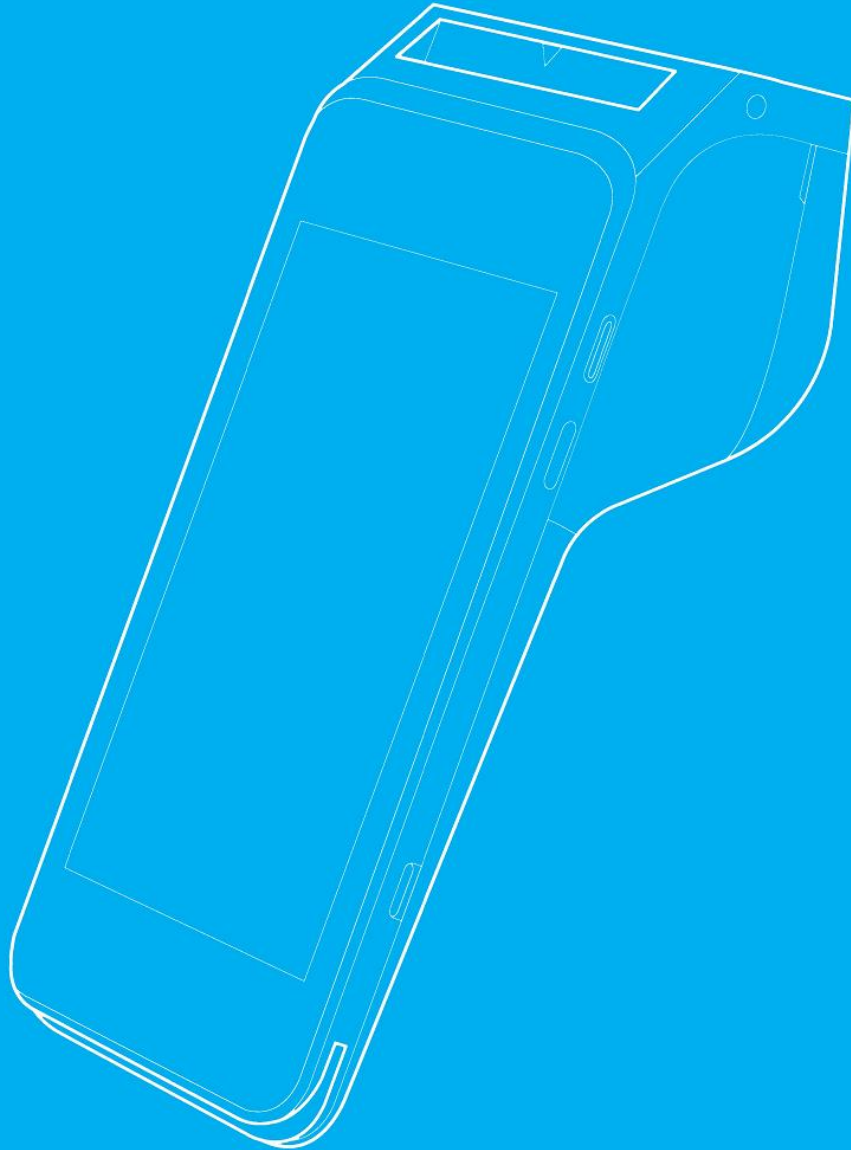


4G<sup>+</sup>



EN



**Verifone Android  
Carbon Mobile 5 with Printer  
Document Version 16  
Software Version: CM5-O-3.11.4**



DOC278-004-EN-A

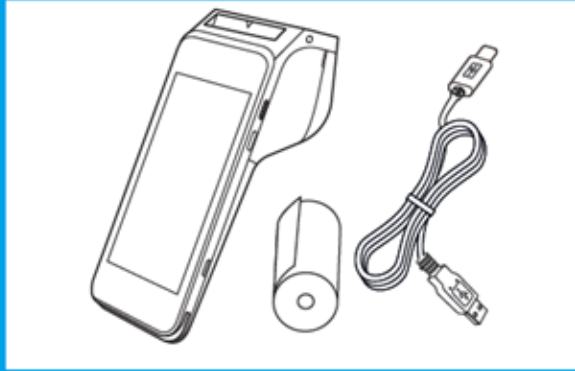
## Table of Contents

TERMINAL USAGE BASICS .....	4
Charging the Battery .....	6
Manual Start Up .....	6
Manual Shutdown .....	6
SIM SETUP .....	7
OUT OF BOX SETUP .....	8
Language selection .....	8
Wi-Fi Setup .....	9
Network Detection .....	10
Configure Device ID .....	10
Software Upgrade .....	11
Installation Complete .....	11
SIM HANDLING .....	12
Single SIM Handling .....	12
Dual SIM Handling and Switching .....	12
PAYMENT DEVICE MODES .....	13
Default Application .....	13
Standard Android Mode .....	13
POS Mode .....	14
USER MANAGEMENT .....	15
Passcode Setup .....	16
User Authentication Management .....	17
PAYMENT FUNCTIONS .....	18
Transaction Selection .....	18
Purchase .....	18
Refund transaction .....	22
Split Payment .....	25
Void transaction .....	26
ERROR SCENARIOS .....	28
For Chip cards .....	28
For Contactless cards .....	28
For MSR (Magnetic Stripe) cards .....	28
Other .....	29

- ORDER HISTORY ..... 30
  - Search Orders and Advanced search ..... 30
  - Order details and receipt reprint ..... 32
- REPORTS ..... 33
  - Sales overview ..... 33
  - Current totals report ..... 34
  - Reset totals report ..... 34
- ACCESSIBILITY ..... 35
  - Accessible PIN Entry ..... 35
  - Accessibility Training ..... 36
  - Assistant PIN Entry ..... 37
- TERMINAL HARDWARE ..... 38
  - Full software update ..... 38
  - Android Application Update ..... 39
  - Payment Application Configuration Update ..... 39
  - Diagnostics ..... 40
  - Device Manager ..... 48
  - Lock screen and Sleep ..... 50
  - Sounds ..... 51

