

# TR3 TimeClock

User Manual

By Digilog Electronics Ltd

July 2007

# Contents

<b>CONTENTS</b> .....	<b>2</b>
<b>DESCRIPTION</b> .....	<b>3</b>
<b>BASIC OPERATION</b> .....	<b>3</b>
SOFT BUTTONS .....	3
EXCEPTION BUTTON .....	4
MAGNETIC CARD READER .....	4
BARCODE SCANNING.....	4
KEYBOARD ENTRY .....	5
FINGERPRINT READER .....	5
FUNCTION CANCEL.....	6
SYSTEM RESET .....	6
<b>MENU SYSTEM</b> .....	<b>7</b>
ENTERING THE MENU .....	7
USING THE MENU .....	7
MENU ITEMS .....	7
1. <i>Time</i> .....	7
2. <i>Date</i> .....	8
3. <i>Relay2 Function</i> .....	8
4. <i>Job Cost</i> .....	8
5. <i>Station Address</i> .....	9
6. <i>Baud Rate</i> .....	9
7. <i>Master Mode</i> .....	9
8. <i>Access Code</i> .....	10
9. <i>Contrast Adjust</i> .....	10
10. <i>Modem Enable/Disable</i> .....	10
11. <i>Configuration Settings</i> .....	11
12. <i>Pin Number</i> .....	13
13. <i>Network Settings</i> .....	14
14. <i>Fingerprint Options</i> .....	15

# Description

The 'TR3 TimeClock' is a wall mounted employee time clock device that records employee start and end times as well as having the capabilities of multi-level job costing. It has 256K bytes of battery backed RAM memory for storing data, job cost tables, employee messages, pin numbers and passwords and a real time clock for time & date stamping each transaction.

It is powered by a 9Vac plug pack and can also have a rechargeable 3.6V NiMH battery module fitted which will give approximately 8 hours of operation.

The 'TR3 TimeClock' has a 192 x 168 pixel back lit LCD display for displaying time and date, error conditions, data entries and menu options.

The 'TR3 TimeClock' can use either RS232/RS485 or TCP/IP connection to download data, update time and date, send lookup tables and record the setup status from a computer.

The multi-level menu system allows various setup configurations which allow the user to configure the functionality of the unit.

The unit also has a built in keypad that can be used to enter employee or job numbers directly or enter the menu system.

The 'TR3 TimeClock' has several options for entering transactions:

1. Magnetic Card Reader.
2. Fingerprint Bio Reader.
3. Keypad.
4. PC/AT keyboard.
5. Barcode Scanner.

The 'TR3 TimeClock' is constructed from 1.5mm powder coated steal plate which makes it very strong and sturdy to handle tuff industrial environments.

## Basic Operation

Once the 'TR3 TimeClock' is mounted and powered on it will display time, date and status information on the LCD screen.

Employee data can be entered at any time by the various methods described below.

### **Soft Buttons**

The 'TR3 TimeClock' has four unmarked buttons on the keypad that sit along the bottom of the LCD screen. There are also 4 button positions on the bottom of the LCD screen that correspond to each of the 4 actual buttons on the keypad.

These buttons change their operation depending on the current operation of the clock and this is indicated by the button label on the LCD screen.

If a button has no label on the LCD screen then it has no function and will not operate.

## ***Exception Button***

Before a transaction is entered the user has the option of setting an “Exception” by pushing the **Excp** ‘Soft Button’ located as the top second button from the left.

Once the **Excp** button is pushed the clock status line will show “Exception Active”. This will then prompt the user to enter a 2 digit code after they have entered their employee number. This 2 digit code is stored with the transaction string and can be used by the employer as a means of signaling different transactions for the same employee.

If this function is not activated then the exception code is preset to “00” in the transaction string.

