

DUQTMBDT AC03

DUQTMBDT IL-NT-PRAMAC AC03 Generator Controller User Manual

Model: AC03

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the DUQTMBDT IL-NT-PRAMAC AC03 Controller. This genuine ATS (Automatic Transfer Switch) display module is designed for robust generator protection and control applications. Please read this manual thoroughly before attempting any installation or operation to ensure safe and efficient use of the device.

2. SAFETY INFORMATION

- Always disconnect power before installing or servicing the controller to prevent electric shock.
- Installation and wiring should only be performed by qualified personnel in accordance with local electrical codes and regulations.
- Ensure proper grounding of the generator and controller.
- Do not operate the controller in environments exceeding its specified temperature and humidity limits.
- Refer to the generator's manual for additional safety precautions.
- Use appropriate personal protective equipment (PPE) during installation and maintenance.

3. PRODUCT OVERVIEW

The IL-NT-PRAMAC AC03 is an advanced digital control system designed for comprehensive management and protection of generators. It features an intuitive display and control buttons for easy operation and monitoring.



Figure 3.1: Front View of ACO3 Controller. This image displays the front panel of the ACO3 controller, featuring the LCD screen, control buttons (MODE, START, STOP, FUEL PUMP, FAULT RESET, PAGE, and navigation arrows), and indicator lights. The PRAMAC logo is visible in the upper right corner.



Figure 3.2: Angled Front View. An angled perspective of the ACO3 controller, highlighting the ergonomic layout of the control panel and the "ADVANCED DIGITAL CONTROL SYSTEM" label at the bottom.

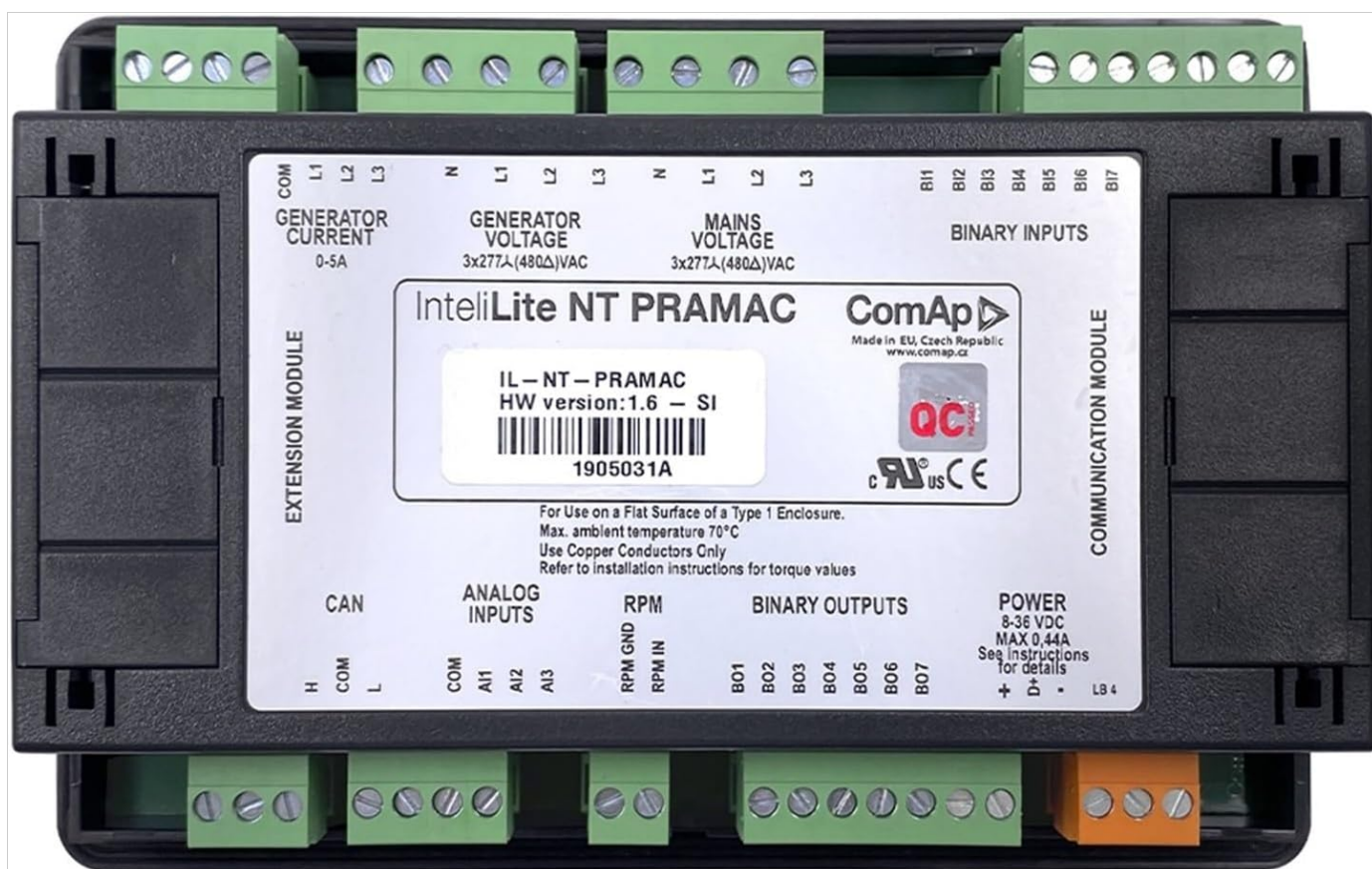


Figure 3.3: Rear View with Wiring Terminals. This image shows the rear of the AC03 controller, detailing the various wiring terminals for generator current, generator voltage, mains voltage, binary inputs, analog inputs, binary outputs, and power. The label indicates "IntelliLite NT PRAMAC ComAp" and "HW version: 1.6 - SI" with a part number [1905031A](#), suggesting compatibility with ComAp systems.



