Allen-Bradley 1763-L16BWA

ALLEN BRADLEY MICROLOGIX 1100 Controller Module User Manual

Model: 1763-L16BWA, Series B

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of the ALLEN BRADLEY 1763-L16BWA MicroLogix 1100 Controller Module, Series B. The MicroLogix 1100 is a compact, powerful, and cost-effective programmable controller designed for a wide range of industrial applications. It features integrated Ethernet/IP for peer-to-peer messaging, web server capabilities, and email functionality, along with an embedded LCD display for monitoring controller status and I/O. Adherence to the instructions in this manual is crucial for safe and efficient operation.

2. PRODUCT OVERVIEW

The MicroLogix 1100 controller integrates a processor, power supply, and I/O in a single compact unit. It supports various communication options and includes an LCD display for direct interaction and diagnostics.

Figure 2.1: Front view of the MicroLogix 1100 Controller Module, showing the LCD display, navigation buttons, and terminal blocks.

Figure 2.2: Top view of the MicroLogix 1100 Controller Module, highlighting the input and output terminal blocks for wiring connections.

3. SETUP AND INSTALLATION

3.1 Safety Precautions

- Ensure power is disconnected before installation or wiring.
- Follow all local and national electrical codes.
- Only qualified personnel should perform installation and wiring.
- Protect the module from excessive heat, moisture, and vibration.

3.2 Mounting

The MicroLogix 1100 controller can be mounted on a DIN rail or panel mounted using screws. Ensure adequate ventilation space around the module for proper heat dissipation.
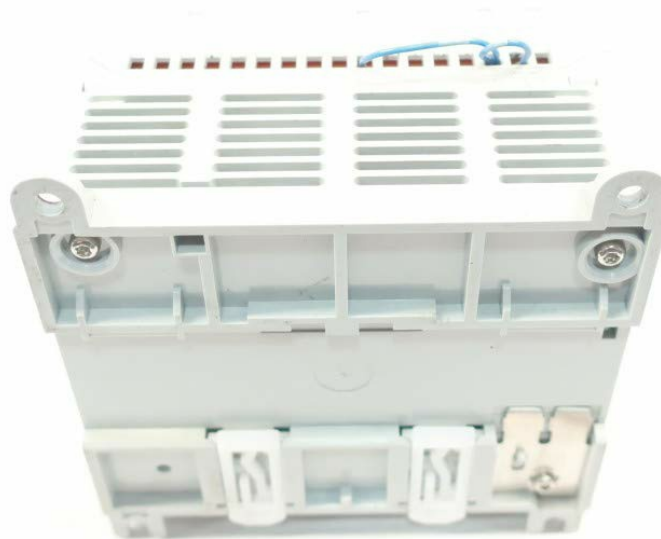
Figure 3.1: Bottom view of the MicroLogix 1100 Controller Module, illustrating the mounting tabs for secure installation.

3.3 Wiring

Connect power to the designated terminals. The module accepts 100-240 VAC, 50-60 Hz. Connect input and output devices to their respective terminals. Refer to the wiring diagram provided with your specific system documentation for detailed connections.

Important: Do not connect the RS-232/RS-485 Combo port directly to any other MicroLogix controller Channel 0 (RS-232) port or the 1747-DPS (Port Splitter) network. Doing so will cause permanent damage to the combo port on the MicroLogix 1100.

Figure 3.2: Rear view of the MicroLogix 1100 Controller Module, displaying the communication ports and a critical warning label regarding port connections.

4. OPERATING INSTRUCTIONS

4.1 Powering On

Once wired, apply power to the module. The POWER indicator LED should illuminate. The LCD display will show the boot sequence and then the operational status.

4.2 LCD Display and Navigation

The integrated LCD display allows for monitoring controller status, I/O status, and minor configuration adjustments without a computer. Use the ESC, OK, and arrow keys to navigate through the menus.

- **ESC:** Used to go back to the previous menu or cancel an operation.
- **OK:** Used to select an option or confirm an action.
- **Arrow Keys:** Used to navigate through menu options or adjust values.

4.3 Programming

The MicroLogix 1100 is programmed using Rockwell Software's RSLogix 500 programming software. Connect to the controller via Ethernet/IP or the serial port. Refer to the RSLogix 500 documentation for detailed programming instructions.

5. MAINTENANCE

The MicroLogix 1100 controller is designed for robust industrial environments and requires minimal routine maintenance. However, periodic checks are recommended to ensure optimal performance and longevity.

- **Cleaning:** Keep the module clean and free of dust and debris. Use a soft, dry cloth. Do not use solvents or abrasive

cleaners.

- **Connections:** Periodically check all wiring connections for tightness and signs of corrosion.
- **Ventilation:** Ensure that ventilation openings are not obstructed to prevent overheating.
- **Firmware Updates:** Check the manufacturer's website for available firmware updates. Follow official procedures for any updates.

6. TROUBLESHOOTING

This section provides solutions to common issues encountered with the MicroLogix 1100 controller.

Problem	Possible Cause	Solution
Controller not powering on.	No power supply; incorrect wiring; faulty power supply.	Verify power connections; check power source; test power supply.
FAULT LED is illuminated.	Program error; hardware fault; I/O wiring issue.	Check controller diagnostics via LCD or RSLogix 500; inspect wiring; review program logic.
Cannot establish communication.	Incorrect communication settings; faulty cable; network issue.	Verify IP address/serial settings; check cable integrity; ensure network connectivity.

