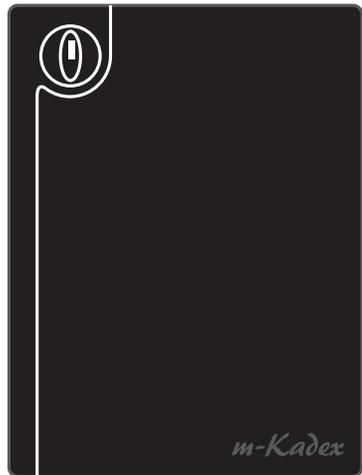


# FINGERTEC



*m-Kadex*

Simple Card Reader for Door Access &  
Time Attendance System

User Guide

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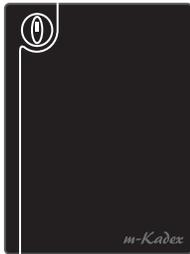
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# 1 • GETTING STARTED

## Viewing the User Guide in the Internet

The User Guide is available in the package when you purchase FingerTec m-Kadex. The user guide is also published online at [fingertec.com](http://fingertec.com) and [user.fingertec.com](http://user.fingertec.com). Choose the language you prefer to view the User Guide.

## Included Accessories



m-Kadex terminal



Screwdriver



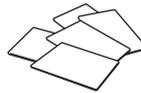
USB Extension



Power Supply Cable



Door Accessories Cable



RFID Card (5 pieces)  
\*for m-Kadex RFID



A Packet of Bolts



RS232/RS485/  
Wiegand Output Cable



MIFARE Card (1 piece)  
\*for m-Kadex MIFARE

## Included Printed Materials

- FingerTec Comprehensive DVD
- Quick Start Guide
- User Enrollment Template Form
- Warranty Card

## Activating m-Kadex

Connect all the cables correctly at their specific points and turn on the power supply. M-Kadex terminal does not have its on/off button.

## Registering m-Kadex

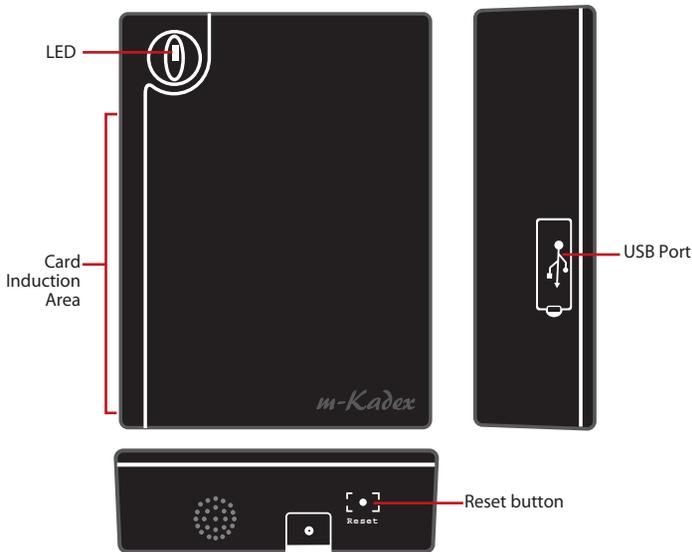
Make sure that you register your m-Kadex's warranty with us at [www.fingertec.com/ver2/english/e\\_main.html#](http://www.fingertec.com/ver2/english/e_main.html#)

## 2 • BASICS

### Introduction to m-Kadex

m-Kadex is a simpler version of Kadex. The terminal is designed without any keypads or LCD. m-Kadex functions similarly like Kadex but management of the terminals have to be done from the software. The m-Kadex can enrol new cards and delete cards at the terminal only if the administrator card is available. Absence of administrator card would not allow any operations to be carried out at the terminal.

### m-Kadex Overview



Item	What Is It For
LED	Indicating status of terminal and result of verification <b>Green</b> – Terminal is in standby mode, terminal has verified card successfully <b>Red</b> – Terminal has failed to verify card
Card Induction Area	Area to read card
USB Port	Connecting USB extension for data download into a USB flash disk (pen drive)
Reset button	Restarting the terminal

# Security Features

Security features help protecting the information from m-Kadex from being accessed by unauthorized individual(s).

