**DAVITU XC2-32RT-E**

# DAVITU XINJE XC2-32RT-E PLC Controller Instruction Manual

Model: XC2-32RT-E

## 1. Introduction

This manual provides essential information for the safe and efficient operation of the DAVITU XINJE XC2-32RT-E PLC Controller. It covers installation, basic operation, maintenance, and troubleshooting. Please read this manual thoroughly before using the device and keep it for future reference.
The XINJE XC2-32RT-E is a Programmable Logic Controller designed for industrial automation applications, offering reliable control and monitoring capabilities.

## 2. Safety Information

**Warning:** Improper installation or operation can lead to electric shock, fire, or damage to the equipment. Always follow safety guidelines.

- Ensure power is disconnected before performing any wiring or maintenance.
- Only qualified personnel should install and service this device.
- Use wires with a cross-sectional area of 2mm² or more for the power supply to prevent voltage drop.
- Protect the device from moisture, dust, and extreme temperatures.
- Verify all connections are secure before applying power.

## 3. Product Overview

The XINJE XC2-32RT-E PLC Controller is a compact and robust unit designed for various control tasks. It features input and output terminals, status indicators, and a programming port.


**Figure 1:** The XINJE XC2-32RT-E PLC Controller shown within its original packaging, accompanied by a product guarantee card. The image highlights the model number "XC2-32R-E" visible on the unit, along with status indicators for Power (PWR), Run (RUN), and Error (ERR). Input and output terminals are also partially visible.

### 3.1 Components

- **Power Terminal:** For connecting the 24VDC power supply.
- **Input Terminals (X):** For connecting sensors and input devices.
- **Output Terminals (Y):** For connecting actuators and output devices.
- **Status Indicators:** PWR (Power), RUN (Operation), ERR (Error).
- **Programming Port:** For connecting to a computer for program upload/download.

## 4. Setup and Installation

### 4.1 Mounting

Mount the PLC securely in a control cabinet or on a DIN rail, ensuring adequate ventilation and clearance for wiring. Avoid locations with excessive vibration, dust, or moisture.

### 4.2 Wiring

1. **Power Supply:** Connect a stable 24VDC power supply to the designated power terminals. Ensure the power supply can provide at least 400mA. Use wires of 2mm² or larger to minimize voltage drop.
2. **Input Devices:** Connect sensors, switches, and other input devices to the 'X' terminals according to your application's wiring diagram.
3. **Output Devices:** Connect actuators, relays, and other output devices to the 'Y' terminals. Ensure the output current does not exceed the specified limits for each output.
4. **Grounding:** Properly ground the PLC and the control cabinet to ensure safety and reduce electrical noise.

*Note: Refer to the specific wiring diagrams provided with your application or system for detailed connection instructions.*

## 5. Operating Instructions

### 5.1 Powering On

After completing all wiring and ensuring connections are secure, apply power to the PLC. The PWR indicator should illuminate.

### 5.2 Program Upload/Download

Connect the PLC to a computer using the appropriate programming cable and software (e.g., XINJE programming software). Follow the software instructions to upload your control program to the PLC or download an existing program for modification.

### 5.3 Running the Program

Once the program is successfully transferred, switch the PLC to RUN mode (if applicable, via software or a physical switch). The RUN indicator should illuminate, and the PLC will begin executing the loaded program. Monitor the ERR indicator for any fault conditions.

## 6. Maintenance

- **Regular Inspection:** Periodically inspect the PLC and its wiring for any signs of damage, loose connections, or corrosion.
- **Cleaning:** Keep the PLC free from dust and debris. Use a soft, dry cloth for cleaning. Do not use liquid cleaners.
- **Environmental Control:** Ensure the operating environment remains within the specified temperature and humidity ranges.
- **Firmware Updates:** Check the manufacturer's website for any available firmware updates that may improve performance or address issues.

## 7. Troubleshooting

| Problem | Possible Cause | Solution |
|---|---|---|
| PLC does not power on (PWR indicator off) | No power supply, incorrect voltage, loose connection. | Check 24VDC power supply, verify wiring, ensure connections are secure. |
| ERR indicator is on | Internal fault, programming error, hardware issue. | Check programming software for error codes, review program logic, contact support if persistent. |
| Outputs not activating | Program logic error, faulty output device, incorrect wiring. | Verify program logic, test output device independently, check output wiring. |
| Inputs not responding | Faulty input device, incorrect wiring, program logic error. | Test input device, check input wiring, verify program logic. |

## 8. Specifications

| Parameter | Value |
|---|---|

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|---|---|
| Model Number | XC2-32RT-E |
| Manufacturer | XINJE (Brand: DAVITU) |
| Power Supply | 24VDC ±10% |
| Sensor Power Output | 24VDC, Max 400mA |
| Maximum Power Consumption | 12W |
| Input Type | Digital Inputs (specific count not provided, implied by '32' in model) |
| Output Type | Relay Outputs (implied by 'RT' in model) |

## 9. Warranty and Support

The XINJE XC2-32RT-E PLC Controller comes with a product guarantee card, indicating it has passed quality inspection. For specific warranty terms and conditions, please refer to the documentation included with your purchase or contact your supplier.
For technical support, programming assistance, or service inquiries, please contact the DAVITU customer support or XINJE technical support channels.