

TA-Pro 6 Biometrics Basic Concepts

This section contains definitions and descriptions of fingerprint concepts including:

- User Enrolment
- User Verification
- Match Threshold Levels
- User ID Numbers
- Authority (Status) Levels

User Enrolment

Enrolment is the process of creating an ID number and scanning a user's finger to create a template three times. This template is associated with a user ID number and stored. Up to ten fingers can be enrolled for the same ID number. Ideally, each finger should be enrolled so that if the user injures the enrolled finger and alternative finger template is available.

User Verification

Verification occurs when a user enters an ID number or places a finger on the sensor.

Match Threshold Levels

The match threshold is a number that represents how sensitive is the sensor to the fingerprint.

The match threshold level establishes a balance between False Acceptance Rate (FAR) and False Rejection Rate (FRR). FAR measures how often a non authorised user is falsely recognised and granted access to the system. FRR measures how often an enrolled and authorised user, who should be granted access to the system, is denied on the basis that the system did not recognise him / her.

You can set match threshold levels on a per use basis. For users where verification is difficult, you can adopt ID and Fingerprint verification (match one to one).

Raising the threshold increases security, while lowering it decreases it. The correct balance is essential.

For users with worn or damaged fingers, match threshold levels can (and should) be reduced.

Different sites have different requirements.

		Match Threshold Settings	
FRR	FAR	One-to-many	One-to-one
High	Low	45	25
Middle	Middle	35	15
Low	High	25	10

User ID Numbers

Before beginning fingerprint enrolment, a user is assigned a user ID number. This ID number is used to call up the fingerprint template each time that verification is requested.

Authority (status) Levels

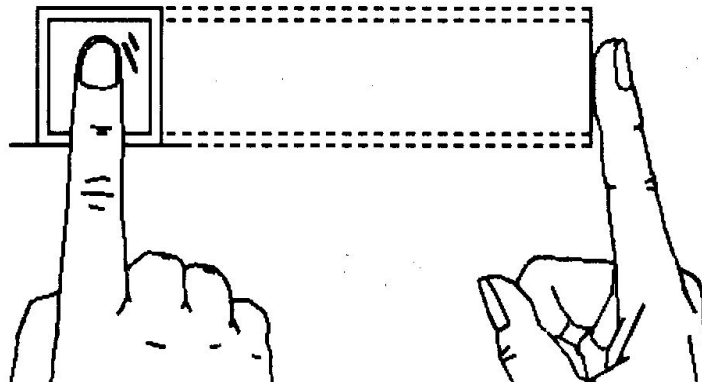
There are 4 authority or status levels:

- Users are people whose identity must be verified to have their attendance recorded.
- Enrollers are users who are authorised to enrol new users or delete them from the system.
- Admin Users are users with the capability to access all functions except set advanced options and enrol manager's authority.
- Supervisors are users with the capability to access all functions and change all the setup of the system.

How to place the finger

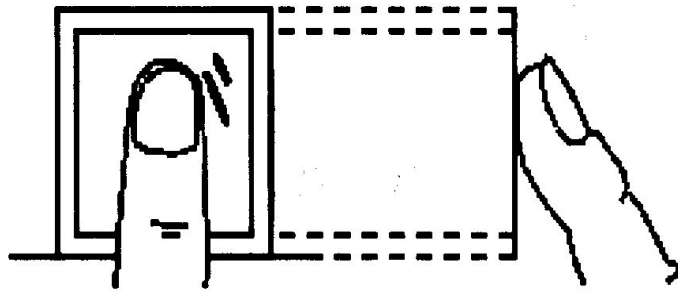
The correct way is:

Place a finger flat on the surface of the sensor.