## ADMINISTRATOR CARD

Registration of an administrator card to the system is important to control access into m-Kadex. After registration of the administration card is done, nobody can do enrollment, deletion or reset on m-Kadex without the administration card.

## TAMPER SWITCH

m-Kadex comes with a tamper switch located at the rear of the terminal. During installation, the tamper switch is compressed against a wall. Any attempt to dismantle m-Kadex will trigger alarm

# Restarting and Resetting m-Kadex

If something isn't working right, try to restart or reset m-Kadex.

## RESTARTING m-Kadex

Use a thin probe to push the reset button hidden at the bottom of the terminal. The terminal will restart by itself and all the memory is retained during this operation.

## RESETTING TO DEFAULT FACTORY SETTINGS BY ADMINISTRATOR CARD

Green LED blinks > Wave Administrator card 5 times at the induction area > The terminal beeps 3 times > Red LED blinks > Wave Administrator card 1 time at the induction area to confirm > Green LED blinks > The terminal beeps continuously for 7 seconds > Green LED blinks

**Remarks:** All contents of the terminal will be deleted including the contents in administrator card. The IP address of the terminal returns to default 192.168.1.201 after this process. The Terminal ID returns to 1 after this process.

## RESETTING TO DEFAULT FACTORY SETTINGS WITHOUT ADMINISTRATOR CARD

Green LED blinks > Detach terminal from a wall > Release security button > Wait for 35 seconds > Push and release the security button 3 times > Terminal would emit a long beep and it will start the terminal

**Remarks:** All contents of the terminal will be deleted including the contents in administrator card. The IP address of terminal returns to default 192.168.1.201 after this process. The Terminal ID returns to 1 after this process.