For more complex issues, consult the detailed troubleshooting guides available on the Allen-Bradley support website or contact technical support.

7. SPECIFICATIONS

Detailed technical specifications for the ALLEN BRADLEY 1763-L16BWA MicroLogix 1100 Controller Module.

Attribute	Value
Model Number	1763-L16BWA
Series	SER B
Manufacturer	ALLEN BRADLEY
Product Dimensions (L x W x H)	4.25 x 4.25 x 3.25 inches
Weight	2.33 Pounds
Input Voltage (Line)	100-240 VAC, 50-60 Hz, 52 VA MAX.
DC Inputs	24 VDC
Contact Ratings (AC)	C300
Contact Ratings (DC)	R150
Operating System Information	FRN 8.0
Date First Available	June 11, 2020

7.1 Product Identifiers

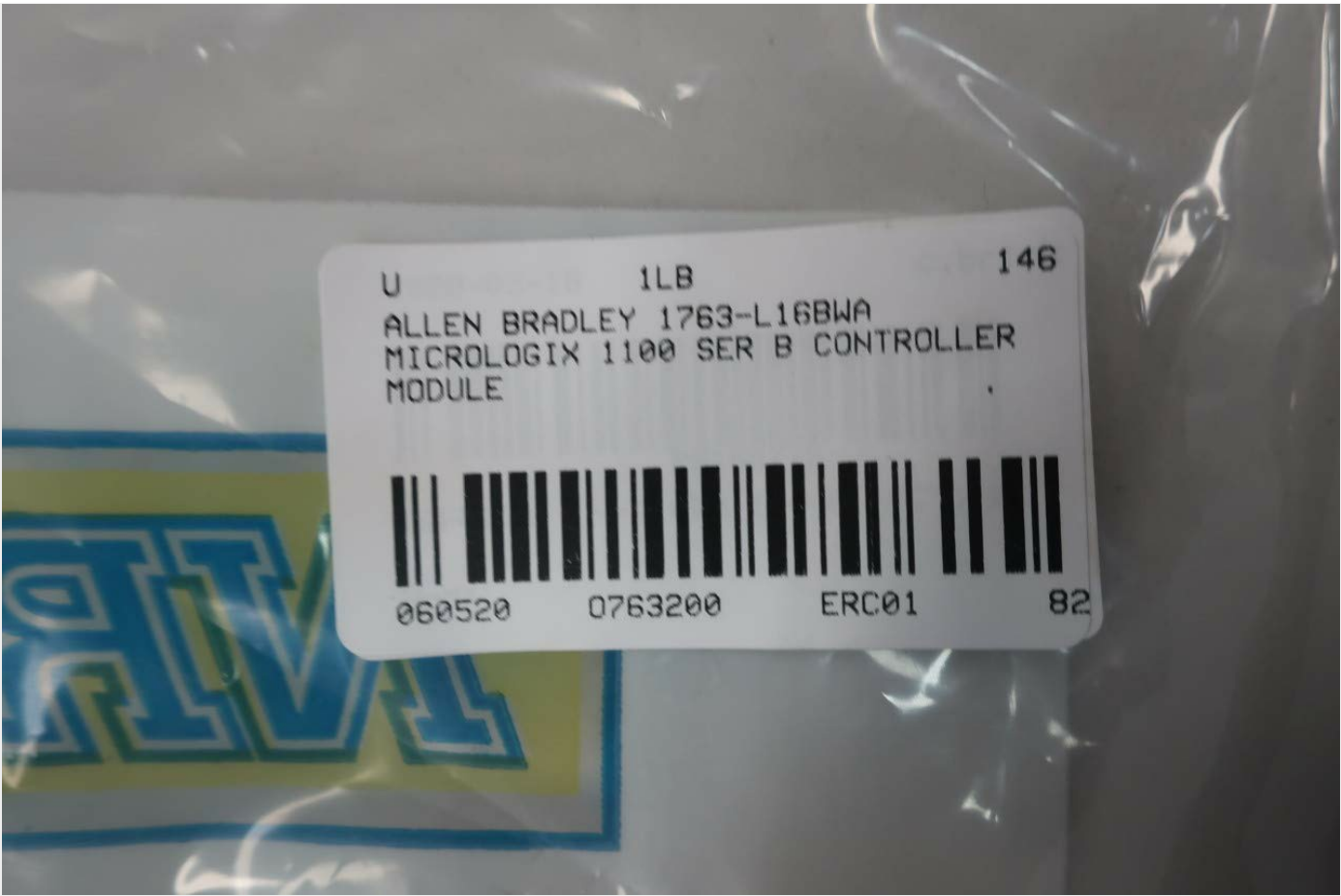Figure 7.2: Product packaging label showing the model number and barcode.

- **Product Code:** 3L16BWA**BB*852082630 (from product label)
- **Internal Code:** 763200 (from packaging label)

8. Warranty and Support

For information regarding product warranty, technical support, and service, please refer to the official Allen-Bradley (Rockwell Automation) website or contact your authorized distributor. Ensure you have your product model number (1763-L16BWA) and serial number ready when seeking support.

Official support resources typically include:

- Online knowledge base and FAQs

- Technical documentation and downloads

- Customer support contact information

- Service and repair options