

# Allen-Bradley 1747-L541 Manual

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|----------------|--------------------|
| Brand          | Allen-Bradley      |
| Product Series | 1746 1747          |
| Product Type   | SLC 5/04 Processor |

## Description

The 1747-L541 is a controller module for the SLC 500 Modular Hardware by Allen-Bradley. It comes with Memory or 16 KB, and built-in communication interfaces such as 9-Pin RS-232 and Data Highway Plus (DH+). It is capable of 4096 Inputs points and 4096 Outputs points with an Analog I/O count of 480, 16K words of user memory, and an I/O scan time of 0.225 milliseconds. Technical specifications for 1747-L541

Manufacturer Rockwell Automation

Brand Allen-Bradley

Part Number/Catalog No. 1747-L541

Series SLC 500

Inputs 4096

Module Type SLC 5/04 Processor

Outputs 4096

Analog I/O 480

Memory: Up to 16 KB, Battery Backed RAM

Program Scan Time 0.9 ms/K

User Memory 16,000 Words

I/O Chassis 3

Chassis Module Slots 30

I/O Scan Time 0.225 milliseconds

Communication Data Highway Plus (DH+), RS-232

Backup Memory 1747-M13

Ambient Temperature 0 to 60 degrees Celsius

Program Scan Time per Keyword 0.9 milliseconds

Battery back-up memory: Yes; 1747-BA

UPC 10662468653029

UNSPSC 32151705 Description

The Allen-Bradley 1747-L541 is an SLC 5/04 processor that is part of the SLC 500 series, which also includes the 1747-L541, L542, and L543 controllers. It is a high-performance processor enhanced with faster communication and shorter program execution time. The SLC 5/04 comes with 16K, 32K, or 64K words of memory and it can control a maximum of 4096 input and output points. For communication, the 1747-L541 has a built-in DH+ channel that supports extended messaging capabilities and high-speed communication. It also has an RS-232 channel for supporting DF1 radio modem, DH-485, ASCII and Modbus RTU communications. For programming, it includes advanced math instructions and various additional instructions. It also supports remote I/O, DeviceNet pass-through, and indirect addressing.

The 1747-L541 has a typical Program Scan Time per Keyword of 0.9 milliseconds and a typical I/O scan time of 0.225 milliseconds. It requires a backplane current load of 1 Amp at 5 Volts DC and of 200 mA at 24 Volts DC. It has a 1-millisecond Selectable Timed Interrupt (STI) and 0.5 milliseconds Discrete Input Interrupt (DII). For program and data table storage, it uses a 1747-M13 flash-based memory device with a 64 KB memory. The SLC 5/04 includes a 3-position key switch on the front panel for selecting the Run, Remote, or Program modes. The 1747-L541 SLC 504 has RUN, FLT, BATT, FORCE, DH+, and RS-232 LED status indicators for troubleshooting and diagnostics. The SLC 500 series of processors has a simple, cost-effective design with a history of good

installations in applications such as HVAC control, SCADA, and material handling.

The Allen-Bradley 1747-L541 is an SLC 5/04 controller that features an integrated 16 KB user memory, that is designed for handling up to 4096 Input and outputs. This controller belongs to the modular style SLC 500 programmable Logic Controller (PLC).

The 1747-L541 ideal for use in medium application as this controller is capable of implementing distributed IO application with the use of a communication adapter on the CPU rack and communication scanner on the IO racks. RS232 communication port is configurable for DF1 and DH485 peer-to-peer topology while DH+ communications support extended distance and multi-drop topology.

Alternatively, the RS232 communication port may also be used with a 1761-NET-AIC to allow the serial port to connect to a multi-drop network. The communication port's default setting are no handshaking, 19.2 Kbaud, CRC Error Check, duplicate packet, detect on and no parity for RS232 port and 57.6 Kbaud, node address = 1 for Data Highway Plus (DH+).

The 1747-L541 controller requires an SLC 500 rack for mounting and connection to the electronic backplane. A system power supply is also needed to power-up the internal circuitry of the processor through the electronic backplane.

This controller is UL listed to US and Canadian Safety Standards, CE compliant and C-Tick marked.

## Technical Specifications

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Chassis Module Slots 30

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