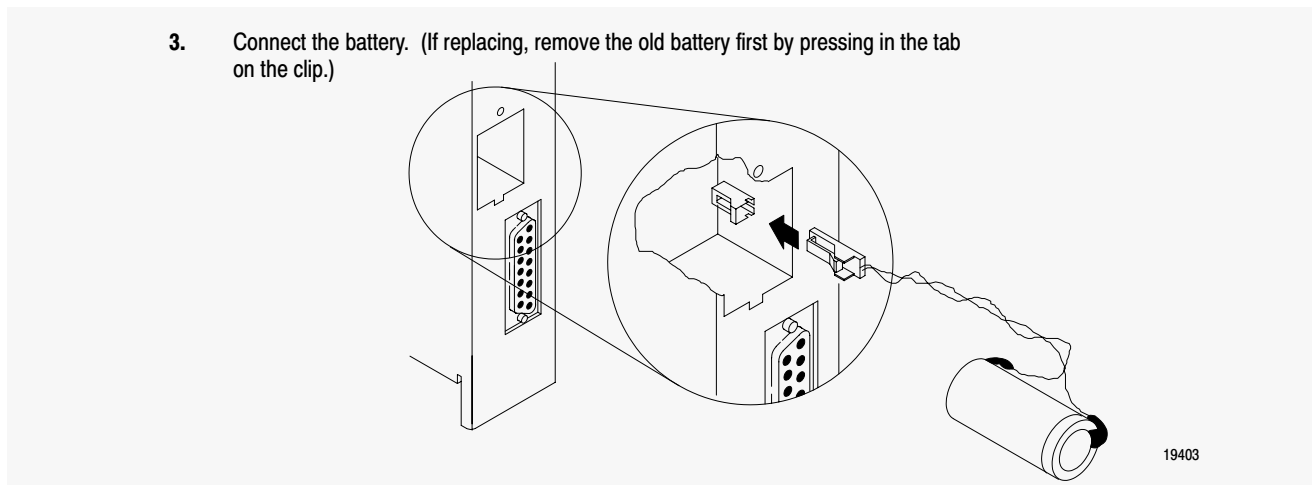
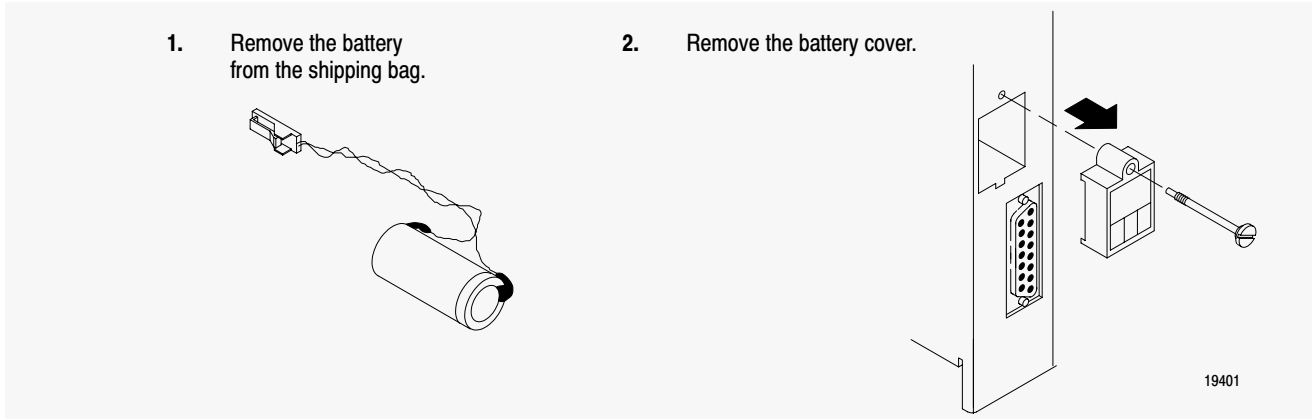
ATTENTION: For the lithium battery: do not short, recharge, heat above 100° C (212° F), disassemble, or expose contents to water.

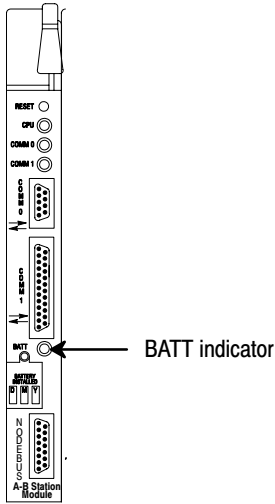


ATTENTION: Use only the 3.0 volt battery supplied with the A-B station module. Do not use any other type or size of battery.

