Allen-Bradley 1762-L40BWA

Allen-Bradley 1762-L40BWA MicroLogix 1200 Programmable Controller User Manual

Model: 1762-L40BWA

1. Introduction

This manual provides essential information for the installation, operation, maintenance, and troubleshooting of the Allen-Bradley 1762-L40BWA MicroLogix 1200 Programmable Controller. The MicroLogix 1200 is a compact, high-performance controller designed for a wide range of industrial automation applications. It offers integrated I/O, communication capabilities, and robust control features.

Figure 1: Top view of the Allen-Bradley 1762-L40BWA MicroLogix 1200 Programmable Controller, showing input and output terminals, communication port, and status indicators.

2. Safety Information

Observe all local and national electrical codes and safety regulations during installation and operation. Failure to follow these guidelines can result in personal injury, equipment damage, or both.

- Disconnect all power before installing, wiring, or servicing the controller.
- Ensure proper grounding to prevent electrical shock.
- Use only qualified personnel for installation and maintenance.
- Protect the controller from excessive heat, moisture, and corrosive environments.
- Do not operate the controller with damaged components.

3. Setup

3.1 Mounting

The 1762-L40BWA controller is designed for DIN rail mounting or panel mounting. Ensure adequate clearance for ventilation and wiring.

Figure 2: Bottom view of the controller, illustrating the mounting clips for DIN rail installation.

3.2 Wiring

Connect power, input, and output wiring according to the terminal labels and electrical specifications. Use appropriate wire gauges and ensure secure connections.

- **Power Wiring:** Connect the AC power supply (100-240 VAC) to the designated power terminals.
- **Input Wiring:** Connect 24 VDC input devices to the input terminals.
- **Output Wiring:** Connect relay output devices to the output terminals. Ensure the load current does not exceed the specified contact ratings.

Figure 3: Front view of the controller, highlighting the ventilation slots and terminal blocks for wiring connections.

3.3 Communication Port

The controller features a communication port for connecting to a programming device (e.g., PC with RSLogix 500 software) or other communication modules.

Figure 4: Side view of the controller, showing the circular communication port for programming and data exchange.

4. Operating

4.1 Power-Up and Status Indicators

Upon applying power, the controller will perform a self-test. Observe the status indicators for proper operation:

- **POWER:** Green when power is supplied.
- **RUN:** Green when the controller is in Run mode and executing the program.
- **FAULT:** Red if a fault condition exists. Refer to troubleshooting for details.
- **COMM:** Flashes to indicate communication activity.
- **DCOMM:** Indicates communication activity on the secondary communication port (if configured).

4.2 Programming

The MicroLogix 1200 controller is programmed using Rockwell Software's RSLogix 500 programming software. Connect the controller to a PC via the communication port and use the software to create, download, and monitor ladder logic programs.

5. Maintenance

5.1 Cleaning

Keep the controller clean and free from dust and debris. Use a soft, dry cloth for cleaning. Do not use solvents or abrasive cleaners.

5.2 Firmware Updates

Periodically check the manufacturer's website for firmware updates. Follow the provided instructions carefully when performing firmware updates to ensure proper operation and access to new features.

5.3 Battery Replacement

The controller may contain a battery for retaining program memory and real-time clock data. Refer to the specific product documentation for battery type, replacement procedure, and expected lifespan. Always replace the battery with the controller powered on to prevent loss of program data.

6. Troubleshooting

This section provides guidance for common issues encountered with the 1762-L40BWA controller.

Problem	Possible Cause	Solution
FAULT indicator is red	Program error, hardware fault, or power issue.	Check program logic, verify wiring, cycle power. Consult RSLogix 500 for fault codes.
Controller not powering on	No power supply, incorrect wiring, or faulty power supply.	Verify AC power connection, check fuses, ensure correct voltage.
Cannot communicate with controller	Incorrect communication settings, faulty cable, or driver issues.	Verify communication cable, check RSLinx/RSLogix 500 driver configuration, ensure correct port settings.
Inputs/Outputs not responding	Incorrect wiring, faulty sensor/actuator, or program logic error.	Verify wiring to I/O devices, test sensors/actuators, check program logic for correct addressing and conditions.

7. Specifications

Key technical specifications for the Allen-Bradley 1762-L40BWA MicroLogix 1200 Programmable Controller:

Feature	Specification
Model Number	1762-L40BWA
Series / Revision	C / B
Product Dimensions	8.25 x 6.25 x 5.5 inches; 1.7 Pounds
Input Voltage (Digital)	24 VDC
Line Voltage (AC Power)	100-240 VAC, 50-60 Hz, 82 VA Max.
Output Type	Relay Outputs
Relay Output Capacity	1440VA Max.
Contact Ratings	NEMA-ICS 5 C300, R150
Manufacturer	ALLEN BRADLEY
Date First Available	July 22, 2016

Feature	Specification
Internal Identifiers	2L40BWA**CB*539020122, 735319, 536489

Figure 5: Product label displaying model number, series, revision, and electrical specifications.

8. Warranty and Support

For warranty information, technical support, and additional resources, please refer to the official Allen-Bradley (Rockwell Automation) website or contact your authorized distributor. Keep your product's serial number and model information readily available when seeking support.

Official Allen-Bradley Website: www.rockwellautomation.com