## ***Magnetic Card Reader***

1. The magnetic card reader can be used to enter an employee number and a job costing number by running the card through the slot from top to bottom with the magnetic strip facing the right hand side.
2. The transaction will automatically be accepted and registered and a will ‘BEEP’ and display the Employee/Job number on the display if it is a valid card number.
3. If Job Costing is enabled then an Employee number must be swiped first before entering the Job number.
4. When generating magnetic cards an Employee number does not have a prefix to the number e.g. 800013. A Job number must have the number “9” with no Job Level number as a prefix e.g. “912345678” is a Job number 12345678. When programming barcodes, all numbers must start and finish with the start and end character “\*” e.g. \*800013\* is the employee number 800013 while \*956789\* is a job number 56789

## ***Barcode Scanning***

1. Ensure that a barcode scanner is connected to the ‘TR3 TimeClock’ PS2 input connector positioned on the bottom of the clock.
2. Holding the scanner, push the scanners ‘ON’ button and pass over the barcode.
3. The ‘TR3 TimeClock’ should ‘BEEP’ and display the Employee/Job number on the display if it is a valid barcode.
4. Each valid transaction will remain displayed for 10 seconds or until another barcode is scanned.
5. If Job Costing is enabled then an Employee number must be scanned first before entering the Job number.

6. When generating barcodes an Employee number must use the letter “E” as a prefix to the number e.g. E800013. A Job number must have the letter “J” as well as the Job Level number as a prefix e.g. the barcode “J2456” is a level 2 Job number 456.

A Job number can be constructed by using up to 4 sub levels. For example the job number 12345678 using 4 levels will be made up of 4 different barcodes of 2 characters. The 4 barcodes will be “J112” “J234” “J356” “J478”.

Each of these 4 barcodes can be scanned in any order and the final Job number will be displayed as a single number.

## ***Keyboard Entry***

Data may also be entered using an external keyboard that has a PS2 connector or from the built in keypad. Data is keyed in manually starting with the employee number and if enabled followed by the Job number.

Both the Employee number and the Job number must be terminated with a carriage return after entering all the numbers.

The Job number is entered as a single number with no level information.

The ‘E’ and ‘J’ prefixes do not need to be entered.

## ***Fingerprint Reader***

If fitted users may enter their employee ID into the clock using 1 or more fingerprints.

The fingerprint module is a stand alone finger reader that contains all the enrolled fingerprint templates. Up to 1900 fingers can be stored in the on board FLASH memory. The enrolment process uses 2 fingerprint templates for each finger enrolled to improve the false acceptance rejection. This means that if each user enrolled 1 finger each there could be 950 users stored in the system.

For user security each fingerprint template will contain only the information required to determine a valid match when a finger is placed on the sensor. A complete fingerprint image is not able to be produced from these templates and can not be used in anything other than the fingerprint module.

The finger guide containing the fingerprint sensor is used to position the finger correctly onto the sensor; however, the more consistent a user is with finger placement the more reliable the verification will be. Excessively wet and dirty fingers will also reduce the readability of a fingerprint.

Any build up of dirt on the reader should be cleaned with a clean dry cloth. **DO NOT USE ANY SOLVENTS OR ABRASIVE CLEANERS.**

In order for the fingerprint sensor to capture a unique image the ‘core’ part of the finger must be captured. This ‘core’ area lies in the middle between the tip of the finger and the first joint. This is the area of the finger which contains all the unique swirl patterns of the fingerprint. The very tip of the finger does not contain enough

information to provide a unique code between different fingers and should not be used.

It is best to place the finger onto the sensor so that the middle part between the tip of the finger and the first joint is placed in the centre of the sensor, this should provide a good read.

If the sensor miss reads the finger try giving both the finger and the sensor a quick wipe with a cloth before retrying. Sometimes a dirty film may form on the sensor which could reduce its sensitivity and even a wipe with a finger is enough to clear the problem.

**Note: The sensor contains a protective coating over the top surface so it is important that this coating is not scratched by objects, dirt and grit or excessive pressure from a finger. The longer this coating remains intact the longer life expectancy of the sensor. Once the coating is damaged the finger read will become degraded and more verification problems will arise.**

Each user must register 1 or more fingers into the clocks finger data base before they are able to use the fingerprint input method. See the “Menu System” section below for procedures in setting up the finger module.

The finger data base can be backed up to a computer file and restored to the same or any other clock the user wants through use of the ‘TimeClock Polling Software’.

