

**4G**



**EN** User guide  
Page 2

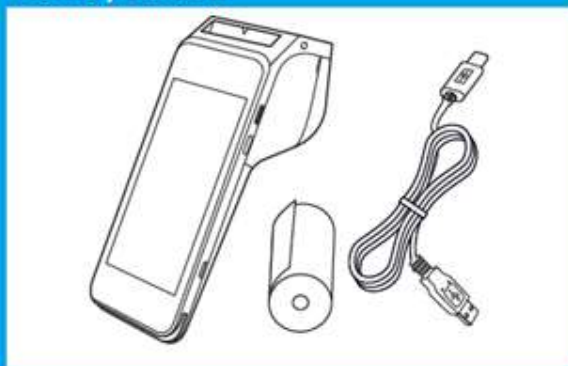


**Verifone Android  
Carbon Mobile 5 with Printer  
Document Version 6.0  
Software Version: CM5-O-3.5.9**



**DOC278-004-EN-A**

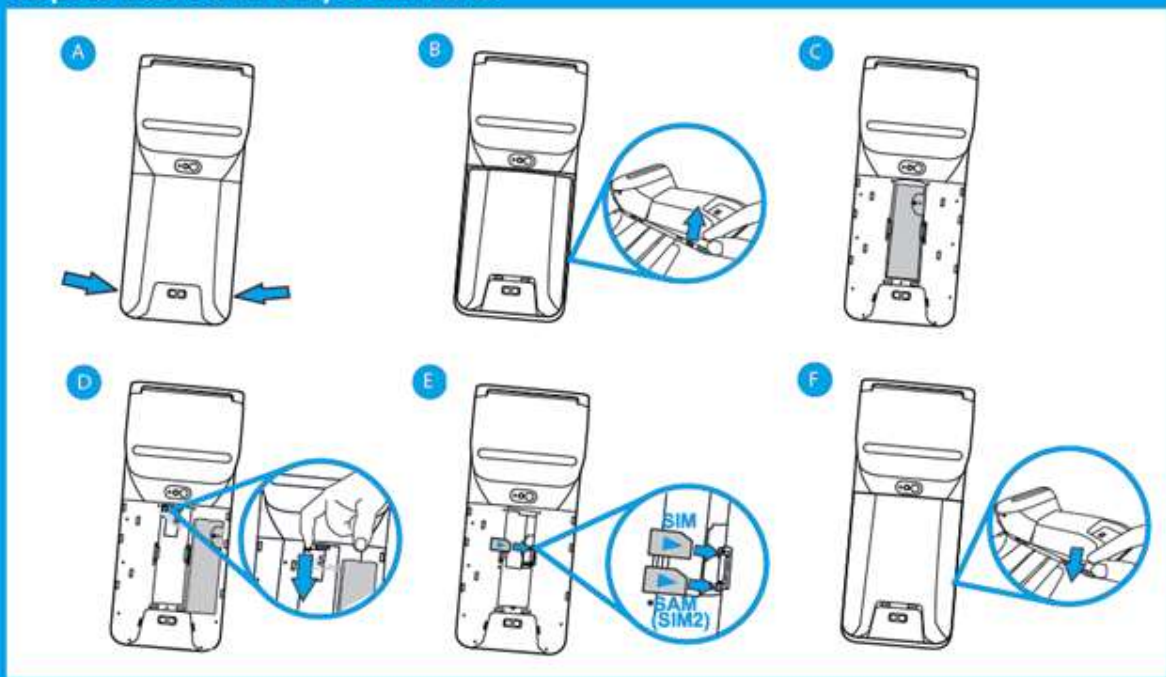
### Delivery content



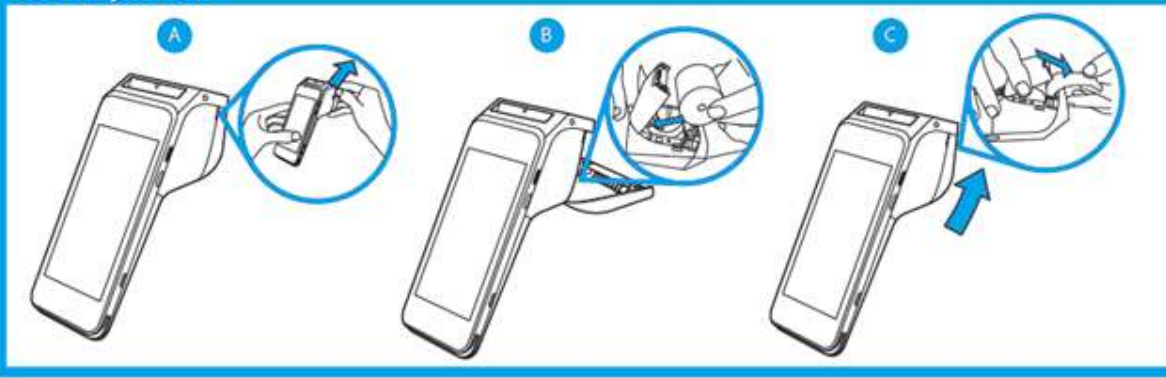
### Power Button



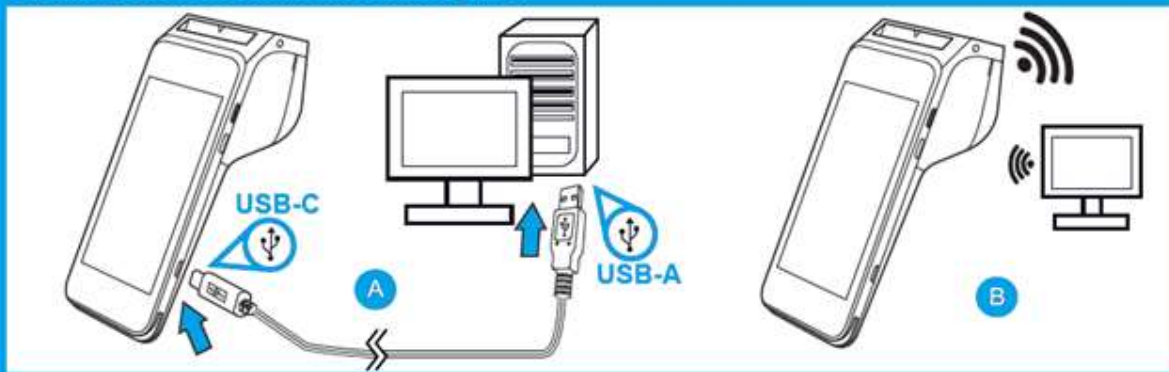
### Steps to insert SAM and/or SIM cards



