

# Model: G6-Series Time Clock

## • Biometric Management (G6 Only)

Before you can use the Biometric Finger print sensor, you must first enroll user's finger templates.

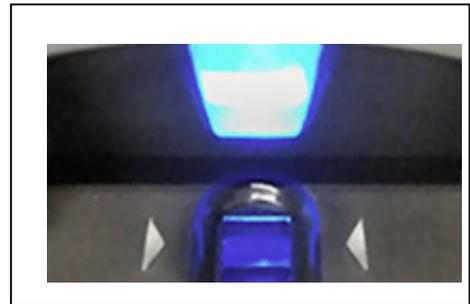
### What fingers to use

- The **best fingers** to use are the “**index**” and “**middle**” finger, either left or right hand, both these fingers have the most reliable quality and content. Note: the sensor is looking for the swirl of the finger, get the user to choose one or two of these fingers for enrolment.
- **Avoid** using the “**thumb**” as the swirl of the fingerprint is typically lower down the thumb, also avoid the “**ring finger**” and “**little finger**” or “**pinky**”.

### Correct Finger Placement

The basics for successful operation of the Biometric sensor are simple but important. System performance improves dramatically with **consistent finger placement**.

The finger guide is shaped to simply align your finger so that your finger print is centred correctly. With the finger not touching the sensor, position the finger so that the finger can be lowered down on the sensor in the valley of the finger guide. **Lower your finger onto the sensor applying moderate pressure.**



### There are three different methods to enter the “Biometric Management” Mode

- Swipe the Enrolment Card through the mag stripe reader.  
or
- Enter via the keypad “99998DDMM” where: DD is the time clocks day e.g. 07 for 7<sup>th</sup> December  
MM is the time clocks month e.g. 12 for December. Example: “999982308” then ENTER if the time clock is showing a date of 23<sup>rd</sup> August. The clock will immediately change mode.  
or
- You can assign enrolment rights to a specific user, this is done once the user has been enrolled. Menu item 1.4 in the Biometric Management menu allows you to assign these rights.

### How to Enrol a user

Use one of the above methods to get the time clock into the “Biometric Management” menu.

- Select menu item 1.1 “Enrol a Users finger print” – press enter
- Swipe the user card or enter the user number via the keypad and press enter. The time clock will display the employee name (if present locally) for a few seconds and you will then be prompted to your primary finger on the sensor. Place the finger on the sensor with a nice / firm pressure.
- Follow the prompts from the time clock, typically the clock will request you to place and remove your finger three times. The number of scans will depend on the quality of the fingerprint.



The time clock will then report the success or failure of the enrolment attempt.

**ENROLLED** - If the quality and content of the scanned fingerprint meet the minimum requirements then the time clock will report a successful enrolment.

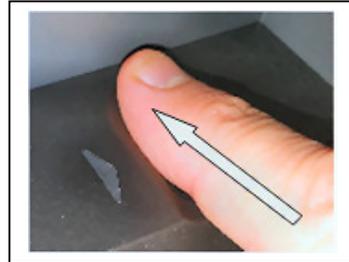
**FAILED** - If the quality or content of the scanned fingerprint fail the predefined minimums then the enrolment will fail, follow the prompts to Enrol again. See Common Mistakes for help.

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## Common Mistakes

The following figures illustrate some common mistakes to avoid.

- **Don't slide the fingertip into place**, this will cause distortion of the fingerprint and will degrade image quality. Keep the fingertip raised while locating the Ridge-Lock, and then lower the fingertip.



- **Don't rotate the finger into position**, this will also cause distortion of the fingerprint, subsequently making verification less reliable.



- **Don't place your finger as if punching a button**, this will not provide adequate information and will degrade system performance. Proper sensor height and angle along with consistent use of the Ridge-Lock deters this behaviour



- **Don't position the finger to one side** leaving a portion of the sensor exposed, this will degrade image quality by preventing the entire core region to be captured. This figure demonstrates the two incorrect ways and the correct way to centre the finger. Placing the finger at an angle to the finger guide, as shown below, is another common mistake. Rotation of the fingertip will not provide a reliable image of the fingerprint.



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## Some Reasons for Common Mistakes

### If the content is low:

Check that the user is using an index or middle finger for the enrolment, typically if the content is low then there is not enough fingerprint covering the sensor. Also check that the user is placing their finger with the swirl centred on the sensor.

### If the content is high but the quality is low:

Check that the user is not pressing too hard against the sensor, if the user is pressing too hard the image will have a lot of content but it will be blurred by the pressure. You can tell if the user is pressing too hard as they will be pressing the blood out of their finger tips.

### If the quality reported is low and the content is high:

Check that the user is pressing hard enough, the pressure applied should be a nice firm pressure without pressing blood from the users finger tips.

Some reasons for poor sampling results are listed below: POSSIBLE REASON	CORRECTION
Finger movement while sampling	Instruct the user to remain still while the device is sampling.
Finger not positioned properly	With the fingertip not touching the sensor, position the finger so that the Ridge-Lock rests comfortably within the first indentation of the finger. Next, lower the finger onto the sensor and apply very moderate pressure.
User might be pressing too hard	Too much pressure on the sensor will blur the fingerprint ridges. Allow the user to apply moderate pressure.
User might not be pressing hard enough	You must apply moderate pressure when enrolling. The fingerprint should lay flat upon the sensor surface.
Finger too moist or wet	If the user washed their hands, but failed to completely dry the finger that is sampled, excessive moisture may cause the sample to be more difficult to obtain. Dry wet or moist fingers before sampling.
Finger too dry	Depending upon the geographical area, the season, and the skin type, their fingerprint might be excessively rough or dry. Excessively dry skin may affect the sample quality. Try applying skin moisturizer a few minutes before enrolling to improve image quality.

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## **I still can't get a successful enrolment?**

Some people do not have sufficient finger print detail or finger print area to obtain an acceptable finger print enrolment.

You can still enrol these people with a PIN verification rather than a Bio-metric verification.

There is another document in the manuals directory of the ClockComms or BundyPlus CD called "G6 Biometric Registration and Sensor Maintenance v1.5.pdf", (the version of this document is 1.5 at the time of writing).

This document details further registration tips and also how to "**Enrol an Employee with PIN verification**".