## TERMINAL USAGE BASICS

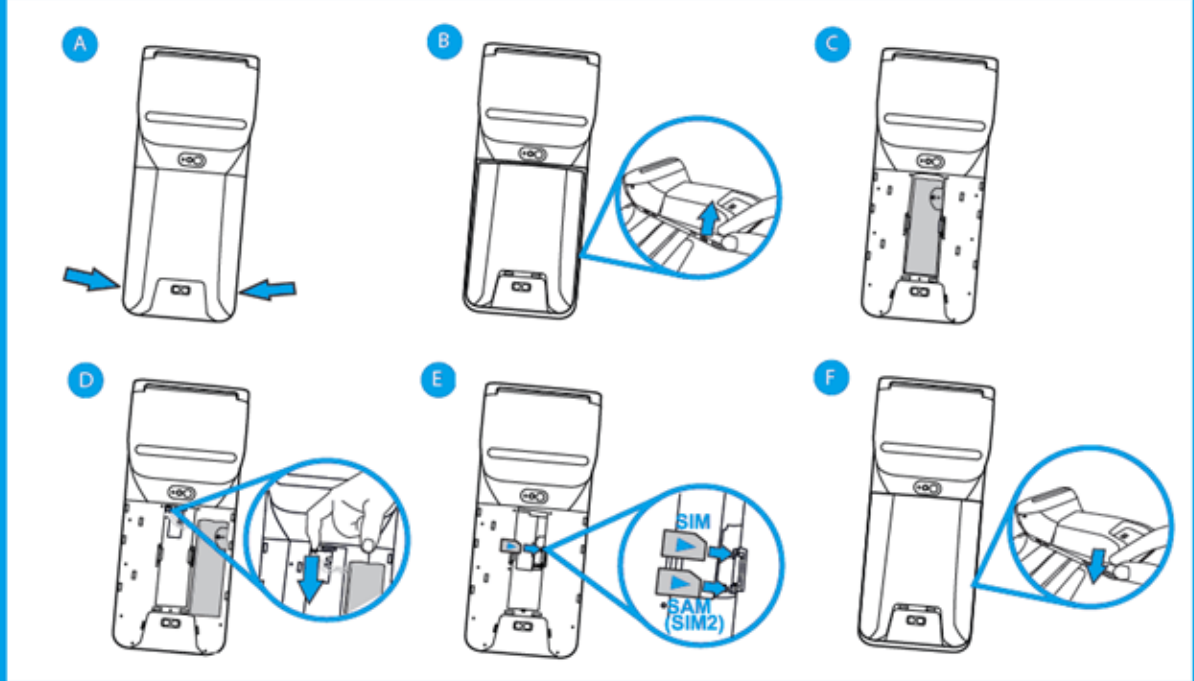
### Delivery content



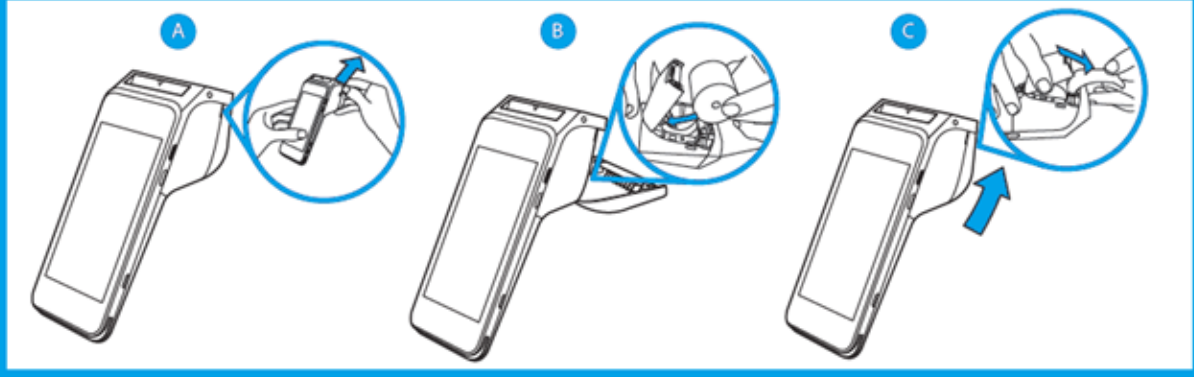
### Power Button



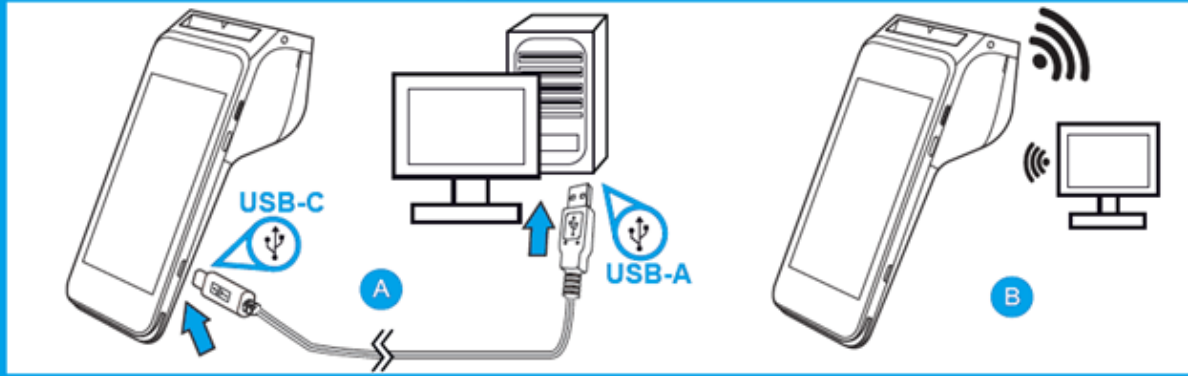
### Steps to insert SAM and/or SIM cards