### 3 • CONNECTION – SYNCING M-KADEX

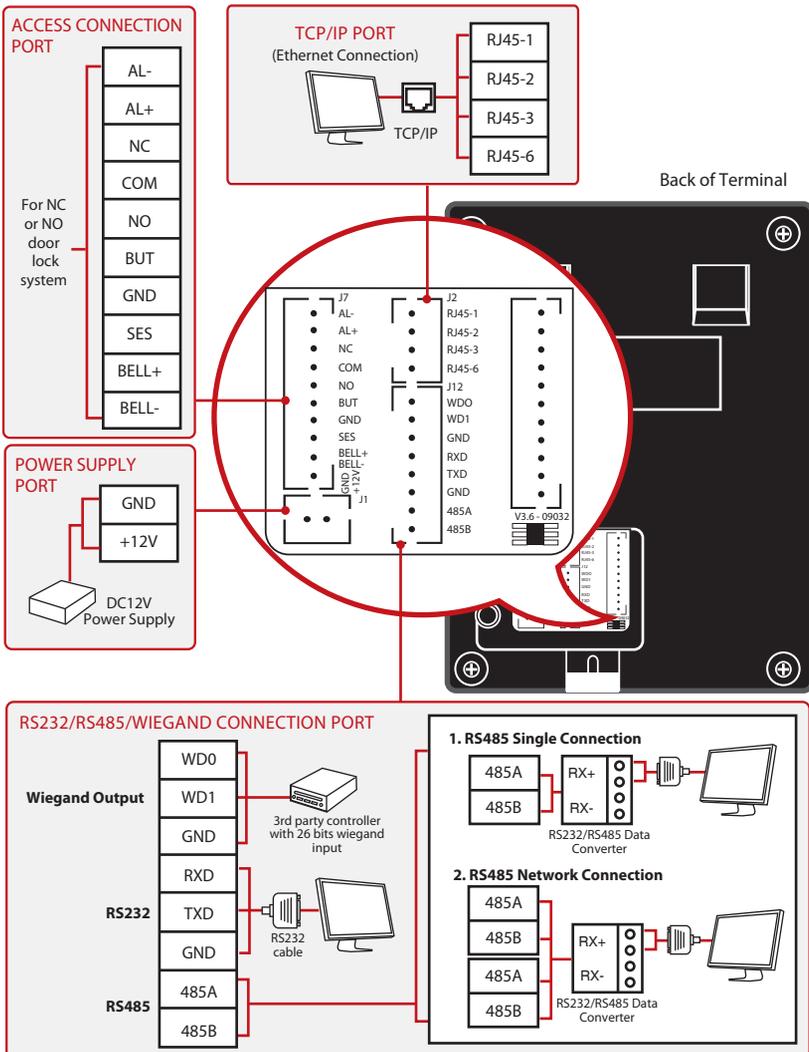
## Installation Guide

**NOTE**

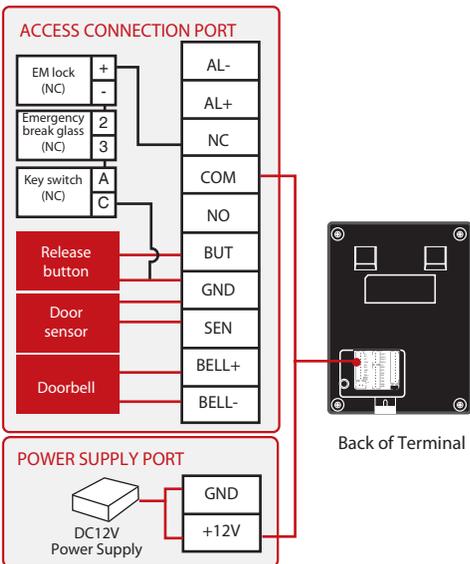
The installation guides is for installer reference only

## Communication Diagrams

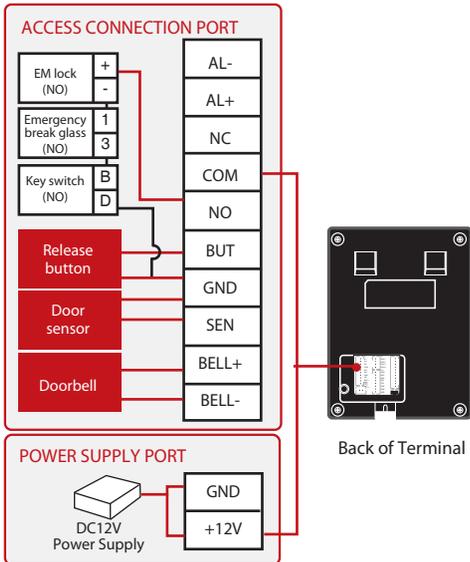
At the rear of every terminal, there are connections available for power, communication and door access. Refer to the following diagrams for the terminals you require.



## For NC (normally close) door lock system



## For NO (normally open) door lock system



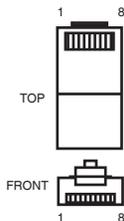
### NOTE

Please refer to AdapTec AC Installer Manual if you are using AdapTec AC.

## Descriptions of Available Connections

### USB PORT

Linking with USB flash disk for remote data transfer.



### TCP/IP PORT

Connect with CAT 5 cable for LAN connection, one end to this port and another end to the computer's TCP/IP Port.

#### TCP/IP for Single Connection:

Linking the terminal to a single computer using TCP/IP requires Ethernet 10/100Base-T Crossover Cable. The cable can be used to cascade hubs or to connect Ethernet stations back-to-back without a hub. It works with both 10Base-T and 100Base-TX.

#### JOINT 1 PIN

#### JOINT 2 PIN

TX+	1	↔	3	RX+
TX-	2	↔	6	RX-
RX+	3	↔	1	TX+
RX-	6	↔	2	TX-

#### TCP/IP for Network Connection:

Linking the terminals to multiple computers using TCP/IP requires Ethernet 10/100Base-T Straight Thru Cable or "whips". The cable works with both 10Base-T and 100Base-TX, connecting a network interface card to a hub or network outlet.

CONNECTOR PIN	CABLE COLOR	CONNECTOR
TX+	1 White/Orange	1 TX+
TX-	2 Orange	2 TX-
RX+	3 White/Green	3 RX+
	4 Blue	4
	5 White/Blue	5
RX-	6 Green	6 RX-
	7 White/Brown	7
	8 Brown	8

## POWER SUPPLY PORT

Insert the Power Adapter point to this port for power.

## RS232/RS485/WIEGAND CONNECTION PORT

**RS232:** Connection to a computer using RS232 cable.

**RS485 Single Connection:** Connection to a single computer using RS485 wire.

**RS485 Network Connection:** Connection to multiple computers using Daisy Chain connection.

**Wiegand Output:** Connecting with third party connector or terminal(s).

## ACCESS CONTROL PORT

Linking the terminal to door lock system.

