

# SLC 500 four-slot chassis

Allen-Bradley 1746-A4 is a modular chassis for an SLC 500 controller or I/O-adapter assembly. Its backplane provides the physical module positions within an enclosure-mounted control system.

## Identity and documented parameters

|                       |             |
|-----------------------|-------------|
| System family         | SLC 500     |
| Chassis style         | Modular     |
| Module slots          | 4           |
| Mounting type         | Panel mount |
| Mounting tabs         | 4           |
| Cooling method        | Convection  |
| Operating temperature | 0 to 60 °C  |

## Source control

The product identity and chassis facts above are from Rockwell Automation's 1746-A4 product details, SLC 500 chassis installation instructions and SLC 500 system selection guide. Check the physical series and installed system before replacement.

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## Chassis and companion hardware

The chassis holds the SLC 500 processor or I/O adapter and the selected I/O modules. A separate compatible power supply attaches to the left side. A multiple-chassis installation requires the specified interconnect cable and an independent power supply for each chassis.

### Processor or adapter position

Match the controller or adapter type, module population and cabinet drawing to the approved SLC 500 configuration.

### Power-supply interface

Use the installed SLC 500 power supply instructions and check the total module current demand before energization.

### Expansion interface

For linked chassis, route the correct interconnect cable first and preserve the documented chassis order.

## Engineering use

1746-A4 is the four-position backplane and mounting structure for modular SLC 500 control or I/O assemblies. It is not an independent processor, power supply or field I/O module.

## Installation sequence

### 1 Prepare

Confirm the 1746-A4 identity, enclosure spacing and the required M4/M5 mounting hardware.

### 2 Mount

Drill the back panel, protect installed electronics from metal chips and keep every tab flat while tightening.

### 3 Ground

Connect each chassis to an individual bolt on the enclosure central ground bus.

### 4 Link

If the system has multiple chassis, fit the specified interconnect cable before the power supply.

### 5 Populate

Install the approved processor or adapter, I/O modules, power supply and card-slot fillers.

### 6 Verify

Check bond continuity, cable seating, module retention and cabinet documentation before energization.

## Installation acceptance

|            |                                                          |
|------------|----------------------------------------------------------|
| Mechanical | Chassis sits flat; mounting hardware secure              |
| Grounding  | Individual chassis bond reaches central ground bus       |
| System     | Correct power supply, module seating and expansion cable |

## Allen-Bradley 1746-A4 FAQ

### Which processor or adapter can be installed in Allen-Bradley 1746-A4?

Use a processor or I/O adapter supported by the installed SLC 500 modular configuration; confirm its manual and power budget before fitting modules.

### Where does the power supply mount on Allen-Bradley 1746-A4?

The SLC 500 chassis power supply attaches at the left side. Select it for the total current demand of the installed processor and I/O modules.

### Can Allen-Bradley 1746-A4 be part of a multiple-chassis system?

Yes. The SLC 500 system selection guide permits up to three linked chassis when the appropriate chassis interconnect cable and system design are used.

### How should Allen-Bradley 1746-A4 be grounded?

Bond the chassis to the enclosure central ground bus using an individual equipment-grounding conductor, following publication 1746-IN016.

### What should be checked before mounting Allen-Bradley 1746-A4?

Check enclosure clearances, hole positions, mounting hardware and a flat back-panel contact. Do not distort the chassis when tightening the mounting tabs.

### How are unused slots handled in Allen-Bradley 1746-A4?

Use the 1746-N2 card slot filler for unused SLC 500 chassis openings to help keep debris out.

### When should an interconnect cable be installed on Allen-Bradley 1746-A4?

Install the specified chassis interconnect cable before attaching the power supply when the approved system layout uses more than one chassis.

### What verifies Allen-Bradley 1746-A4 after installation?

Check the complete catalog marking, ground bond, power-supply attachment, module seating and interconnect routing against the cabinet drawings before energizing.

## Pre-energization record

|                                           |                     |
|-------------------------------------------|---------------------|
| 1746-A4 nameplate and series              | Verified / recorded |
| Module and power-supply layout            | Verified / recorded |
| Ground-bus bond                           | Verified / recorded |
| Interconnect cable and unused-slot covers | Verified / recorded |

## Official Rockwell Automation sources

### Rockwell Automation 1746-A4 Product Details

<https://www.rockwellautomation.com/en-us/products/details.1746-A4.html>

### SLC 500 Modular Chassis Installation Instructions, 1746-IN016C-MU-P

[https://literature.rockwellautomation.com/idc/groups/literature/documents/in/1746-in016\\_-mu-p.pdf](https://literature.rockwellautomation.com/idc/groups/literature/documents/in/1746-in016_-mu-p.pdf)

### SLC 500 System Selection Guide, 1747-SG001E-EN-E

[https://literature.rockwellautomation.com/idc/groups/literature/documents/sg/1747-sg001\\_-en-p.pdf](https://literature.rockwellautomation.com/idc/groups/literature/documents/sg/1747-sg001_-en-p.pdf)

## Related SLC 500 products at Apter Power

### Allen-Bradley 1746-OB16

<https://www.apterpower.com/Allen-Bradley/Allen-Bradley-SLC-500/1746-ob16>

### Allen-Bradley 1746-IB16

<https://www.apterpower.com/Allen-Bradley/Allen-Bradley-SLC-500/1746-ib16>

### Allen-Bradley 1746-ITB16

<https://www.apterpower.com/Allen-Bradley/Allen-Bradley-SLC-500/1746-itb16>

### Allen-Bradley 1746-OBP16

<https://www.apterpower.com/Allen-Bradley/Allen-Bradley-SLC-500/1746-obp16>

### Allen-Bradley 1746-OW16

<https://www.apterpower.com/Allen-Bradley/Allen-Bradley-SLC-500/1746-ow16>

### Allen-Bradley 1747-SN

<https://www.apterpower.com/Allen-Bradley/Allen-Bradley-SLC-500/1747-sn>

### Allen-Bradley 1747-L542

<https://www.apterpower.com/Allen-Bradley/Allen-Bradley-SLC-500/1747-l542>

### Allen-Bradley 1747-L553

<https://www.apterpower.com/Allen-Bradley/Allen-Bradley-SLC-500/1747-l553>

## System release checks

Cabinet drawing matches the installed chassis and module order

Ground bond and mounting-tab contact have been inspected

Power-supply selection covers the installed module current demand

Startup diagnostics and affected I/O paths have been recorded

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