Install the Battery

Install the battery in the A-B station module as follows:





Replace the Battery

A red BATT status LED on the A-B station module indicates that the battery needs replacement. The battery is the same as that used by your PLC-5 processor. Therefore, order replacement batteries from Allen-Bradley; order catalog number 1770-XYC.

We recommend that you replace the battery while the module is powered so that your programs are maintained in memory. You may lose your programs if you remove the battery when power is removed. Replace the battery as shown on the previous page.

Dispose of a Battery

The guidelines described in the Allen-Bradley Guidelines for Lithium Battery Handling and Disposal, publication ICCG-5.14, apply to the A-B station module.

Follow these guidelines when you dispose of the module's battery.



ATTENTION: Follow these precautions:

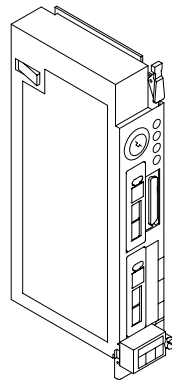
- Do not incinerate or expose the battery to high temperatures.
- Do not solder the battery or leads; the battery could explode.
- Do not open, puncture, or crush the battery. The battery could explode and toxic, corrosive, and flammable chemicals could be exposed.
- Do not charge the battery. An explosion might result or the cell might overheat and cause burns.
- Do not short positive or negative terminals together. The battery will heat up.

Install the A-B Station Module

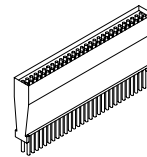


Connect the A-B station module to a PLC-5 programmable controller (with a side connector) using a connector header. Then, install the A-B station module/PLC-5 programmable controller, as a unit, into an I/O chassis.

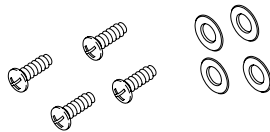
You need the following hardware:



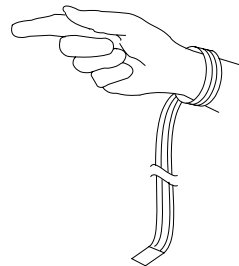
PLC-5 programmable controller with side connector



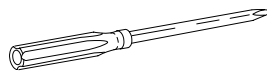
connector header



four phillips screws and spacers



ESD grounding wrist strap



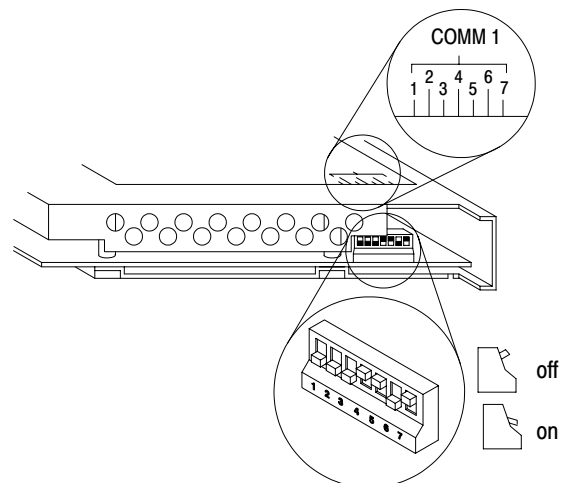
phillips screw driver

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Verify the COMM1 Switch Assembly is Set for RS-423

switch setting:

1	on
2	on
3	on
4	off
5	off
6	on
7	off



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Connect A-B Station Module to Programmable Controller

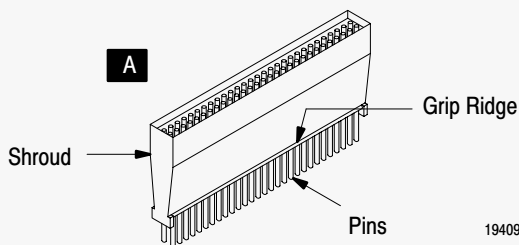
Connect the A-B station module to the PLC-5 programmable controller as follows.



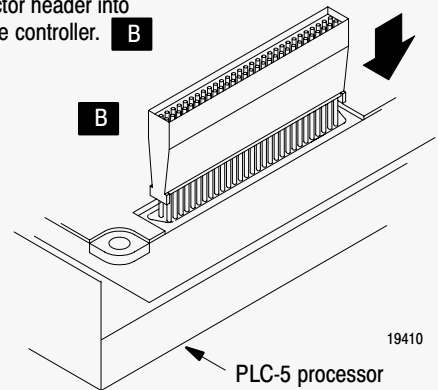
ATTENTION: Avoid bending pins when installing the connector header into the PLC-5 programmable controller side connector. Also, avoid bending pins when installing the A-B station module onto the connector header.