## ***Function Cancel***

At any stage of either data entry or menu system, the current operation can be cancelled by pressing the **Quit** button. This button is a “Soft Button” and is the 4<sup>th</sup> Button from the top left. It is only active when the “Soft Button” label contains the word “Quit”.

## ***System Reset***

The ‘TR3 TimeClock’ can be reset by holding down the 3rd button from the left for more than 5 seconds. This function is a hidden function and will not have a “Soft Button” label and only operates when the clock is in normal operating mode. Once reset, the unit will display the version numbers, input and output modules fitted, memory fitted.

# Menu System

## *Entering the Menu*

Factory Default Access Code: 1234.

To enter the Menu System both the 1<sup>st</sup> and 4th top buttons must be pushed together.

The Menu System has a 4 digit security code which must be entered before access to the menu is allowed. The security code is entered by using the keypad buttons and pushing the  button to accept the entry.

As each of the 4 digits are entered there will be a corresponding “\*” character displayed on the display in that digit's position.

Once all 4 digits of the access code have been selected and match the user's stored code the display will show the first page of the menu.

## *Using the Menu*

To scroll up or down the menu list use the  or  buttons. Each selection will be highlighted on the display.

To select a displayed menu option for editing, push the  button.

Once a menu item has been selected you can modify that option's parameters by using the ,  buttons or the keypad depending on the function required.

To save the modified value push the  button. This will save the new value entered and return back to the beginning of the menu system.

At any stage within the menu system if the  button is pressed the current operation will be aborted. Pressing the  button will also exit the menu system if no menu items have been selected.

The unit will automatically exit the menu system if there is no button activity after 60 seconds.

## *Menu Items*

### 1. Time

This option allows the real time clock to be adjusted manually. When selected the system time can be adjusted (using 24 hour mode) by using the ‘Soft Buttons’.

Available ‘Soft Buttons’:

<input type="button" value="Next"/>	- Moves the edit field to hours, minutes, and seconds.
<input type="button" value="Up"/>	- Increments the time value in the highlighted edit field.
<input type="button" value="Down"/>	- Decrements the time value in the highlighted edit field.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves changes made and exits.

## 2. Date

This option allows the real time clock date to be adjusted manually. When selected the system date and day of week can be adjusted by using the 'Soft Buttons'. Available 'Soft Buttons':

<input type="button" value="Next"/>	- Moves the edit field to day, month, and year.
<input type="button" value="Up"/>	- Increments the date value in the highlighted edit field.
<input type="button" value="Down"/>	- Decrements the date value in the highlighted edit field.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves changes made and enters the day of the week entry.  
Once day of week adjusted Enter will save and exit.

## 3. Relay2 Function

Factory Default; OFF.

This option enables Relay2 contacts to close for 3 seconds when an employee number is entered. When selected Relay2 can be turned either 'ON' or 'OFF' by using the 'Soft Buttons'.

Available 'Soft Buttons':

<input type="button" value="ON"/>	- Enables activation of Relay2.
<input type="button" value="OFF"/>	- Disables activation of Relay2.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves changes made and exits.

This option could be used to either open a door or ring a bell/light when an employee clocks in.

## 4. Job Cost

Factory Default; OFF.

This option enables or disables the Job Costing function. When enabled, the TR3 TimeClock will prompt for the entry of a Job number.

Available 'Soft Buttons':

<input type="button" value="ON"/>	- Enables Job Costing.
<input type="button" value="OFF"/>	- Disables Job Costing.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves changes made and exits.

## 5. Station Address

Factory Default : 01

This parameter is used to set the clock address for communications. The polling software must use this address when communicating with the clock.

If more than one clock is used on the communication line (i.e. RS485) then each clock must have a unique address.

The address can range from 01 to 30 by using the 'Soft Buttons'.

Available 'Soft Buttons':

<input type="button" value="Up"/>	- Increments the station address.
<input type="button" value="Down"/>	- Decrements the station address.
<input type="button" value="Quit"/>	- Exits without saving changes.
<input type="button" value="Enter"/>	- Saves changes made and exits.

## 6. Baud Rate

Factory Default : 9600

This parameter is used to set the communication speed. The polling software must use the same speed setting when communicating with the clock.