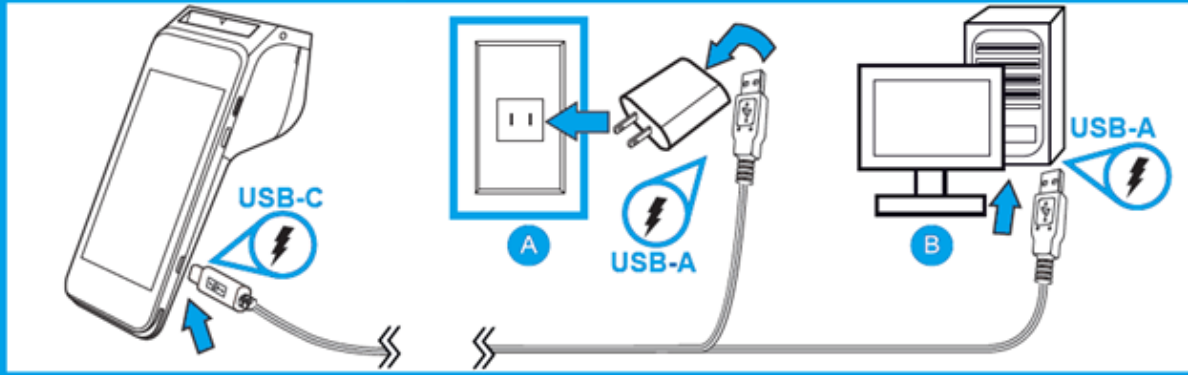
### Load Paper Roll



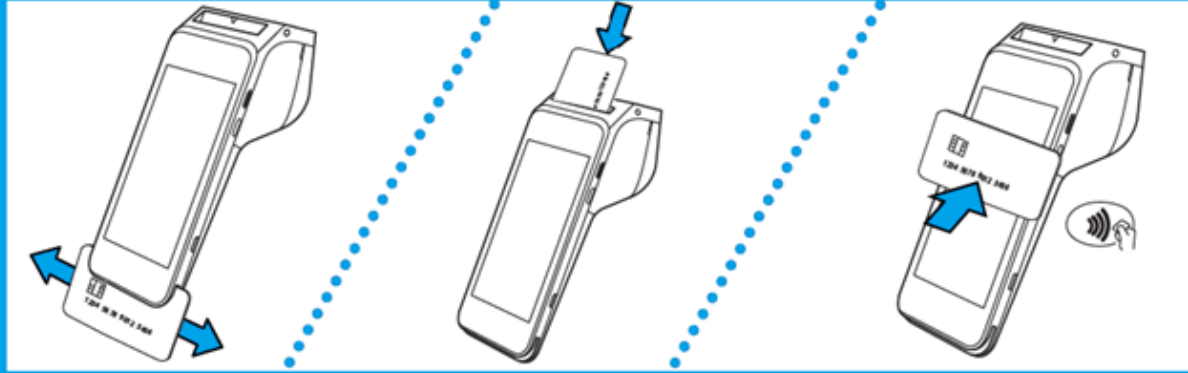
Terminal and PC communication Options



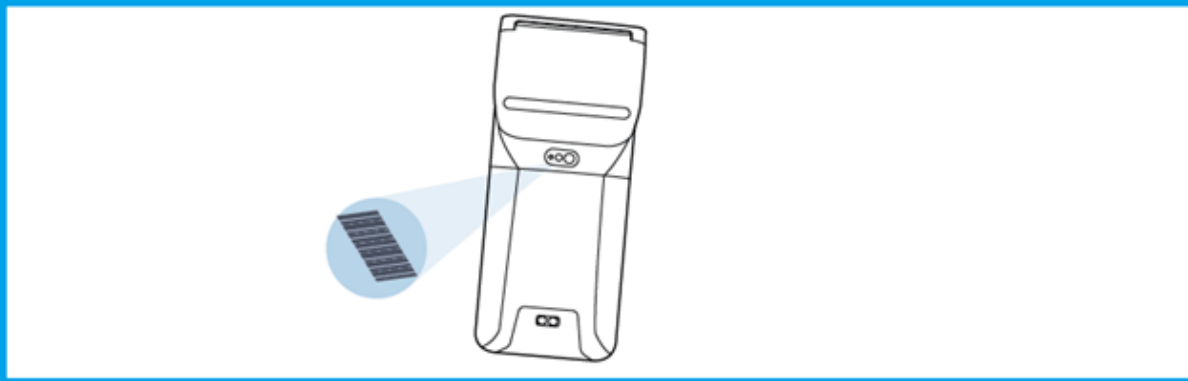
Terminal Charging Options



Card Reading Interfaces



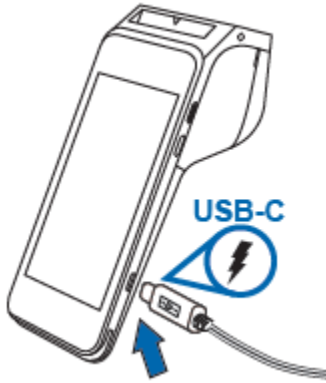
Barcode Scanner



---

### *Charging the Battery*

---



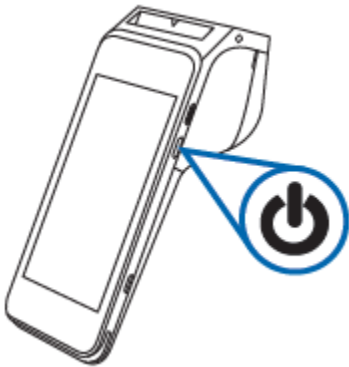
**Description**  
To charge the battery.

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

---

### *Manual Start Up*

---



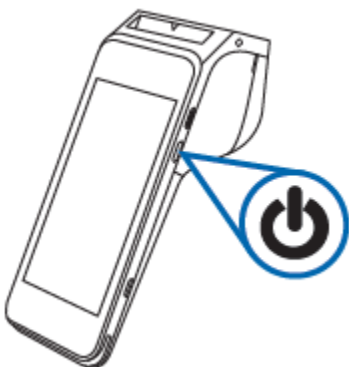
**Description**  
To start up or power on the terminal.

**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.

## SIM SETUP

### Description

- 1 Nano SIM Slot