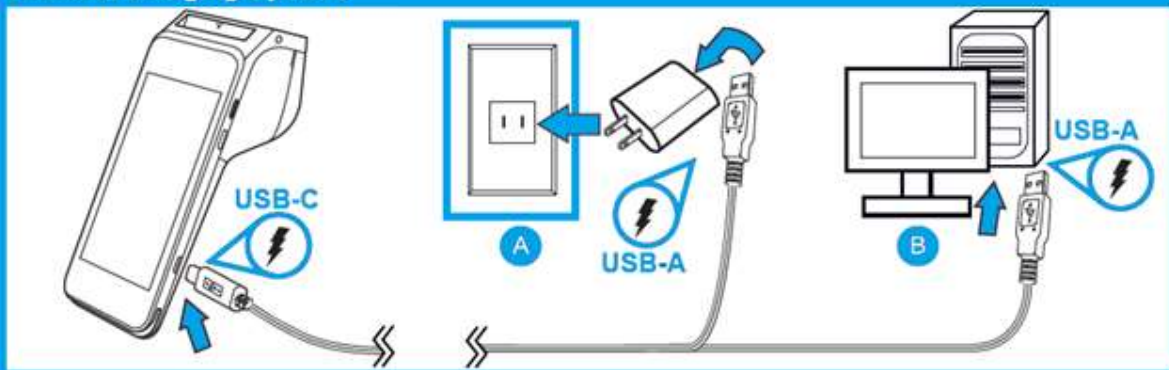
### Load Paper Roll



## Terminal and PC communication Options



## Terminal Charging Options



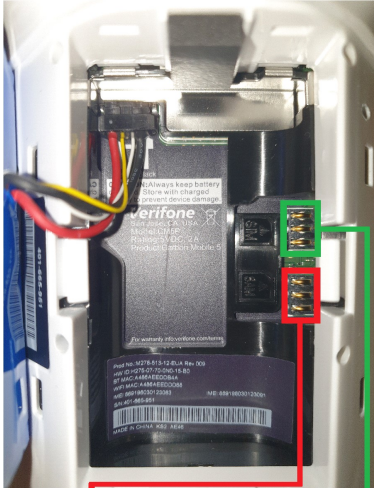
## Card Reading Interfaces



## Barcode Scanner



## SIM Setup



**SAM Slot**  
Micro SIM or  
Nano SIM in Micro SIM card

**SIM slot**  
Nano SIM

### Description

1 Nano SIM Slot

1 micro SAM or 2nd micro SIM Slot

### User action

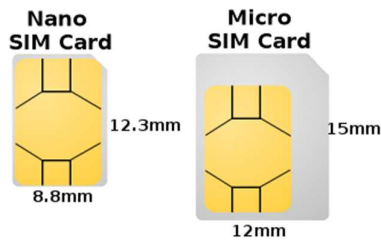
To Install SIM cards please turn off your device, remove the battery cover then remove the primary battery from the battery compartment but keep the battery connected.

Insert a SIM card (with contacts face down) by carefully sliding it into the slot until the card is fully inserted.

Make sure the card orientation is matching with the icon engraved in the housing.

Place the primary battery then place battery cover.

**Note:** if the device was powered on during insertion. Please reboot the device after inserting a SIM



## Charging the Battery



### Description

To charge the battery.

### User action

After unpacking your Verifone Carbon Mobile 5 device, charge the unit for eight hours or until fully charged.

## Manual Start Up



### Description

To start up or power on the terminal.

### User action

Hold the start/power button for about 3 seconds until the device displays the start-up screen.

## Manual Shutdown



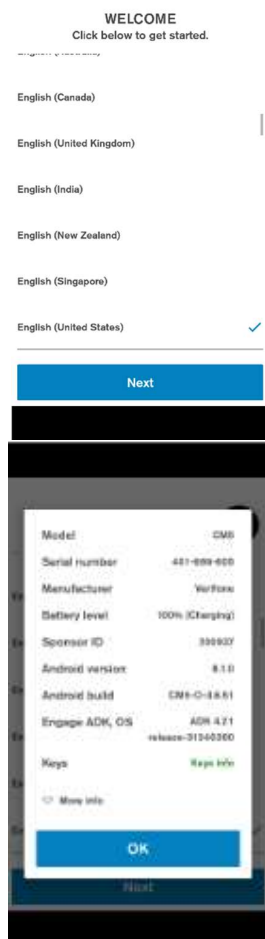
### Description

To shut down or power off the terminal.

### User action

Hold the start/power button for about 1 second until the message is displayed on the screen. Touch the "Power Off" selection to turn off.

## Language selection



### Description

Shows the list of supported languages with locales.

### User action

Language and Country can be selected here, where they will be applied to system and all apps which supports the selected language.

### Optional Info

It shows a summary about the device, which can be used to validate software stack **before** starting the activation process:

- Model name
- Serial number
- Device manufacturer
- Battery level
- VHQ Customer ID
- Certificate Sponsor ID
- Android version
- Build version
- Engage ADK and VOS versions
- Information about installed warranty keys
- Current connection status
- SIM card status
- Part number
- URL of VHQ server
- Heartbeat frequency
- Current IP address.



## Wi-Fi Setup

### Description

Displays list of available Wi-Fi Networks (SSID, strength).

Unsecured or WEP network cannot be selected.

### User action

The User can select secured access point and credentials will be requested. Possible to move to the next screen if Ethernet/Mobile is connected.

### Description

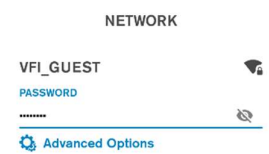
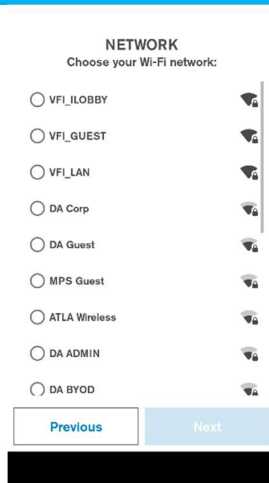
Wi-Fi network credential input. If the password entered is correct a connection will be established automatically. There is the option to configure a static connection with help of “Advanced Options”.

### User action

Requested to enter network credentials. The User can return to the previous screen or use the ‘**Advanced Options**’ to go to Static network configuration.

### Optional Static and/or Proxy configuration

Selecting **Advanced Options**, the user can enter the static network configuration information for the selected access point. Proxy configuration (Manual or Auto-config) can be entered as well. The same configuration setting options are available for Ethernet connection types.



## Network Detection



### Description

The terminal is checking the internet availability and time configuration, these settings are used to communicate with the servers.

### User action

The user is not required to do any action at this stage.





## Configure Device ID



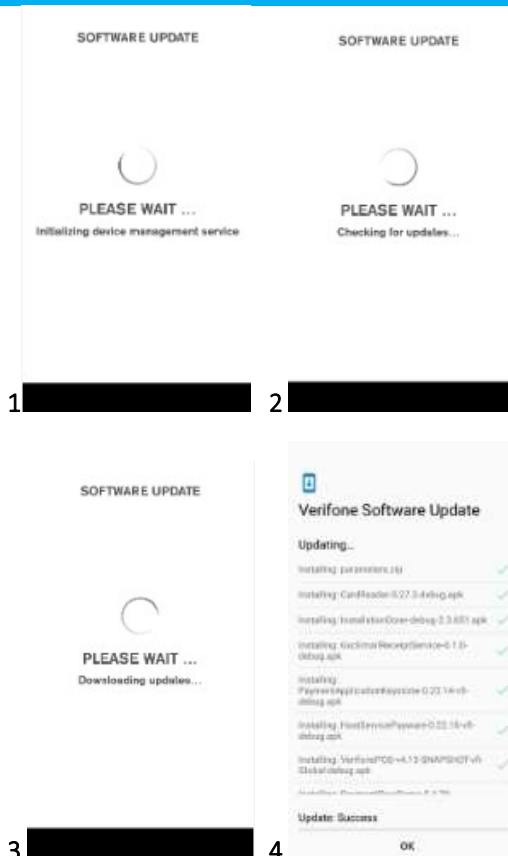
### Description

Device ID entry.

### User action

The user enters the received information Device ID (DID) in the corresponding field and click submit.