When selected a menu of 4 baud rate speeds is displayed:

1. 9600 Baud
2. 4800 Baud
3. 2400 Baud
4. 1200 Baud

The 'Soft Buttons' are used to cycle through the menu. The current selection is highlighted.

Available 'Soft Buttons':

<input type="button" value="Up"/>	- Cycles through the Baud Rate menu.
<input type="button" value="Down"/>	- Cycles through the Baud Rate menu.
<input type="button" value="Quit"/>	- Exits without saving changes.
<input type="button" value="Enter"/>	- Saves highlighted selection and exits.

**Note: When using the network TCP/IP module set the baud rate to 9600.**

## 7. Master Mode

This option is intended to operate only on a RS485 communication system. It is used to send a time and date broadcast every minute over the RS485 line to devices like a large wall clock so their time display is synchronized with the TimeClock.

Available 'Soft Buttons':

<input type="button" value="ON"/>	- Enables Master Mode.
<input type="button" value="OFF"/>	- Disables Master Mode.
<input type="button" value="Quit"/>	- Exits without saving changes.

**Enter**

- Saves changes made and exits.

## 8. Access Code

Factory Default : 1234

This option allows the user to enter a 1 to 6 digit password to access the menu system.

Entry of the password is done from either the built in keypad or from an external keyboard.

The new code must be entered twice before it is accepted.

Available 'Soft Buttons':

**Quit**

- Exits without saving changes.

**Enter**

- First push asks for confirmation of new code.  
- Second push accepts new code.

## 9. Contrast Adjust

This option is used to adjust the visibility of the display. The value ranges from 20 (lightest) to 70 (darkest). Under most applications a setting of 35 to 45 should be about right.

The visibility of the display is temperature and angle dependent. This means that at low room temperatures the display will be light and the contrast will have to be increased in order to see the display properly where if the room temperature is high the display may look quite dark in which case the contrast must be decreased.

Different viewing angles (e.g. looking from the top or bottom of the display) may also affect the visibility of the display and the contrast may need to be adjusted in order to get the best visibility.

Available 'Soft Buttons':

**Up**

- Increases the contrast (darkens the display).

**Down**

- Decreases the contrast (lightens the display).

**Quit**

- Exits without saving changes.

**Enter**

- Saves contrast setting and exits.

## 10. Modem Enable/Disable

This option is used only with RS232 communications and is used to enable the use of communications through a modem. This option will enable the 'TimeClock' to setup a modem on the serial port using a predefined modem string which has previously been loaded into the clock from the polling software.

Available 'Soft Buttons':

<input type="checkbox"/> ON	- Enables use of a modem.
<input type="checkbox"/> OFF	- Disables use of a modem.
<input type="checkbox"/> Quit	- Exits without saving changes.
<input type="checkbox"/> Enter	- Saves changes made and exits.

## 11. Configuration Settings

This option sets up the basic operation of the unit and contains the following sub-menu:

### 1. *Employee Number*

Factory Default: 06.

This option sets the maximum number of characters allowed in an employee number. The values range from 01 to 08.

Available 'Soft Buttons':

<input type="checkbox"/> Up	- Increments the maximum number of employee digits.
<input type="checkbox"/> Down	- Decrements the maximum number of employee digits.
<input type="checkbox"/> Quit	- Exits without saving changes.
<input type="checkbox"/> Enter	- Saves selection and exits.

### 2. *Job Number*

Factory Default: 08.

This option sets the maximum number of characters allowed in a job number. The values range from 01 to 16.

Available 'Soft Buttons':

<input type="checkbox"/> Up	- Increments the maximum number of job digits.
<input type="checkbox"/> Down	- Decrements the maximum number of job digits.
<input type="checkbox"/> Quit	- Exits without saving changes.
<input type="checkbox"/> Enter	- Saves selection and exits.

### 3. *Job Level*

Factory Default: 04.

This option sets the number of levels used to build a complete Job number. The values range from 01 to 04.

Use the  UP or  Down buttons to select the required number of levels and press the  Enter button to save the new values or press  Quit to abort.