- 1 micro SAM or 2nd micro SIM Slot

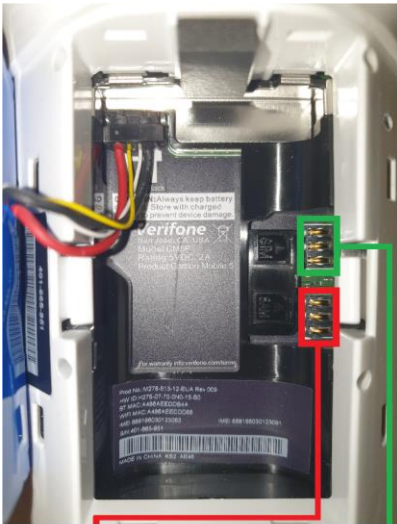
### User action

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

Insert the SIM card (with the SIM chip facing down) by carefully sliding it into the slot until the card is fully inserted.

After the SIM card is entered place the primary battery back in the terminal battery compartment and then put on the battery cover.

**Note:** If the device was powered on during insertion, please reboot the device after inserting the SIM card.



**SAM Slot**  
Micro SIM or

**SIM slot**  
Nano SIM

**Nano SIM Card**



12.3mm

8.8mm

**Micro SIM Card**

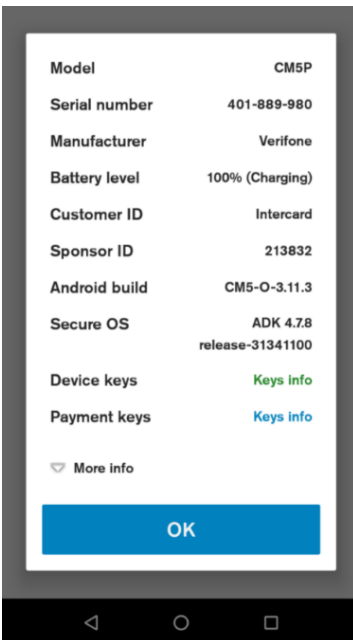
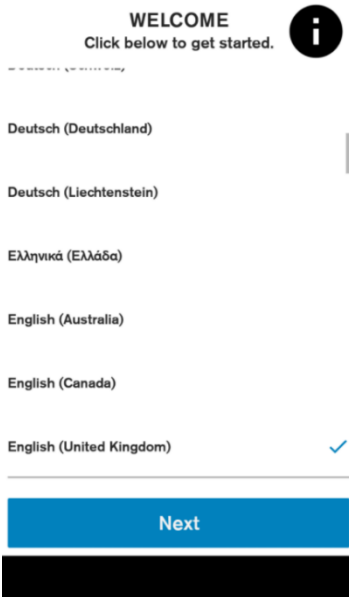