1. Place the PLC-5 programmable controller on a flat, anti-static surface with the side connector face up.

2. Hold connector header at the grip ridge with pins down. **A**



3. Install the connector header into the programmable controller. **B**

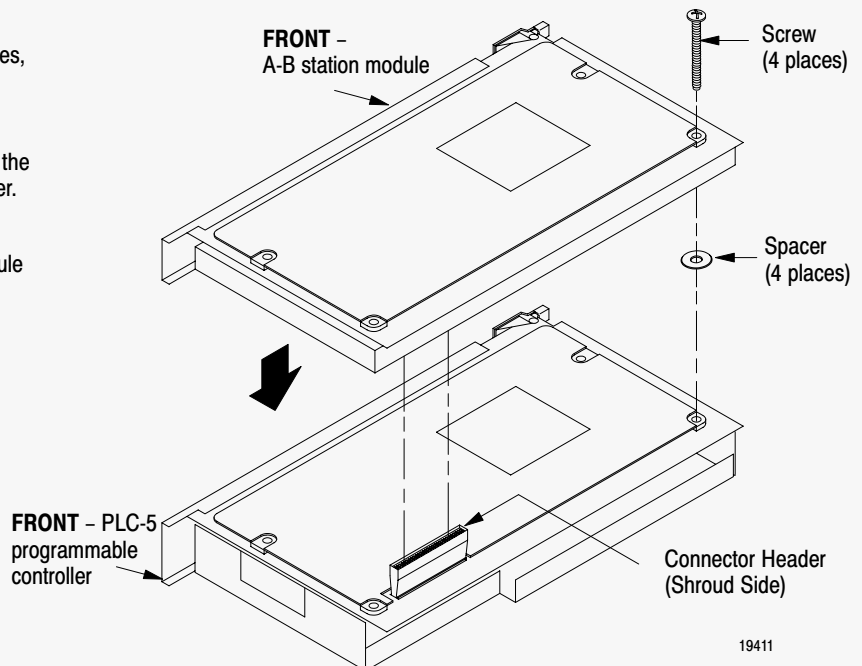


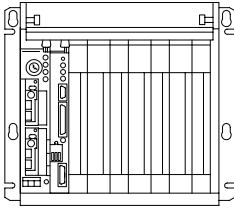
NOTE: It is important to attach the shroud and the pin side of the connector header in the designated device.

4. Place four nylon spacers over the programmable controller screw holes, adhesive side down.

5. Install the A-B station module onto the shroud side of the connector header.

6. Install four screws, adjust the module alignment, and then tighten.





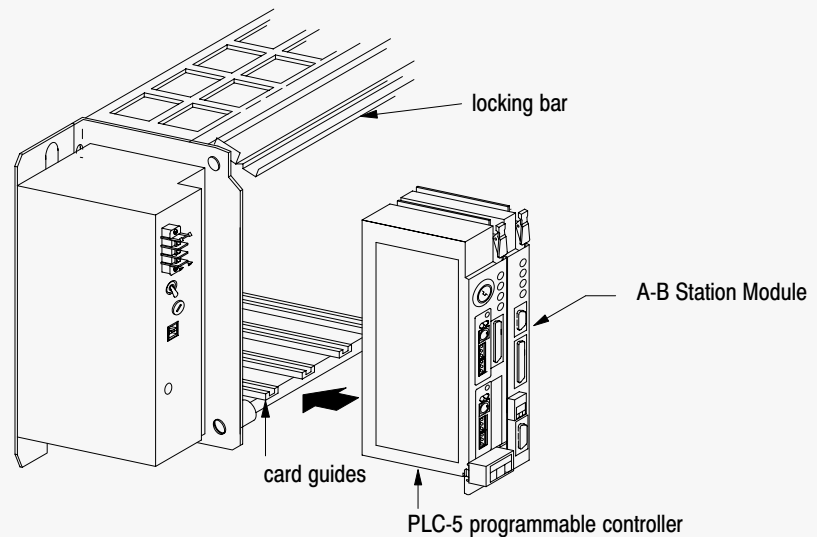
Install the A-B Station Module and PLC-5 Processor Unit



ATTENTION: Before installing the A-B station module and PLC-5 processor unit, verify that power to the I/O chassis is off.