Once the number of levels has been selected the maximum number of characters for each level will have to be set. The menu system will then guide the user through each of the selected levels and the number of characters is adjusted by using the  UP or

buttons to select the required value and pressing the  button will move the edit field onto the next level.

The maximum number of characters allowed in a Job number is set by the 'Job Number' menu item above and the sum of each level must not exceed this value.

For example if the Job Number was set to 8 characters and 4 levels have been selected then levels 1, 2, 3 and 4 could each be set to 2 digits.

Available 'Soft Buttons':

<input type="button" value="Next"/>	- Moves edit field to the next level parameter.
<input type="button" value="Up"/>	- Increments the maximum number of level digits.
<input type="button" value="Down"/>	- Decrements the maximum number of level digits.
<input type="button" value="Quit"/>	- Exits without saving changes.
<input type="button" value="Enter"/>	- Saves selection and exits.

#### ***4. Job Code Acceptance***

Factory Default: Auto.

This option selects either Automatic transaction acceptance after the Job number has been entered or Manual transaction acceptance.

If the auto mode is selected then the job number will automatically be accepted once it has been entered.

If the manual mode is selected then the user will have to push the  key to accept the job number after it has been entered.

Available 'Soft Buttons':

<input type="button" value="Man"/>	- Enables Manual Mode acceptance.
<input type="button" value="Auto"/>	- Enables Auto Mode acceptance.
<input type="button" value="Quit"/>	- Exits without saving changes.
<input type="button" value="Enter"/>	- Saves selection and exits.

#### ***5. Employee max number Match***

Factory Default: Less or Equal.

This option allows entry of the Employee number to be either "Less or Equal" to the Employee Number or the entry must be "Equal Only" to the Employee Number.

For example, if the Employee Number (menu 1 item) is set to 6 characters and the 'Employee max number Match' is set to 'Less or Equal' then the user can enter any employee number from 1 to 6 and the clock will accept the entry. If the setting is 'Equal Only' then the user must enter a 6 digit number before it will be accepted.

Available 'Soft Buttons':

<input type="button" value="Less"/>	- Enables Less than or Equal mode.
<input type="button" value="Equal"/>	- Enables Equal mode only.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves selection and exits.

## 6. Job max number Match

Factory Default: Less or Equal.

This option allows entry of the Job number to be either “Less or Equal” to the Job number Limit or the entry must be “Equal Only” to the Job number Limit.

This function works the same way as the “Employee max number Match” above.

Available ‘Soft Buttons’:

<input type="button" value="Less"/>	- Enables Less than or Equal mode.
<input type="button" value="Equal"/>	- Enables Equal mode only.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves selection and exits.

## 7. Job Table Match

This option enables job number matching to preloaded job tables.

If this option is enabled then any job number entered will be compared to a table of job number which has been previously loaded into memory by the Polling software.

If the job entry matches a table entry then the job number is accepted otherwise an error is signaled and the user must re-enter the correct job number.

Available ‘Soft Buttons’:

<input type="button" value="ON"/>	- Enables Job table matching.
<input type="button" value="OFF"/>	- Disables Job table matching.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves changes made and exits.

Please note that if a job table is loaded into the clock from the polling software this option is automatically enabled.

## 12. Pin Number

This menu option sets the pin number/password options .

For a full description and setup of this function refer to the “TR3 Pin NumberV3.doc” document.

There are 4 sub menu options available:

### 1. Enable Pin Numbers (Turns pin number option ON or OFF)

Available ‘Soft Buttons’:

<input type="button" value="ON"/>	- Enables Pin Numbers.
<input type="button" value="OFF"/>	- Disables Pin Numbers.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves changes made and exits.

**2. Set Pin Number Prefix** (This allows the user to select the Prefix to be added to the pin number entry).

Available 'Soft Buttons':

<input type="button" value="Next"/>	- Moves edit field to the next Prefix field.
<input type="button" value="Up"/>	- Increments the digit in the highlighted edit field.
<input type="button" value="Down"/>	- Decrements the digit in the highlighted edit field.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves selection and exits.

**3. Set Pin Number Mode** (This selects between automatic Prefix and no Prefix used).

Available 'Soft Buttons':

<input type="button" value="ON"/>	- Enables addition of the prefix.
<input type="button" value="OFF"/>	- Disables addition of the prefix.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves changes made and exits.