## BELL PORT

Linking the terminal to doorbell.

**NOTE**

Link all cables to the correct connection point(s) before attempting to connect the terminals to software.

## Ingress Online Activation

Ingress is a genuine software by FingerTec. Every FingerTec access control model comes bundled with a unique license key. To start using the terminal with Ingress, you must connect the terminal to Ingress and perform online activation. Ingress reads the serial number of your terminal and sends it for verification at the FingerTec server via Internet.

In case you do not have an Internet connection, you would need to do offline activation. Please send the serial number and models of your terminals to your local resellers or [support@fingertec.com](mailto:support@fingertec.com) to request for a product key and activation key.

## Installation and Setup of Ingress

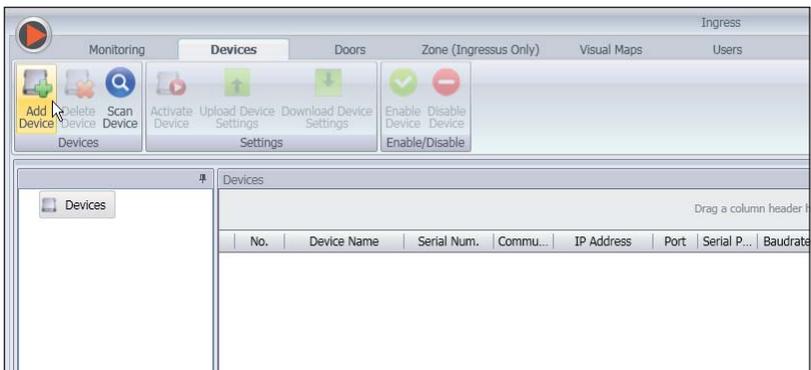
Install Ingress in a PC that fulfills Ingress' minimum requirements. Refer to <http://www.fingertec.com/customer/download/postsales/SUM-Ingress-E.pdf> for the Ingress user guide online. Setup Wizard will require you to do online activation before connection establish between Ingress and terminals.

# Connecting Terminal to Ingress

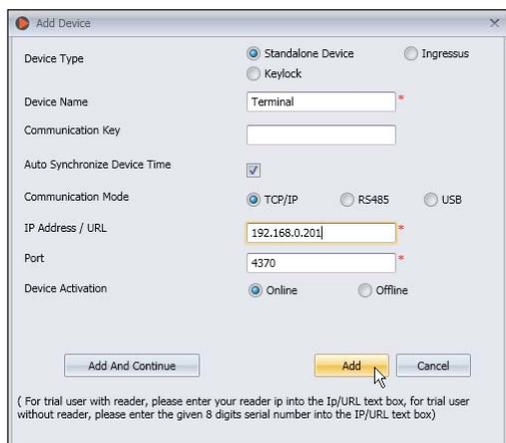
## THE FIRST TIME CONNECTION

When connecting the Terminal to the Ingress for the first time, you must use TCP/IP to form the connection. The Ingress allows you to configure the communication settings and the door lock settings. An IP address is important, as it is a unique address of the terminal in the LAN network. Without an IP address, locating the specific terminal is not possible.

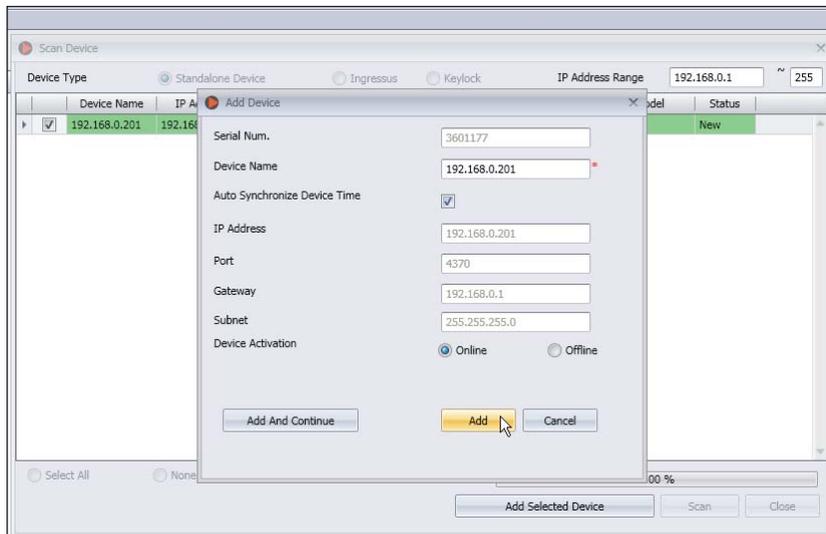
Identify the number of your terminal to differentiate between one another. The default IP address of the Terminal is 192.168.1.201, with the default terminal ID number being 1. The terminal ID can only be changed after you connect it to the Ingress. Remember, each Device ID must be paired with different IP addresses, to indicate that it is different terminal.



