

FINGERPRINT NOTES

Technical Information

Features	Technical Specification
Image Resolution:	500DPI
False Rejection Rate (FRR):	0.01%
False Acceptance Rate (FAR):	0.0001%
Allowable Fingerprint Rotation:	+/-15degree
Operation Temperature:	-25 to +65 Degrees Celsius
Number of minutiae being taken:	30 to 60 depending on user
Matching Speed:	0.05 second
Scanning Speed:	1.50 second

Introduction

ACTatek™ uses latest Optical Scanning technology with its own algorithms and matching calculations, a step above other sensors in the market.

It must be emphasized that to get an accurate enrollment and quick authentication each time a fingerprint is presented, the fingerprint placement must be towards the center of the scanner. Placing your finger far from the center position of the sensor will increase the rejection rate.

Finger Rotation should be kept to a minimum during enrollment and verification.

When enrolling, place the finger on the sensor where the entire core can clearly be seen by the scanner.

A **good** image is critical for the overall performance of the fingerprint scanner. Any deviation from a good image, either by placing the finger far away from the scanner, or by applying too much pressure or not locating it in the **CENTER** of the scanner, will cause the scanner’s rejection rate to rise. Read below on how to get a good image for your enrollment/authentication.

Good vs Bad Image

A good fingerprint image is one in which the core of the fingerprint is well-defined and easily recognizable. The core of a finger is defined as the “point located within the inner most recurving ridge”. It is normally located in the MIDDLE of the fingerprint. It is therefore critical when enrolling that you place the finger on the scanner where the entire core can clearly be seen.

An example of a good & bad image is displayed as follows:



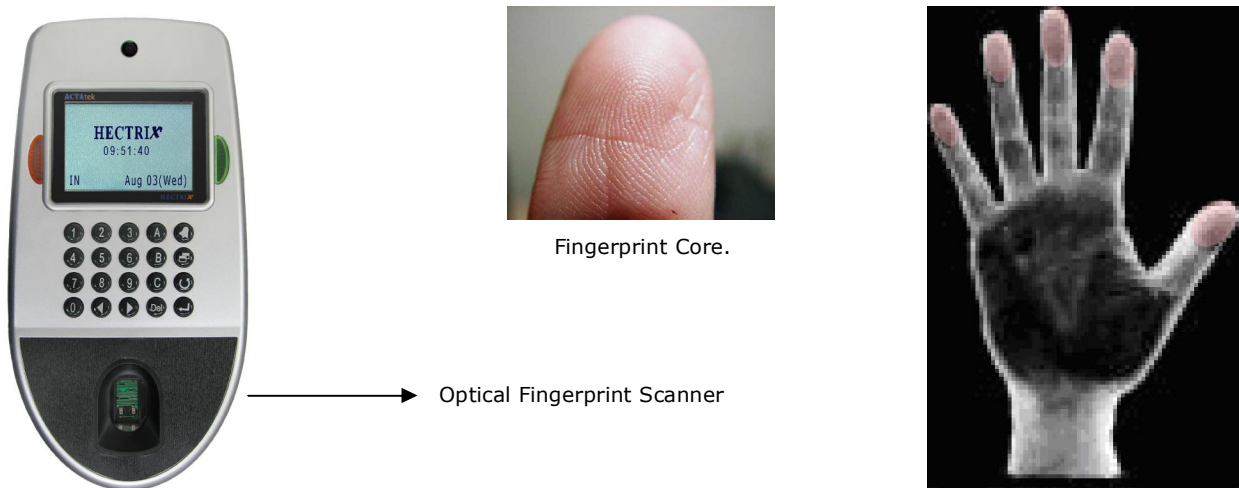
Good Image: A reading where the whole fingerprint core can be seen clearly.



Bad Image: An image where the crackles & displacement of the fingerprint core decries it unrecognizable.

Fingerprint Enrollment & Authentication

In order to receive a successful enrollment and authentication, it is critical that the following be noted carefully. Each successful enrollment will result in a successful authentication and save a lot of time in troubleshooting and erroneous readings.



It is highly recommended for the fingerprint core be big and clear for a successful enrollment of a clear and good image. Make sure the fingerprint image captured is of the core of the finger presented. A fingerprint core is a point located within the innermost recurring ridge of any given finger.

Also, to obtain a higher success rate, enroll the same finger 3 times in a slightly adjusted angle, one to the center, one inclined slightly to the left and the third inclined slightly to the right.

If you follow the following enrollment procedure, the success rate will increase dramatically.

Fingerprint Enrollment:

Step 1: Place the center of any one finger directly above the sensor in the dead center, as shown below:



Step 2: Place the center of the same finger (enrolled in Step 1), slightly aligned to the left.

Step 3: Place the center of the same finger, slightly aligned to the right.

After each placement, wait for the message "Template Stored" on the LCD screen to appear, and then remove your finger and press "Enter/Return" to enroll the second or third finger(s).

If you have any questions regarding the enrollment procedure, e-mail us at support@actatek.com .