

## PNI Finger 300

# PNI Finger 300 Biometric Access Control System User Manual

Model: Finger 300

## 1. INTRODUCTION

The PNI Finger 300 is a robust biometric access control system designed for secure entry management. It integrates fingerprint recognition, password entry, and electromagnetic card reading capabilities to provide flexible and reliable access solutions. This manual provides essential information for the proper installation, operation, and maintenance of your device.

## 2. PRODUCT FEATURES

- **Fingerprint Reader:** Supports up to 3000 fingerprint templates for secure biometric identification.
- **RFID Card Access:** Compatible with RFID cards, supporting memory for up to 30000 cards.
- **Password Entry:** Allows access using a numerical password.
- **Access Control System Connection:** Designed for integration with electromagnetic locks and access buttons.
- **Communication Interfaces:** Features TCP/IP and RS485 for system integration.
- **Durable Design:** IP65 protection class for enhanced durability.

## 3. PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- PNI Finger 300 Identification Unit
- Mounting Accessories (screws, wall plugs)
- Wiring Harness
- Proximity Card (for testing/initial setup)



Image 3.1: PNI Finger 300 components including the main unit, mounting plate, wiring harness, and an RFID card.

## 4. PRODUCT OVERVIEW

### 4.1 Front Panel



*Image 4.1: Front view of the PNI Finger 300 showing the keypad, fingerprint scanner, and status indicators.*

The front panel features a numerical keypad for password entry, a fingerprint scanner for biometric identification, and LED indicators for status feedback (e.g., access granted/denied, power status).

## **4.2 Rear Panel and Wiring**



Image 4.2: Rear view of the PNI Finger 300 with wiring connections and product labels.

The rear panel contains the wiring terminals for power, lock control, alarm, and communication interfaces. Refer to the detailed wiring diagram in Section 5.2 for connection instructions.

## 5. SETUP AND INSTALLATION

### 5.1 Mounting the Device

1. Choose a suitable location for installation, ensuring it is secure and protected from extreme weather conditions if outdoors.
2. Use the provided mounting plate as a template to mark drilling points on the wall.
3. Drill holes and insert wall plugs.
4. Secure the mounting plate to the wall using screws.
5. Attach the PNI Finger 300 unit to the mounting plate.

### 5.2 Wiring Diagram and Connections

Carefully connect the wires according to the diagram on the rear panel and the following descriptions:

Wire Color	Function	Description
Red	+12V	Positive power supply input (12V DC)
Black	GND	Ground connection
Green	WDO	Wiegand Data Output 0
White	WDI	Wiegand Data Input 1
Blue	NO	Normally Open contact for lock control
Gray	COM	Common contact for lock control
Orange	AL+	Alarm positive output
Yellow	AL-	Alarm negative output
Purple	RS485	RS485 communication line
Brown	RS485+	RS485 communication line

Ensure all connections are secure and correctly matched to avoid damage to the device or connected systems. Power should only be applied after all wiring is complete.

## 6. OPERATING INSTRUCTIONS

### 6.1 Initial Power-Up and Admin Setup

Upon first power-up, the system will typically be in an uninitialized state. Follow the manufacturer's specific instructions (usually involving a default admin password or a master card) to enter programming mode and set up the initial administrator.

### 6.2 User Registration

To register new users, the system must be in programming mode (accessed by the administrator).

- **Fingerprint Registration:** Place the user's finger on the scanner multiple times as prompted until the fingerprint is successfully enrolled.
- **Card Registration:** Present the RFID card to the reader when prompted.
- **Password Registration:** Enter the desired numerical password using the keypad and confirm.

### 6.3 Accessing the System

Once users are registered, they can gain access using their assigned method:

- **Fingerprint:** Place a registered finger on the scanner.
- **Card:** Present a registered RFID card to the reader.
- **Password:** Enter the registered password using the keypad, followed by the '#' key (or as specified by system configuration).

A successful access attempt will typically be indicated by a green LED and an audible signal, followed by the unlocking of the connected door.

## 7. MAINTENANCE

- **Cleaning:** Regularly clean the fingerprint scanner and keypad with a soft, dry cloth. Avoid abrasive cleaners or solvents.

- **Environmental Protection:** Ensure the device is protected from direct water exposure and extreme temperatures, even with its IP65 rating, to prolong its lifespan.
- **Firmware Updates:** Check the PNI website periodically for any available firmware updates to ensure optimal performance and security.

## 8. TROUBLESHOOTING

- **Device Not Powering On:** Verify the 12V DC power supply connection and ensure the power source is active. Check wiring for shorts or disconnections.
- **Access Denied (Registered User):** Ensure the fingerprint is placed correctly on the scanner, the card is presented properly, or the password is entered accurately. Re-enroll the user if issues persist.
- **Door Not Unlocking:** Check the wiring to the electromagnetic lock. Ensure the lock itself is functioning correctly and receiving power. Verify the system's lock release settings.
- **Keypad Unresponsive:** Check for physical damage or debris. If the issue persists, a system reset or professional inspection may be required.

## 9. SPECIFICATIONS

Feature	Specification
Brand	PNI
Model Number	Finger 300
Fingerprint Memory	3000 templates
Card Memory	30000 cards
Communications	TCP/IP, RS485
Power Supply	12V/3A
Operating Temperature	-25 °C to +55 °C
Dimensions	83 x 127.5 x 74 mm (3.27 x 5 x 2.91 inches)
Protection Class	IP65
Item Weight	1.5 pounds

## 10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the official PNI website or contact your authorized dealer. You can also visit the [PNI Store on Amazon](#) for additional product information and support resources.