Figure 3.4: Alternative Angled Front View. Another angled view of the controller, providing a clear perspective of the overall design and button layout.

4. SETUP AND INSTALLATION

Proper installation is crucial for the reliable operation of the AC03 controller. Refer to the wiring diagrams and terminal descriptions provided on the rear of the unit and in supplementary documentation.

4.1 Mounting

- Mount the controller on a flat surface within a Type 1 enclosure to protect it from environmental factors.
- Ensure adequate ventilation around the unit to prevent overheating.
- Avoid mounting near strong electromagnetic fields or sources of vibration.

4.2 Electrical Connections

- **Power Supply:** Connect the power supply (8-36 VDC, max 0.44A) to the designated terminals. Observe polarity.
- **Generator Voltage/Current:** Connect the generator voltage and current transformers (CTs) to the respective terminals (L1, L2, L3 for voltage; 0-5A for current).
- **Mains Voltage:** Connect the mains voltage inputs (L1, L2, L3) as per the system requirements.
- **Binary Inputs:** Connect external switches or sensors to the binary input terminals (BI1-BI7).

- **Analog Inputs:** Connect analog sensors (e.g., for RPM) to the analog input terminals (AI1-AI3).
- **Binary Outputs:** Connect control relays or actuators to the binary output terminals (BO1-BO7).
- **CAN Bus:** If applicable, connect to a CAN bus network for communication.
- Refer to the detailed wiring diagram for specific terminal assignments and torque values for connections. Use copper conductors only.

5. OPERATING INSTRUCTIONS

The AC03 controller provides various modes of operation and monitoring capabilities through its front panel interface.

5.1 Control Buttons

- **MODE:** Used to cycle through different operating modes (e.g., Manual, Auto, Test).
- **START (Green):** Initiates the generator start sequence in Manual mode.
- **STOP (Red):** Initiates the generator stop sequence or clears alarms.
- **FUEL PUMP:** Manually controls the fuel pump.
- **FAULT RESET:** Resets active fault conditions after the cause has been addressed.
- **PAGE:** Navigates through different display screens to view parameters and status.
- **Up/Down Arrows:** Used for navigating menus and adjusting settings.
- **Enter/Confirm (Right Arrow with bend):** Confirms selections or enters sub-menus.

5.2 Display Navigation

Use the **PAGE** button to cycle through various information screens, such as generator voltage, current, frequency, engine parameters, and alarm logs. The **Up** and **Down** arrow buttons allow for scrolling within a screen or adjusting values in settings menus. The **Enter** button (right arrow with bend) is used to confirm selections or access detailed information.

5.3 Operating Modes

- **Manual Mode:** Allows direct control of the generator (start/stop) via the front panel buttons.
- **Auto Mode:** The controller automatically starts and stops the generator based on configured parameters (e.g., mains failure, scheduled run times).
- **Test Mode:** For testing the generator and ATS functionality without affecting the load.

6. MAINTENANCE

Regular maintenance ensures the longevity and reliable performance of your AC03 controller.

- **Cleaning:** Keep the controller's display and buttons clean using a soft, dry cloth. Avoid abrasive cleaners or solvents.
- **Connections:** Periodically check all wiring connections for tightness and signs of corrosion. Loose connections can lead to intermittent operation or faults.
- **Firmware Updates:** Consult the manufacturer's website or authorized service centers for information on available firmware updates.
- **Environmental Check:** Ensure the operating environment remains within specified temperature and humidity ranges.

7. TROUBLESHOOTING

This section provides guidance on common issues you might encounter with the AC03 controller.

Problem	Possible Cause	Solution
Controller display is blank.	No power supply; Blown fuse; Loose connection.	Check power input (8-36 VDC). Verify fuse integrity. Inspect power supply wiring.
Generator fails to start.	Low fuel; Low battery; Emergency stop active; Fault condition.	Check fuel level. Verify battery voltage. Ensure emergency stop is disengaged. Check display for active fault codes and reset if necessary.
Fault alarm active.	Engine overspeed/underspeed; High engine temperature; Low oil pressure; Generator over/under voltage.	Identify the specific fault code on the display. Address the underlying issue (e.g., check coolant, oil level). Press FAULT RESET after resolving the problem.
Incorrect readings on display.	Incorrect sensor calibration; Loose sensor wiring; Faulty sensor.	Verify sensor connections. Check calibration settings. Replace faulty sensors if necessary.

For issues not listed here or if troubleshooting steps do not resolve the problem, contact qualified service personnel.

8. SPECIFICATIONS

Parameter	Value
Brand	DUQTMBDT
Model	AC03
Item Weight	1.76 ounces
Package Dimensions	1.18 x 0.79 x 0.39 inches
Power Supply	8-36 VDC, Max 0.44A
Generator Voltage Input	3x277A (480Δ) VAC
Generator Current Input	0-5A
Mains Voltage Input	3x277A (480Δ) VAC
Max. Ambient Temperature	70°C
ASIN	B0F47C731T
Date First Available	April 9, 2025

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your purchase or contact the vendor directly. Technical support may be available through the manufacturer or authorized distributors. Keep your purchase receipt and product model number (AC03) handy when seeking support.

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

Answered questions about this manual

Why does my DUQTMBDT AC03 generator controller stop cranking after one second without the engine running?

Based on the DUQTMBDT AC03 manual, if your generator cranks for only one second and then stops without starting, it is likely due to a safety shutdown or a failure to meet starting conditions....

[Read full answer](#)