15mm

12mm

## OUT OF BOX SETUP

### Language selection



#### Description

When the device is first booted up, the language selection screen will be the first screen the user will see. 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 applications which supports the selected language.

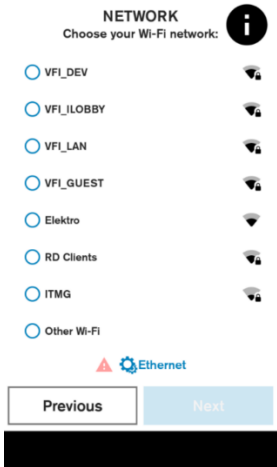
#### Information ( )

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 build version
- Engage ADK and VOS versions
- Information about installed warranty keys
- Battery voltage
- Current connection status
- SIM card status
- Android version
- Date & Time
- Part number
- URL of VHQ server
- Heartbeat frequency
- Current IP address.



## Wi-Fi Setup

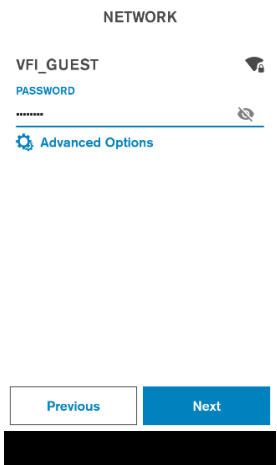


### Description

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, after selection credentials will be requested. Possible to move to the next screen if Ethernet/Mobile is connected.

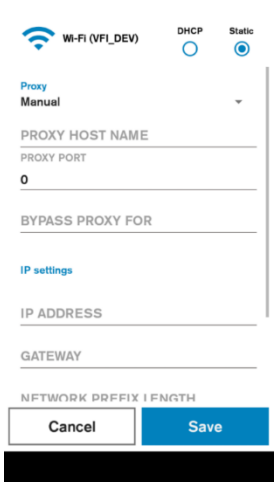


### Description

Wi-Fi network credential input. If the password entered is correct a connection will be established automatically. There is an 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.



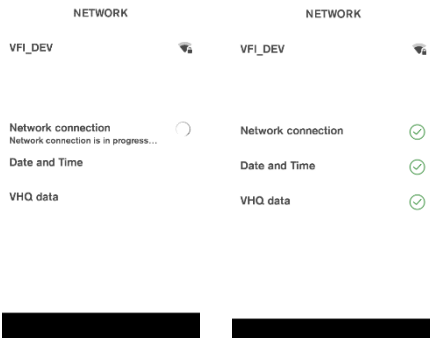
### Optional Static and/or Proxy configuration

If **Advanced Options** are selected then 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 checks the internet availability and time configuration, these settings are used to communicate with Verifone servers.

