



[Manuals.plus](#) /

› [Agatige](#) /

› Agatige RX-03 PLC Control Board User Manual

Agatige RX-03

Agatige RX-03 PLC Control Board User Manual

Programmable Logic Controller for Industrial Automation

1. INTRODUCTION

The Agatige RX-03 Programmable Logic Controller (PLC) is an industrial control board designed for various automation applications. It features 8 input channels and 7 output channels, supporting a wide range of sensors and actuators. This manual provides essential information for the setup, operation, maintenance, and troubleshooting of your RX-03 PLC.



Figure 1: Agatige RX-03 PLC Control Board, front view showing input/output terminals and USB port.

2. SPECIFICATIONS

Item Type	Programmable Logic Controller
Model	RX-03
Material	ABS
Power Supply	12-24V DC stabilized power supply (user-provided)
Inputs	8 channels (supports various device sensors, position switches, NPN type proximity switches, magnetic induction switches)
Outputs	7 channels (transistor relay output, can control relays, cylinder solenoid valves, motors)

Programming Interface	USB (for computer), OTG adapter and USB cable (for Android phone)
Computer OS Support	Windows 7, Windows 10 (XP not supported)
Mobile OS Support	Android (iOS not supported)
Special Features	High-speed counter function, analog input/output channels, 2 channels of 100K high-speed pulse output, independent programming port, supports text screens and touch screens.

3. SETUP AND INSTALLATION

3.1 Package Contents

Verify that your package contains the following items:

- 1 x Agatige RX-03 Programmable Logic Controller

Note: USB cable, OTG adapter, and power supply are not included and must be provided by the user.

3.2 Power Supply Connection

The RX-03 PLC requires a 12-24V DC stabilized power supply. Connect the positive (+) terminal of your power supply to the **VCC** terminal and the negative (-) terminal to the **GND** terminal on the PLC board.

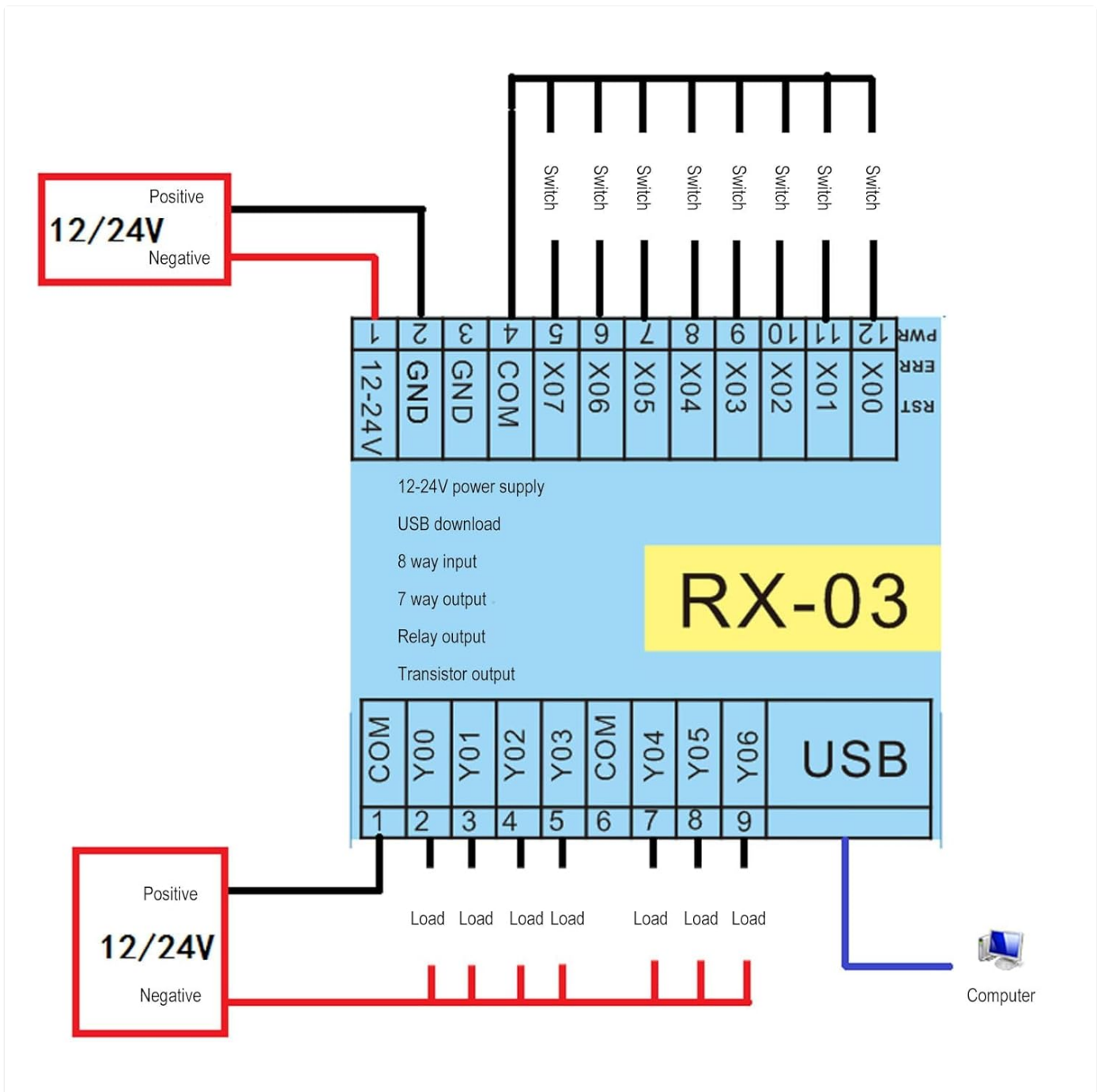


Figure 2: Detailed wiring diagram for the RX-03 PLC, illustrating power, input, and output connections.