**4. Fingerprint Exception** (This selects whether a fingerprint scan will be accepted with or without a password entry).

Available 'Soft Buttons':

<input type="button" value="ON"/>	- Enables Fingerprint only with no password.
<input type="button" value="OFF"/>	- Enables Fingerprint entry and password entry.
<input type="button" value="Quit"/>	- Exits without saving changes.

- Saves changes made and exits.

This function is used primarily when a user cannot successfully register a reliable fingerprint into the system. In this case the pin number/passwords can be enabled and any user who must swipe a magnetic card must also enter a password while the user who successfully enters their fingerprint will not need to enter a password as well.

## 13. Network Settings

This option allows setup of the network IP address and also resets the IP module to factory defaults if it does not respond.

Please refer to the "TR3 Time Clock Ethernet Module.doc" document for more details on the TCP/IP connection and setup.

There are two submenus:

### 1. Enter IP Address

This allows the clock network IP address to be entered and programmed into the IP module. The IP address format is "xxx.xxx.xxx.xxx" and each "x" is entered from the keypad (e.g. 192.168.001.032).

Available 'Soft Buttons':

- |      |                                 |
|------|---------------------------------|
| Next | - Cycles through edit fields.   |
| Quit | - Exits without saving changes. |

Enter	- Saves selection and exits.
-------	------------------------------

Note: reprogramming the IP address may take about 30 seconds to complete.

## 2. **Reset Network connection**

This option resets the TCP/IP module to factory defaults and reprograms the IP address to the one set in the above menu option.

Note: resetting the IP module may take about 60 seconds to complete.

# 14. Fingerprint Options

This option sets up the basic operation of the fingerprint module and contains the following sub-menu:

## ***1. Enroll Fingerprint***

This menu option allows users to register a fingerprint into the fingerprint data base.

The fingerprint template is registered under their employee number so when a correct finger is placed on the sensor the employee number will be stored in the transaction.

The user will be first asked to enter their employee number. This can be done by keypad, external keyboard, barcode entry or magnetic card.

Once the employee number is entered the user is instructed to place their finger onto the sensor. The finger is scanned and the user is asked to remove their finger and then push the OK button and place the same finger on the sensor for a second scan.

If both scans are successful then the finger template is generated and stored under the employee number in the data base.

Available 'Soft Buttons':

- |      |  |
|------|--|
| OK   | - Signals that the user is ready for the second finger scan. |
| Quit | - Exits without saving to data base.                         |

## ***2. Card Verification***

This option is used to enable or disable the use of entering an employee number prior to verifying with a fingerprint entry. If the fingerprint data base is large it may take considerable time for the fingerprint module to scan all available fingerprint data before a match is made but if this option is enabled the correct fingerprint data is accessed immediately upon entry of the employee number and a very quick verification can be made when the finger is placed on the sensor.

Fingerprint verification is also active without prior entry of the employee number but the entire data base is searched.

Available 'Soft Buttons':

<input type="button" value="ON"/>	- Enables Card Verification.
<input type="button" value="OFF"/>	- Disables Card Verification.
<input type="button" value="Quit"/>	- Exits without saving changes.
<input type="button" value="Enter"/>	- Saves changes made and exits.

### **3. Employee Exception**

This option is used only if "Card Verification" above is enabled and allows a user who is unable to register a usable fingerprint into the system to be able to swipe a magnetic card and not have to enter their fingerprint.

On entry to this menu option the user is asked to enter their employee number. This can be done by either swiping a magnetic card or using the keypad. The entered employee number is then stored in memory and used to bypass the fingerprint verification process when ever the user enters their number.

The following submenu is available:

#### **1. Add Employee**

This option allows the entry of an employee number that does not need finger verification. The number can be entered from the keypad, magnetic card reader, external keypad or barcode reader.

For extra security the pin number option can also be used in conjunction with this to allocate passwords for card transactions only.

Available 'Soft Buttons':

<input type="button" value="Quit"/>	- Exits without saving changes.
<input type="button" value="Enter"/>	- Saves changes made and exits.

