



# USER GUIDE FOR FINGERPRINT ENROLLMENT

This guide refers to terminal TS 3807 equipped with an optical Fingerprint sensor

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## **1 Introduction to the fingerprint solution**

A fingerprint sensor is integrated with the time terminal. The fingerprint sensor is used for enrolling user's fingerprints, storing fingerprint templates and for identifying users.

No images of the fingerprints are stored. Instead, a data model (a set of data points) of the fingerprint, called a fingerprint template, is stored locally on the fingerprint sensor in the terminal.

## **2. Operating modes**

The fingerprint sensor has two main operating modes; Identify mode and Enrol mode.

Identify mode is the normal mode which also is entered automatically after start-up of the terminal.

How to enter Enrol mode is described below. It is important to note that a short time after the enrolment process has been completed, the fingerprint sensor automatically changes to Identify mode.

## **3. Identification mode**

Identify mode is the normal mode of the terminal. It means that the fingerprint sensor is ready to scan any finger index that is placed on the fingerprint sensor.

The scan starts automatically when a finger has been detected by the sensor. The scanned fingerprint will be compared with all stored fingerprint templates on the fingerprint sensor. If a matching template is found the Global ID value for the user will be sent to the application running in the terminal. The Global ID value is a unique identifier for the user that the Time & Attendance (T&A) system is aware of. As an example, there are T&A systems that may use the users Badge number as Global ID value.

#### 4. Enrol mode.

All users who shall use the fingerprint sensor on a terminal must be enrolled on the local terminal. To enter Enrol mode:

- a) Log in as Admin on the Time and Attendance application running in the terminal.
- b) Depending on the Time and Attendance app used, select the User to be enrolled if applicable.
- c) Select “Manage fingerprint” which will open the Manage Fingerprint View.

#### 5. Manage Fingerprint View

In this view it is possible to enrol new users, delete users fingerprint templates and to test identification of a finger which will tell if the scanned finger is linked to an enrolled user.

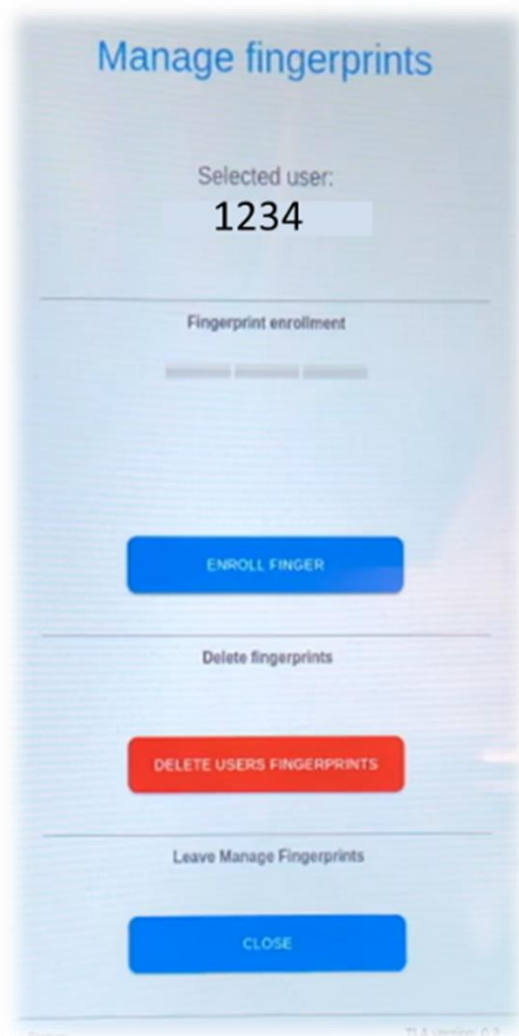
How a user’s Global ID-value is entered depends on the implementation. Either it can be done from a scroll list before entering the Manage Fingerprint View or by using a virtual keypad.

##### 5.1 Identify Mode in Manage Fingerprint View.

It is possible to identify a finger after entering Manage Fingerprint view.

When finding a match, the light indicator above the fingerprint sensor will turn green and the linked GlobalID (or badge number) will be shown on the touch screen.

If there is no match the light indicator will turn red.



## 5.2 Delete users' fingerprint templates

Templates for a user can be deleted by first entering the users Global ID-value and then pressing the Delete button.

In the footer it will first say "Delete requested" and after a while "Delete performed" when the deletion has been completed. **Note** that all Fingerprint templates for the user will be deleted.

## 5.3 Enrol Mode in Manage Fingerprint View.

A new user/finger is enrolled by the following steps:

a) **Global ID value**

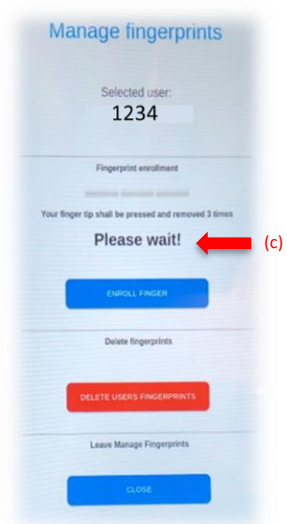
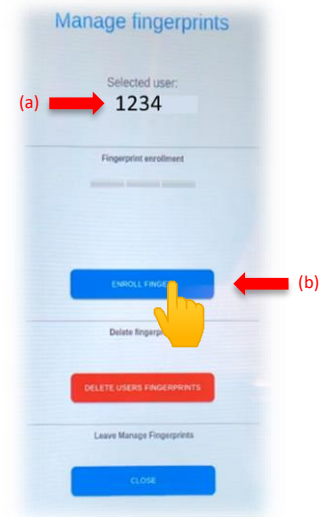
Double-check that the Global ID-value is correct.

