



Frequently Asked Question

Fingerprint attendance device N-X990

By : Biomax

❖ General Overview

- **Model:** Biomax N-X990
- **Type:** Multi-biometric device (Face, Fingerprint, Card, PIN)
- **Use Case:** Ideal for offices, factories, schools, and construction sites

❖ Key Features

- **User Capacity:** 10,000 users
- **Fingerprint Capacity:** 10,000
- **Card Capacity:** 10,000
- **Log Capacity:** 150,000
- **Authentication Modes:** Face, Fingerprint, RFID Card, PIN
- **Display:** 3" or 3.5" TFT color screen
- **Operating System:** Linux-based
- **Voice Guidance:** 16-bit Hi-Fi voice prompts

❖ Connectivity & Communication

- **Wi-Fi:** Yes
- **LAN (TCP/IP):** Yes
- **USB:** Host & Client
- **RS232/485:** Supported
- **4G GPRS:** Optional
- **Push Data:** Supported

❖ Access Control

- **Wiegand Input/Output:** Yes
- **Relay Output:** Yes
- **Anti-Passback:** Supported
- **Time Zone Assignment:** Yes
- **Multiple Admin Roles:** Configurable

❖ Power & Environment

- **Battery Backup:** Optional (Inbuilt or External)
- **Power Supply:** 12V DC / 2A
- **Operating Temperature:** 0°C to 50°C
- **Dimensions:** Approx. 215 x 160 x 45 mm

❖ Special Capabilities

- Accepts **rough, dry, or colored fingers** (e.g., mehndi)
- **Function Shortcut Keys** for quick access
- **Work Code** entry directly on the device
- **Desktop, Web, and Cloud software** support

❖ Common Questions

Question	Answer
Is it returnable?	No, typically non-returnable
Does it support EMI?	Yes, EMI options available starting around ₹485/month
Can it work without power?	Yes, with optional battery backup
Does it support GPS?	Optional GPS integration available

Q: CAN YOU EXPLAIN BIOMETRIC ACCURACY?

❖ Key Accuracy Metrics

Metric	What It Measures	Ideal Outcome
FAR (False Acceptance Rate)	How often unauthorized users are wrongly accepted	As low as possible
FRR (False Rejection Rate)	How often legitimate users are wrongly rejected	As low as possible
EER (Equal Error Rate)	The point where FAR and FRR are equal	Lower EER = better overall accuracy
TAR (True Acceptance Rate)	Correctly accepted legitimate users	As high as possible

❖ How It Works

- **Enrollment:** The system captures and stores a user's biometric data (like a fingerprint).
- **Verification:** Later, it compares a new scan to the stored data.
- **Matching Algorithm:** Determines how similar the new input is to the stored template, using a threshold to decide if it's a match.

❖ Trade-Offs

- **High Security:** A stricter threshold reduces FAR but may increase FRR (more false rejections).
- **High Convenience:** A looser threshold reduces FRR but may increase FAR (more false acceptances).
- **Balance:** Systems aim for a sweet spot—often measured by the **Equal Error Rate**.

❖ Real-World Factors That Affect Accuracy

- **Sensor quality:** Better sensors = clearer data
- **Environmental conditions:** Wet fingers, poor lighting, or dirty sensors can reduce accuracy
- **User behavior:** Inconsistent positioning or movement can lead to mismatches
- **Biometric trait:** Some traits (like iris or fingerprint) are more stable and unique than others (like voice)

❖ Fun Fact

- Fingerprint systems can achieve **accuracy rates above 99%**, but no biometric system is 100% perfect. That's why many systems use **multi-factor authentication**—combining biometrics with PINs or cards for added security.

Q: WHAT INSTALLATION RESOURCES ARE AVAILABLE FOR THE N-X990?

❖ Official Installation Resources

- **[User Manual \(PDF\)](#):** A comprehensive guide covering everything from physical installation to user enrollment, communication settings, and access control configuration.
- **[Product Page](#):** Biomax's official site provides specs, feature highlights, and contact info for demos or support.
- **[Quick Start Guide]:** Often included in the box or available via request from Biomax support, this guide walks you through basic setup steps.

❖ Installation Support & Services

- **Onsite Installation:** Many vendors, like [Weset](#), offer same-day installation and annual maintenance contracts (AMCs).
- **Demo & Training:** Biomax offers demo sessions—just call their support line (e.g., 7227044264) to schedule one.
- **Software Setup:** The device supports desktop, web, and cloud-based software. You can configure it for local or public networks, and manage users remotely.

❖ Key Setup Topics Covered in the Manual

- Standing position and face alignment for facial recognition
 - Finger placement tips for accurate scans
 - Touch screen navigation and shortcut key customization
 - Communication settings (Wi-Fi, LAN, USB, RS232/485)
 - Access control wiring and relay setup
 - Multi-authentication modes (Face + Fingerprint + PIN, etc.)
-