#### **2. Delete Employee**

This option allows employee numbers to be deleted from the exception data base one at a time. The user is asked to enter the employee number that is to be removed. The number can be entered from the keypad, magnetic card reader, external keypad or barcode reader.

Before the number is deleted the user is asked to confirm the deletion by using the  or  soft buttons.

Available 'Soft Buttons':

<input type="button" value="Yes"/>	- Confirm deletion.
<input type="button" value="No"/>	- Do not delete.
<input type="button" value="Quit"/>	- Exits without saving changes.

### 3. Delete All Employees

This option allows the entire employee exception number data base to be deleted. Before the number is deleted the user is asked to confirm the deletion by using the  or  soft buttons.

Available 'Soft Buttons':

<input type="button" value="Yes"/>	- Confirm deletion.
<input type="button" value="No"/>	- Do not delete.
<input type="button" value="Quit"/>	- Exits without saving changes.

### 4. Finger Security

Default: High.

This option allows the user to select how close a match is required between the stored finger data and the finger placed on the sensor. There are four security settings: **Normal**, **High** (default), **Very High** or **Extremely High**

There is a trade off between user convenience and how close a match is required. The '**Normal**' setting will allow a finger to be accepted with far less accuracy than the '**High**', '**Very High**' and '**Extremely High**' settings but will not require nearly as accurate finger placement on the sensor.

The '**Extremely High**' setting will give the least amount of false verifications but will require more accurate finger placement and require more processing time to complete. The settings are selected by using the  and  soft buttons.

Available 'Soft Buttons':

<input type="button" value="Up"/>	- Increases security level selection.
<input type="button" value="Down"/>	- Decreases security level selection.
<input type="button" value="Quit"/>	- Exits without saving changes.
<input type="button" value="Enter"/>	- Saves selection and exits.

### 5. Sensor Sensitivity

Default: 7.

This option gives the user a choice of seven settings (0 (lowest) to 7(highest)) which adjusts the sensitivity of the sensor. Under most normal situations the default setting of 7 should be used but if users are experiencing difficulties in false triggering when reading fingerprints then the sensitivity of the sensor could be reduced to see if this will alleviate the problem.

Available 'Soft Buttons':

<input type="button" value="Up"/>	- Increases sensor sensitivity level selection.
<input type="button" value="Down"/>	- Decreases sensor sensitivity level selection.
<input type="button" value="Quit"/>	- Exits without saving changes.
<input type="button" value="Enter"/>	- Saves selection and exits.

## ***6. Delete Finger***

This option allows an employees finger template to be removed from the data base.

All instances of the employee in the data base will be removed.

The user is asked to enter their employee number and a scan of the data base is done to ensure the employee number exists in the data base.

Once this is done verification of the delete process is asked for using the  or  soft buttons prior to deletion of the employee from the data base.

Available 'Soft Buttons':

<input type="button" value="Yes"/>	- Confirm deletion.
<input type="button" value="No"/>	- Do not delete.
<input type="button" value="Quit"/>	- Exits without saving changes.

## ***7. Training Mode***

This menu selection sets the TimeClock into a finger placement training mode where users can temporarily enrol a finger and have it verify every time they place their finger on the sensor without the scan being stored in memory.

To activate this mode turn the Training mode ON in the menu. The user will then be asked to enrol a finger by placing it onto the sensor. Once enrolled, two soft buttons will allow the user to either "Enrol" another finger or "Scan" the last finger enrolled.

The "Enrol" procedure will also show how good the finger was scanned by showing a number out of 100. The higher the number, the better the scan.

The  button allows the user to keep using the same finger to verify against the enrolled template. In this way the user can get used to having their finger scanned without each scan being stored as a transaction in the clock. This will allow users to experiment with finger placement and give them more confidence in using the system.

The TimeClock will remain in this mode until the  button is pressed.

Available 'Soft Buttons':

<input type="button" value="Enrol"/>	- Generate a new temporary finger template.
<input type="button" value="Scan"/>	- Verify the scanned finger with the temporary template.
<input type="button" value="Quit"/>	- Exits Training Mode.

For more in depth information refer to the "TR3 FingerprintV3.doc" document.