## Software Upgrade



### Description

These are the different stages of VHQ update process as well as Software packages installation.

### User action

The user is not required to do any action at this stage and must wait until all the installation steps are complete.

As soon as the packages are downloaded, the installation will start. Multiple reboots may occur based on the package types involved.

## Installation complete



### Description

The Device is ready to use.

### User action

Click on **OK** to confirm dialog and Setup Wizard will be completed.

### Optional Info

If **More info** is selected, a pop-up dialog will show a summary about the device, which can be used to validate software stack **after** Setup process.

### Description

After the setup out of box (OOB) process completes, the user will see the Standard terminal home screen.

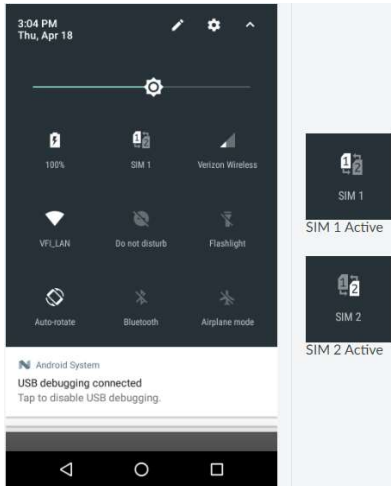
### User action

The user has access to the full functionality of the terminal.

### Note

Depending on the device operating mode, the terminal may start with a specific application instead of the blank home screen. This occurs when device operating mode utilizes POS mode settings.

## Single SIM Handling

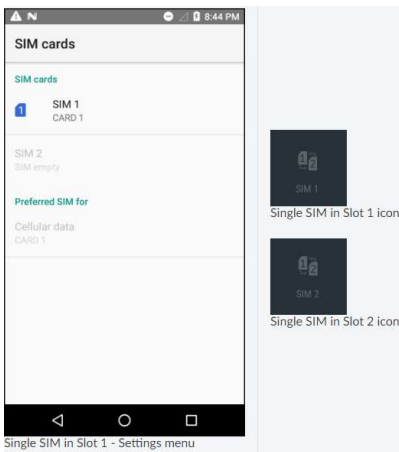


### Description

When a single SIM is placed into the device, the CM5P detects which slot is used and automatically selects that for use.

### User action

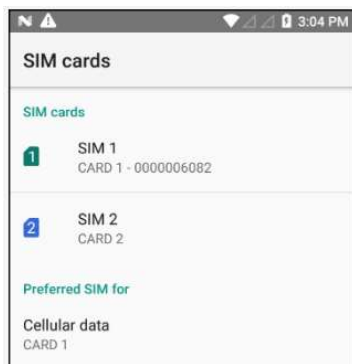
Pull down the notification curtain on the device to view the 'Quick Settings' for your device. The text under the icon will indicate which slot has a SIM.



A long press on that tile will bring the user to the SIM settings menu.

The SIM settings menu is also accessible by going to Settings -> SIM cards.

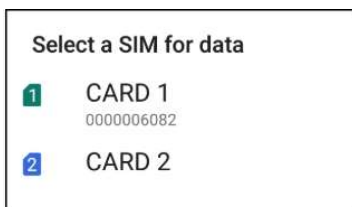
## Dual SIM Handling and Switching



### Description

There is no active switching between SIMs by the CM5P device software.

Switching between SIMs occurs manually through the user using the Quick Settings Tile or the Settings menu.



### User action

Navigate from the launcher to the Settings app and then select SIM Cards.

Under the “Preferred SIM for” section selecting “Cellular data” will provide whichever SIM is selected will be used for data.

## Payment Device Modes



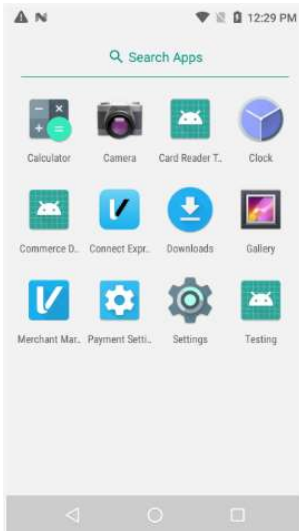
### Description

The Device modes allows a User to change the behaviour of the default or home application of the device, as well as lock the device to a particular application.

### Modes of Operation

- 1) Standard Android Mode
- 2) POS Mode

## Standard Android Mode



### Description

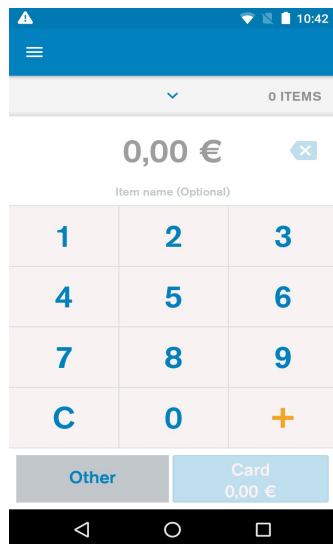
Standard Android Mode.

If the device is set to the standard Android mode, then it will boot into the standard home/launcher application.

### User action

The User can decide which application to launch and when.

## POS Mode



### Description

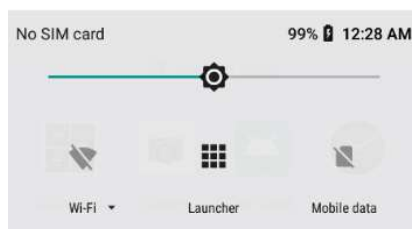
POS Mode

If the device is set to POS mode, it will have a default (primary) application for example 'Connect Express', that is started automatically when the device is switched on and returned to whenever pressing the "home" button.

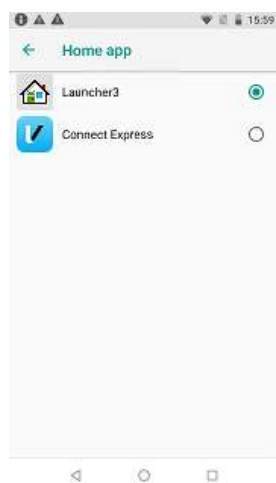
### User action

whenever pressing the "home" button the device will return to the primary application 'Connect Express'.

It is still possible to launch applications by having the standard **Launcher** application accessible from the notification curtain area.



## Default Application



### Description

To configure Default App.

### User action

Go to Settings > Apps & notifications > Advanced > Default apps > Home app.

Select your Home app.

## User Management

### Description

The user management component will require certain functions to request user authentication before proceeding. There are three defined roles supported. Each role requires a passcode:

#### The Admin Role

- The Admin can authorize the Admin or Manager or Cashier.
- The Admin can update the Manager and Cashier passcode.
- The Admin passcode will be set by an algorithm.
- The algorithm will be known to both help desk and terminal.
- The algorithm will incorporate a seed value specific to the acquirer.
- The algorithm will act as daily passcode.

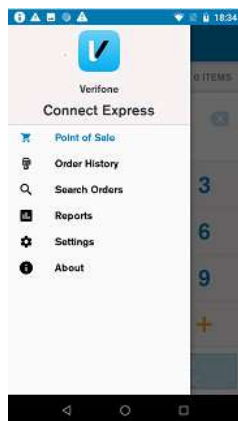
#### The Manager role

- The Manager can authorize the Manager and the Cashier.
- The Manager can update the Manager and Cashier passcode.

#### The Cashier role

- The Cashier can authorize only the Cashier.
- The Cashier cannot update the Cashier passcode.