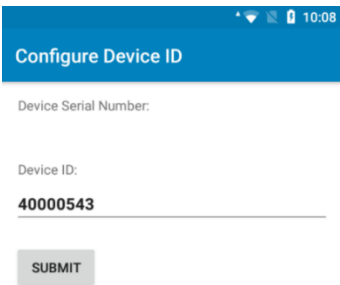
### User action

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

---

## Configure Device ID

---



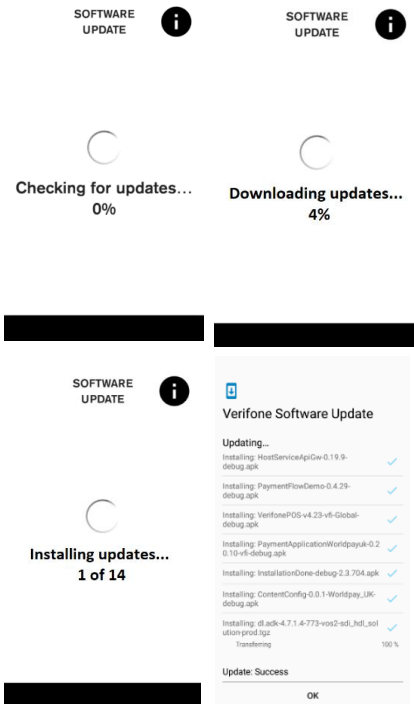
### Description

Device ID entry.

### User action

Received Device ID (DID) must be entered in the corresponding field and the button “submit” must be pressed.

## Software Upgrade



### Description

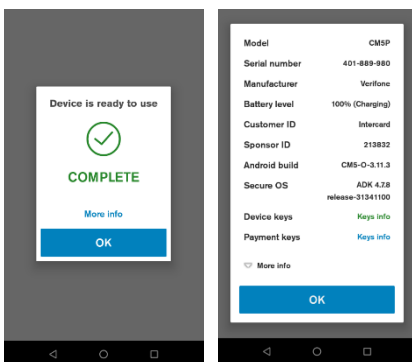
These are the different stages of VHQ update process as well as multiple Software package installations.

### User action

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

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

## Installation Complete



### Description

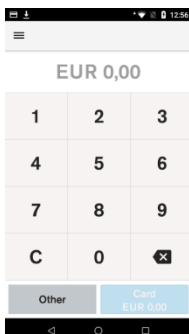
The device is ready to use.

### User action

The user must click on the “OK” button to complete the Setup Wizard.

### Optional Info

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



### Description

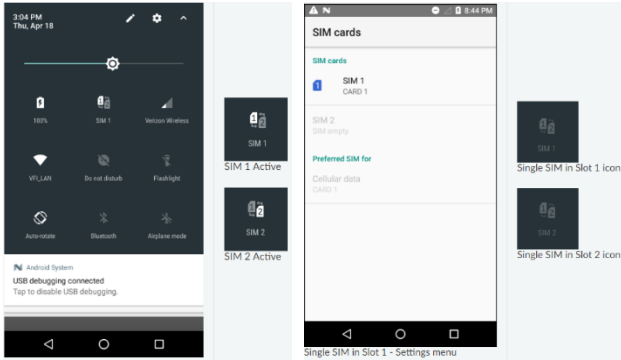
After the out of box (OOB) setup is completed, the user will see the POS application.

### User action

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

## SIM HANDLING

### 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.

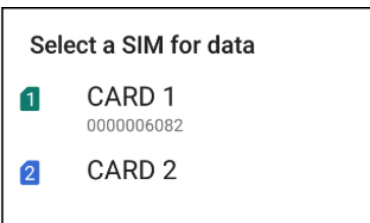
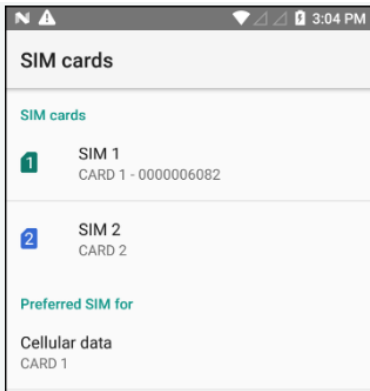
**User action**

Pull down the notification curtain on the device to view the “Quick Settings” for your device. The text under the SIM icon will indicate which slot has an active SIM card.

A long press on the SIM icon 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**

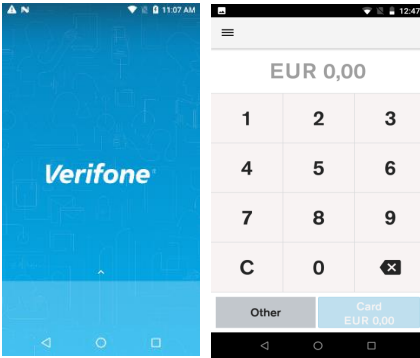
The device software does not perform automatic switching between the SIM cards.