3.3 Input Connections (X00-X07)

The RX-03 PLC has 8 input channels (X00 to X07). These inputs are designed to connect to various sensors and switches, such as position switches, NPN type proximity switches, and magnetic induction switches. Connect your input devices to the corresponding X terminals and the common ground (XCOM) as per your application's requirements. Refer to Figure 2 for connection details.

3.4 Output Connections (Y00-Y06)

The PLC provides 7 output channels (Y00 to Y06) with transistor relay output. These outputs can control devices such as relays, cylinder solenoid valves, and motors. Connect your output devices to the Y terminals and the common output (YCOM) as shown in Figure 2.

3.5 Programming Interface Connection

The RX-03 PLC can be programmed via a USB connection to a computer or an Android phone.

- **For Computer Programming:** Connect a standard USB cable (not included) from your computer to the USB port on the PLC. Ensure your computer runs Windows 7 or Windows 10. Windows XP is not supported.
- **For Android Phone Programming:** An OTG adapter and a USB cable (both not included) are required. Connect the OTG adapter to your Android phone, then connect the USB cable from the OTG adapter to the PLC's USB port. iOS phones are not supported for programming.



SUPPORT FOR ANDROID DEVICES

Mobile phones and tablets can directly open programs for viewing and modification

On site problem handling, modification functions are more awesome!

Figure 3: The RX-03 PLC showing its USB port, indicating support for Android device programming.

4. OPERATING INSTRUCTIONS

4.1 Programming the PLC

The RX-03 PLC requires programming to define its operational logic. Programming can be done using dedicated software on a compatible computer or Android device.

- **Software Acquisition:** The programming software is not included with the PLC. Users must acquire the appropriate software compatible with the RX-03 model. Refer to the manufacturer's website or contact support for software

download links.

- **Program Development:** Develop your control logic using the programming software. The software allows for visual simulation and debugging of the program before uploading to the PLC.
- **Uploading Program:** Once the program is developed and tested, connect the PLC to your computer or Android device via USB and upload the program to the RX-03.



No hardware required, testing program functionality on computer

Visually see how the program runs and quickly locate problems!

Supports various device sensors, position switches, NPN type proximity switches, magnetic induction switches, etc.

Output controllable relays, cylinder solenoid valves, motors, etc.



Figure 4: The RX-03 PLC, highlighting the ability to test program functionality on a computer without additional hardware.

4.2 Running the PLC

After successfully uploading the program, the PLC will execute the defined logic. Ensure all input sensors and output actuators are correctly connected and powered. The PLC will then control the connected devices based on the programmed instructions.

The RX-03 supports high-speed counter functions and high-speed pulse outputs, making it suitable for applications requiring precise timing and control.

5. MAINTENANCE

The Agatige RX-03 PLC is designed for robust industrial use and requires minimal maintenance. However, regular checks can ensure optimal performance and longevity.

- **Cleaning:** Keep the PLC free from dust and debris. Use a soft, dry cloth to clean the exterior. Do not use liquid cleaners or solvents.
- **Connection Integrity:** Periodically inspect all wiring connections to ensure they are secure and free from corrosion. Loose connections can lead to erratic behavior or system failure.
- **Environmental Conditions:** Ensure the PLC operates within its specified environmental conditions (temperature, humidity) to prevent damage.
- **Firmware Updates:** Check the manufacturer's website periodically for any available firmware updates. Follow the provided instructions carefully for any update procedures.

6. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your RX-03 PLC.

Problem	Possible Cause	Solution
PLC does not power on.	Incorrect power supply voltage or polarity; loose power connection.	Verify power supply is 12-24V DC and connected correctly to VCC and GND. Check power cable integrity.
Cannot connect to PLC via USB.	Incorrect USB cable; driver issues; incompatible operating system.	Ensure using a functional USB cable. Install necessary USB drivers for the PLC. Confirm computer OS is Windows 7 or 10. For Android, ensure OTG adapter and cable are correct.
Program upload fails.	Software not compatible; communication error; PLC in wrong mode.	Verify programming software compatibility with RX-03. Check USB connection. Ensure PLC is in programming mode (if applicable, refer to software documentation).
Inputs/Outputs not responding.	Incorrect wiring; faulty sensor/actuator; program logic error.	Review wiring diagram (Figure 2) for correct connections. Test sensors/actuators independently. Debug your PLC program logic.
Unexpected PLC behavior.	Program error; electrical interference; hardware fault.	Review and debug your PLC program. Ensure proper grounding and shielding to minimize electrical noise. If issues persist, contact support.

If you encounter problems not listed here or if the suggested solutions do not resolve the issue, please contact Agatige customer support.

7. WARRANTY INFORMATION

Agatige products are manufactured to high quality standards. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Agatige website. Typically, warranty covers manufacturing defects under normal use conditions for a specified period from the date of purchase.

Note: Damage caused by improper installation, misuse, unauthorized modification, or operating outside specified parameters is not covered under warranty.

8. CUSTOMER SUPPORT

For technical assistance, product inquiries, or warranty claims, please contact Agatige customer support through the

following channels:

- **Website:** Visit the official Agatige website for FAQs, support resources, and contact forms.
- **Email:** Refer to your product packaging or the official website for customer service email addresses.
- **Online Store:** For purchases made on Amazon, you may also contact the seller "Funiquee" directly through your Amazon order history for support related to your purchase.

When contacting support, please have your product model (RX-03) and purchase information readily available.

© 2024 Agatige. All rights reserved.

Model: RX-03 | ASIN: B0CSPKB7HT