## User Authentication Management

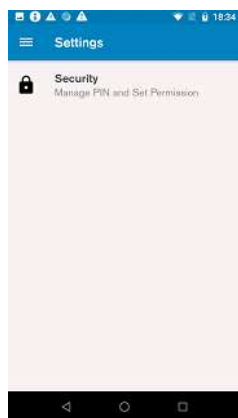


### Description

Connect Express Menu

### User action

Select Settings



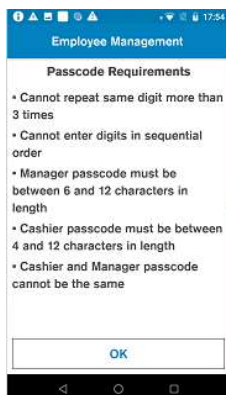
### Description

The Setting menu allows the merchant to view and change certain settings.

The authentication levels are set within Connect Express 'Security'.



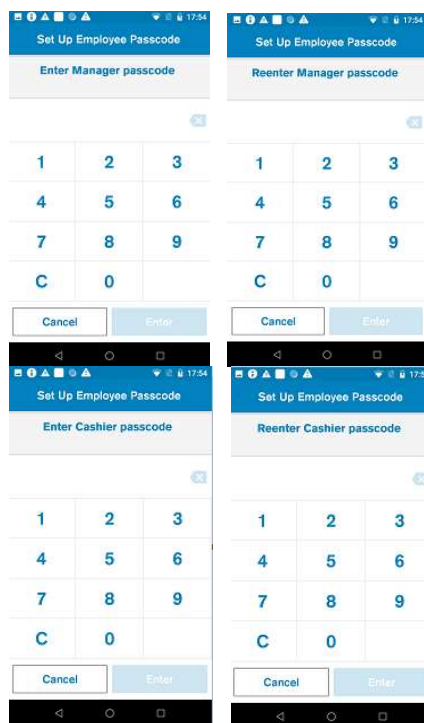
## Passcode Set Up



### Description

If the passcodes are not set up before the 'Passcodes Requirements' information will be displayed.

- Cannot repeat same digit more than 3 times
- Cannot enter digits in sequential order
- Manager passcode must be between 6 and 12 characters in length
- Cashier passcode must be between 4 and 12 characters in length
- Cashier and Manager passcode cannot be the same



### Description

Enter Manager passcode.  
Re-enter Manager passcode.

### User action

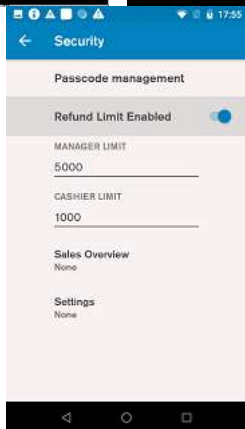
Create passcode for Manager and confirm passcode.

### Description

Enter Cashier passcode.  
Re-enter Cashier passcode.

### User action

Create passcode for Cashier and confirm passcode.



### Description

#### Passcode management

- A passcode can be changed on the terminal, if the current passcode is known. The Manager can change the Cashier passcode
- A passcode can also be reset with Admin daily password which is available via a Help desk.

**Sales Overview** authentication level - None, Manager, Cashier.

**Settings** authentication level - None, Manager, Cashier.

## User Authentication Management



### Description

Manager authentication prompt.

### User action

Enter Manager passcode on device for authentication.



### Description

Cashier authentication prompt.

### User action

Enter Cashier passcode on device for authentication.



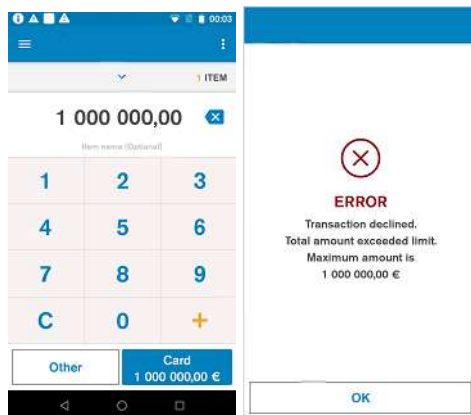
### Description

Select different role at the authentication prompt.

### User action

To switch roles, select the three dots at the top right corner at the authentication prompt.

## Transaction Selection



The transaction selection step consists of two parts:

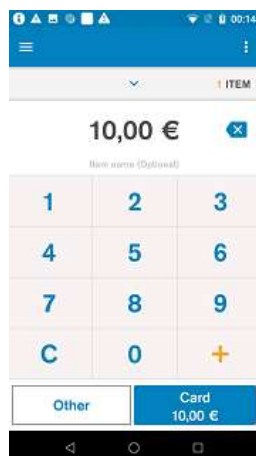
### Amount Input

The maximum possible amount value can be configured and by default is set to €1000000. If the entered amount exceeds the maximum capacity, it will inform the user and re-prompts for a valid amount.

### Transaction Type Selection

The terminal provides the merchant with the option to choose the transaction type that the merchant wants to proceed with after performing the required user authentication.

## Purchase



### Description

The merchant is prompted to enter the amount of the transaction. The transaction amount is validated against configuration to make sure that the amount is within the maximum amount. For purchase, 0 amount is not allowed.

### User action

Selecting *Card* starts the card payment.

Selecting *Other* prompts, the user for other transaction options such as refund

## Purchase - Continued

### Description

The Customer can insert, tap, or swipe a card. The Customer can view the items purchased by clicking the Basket icon present at the top right.



### For Chip cards

- Immediate Fallback to use Card Swipe will be prompt after a single failed attempt for the following conditions: Card Expiry, EMV Blocked and when the card type is not supported for chip.
- If there is a chip read error, the customer is asked to present the card again. If fallback is enabled, after the configured number of retries, the customer is prompted to use Card Swipe.
- If the card is declined, the customer is notified that the card is declined and is asked to remove card.

### For Contactless cards

- In case of a fallback to use Chip, the customer is asked to insert the card
- In case other errors, the customer is asked to try again
- If the card is declined, the customer is notified that the card is declined

### For MSR (Magnetic Stripe) cards

- If there is MSR read error, the customer is asked to present the card again. If fallback is enabled, after the configured number of retries, the customer is prompted to use Manual entry for card number.
- If the service code indicates a chip is present and the service code check is enabled, the customer is prompted to insert card
- If the card is expired and the expiry check is needed, the card is declined.

- If the customer cancels the transaction, **Transaction cancelled** message will be shown
- If the screen times out, **Transaction cancelled, Operation Timeout** message will be shown
- If the device crashes or reboots while on this screen, when the payment application restarts or device boots up, no power failure recovery will happen.
- If the **transaction type** is not supported by the **card**, the transaction is declined. If the transaction is supported by the card, the transaction is continued.
- If the card scheme (Visa, Mastercard...etc) is not supported by the **merchant**, the transaction is declined
- If the Customer is prompted to enter PIN. The PIN entry screen is displayed for online and offline PIN entry.
- If PIN bypass is not enabled, the Enter key is not enabled until 4 digits are entered
- if the customer enters PIN wrong for offline PIN, the customer is prompted for PIN again
- If the customer enters wrong PIN for offline PIN entry and the PIN entry retries are exhausted, the transaction is declined, and the card is blocked.
- If the customer enters wrong PIN for online PIN and if the host requests PIN retry, the customer is prompted for PIN again

## Purchase - Continued

## Keep Your Card Inserted



## Description

This indicates that the device is doing an online authorization.