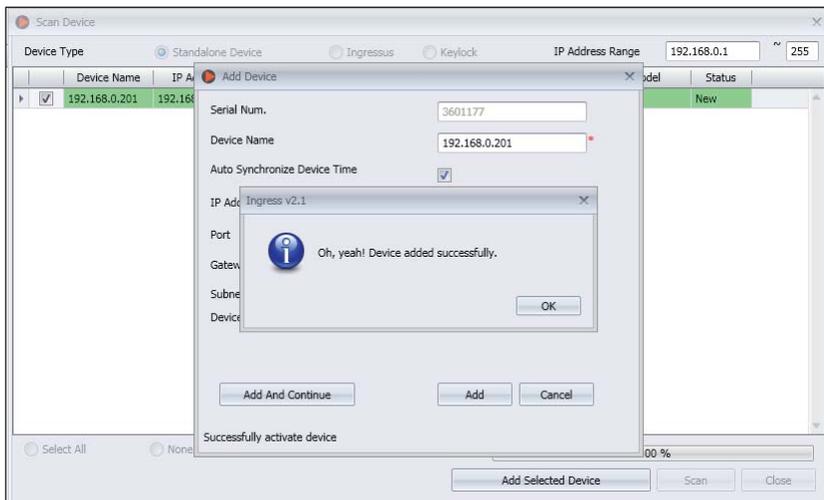
At the Devices Tab, user can either choose to add device via **Add Device** (to individually add) or **Scan Device** to add multiple terminals at one go. For single terminal, after filling in the relevant information, click **Add and Continue** to proceed by adding another terminal or **Add** to add only one terminal.



To add multiple devices at one go, click **Scan Device** and **Scan**. IP Address range can be set to search for devices. The bigger the range of IP address, the longer time needed to scan for devices. Devices found will be displayed on the screen. Select the preferred devices and click **Add Selected Device** to add them and a window containing the settings of the terminals will pop up. Click **Add** to proceed.

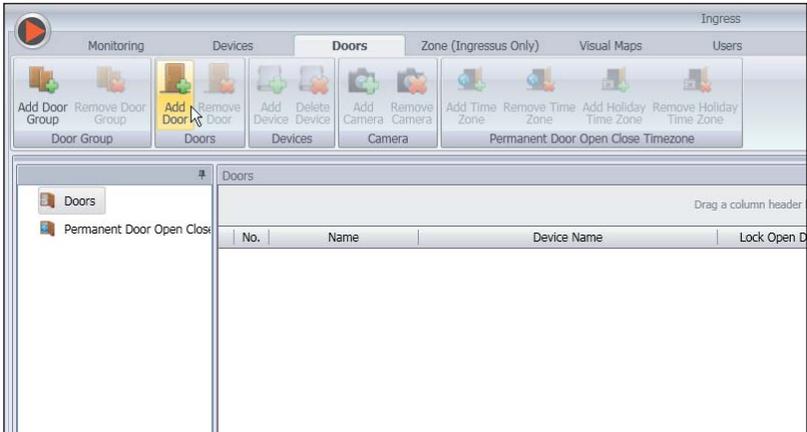


Once the device has been added, a pop up window will appear indicating that the device has been successfully added. Click **Ok** to proceed.