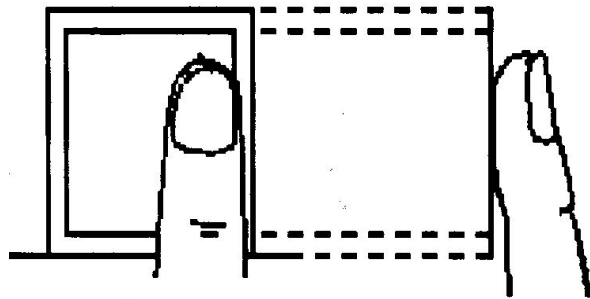


The wrong way is:

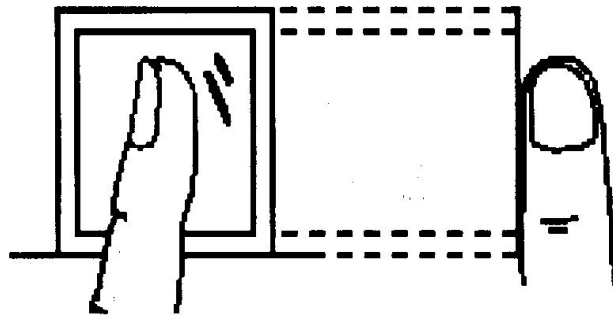
Vertical



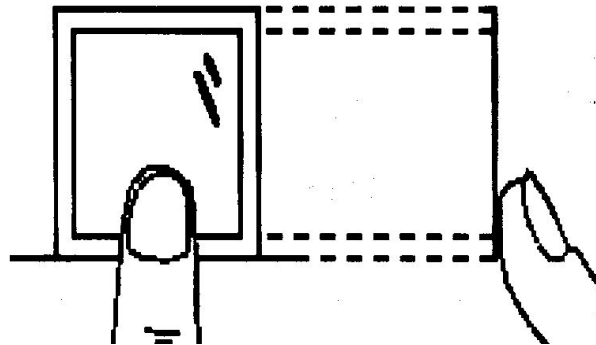
Offset



Inclined



Lower



Note: Please adopt the correct way to place the finger. Neither the manufacturer nor the supplier are responsible for the malfunctioning results arising from improper use.

Enrolment procedures

There are 3 methods of clocking on. Which of these used is dependent on the quality of the fingerprints.

1. Fingerprint only. (For users with good quality Fingerprints.)
2. User ID and Fingerprint. (For users with poor quality Fingerprints.)
3. User ID and Password. (For users with unreadable Fingerprints.)

When the terminal is first supplied all users will have full access to all menus until a Supervisor has been Enrolled.

To Enrol a supervisor

- Enter Menu
- Select User Manager
- Select Enrol Admin
- Select Enrol FP
 - Use Up & Down arrows to select Admin Accredited:
 - Supervisor - Full Access to terminal.
 - Enroller - Can only enrol other users.
 - Admin - Has access to basic options such as setting the Date & Time.
- Select OK to enrol New User. Select Esc and enter User Id of existing user.
- Follow on screen instructions to enrol the fingerprint.
- Press OK to Save.
- To Enrol another User press OK; Press Esc to stop enrolling.
- If you wish to enrol another finger for the same User press OK and follow prompts.
- If you do not wish to enrol another finger for the same User press Esc.

To Enrol a New User

- Enter Menu
- Select User Manage
- Select Enrol User
- Select Enrol FP
- If prompted for new Enrol press OK
- Enter User ID
- Press OK to enrol New User
- Place finger on sensor and follow the instructions displayed on the terminal.
- Press OK to Save.
- To Enrol another User press OK; Press Esc to stop enrolling.
- If you wish to enrol another finger for the same User press OK and follow prompts.
- If you do not wish to enrol another finger for the same User press Esc.

Password Enrolment

- Enter Menu
- Select User Manage
- Select Enrol User
- Select Enrol Pwd
- If prompted for new Enrol press OK
- Enter User ID
- Press OK to enrol New User
- Input Password (This can be up to 5 digits)
- Input Password again
- Press OK to Save.
- To Enrol another User press OK; Press Esc to stop enrolling.
- If you wish to enrol another finger for the same User press OK and follow prompts.
- If you do not wish to enrol another finger for the same User press Esc.

Fingerprint and Password Enrolment

- Enter Menu
- Select User Manage
- Select Enrol User
- Select FP & Pwd
- If prompted for new Enrol press OK
- Enter User ID
- Press OK to enrol New User
- Place finger on sensor and follow the instructions displayed on the terminal.
- Input Password (This can be up to 5 digits)
- Input Password again
- Press OK to Save.
- To Enrol another User press OK; Press Esc to stop enrolling.
- If you wish to enrol another finger for the same User press OK and follow prompts.
- If you do not wish to enrol another finger for the same User press Esc.