## Error Scenarios

- If the customer removes the chip card, the transaction will be cancelled, and a reversal will be generated.
- If the payment application is exited or the device reboots while on this screen, when the payment application restarts or the device boots up, power failure recovery will occur, and the transaction will be declined, and a reversal will be generated.

## Please Remove Card



**APPROVED**

Transaction completed successfully



## Description

This informs the customer that the payment is completed successfully. It prompts the customer to remove the card if it is still inserted. The terminal can be configured to either play a single beep or to continuously play beeps until the card is removed.

## User action

The customer needs to remove the card. The screen will not timeout as long as the card is still inserted.

## Enter Signature

Sign Here

Total: \$3.00

I agree to pay the above total amount according to my card issuer agreement. VISA card ending in 8116. Authorization number 768818

Clear

Done

9:27 AM

Would you approve with this customer's signature?

No

Yes, Approve



Total: \$3.00

I agree to pay the above total amount according to my card issuer agreement. VISA card ending in 8116. Authorization number 768818

Clear

Done

## Description

Prompts the user for signature. This is displayed if the card requires signature or if the host requests signature or PIN entry has been bypassed. For non-chip transactions, in addition to the above, this is displayed only if the transaction amount is higher than the Signature Required Min Amount.

## User action

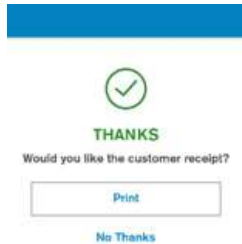
Customer enters signature.

## Description

Prompts the merchant to verify the signature after the signature is done or the screen times out.

- If the merchant declines the verification, the transaction will be declined, and a reversal will be sent

## Purchase - Continued

**Description**

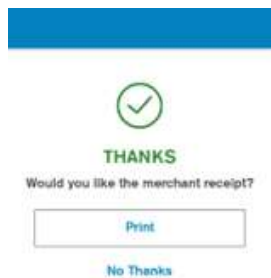
The customer is prompted to select the option for receiving the receipt.

**Customer action**

The receipt is skipped or printed based on the user selection.

**Description**

In the event the terminal is configured to print two paper receipts back-to-back, this prompt will appear. It will give the user time to tear off the receipt, before the next one is printed.

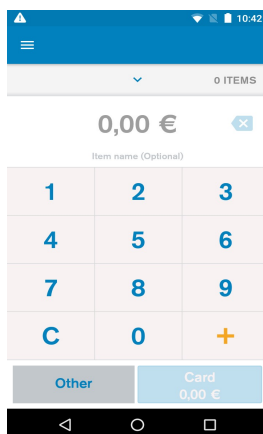
**Description**

The User is prompted to decide if they want to print the merchant copy or not.

**Error Scenarios**

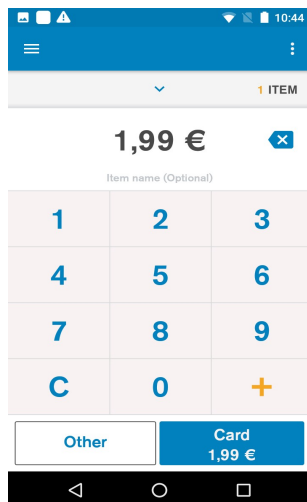
The receipt is skipped or printed based on the user selection.

If the screen times out, the merchant receipt will be printed regardless.

**Description**

After payment is complete, the screen returns to the default amount entry screen.

## Refund



### Description

The merchant is prompted to enter the transaction amount.

The merchant can bring up multiple items using the + key.

The merchant can reset the current item by pressing the C button.

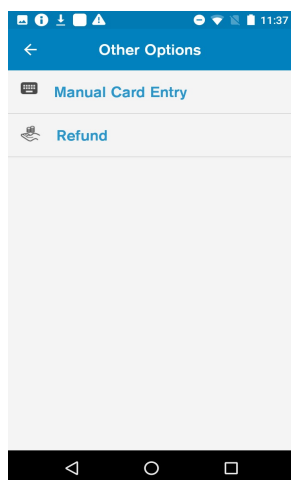
The top right menu allows the merchant to save or cancel the cart.

The top left menu gives access to administrative functions.

Tapping the Other button will give the various transaction type options such as refund.

### User action

Selecting Other button displays the transaction options to chose from.



### Description

The merchant is prompted to select a transaction option.

### User action

Select Refund will take the user to the corresponding transaction flow.

**Note:** If the user authentication feature is enabled, the user is prompted for the **passcode** before performing operations.



### Description

The User is prompted to select the payment method.

Merchant is prompted to select the refund type. If only card is enabled, this screen will be skipped. If there are more payment modes , the "Other Payments" button will display and the remaining payment modes will be displayed on the screen when "Other Payments" is pressed. Otherwise "Other Payments" will not be shown.

### User action

Selecting *Card or Mobile* will take the user to *Insert, Swipe, or Tap* screen.



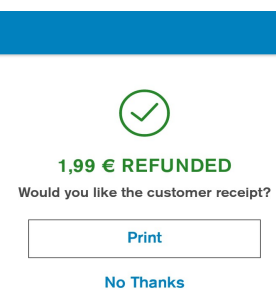
## Refund



### Description

The Customer can insert, tap, or swipe a card. The Customer can view the items selected for refund by clicking the Basket icon present at the top right.

**Note:** The transaction flow is the similar to the one described at the purchase flow.



### Description

The User is prompted to decide if they want to print the customer copy or not.

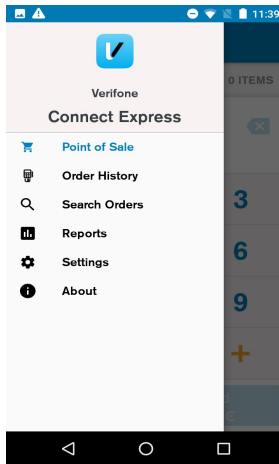
### Error Scenarios

If the screen times out, the merchant receipt will be printed regardless.

## Order History

### Administration Menu

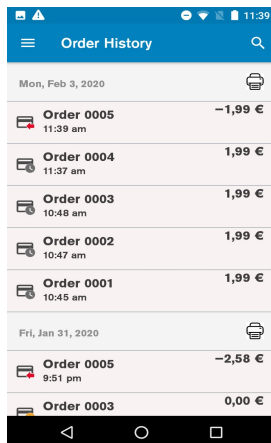
The User can access the transaction history, account settings, and view reports via this menu.



### Order History

Displays the transaction history that is saved in the device. The icon next to the transactions shows the transaction type whether it is a sale, refund or void transaction.

The transaction history allows the transactions to be searched for using a different search option.



### Use Action

The user can view and print the list of order history per day.

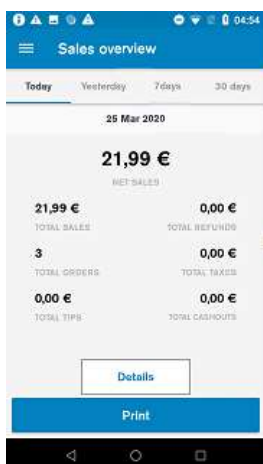
### Report - Sales Overview

Provides a summary of the transactions for the following:

Current day, Previous day

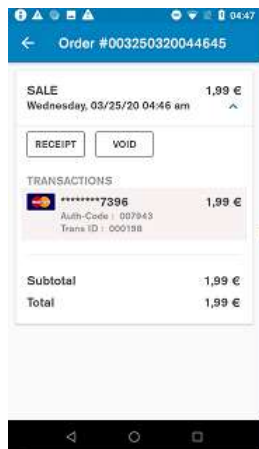
Past 7 days, Past 30 days

Total reports are available for print.