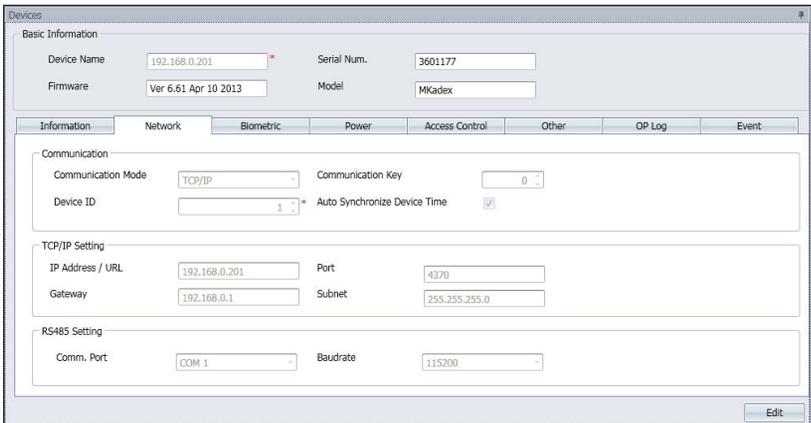


## HOW TO CHANGE IP ADDRESS

Terminal does not have a keypad thus to change the IP address users can do it via Ingress software. Steps to change IP address via Ingress are as below. Go to Doors tab and click on **Add Door**.

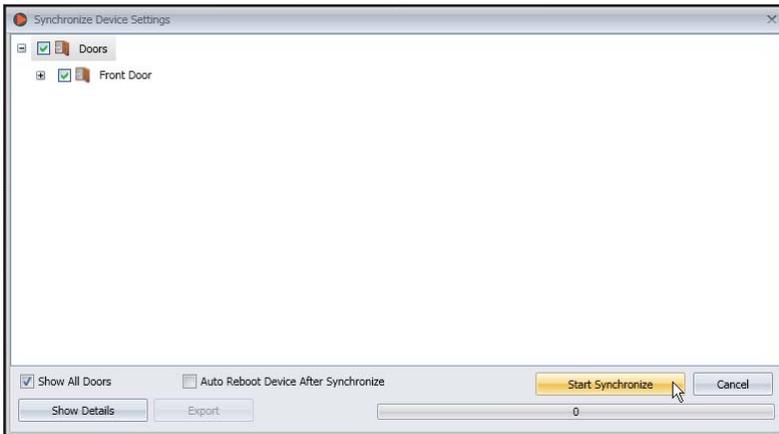


Once the door is added, click on **Add Device** at the **Doors** tab. Check/Tick the terminal(s) to be added to the specific door. Click **OK**. Double click on the device. At the **Network** tab, click **Edit**. Change the desired IP address at the **IP Address / URL** column. When done, click **Save** to confirm the changes made.

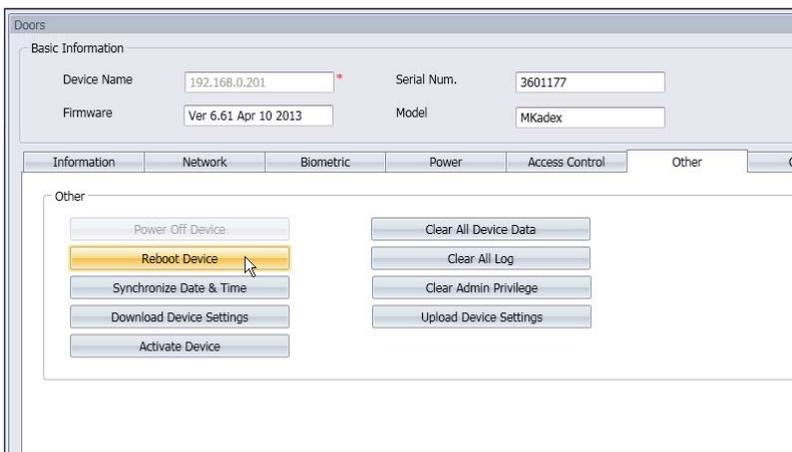


Once done, a popup window will appear indicating the update is successful. Click **OK** to proceed. The Ingress software has to be synced with all relevant devices in order for the changes to take effect. A small window will appear at the bottom left corner of the screen once any changes are made.

Click on the underlined blue sentence to sync the terminals. Any changes made will appear in the **Synchronize Device Settings** window. Check/Tick the changes needed to be synced to the terminals. Click **Start Synchronize** once the selections are made. Another popup window will appear, displaying the changes made at the particular doors affected. Click **Start Synchronize** once everything is confirmed.