b) **Start enrollment process**

Start the enrollment process by clicking "Enroll Finger"-button.

c) **First scan**

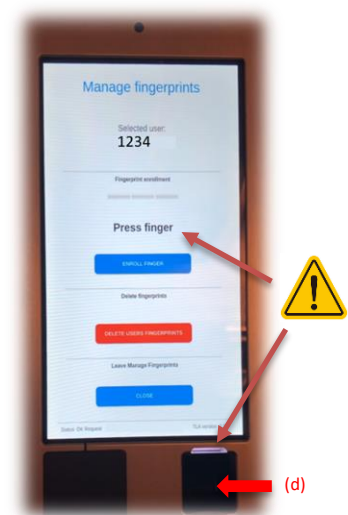
Wait until the message "Please wait" changes to "Press finger". The light indicator is solid white.



d) **Press finger first time**

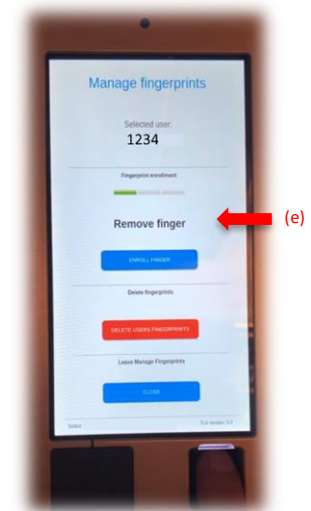
When the message says, “Press finger” and the light indicator is solid white **press the finger firmly** down on the glass surface of the fingerprint sensor.

Try to cover as large area of the glass surface as possible. The fingerprint sensor will blink during the scan.



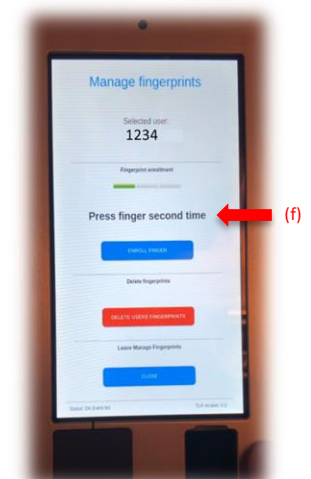
e) **Remove finger first time**

Keep pressing the finger firmly until message says, “Remove finger”. Remove the finger away from the fingerprint sensor so the finger is no longer on, above or inside the fingerprint sensor area.

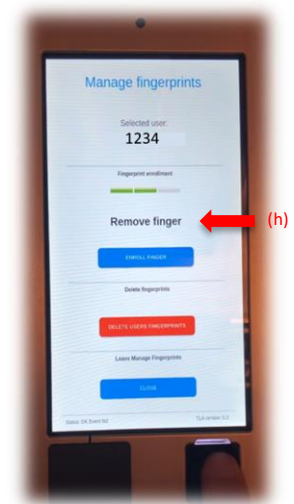


f) **Second scan**

Wait until the message appears “Press finger second time”.



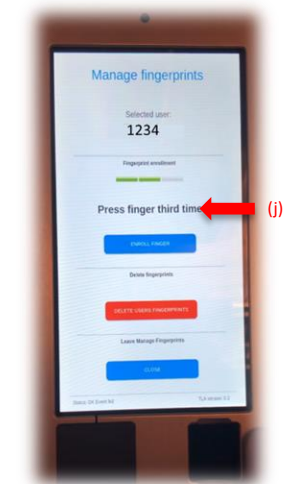
- g) **Second scan finger press**  
Now firmly press down the same finger on the glass surface to repeat step (d) above.



- h) **Remove finger second time**  
When “Remove finger” is shown move the finger away from fingerprint sensor for a second time to repeat step (e) above.

- i) **Third scan**  
Wait for the message “Press finger third time”.

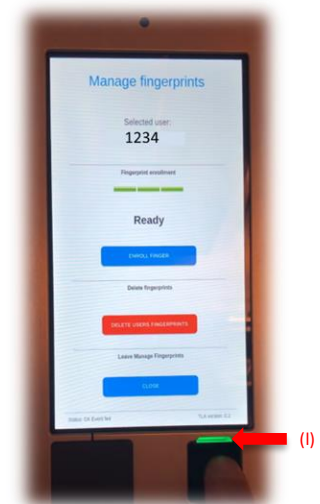
- j) **Press finger third time**  
Press finger firmly for a third time down on the glass surface again to repeat step (d) and (g) above.



- k) **Remove finger third time**  
When UI “Remove finger third time” is shown, move the finger away from the fingerprint sensor as described in steps (e) and (h) above.

- l) **Successful enrolment**  
A successful enrolment sequence is always confirmed by a solid green light indicator.

- m) An unsuccessful enrolment sequence is indicated by a solid red-light indicator.



## 6. Examples of reasons for an unsuccessful enrolment

- a) The finger has already been enrolled on the fingerprint module.
- b) The finger was pressed too softly.
- c) The finger was not pressed in the same way during the three enrolment steps.
- d) The finger covered a too small area of the fingerprint sensor during the enrolment steps.

## 7. Recommendations

NOTE 1: Never start the enrolment process without a solid white light indication from the fingerprint sensor. See item 5.3 (d) above.

NOTE 2: The light indicator should not turn red during the enrolment process. If it does turn red just cancel the enrolment process by waiting for the sequence to end itself.

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## Frequently asked questions

### **Are fingerprints sent to a cloud-server?**

No. The fingerprint templates are only stored locally.

### **How many fingers can be enrolled by a user?**

Up to ten finger indexes are possible to enrol.

### **Is an image of the fingerprint stored?**

No. Only a dataset of points of the fingerprint is stored as a fingerprint template.