**Note:** If the user authentication feature has been enabled, the user is prompted for the passcode before performing operations

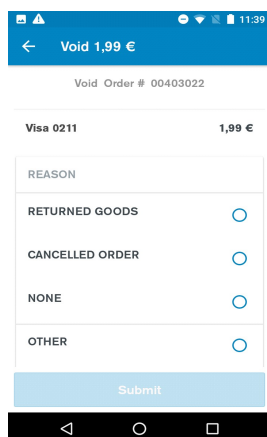
## Void



### Order Details

Displays the details of a transaction.

The following operations are allowed, Void transaction and receipt reprint.



### Description

Void is selected, and the User is prompted to select a reason for void.

### User action

Selecting the reason continues the void processing.



### Description

Displays that the device is doing an online authorization by communicating to the host and completing the transaction successfully.



## Void - Continued



**THANKS**

Would you like the customer receipt?

No Thanks

### Description

The User is prompted to select the option for receiving the receipt.

### User action

The receipt is skipped or printed based on the User selection.



**THANKS**

Would you like the merchant receipt?

No Thanks

### Description

The User is prompted to decide if they want to print the merchant copy.

### User action

The receipt is skipped or printed based on the User selection.

If the screen times out, the merchant receipt will be printed

## Reprinting Receipts

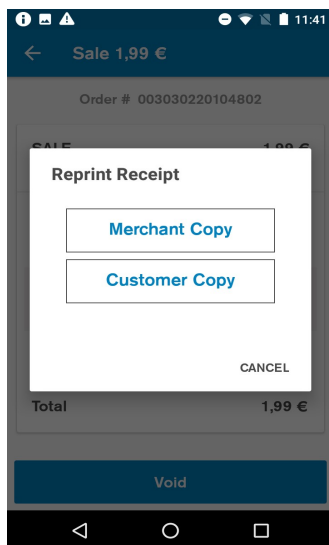


### Description

If the order contains multiple transactions, the User is prompted to select which transaction the copy of the receipt should be printed for.

### User action

The User selects the transaction for printing a receipt copy.



### Description

The User is prompted to select the receipt copy - Merchant or Customer.

### User action

A copy of the receipt is printed, or skipped, based on the User selection.

## Full Software Update

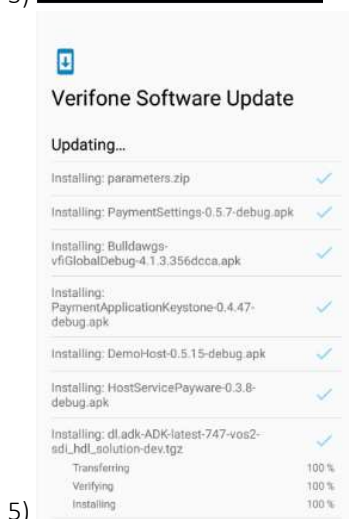
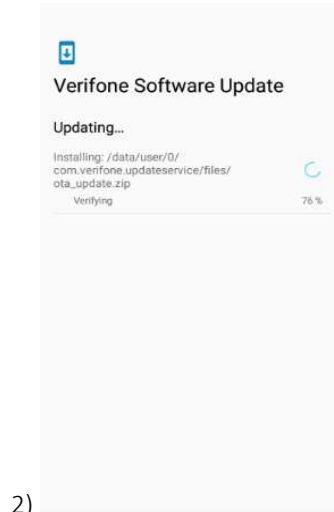
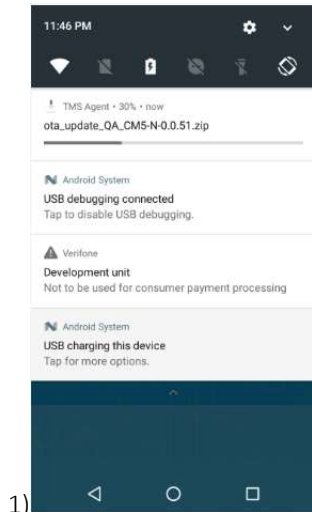
### Description

- 1) Shows progress of software download.
- 2) Shows software verification progress after software download completes. Successful verification is followed by device reboot.

**Note:** This software update cannot be interrupted by the User. Be ready for a device reboot after the software update verification completes.

- 3) The Terminal is rebooting to apply software update.
- 4) Shows progress information about the software update
- 5) Shows information about software components being installed on device after reboot. Shows the update result success or failure.

**Note:** Please wait for the software update to complete. In case of failure contact the Helpdesk.

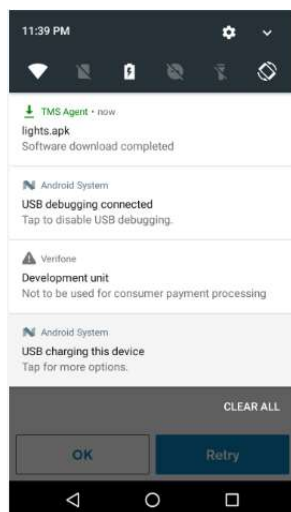


## Android Applications Update



### Description

Shows the progress of the application download.



### Description

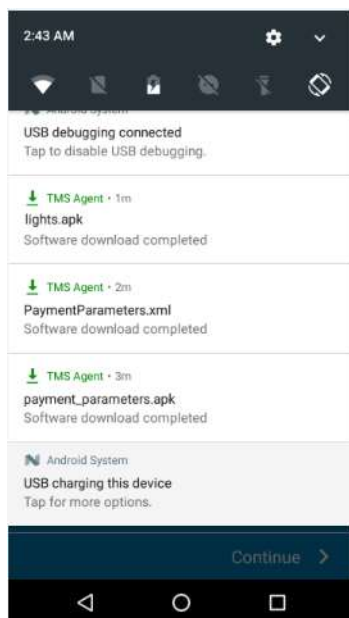
Indicates application download has been completed and that it has been installed.

### User action

No action is needed. If the updated application needs to be restarted, it will be done automatically.



## Payment Application Configuration Update



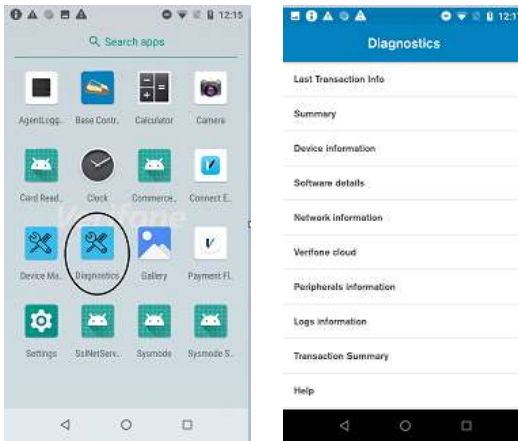
### Description

Indicates that a new set of payment parameters has been downloaded. The update will be applied as soon as the download has completed.

### User action

No action is required. If an application restart or device reboot is needed, it will be done automatically.

## Diagnostic App



### Description

Open launcher shows all the applications available on the device. The Diagnostics application will be available here.

### User action

Click on the Diagnostics application.

The app will display a list of diagnostic options.