Once synchronization is complete, click **Close** to proceed. Go to **Other** tab and click on **Reboot Device**. A window will pop up, seeking confirmation on whether to restart the device. Click **Yes** and the IP address for the terminal has been successfully changed.



## Using USB Flash Disk

USB flash disk is useful in cases where the terminal is installed far from a PC or there is a connection problem. To determine the type of USB compatible by the terminal, please refer to this link at [fingertec.com/newsletter/HL\\_74.html](http://fingertec.com/newsletter/HL_74.html).

## To Download Attendance Logs Only

Plug the USB flash disk to m-Kadex and terminal save all transaction logs into the USB flash disk automatically.

## To Download User Data and Attendance Logs into USB Flash Disk

Plug in compatible USB flash disk into m-Kadex's USB port > Wave an administrator card 9 times at the induction area > LED will lit up in green ito indicating that the download process is running > The LED will blinks in green once to signal that the > Process is completed > Unplug the USB flash disk from the m-Kadex once the process is done.

## To Upload User Data from USB Flash Disk to m-Kadex

Make sure that the user data already has been loaded into the USB flash disk before doing this operation.

Plug in a USB flash disk into m-Kadex's USB port > Wave the administrator card 11 times at the induction area > LED will lit up in green to iindicate that the upload process is running > The LED will blinks in green once > the process is completed > Unplug the USB flash disk from the m-kadex after the upload process is done.

## 4 • MANAGING USER

### Enrolling Administrator Card

Administrator card is the first card to be enrolled into the terminal. Administrator card cannot be used to report attendance or gain access. System administrator must maintain 2 cards, an administrator card to operate terminal, and a normal card for attendance and access.

The administrator card is the key card to operate the terminal. To start or end an operation such as enrolment of new card enrollment, deletion of card, and restoration of terminal back to default factory settings, administrator card is required.

### Registration of Administrator Card

Power up terminal > Green LED blinks continuously > Wave the card at the induction area > Terminal beeps once > Green LED blinks > Terminal is ready

**Remark:** If the Green LED blinks continuously when you turn on the power, it means that the terminal has already been enrolled with an Administrator card

### Enrolling User Cards

Green LED blinks > Wave Administrator card twice at the induction area > Green LED blinks > Wave the new user card at the induction area > Terminal beeps once and the Green LED blinks > Repeat the steps to enroll next new user card > Wave the administrator card to induction area to end process > Green LED blinks

**Remark:** If the terminal beeps twice and red LED blinks after reading your card, the card has already been registered to the terminal. You can't re-enroll with this card. Please use another card.

### Verifying Card for Attendance or Access

Green LED blinks > Wave your card at the induction area > Terminal beeps once > Green LED blinks > If the card is verified successfully, the LED blinks in green

**Remark:** If the terminal beeps twice and the LED blinks in red after having read your card, your card has not been registered into the terminal. Register your card first before trying to verify it at the terminal.

### Deleting User Card

LED blinks in green > Wave Administrator card 3 times at the induction area > LED blinks in red > Wave the user card at the induction area > Terminal beeps once > LED blinks green once > LED blinks in red > Repeat to wave next user card to delete > Wave the administrator card to induction area to end process > LED blinks in green

**Remark:** If the terminal beeps twice and LED blinks in red after read your card, your card is not registered yet to the terminal. You can use this card to register with the terminal.

## Deleting attendance logs in m-Kadex

In standby mode, the m-Kadex's LED blinks in green > Wave the administrator card 7 times at the induction area > The LED will lit up in green to indicate that the deletion process is running > The LED will blinks in green once > the process is completed

## Resetting to Default Factory Settings using Administrator Card

Green LED blinks > Wave Administrator card 5 times at the induction area > The terminal beeps 3 times > Red LED blinks > Wave the Administrator card once at the induction area to confirm > Green LED blinks > Terminal beeps continuously for 7 seconds> Green LED blinks

**Remark:** All contents in the terminal will be deleted including the content in administrator card. The IP address of the terminal returns to default 192.168.1.201 after this process. The Terminal ID returns to 1 after this process.

## Resetting to Default Factory Settings Without Administrator Card

Green LED blinks > Detach the terminal from its location on a wall > Release the security button > Wait for 30 sec > Push and release the security button 3 times > Terminal produces a long beep > restart the terminal

## 5 • OTHER RESOURCES

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