Install the PLC-5 processor and A-B station module in the 1771 I/O chassis as follows:

1. Verify that power is **OFF** to the 1771 I/O chassis.
2. Install the unit in the I/O chassis, using the left-most slots.
3. Slide until the modules fit into the backplane connectors.
4. Close the locking bar.



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Remove the A-B Station Module

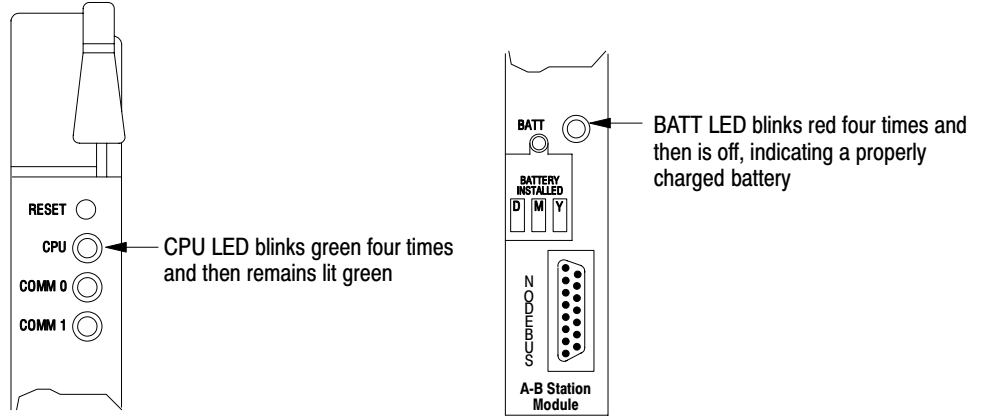


ATTENTION: Before removing the A-B station module and PLC-5 processor unit, verify that power to the I/O chassis is off.

Remove the module by reversing the installation procedure.

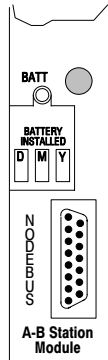
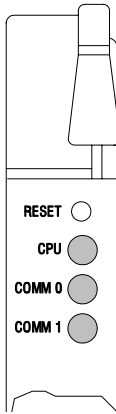
Apply Power to the I/O Chassis

After power up, observe the following indicators:



Interpret LED Indicators

Use this table to help you interpret the A-B station module LED indicators.



Status for LED:	Color:	Indicates:
CPU	green	valid processor cycles are occurring
	red	a fault condition
COMM0 and COMM1	green	receiving data
	red	transmitting data
	off	idle
BATT	off	good battery
	red	replace battery (or no battery installed)

Product Specifications

A-B station module specifications:

Backplane Current		2.50 Amps at +5 Vdc
Battery Life		1 year
Environmental Conditions	Operating temperature	0 – 60° C (32 – 140° F)
	Storage temperature	–40 – 85° C (–40 – 185° F)
	Relative humidity	5 – 95% (without condensation)
Communication Ports	COMM0 port	RS-232C; 9-pin
	COMM1	Foxboro I/A protocol, DNBI OR DNBX adapter
	Nodebus port	Maximum cable length is 150 feet using a DNBI or 400 feet using a DNBX
Location	Allen-Bradley 1771 Universal I/O Chassis	Connected to the side connector of the PLC-5 processor
Agency Certification	CSA certification CSA certifies products for general use as well as for use in hazardous locations. Actual CSA certification is indicated by the product label.	
	UL Certification Underwriters Laboratories Inc. (UL) performs safety investigations of electrical and electronic equipment and products as well as other equipment and products. After product samples have been safety tested and are found to comply with applicable safety requirements, UL authorizes a manufacturer to apply the appropriate UL Mark on products that continue to comply with the requirements. In the case of the A-B station module, it is the presence of the UL Listing Mark on the individual product that indicates UL certification.	

PLC-5 Processor Compatibility

The A-B station module is compatible with all PLC-5 processors having a coprocessor expansion port. Processors **excluded** are all PLC-5/40 and -5/60 series A as well as PLC-5/40 and -5/60 series B, revision B processors.

Obtaining Allen-Bradley Publications

These installation instructions reference the following publications:

Title:	Publication number:
Allen-Bradley Automation Products Catalog	AP-100
Allen-Bradley Guidelines for Lithium Battery Handling and Disposal	ICCG-5.14

Obtain these publications by contacting your local Allen-Bradley sales or distributor office.

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