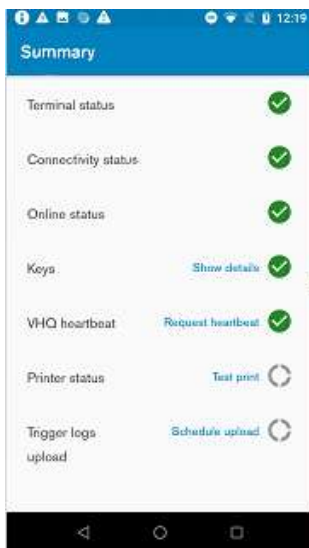
Select any option for further details.

**Summary** is the first option in the Diagnostics menu.

It shows a general status about the most important device functions.

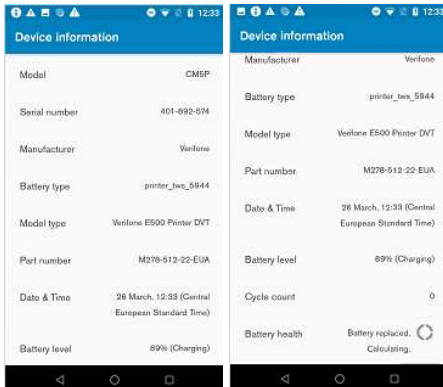
### User action

Pull down the Summary menu. This will update the status of each item.



| Field               | Description  |
|---------------------|--|
| Terminal status     | Shows if payment terminal is connected or not. For mobile devices always true.   |
| Connection status   | Shows if there is network connection (router is connected)   |
| Online status       | Shows if device can reach external IP address to make sure selected network has actual internet connectivity.  |
| Keys                | Shows if expected keys are installed. Pop-up can be opened to see details about each key status. Clicking <i>Show details</i> will display the installation status per key, prompting the missing key(s) in a pop-up window. |
| VHQ heartbeat       | Triggers manual VHQ heartbeat and shows VHQ heartbeat status   |
| Print status        | Allow to perform test receipt print to validate if printer detected and works.   |
| Trigger logs upload | Schedules a manual log upload to a Verifone server.  |

## Diagnostic App-Continued



### Device Information

| Field          | Description   |
|----------------|---|
| Model          | Specifies the device model name.  |
| Serial number  | Shows the device serial number.   |
| Manufacturer   | Shows the device manufacturer.  |
| Battery type   | Shows the battery model information.  |
| Model type     | Displays the device model version.  |
| Part number    | Specifies the terminal part number  |
| Date & Time    | Displays the current date, time, and timezone on the device.                                    |
| Battery level  | Indicates the battery charging level (in percentage) and status (i.e. Charging or Discharging). |
| Cycle count    | Counts the number of complete discharge cycles the current battery has completed.               |
| Battery health | Reports the current health status of the device battery.  |



### Software Details

#### Android Software Details

| Field           | Description   |
|-----------------|---|
| Android version | Android OS version  |
| Kernel version  | Android OS API level  |
| Build number    | Android OS Verifone build version                           |
| Environment     | Backend environment which device communicates to.           |
| Applications    | Shortcut to open list of installed applications on Android. |



#### Engage Software Details

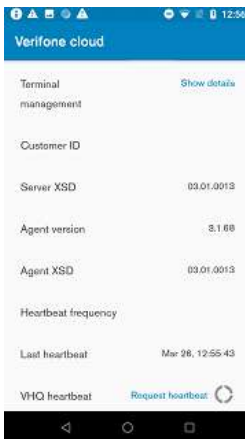
| Field                 | Description   |
|-----------------------|---|
| Terminal OS version   | VOS version installed on the engage chip                                  |
| ADK version           | Installed ADK version   |
| Terminal applications | Pop-up with list of all installed bundles and their version on the engage |

## Diagnostic App-Continued



### Network Information

| Field                          | Description   |
|--------------------------------|---|
| Connection status              | Shows if there is data network connection, such as wifi/ethernet/mobile.  |
| Online status                  | Shows if device can reach external IP address to make sure selected network has actual internet connectivity.   |
| Connectivity disconnects today | Count of data connection disconnects since midnight, specified as when the network state changed from CONNECTED to DISCONNECTED state. Example would be if the device momentarily loses wifi connectivity, or switches from wifi to mobile. |
| Device IP                      | Current assigned device IP address  |
| Connectivity type              | Current data connection type (WiFi with access point name / Ethernet / Mobile)  |
| Preferred SIM                  | Network name of preferred SIM card, if in use   |
| Need help?                     | Optional - this will link to a QR code, only available when "Connectivity status" shows disconnected. QR code links to a Verifone support URL.  |



### VeriFone Cloud

| Field               | Description   |
|---------------------|---|
| Terminal management | Shows VHQ server URL.   |
| Customer ID         | Customer id account on device management server (VHQ), used to identify customer and their devices hierarchy. |
| Heartbeat frequency | Frequency at which device will communicate with VHQ.  |
| VHQ heartbeat       | Allows to trigger VHQ heartbeat. Heartbeat type depends on maintenance schedule                               |

### Peripherals

Shows information about connected peripherals devices like printer.



| Field          | Description                        |
|----------------|------------------------------------|
| Printer status | Allows user to perform test print. |
| Printers       | List of all known printers.        |

## Diagnostic App-Continued

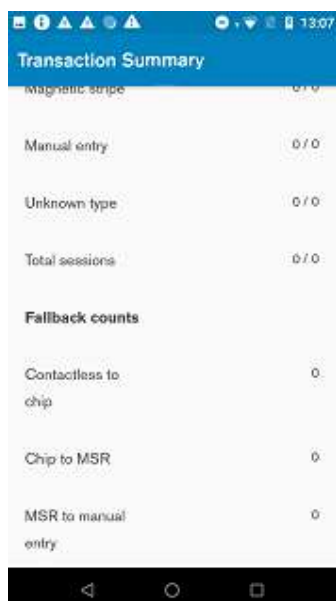


| Technology type        | Success / Fail |
|------------------------|----------------|
| Contactless            | 0 / 0          |
| Chip                   | 0 / 0          |
| Magnetic stripe        | 0 / 0          |
| Manual entry           | 0 / 0          |
| Unknown type           | 0 / 0          |
| Total sessions         | 0 / 0          |
| <b>Fallback counts</b> |                |

### Transaction Summary

#### Technology type

| Field           | Description  |
|-----------------|--|
| Contactless     | Number of successful and failed contactless transactions                 |
| Chip            | Number of successful and failed chip transactions                        |
| Magnetic stripe | Number of successful and failed magnetic stripe transactions             |
| Manual entry    | Number of successful and failed transactions with manual card data entry |
| Unknown type    | Number of successful and failed other transactions                       |
| Total sessions  | Number of total successful and failed transactions                       |



| Field                  | Description |
|------------------------|-------------|
| Magnetic stripe        | 0 / 0       |
| Manual entry           | 0 / 0       |
| Unknown type           | 0 / 0       |
| Total sessions         | 0 / 0       |
| <b>Fallback counts</b> |             |
| Contactless to chip    | 0           |
| Chip to MSR            | 0           |
| MSR to manual entry    | 0           |

#### Fallback counts

| Field               | Description  |
|---------------------|--|
| Contactless to chip | Number of fallbacks from contactless to chip requests            |
| Chip to MSR         | Number of fallbacks from chip to magnetic stripe request         |
| MSR to manual entry | Number of fallbacks from magnetic stripe to manual entry request |

## Device Manager App



### Description

Open launcher and click on **Device Manager** application.

