

[Manuals.plus](#) /

› [CKLICS](#) /

› CKLICS PLC FX3U-32MR/ES-A Instruction Manual

CKLICS FX3U-32MR/ES-A

CKLICS PLC FX3U-32MR/ES-A Instruction Manual

PROGRAMMABLE LOGIC CONTROLLER (16 INPUTS, 16 OUTPUTS)

1. Introduction

This manual provides essential information for the safe and efficient operation of your CKLICS FX3U-32MR/ES-A Programmable Logic Controller. This device is designed for industrial automation applications, offering reliable control over various processes. Please read this manual thoroughly before installation and use, and keep it for future reference.



Figure 1: CKLICS FX3U-32MR/ES-A PLC unit. This image shows the compact design of the programmable logic controller, partially visible with its packaging.

2. Product Overview

The FX3U-32MR/ES-A is a high-performance programmable logic controller featuring 16 digital inputs and 16 relay outputs. It is designed for robust operation in various industrial environments, providing precise control and monitoring capabilities. Key components include input/output terminals, status indicators, and a RUN/STOP switch.



Figure 2: Front panel of the FX3U-32MR/ES-A PLC. This image displays the front panel, highlighting the input (IN) and output (OUT) status indicators (0-17), along with POWER, RUN, BATT, and ERROR indicators. The 'RUN' and 'STOP' switch is also visible on the left side.

3. Safety Information

Adherence to safety guidelines is crucial for preventing injury and equipment damage. Please observe the following:

- **Electrical Hazard:** Always disconnect all power sources to the PLC and connected devices before performing any installation, wiring, or maintenance. Failure to do so can result in electric shock or severe injury.
- **Qualified Personnel:** Installation, wiring, programming, and maintenance should only be performed by qualified and trained personnel familiar with industrial control systems and electrical safety procedures.
- **Proper Grounding:** Ensure the PLC is properly grounded according to local and national electrical codes to prevent electrical hazards and ensure stable operation.
- **Environmental Conditions:** Operate the PLC within the specified environmental conditions (temperature, humidity) to ensure optimal performance and longevity. Avoid exposure to excessive dust, moisture, or corrosive gases.
- **Load Capacity:** Do not exceed the specified current and voltage ratings for inputs and outputs. Overloading can damage the PLC and connected equipment.

4. Setup and Installation

4.1 Mounting

The FX3U-32MR/ES-A PLC is typically mounted on a DIN rail or directly to a panel within an electrical enclosure. Ensure adequate ventilation around the unit to prevent overheating. Secure the PLC firmly to prevent vibration or accidental

dislodgement.

4.2 Wiring

All wiring should be performed with the power disconnected. Use appropriate wire gauges for power, input, and output connections. Refer to the terminal markings on the PLC for correct connections.

- **Power Supply:** Connect the AC 100-240V power supply to the designated power terminals (L, N, and Ground).
- **Inputs (X0-X17):** Connect your sensors, switches, and other input devices to the 16 digital input terminals. Ensure correct polarity for DC inputs.
- **Outputs (Y0-Y17):** Connect your actuators, relays, indicator lights, and other output devices to the 16 relay output terminals. Observe the maximum current rating per output and for the common terminal.
- **Communication Ports:** If applicable, connect programming cables or communication modules to the designated ports for programming and data exchange.



Figure 3: Wiring terminals of the FX3U-32MR/ES-A PLC. This image illustrates the top section of the PLC, clearly showing the screw terminals for power, digital inputs, and digital outputs, essential for connecting external devices.

5. Operating Instructions

5.1 Powering On/Off

After completing all wiring and safety checks, apply power to the PLC. The 'POWER' indicator on the front panel should illuminate. To power off, disconnect the main power supply.

5.2 Programming

The FX3U-32MR/ES-A PLC is programmed using compatible programming software (e.g., GX Works2 or GX Developer). Connect your computer to the PLC via the programming port. Develop your ladder logic or structured text program, then download it to the PLC. Refer to the software's documentation for detailed programming instructions.

5.3 Indicator Lights

- **POWER:** Illuminates when the PLC is receiving power.
- **RUN:** Illuminates when the PLC is in RUN mode and executing the program.
- **BATT:** Indicates the status of the internal battery (if equipped). A lit 'BATT' light may indicate a low battery.
- **ERROR:** Illuminates when a system error or program error occurs. Consult the programming software for error details.
- **IN (X0-X17):** Individual indicators light up when the corresponding input is active.
- **OUT (Y0-Y17):** Individual indicators light up when the corresponding output is active.

5.4 RUN/STOP Switch

This switch allows you to manually change the PLC's operating mode between RUN (program execution) and STOP (program halted). Always switch to STOP mode before downloading a new program or performing maintenance.

6. Maintenance

Regular maintenance ensures the longevity and reliable operation of your PLC.

- **Cleaning:** Periodically clean the PLC and its enclosure to remove dust and debris. Use a soft, dry cloth. Do not use solvents or abrasive cleaners.
- **Battery Replacement:** If the 'BATT' indicator illuminates, replace the internal battery (if present) as soon as possible to prevent loss of program or data during power outages. Refer to the specific battery replacement procedure for the FX3U series.
- **Connection Inspection:** Regularly check all wiring connections for tightness and signs of corrosion or damage. Loose connections can lead to intermittent operation or system failures.
- **Environmental Check:** Ensure the operating environment remains within specified temperature and humidity ranges.

7. Troubleshooting

This section provides solutions to common issues. For more complex problems, consult the programming software's diagnostic tools or contact technical support.

Problem	Possible Cause	Solution
PLC does not power on.	No power supply; incorrect wiring; blown fuse.	Check power source, verify wiring, inspect fuses.
'ERROR' indicator is lit.	System error; program error; hardware fault.	Connect to programming software to read error codes and diagnose.
Inputs not responding.	Sensor malfunction; incorrect input wiring; program logic error.	Verify sensor operation, check input wiring, review program logic.
Outputs not activating.	Load malfunction; incorrect output wiring; program logic error; overloaded output.	Check load device, verify output wiring, review program logic, ensure output current limits are not exceeded.
'BATT' indicator is lit.	Low internal battery.	Replace the internal battery as soon as possible.

8. Specifications

Feature	Detail
Model	FX3U-32MR/ES-A
Brand	CKLICS
Inputs	16 Digital Inputs
Outputs	16 Relay Outputs
Power Supply	AC 100-240V (typical for ES-A models)
Item Weight	4.41 pounds (2000 Grams)
Material	Copper (internal components)
ASIN	B0BX4ZZCFK

9. Warranty and Support

For warranty information, please refer to the documentation provided at the time of purchase or contact your vendor. For technical assistance, troubleshooting beyond this manual, or inquiries regarding your CKLICS FX3U-32MR/ES-A PLC, please contact CKLICS customer service or your authorized distributor.

© 2023 CKLICS. All rights reserved.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question