

Allen-Bradley 1746 1747 Series Service Manual

1747-L552

1. Description

The 1747-L552 is a controller module for the SLC 500 Modular Hardware by Allen-Bradley. It comes with Memory of 32 KB, built-in communication interfaces such as 9-Pin RS-232 Port and Ethernet Communication ports. It has a capacity of 4096 Discrete I/O and Remote I/O capacity of 4096 Inputs and 4096 Outputs points. Technical specifications for 1747-L552

2. Specifications

Specification	Value
Manufacturer	Rockwell Automation
Brand	Allen-Bradley
Part	Number/Catalog No. 1747-L552
Series	SLC 500
Inputs	4096
Module	Type SLC 5/05 Processor
Outputs	4096
Analog	I/O 480
Memory:	Up to 32 KB, Battery Backed-RAM
Program	Scan Time 0.9 ms/K
User	Memory 32,000 Words
I/O	Chassis 3
Chassis	Module Slots 30
I/O	Scan Time 0.225 milliseconds
Communication	Ethernet, RS-232
Backup	Memory 1747-M13
Ambient	Temperature 0 to 60 degrees Celsius
SLC	5/05 Connections 48
Battery	back-up memory: Yes; 1747-BA
UPC	10662072745585 Description
The	1747-L552 is an SLC 500 processor that belongs to the sub-category of SLC 5/05. This processor is a single slot processor that directly connects to the backplane of any SLC 500 chassis. This processor is integrated with an RS232 port for peer to peer communication and Ethernet communication for networked applications and simultaneous data exchange.

3. Product Information

The 1747-L552 is a controller module for the SLC 500 Modular Hardware by Allen-Bradley. It comes with Memory of 32 KB, built-in communication interfaces such as 9-Pin RS-232 Port and Ethernet Communication ports. It has a capacity of 4096 Discrete I/O and Remote I/O capacity of 4096 Inputs and 4096 Outputs points. Technical specifications for 1747-L552

Manufacturer Rockwell Automation

Brand Allen-Bradley

Part Number/Catalog No. 1747-L552

Series SLC 500

Inputs 4096

Module Type SLC 5/05 Processor

Outputs 4096

Analog I/O 480

Memory: Up to 32 KB, Battery Backed-RAM

Program Scan Time 0.9 ms/K

User Memory 32,000 Words

I/O Chassis 3

Chassis Module Slots 30

I/O Scan Time 0.225 milliseconds

Communication Ethernet, RS-232

Backup Memory 1747-M13

Ambient Temperature 0 to 60 degrees Celsius

SLC 5/05 Connections 48

Battery back-up memory: Yes; 1747-BA

UPC 10662072745585 Description

The 1747-L552 is an SLC 500 processor that belongs to the sub-category of SLC 5/05. This processor is a single slot processor that directly connects to the backplane of any SLC 500 chassis. This processor is integrated with an RS232 port for peer to peer communication and Ethernet communication for networked applications and simultaneous data exchange. This processor is ideal for use in medium to large scale applications with focus on integrating the machine level area to the enterprise level. This processor also provides practical integration features for Industrial Internet of Things (IIoT) requirement.

Unlike other processors under the SLC 500 platform, the embedded communication capability of these processors include DH485, Data Highway Plus (DH+), Remote I/O and DeviceNet. These communication protocols are proprietary and requires specialty modules or 3rd party converters and gateways to enable vertical integration. With the embedded Ethernet, this processor is out of the box ready for vertical integration.

The RS232 communication port is a classic communication port for Human Machine Interface (HMI) communication that is typically installed on the same panel where the Programmable Logic Controller (PLC) processor is installed as RS232 has a limited distance coverage.

The large memory capacity of the 1747-L552 features an IO capacity of 4096 Input and Outputs which allows the processor to control multiple small processes or a single large process. System criticality must be considered to properly plan which process can be included with the same processors. It also support implementation of Remote I/O topology to allow strategic installation of I/O modules. This module has a maximum user memory of 32K words, with 28K words for the data or program and 4K words for user data. The processor also has an absolute maximum number of I/O at 4096 each for both inputs and outputs. It also has a maximum local analog of 480 points. This processor supports up to One hundred and seven (107) programming instructions and permits installation of up to Three (3) chassis with a maximum of Thirty (30) slots. The maximum input current of this processor is 1A at 5 Volts DC and 0A at 24 Volts DC. It comes with a typical program scan time of 0.9 milliseconds/K, I/O scan time of 0.225 milliseconds, and an XIC bit execution of 0.37 µs. Depending on the power supply loading, this processor has a program scan hold-up time of 20 milliseconds to 3s seconds after a loss of power. It has an operating vibration of 0.015 inches, a peak-to-peak displacement at 5 to 57 Hertz, and 2.5G acceleration at 57 to 2000 Hertz. This processor also has an operating shock of 30G and a non-condensing relative humidity of 5 to 95%. The operating temperature range of this processor is 0 to 60 degrees Celsius and the storage temperature range is -40 to 85 degrees Celsius.

Power must be turned off when adding or removing a module. Status LEDs are available for this processor and these let you monitor its current state. The 1747-L552 processor has an open-type enclosure and is mounted via a chassis. The entire processor measures 145 x 35 x 142 millimeters. The Ethernet connection of this processor is BOOTP enabled and it supports up to 48 incoming or outgoing connections. Outgoing connections can only establish one connection per destination node. Multiple MSG instructions will share the same connection if they use the same destination node. This processor also has an RS-232 port and a flash backup memory. It has a user-replaceable lithium battery that lasts an average of two years. The 1747-L552 processor has a capacitor and this lets the processor run for at least 30 minutes using the battery back-up while the battery itself has been disconnected. The battery must be connected to the processor within 30 minutes to avoid losing data in the RAM.

www.oilautotech.com