### User action

click on **Device Manager** application for further details such as:

- Host Param Options
- Configuration Options
- Configuration Report
- Configure Device ID

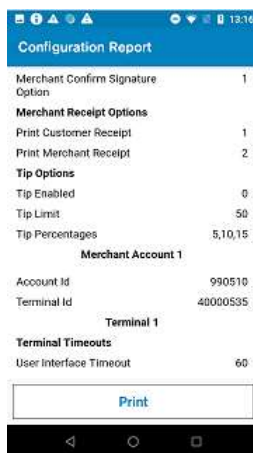
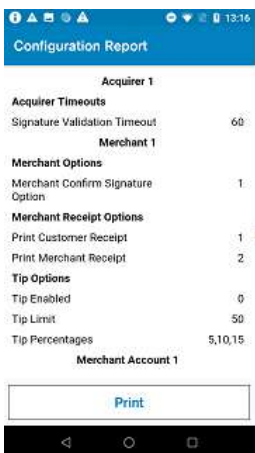


### Description

**Configuration options** is available via the Device Manager menu.

### User action

The User can select the required Terminal configuration option to view and edit as appropriate.



### Description

Configuration Report is available via the Device Manager menu.

### User action

The User can view and print the configuration report.

## Purchase with Accessibility Option



Accessibility function allows visually-impaired customers to use the payment device without issues. It supports Assistant PIN Entry, Accessible PIN Entry and the training exploration.

### Description

If the accessibility option is enabled in the configuration, the user can **double** tap anywhere on the card prompt screen to turn on the accessibility mode.

If the assistance option is enabled, the user can tap the visually-impaired yellow button to choose the best contrast colour for the payment screens. For the remainder of the transaction, the screens will have the background colour that is chosen.

Once the accessibility/assistance mode is turned on, the screen prompts will be read aloud to the user.

### Description

Customer is prompted to enter PIN with accessibility feature. The customer can drag their fingers orienting themselves using the corners of the device.

The screen is laid out as a virtual number pad grid. As the user drags fingers along each number, a beep is played. The beep is the same regardless of the number that the finger has dragged on. This will allow the customer to count the number of beeps heard and using the direction in which the fingers moved, they can decipher the number their finger is on.

Once the finger is dragged to any button, the customer can select that button, by double tapping anywhere on the screen.

The accessibility mode must be turned on for each transaction. Once the PIN retries exceeds the configurable value, the customer will be taken to a short training for PIN entry in the accessibility mode. Refer to purchase

### Merchant/Customer action

User enters the PIN using the accessibility feature.



## Purchase with Accessibility Option-Continued

Keep Your Card Inserted



### Description

This indicates that the device is doing an online authorization by communicating to the card acquirer's host system.

### Error Scenarios

- If the user removes the chip card, the transaction will be cancelled, and a reversal will be generated.
- If the payment application is exited or the device reboots while on this screen, when the payment application restarts or the device boots up, power failure recovery will occur, and the transaction will be declined, and a reversal will be generated.

Please Remove Card



### Description

This informs the customer that the payment is completed successfully. It prompts the customer to remove the card if it is still inserted. The terminal can be configured to either play a single beep or to continuously play beeps until the card is removed. In accessibility mode, a voice for card removal is prompted.

### Customer action

The customer needs to remove the card. The screen will not timeout as long as the card is still inserted.

## Accessibility Training



On the card prompt screen, the hamburger menu icon has options to launch any of the below lessons. All the chapters are played automatically.

The Training includes the following lessons:

- **Exploration:** includes Selection (Tactile) button: This is the first chapter explaining about device and how to use it. The user must touch the device once to hear next instructions. The user must double tap or press the tactile button to activate training mode. The customer cannot exit from mode.
- **Selection (Tactile) button:** This chapter lets the customer practice activating accessibility mode by double tap/press the tactile button on listening to the chime. The customer cannot exit from this mode.
- **Training Edges:** This chapter guides the customer to use the accessibility keypad using edges and corners. The customer can select "Cancel" and double tap/press the tactile button to exit training mode.
- **Navigate:** This chapter lets the customer to practice keypad navigation and asks the customer to find some random keys. The customer can select "Cancel" and double tap/press the tactile button to exit training mode.
- **Submit digit:** This chapter asks the customer to find some random keys and guides with instructions to practice entering digit (double tap/press tactile button). The customer cannot exit from this mode.
- **Enter PIN:** Keys will not be spoken out in this chapter and guides the customer to practice entering randomly generated PIN. The customer can select "Cancel" and double tap/press the tactile button to exit training mode.

## Accessible PIN Entry



- Accessible Pin entry allows blind people to enter PIN themselves without having to disclosing the PIN to the merchant.
- If Accessible function is enabled, a special chime will be played periodically to inform the user that he or she can invoke the Accessible function. The user can perform a double-tap anywhere on the device screen or press a tactile button (the scanner key) to enter Accessible PIN Entry mode. Once Accessible Entry Mode is activated, the Total amount is vocalized and the instruction on how to present card is vocalized (“Please present your card”).
- **Multi-Touch:** To give the user a better user experience, the Terminal will reject the palm touch or multi-touch during Accessible PIN entry.
- The Accessible PIN Entry keypad type is a 12pad. The user can navigate through the keypad. The audio feedback will be played once the user switches to a different key in the keypad. The user can double tap anywhere on the Terminal screen or press a tactile button to confirm that key he or she last navigated to. Once the PIN entry is done, the user can navigate to the OK button (on the right bottom corner) and double tap anywhere on the screen or press the tactile button to confirm. For doing cancellation anytime during the PIN Entry, the customer can navigate to the Cancel button (on the left bottom corner) and double tap anywhere on the display or press the tactile button to exit the PIN Entry screen. The customer will also receive audio feedback if the PIN entered is correct or not.
- After two successive unsuccessful PIN tries in Accessibility mode, the user will be taken to the short training to explore, navigate, and practice digit entry (double tap/press the tactile button). The training keypad would behave same as accessibility except that the key digits are spoken out. The user selects and double tap/press the tactile button on “Cancel” at the bottom left corner to exit training. On exiting training, the on-going transaction would be cancelled, and a new transaction has to be started to do the card and PIN entry.
- Once the Accessible function feature is enabled, the terminal works in this mode for all subsequent transactions until disabled.

## Assistant PIN Entry



### Description

- **Assistant PIN Entry Keypad** behaves just like the Standard PIN Entry Keypad with magnification, colour contrast, and audio feedback.
- On the Card prompt screen, the user can choose Assistant mode through an Assistant visually-impaired yellow button on the screen. There are four different colour combinations provided and the user can select one of them. Once that colour is selected, the PIN entry Keypad will be shown in the new colour combination theme.
- colour blind users can select the contrast colour that allows them to see the screen the best. The background colour of the card prompt screen and the PIN entry screen will be the colour chosen by the customer. This colour only applies to the current transaction, the color will be restored to the default when the next payment starts.

### Description

The card prompt screen for color blind customers who can see certain color contrast better. The color is picked by the customer before entering this screen.

## Assistant PIN Entry-Continued



### Description

The user is prompted to enter the PIN. The background color is the color chosen by the customer to give the best contrast earlier in the card prompt screen via the assistant button. Refer to the purchase flow for PIN entry details



### Description

Informs the user that the payment is completed successfully. It prompts the user to remove the card if it is still inserted. The terminal can be configured to either play a single beep or to continuously play beeps until the card is removed. The background color is the color chosen by the customer to give the best contrast earlier in the card prompt screen via the assistant button.