**User action**

Navigate to the Settings application, select Network & Internet and then select SIM Cards.

Select preferred SIM card, by pointing out the primary SIM under the “Preferred SIM for” section.

## PAYMENT DEVICE MODES



### Description

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

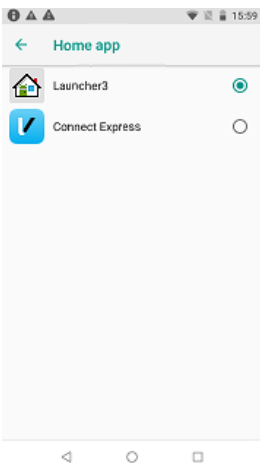
### Modes of Operation

- 1) Standard Android Mode
- 2) POS Mode

---

### Default Application

---



### Description

To configure default application.

### User action

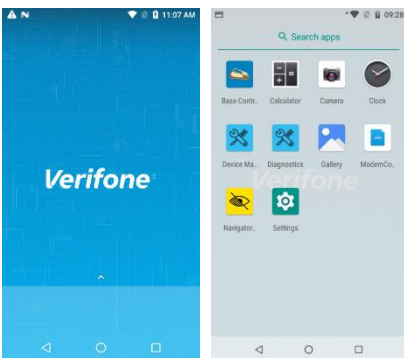
Go to Settings → Apps & notifications → Advanced → Default apps → Home app.

Select your Home application.

---

### Standard Android Mode

---



### Description

If the device is set to the standard Android mode (in Home app Launcher3 is selected), then it will boot into the standard home application.

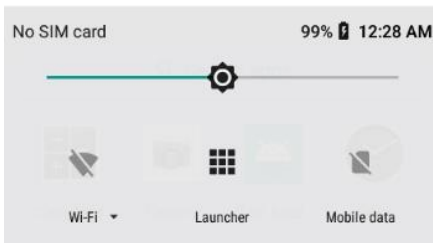
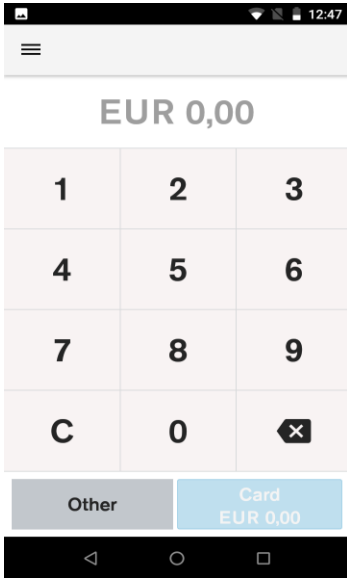
### User action

The user can access all applications by swiping up.

---

## POS Mode

---



### Description

If the device home application is set to Connect Express, this will be the default (primary) application, the POS mode will start 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.

## 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

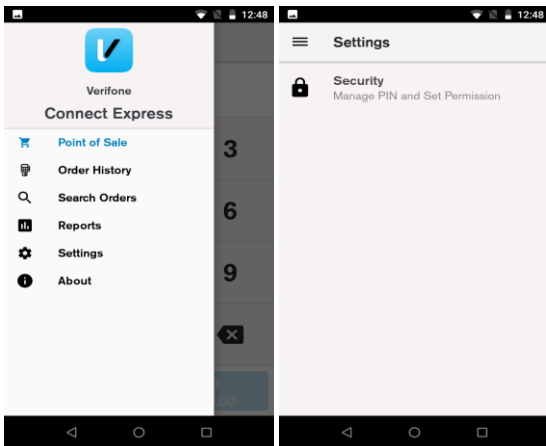
- The Admin can authorise all supported roles.
- The Admin can update the Manager and the Cashier passcodes.
- The Admin passcode is set by an algorithm.
- The algorithm will be known to both help desk and the terminal.
- The algorithm will incorporate a seed value specific to the acquirer.
- The algorithm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

#### The Manager role

- The Manager can authorise the Manager and the Cashier.
- The Manager can update the Manager and the Cashier passcodes.

#### The Cashier role

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



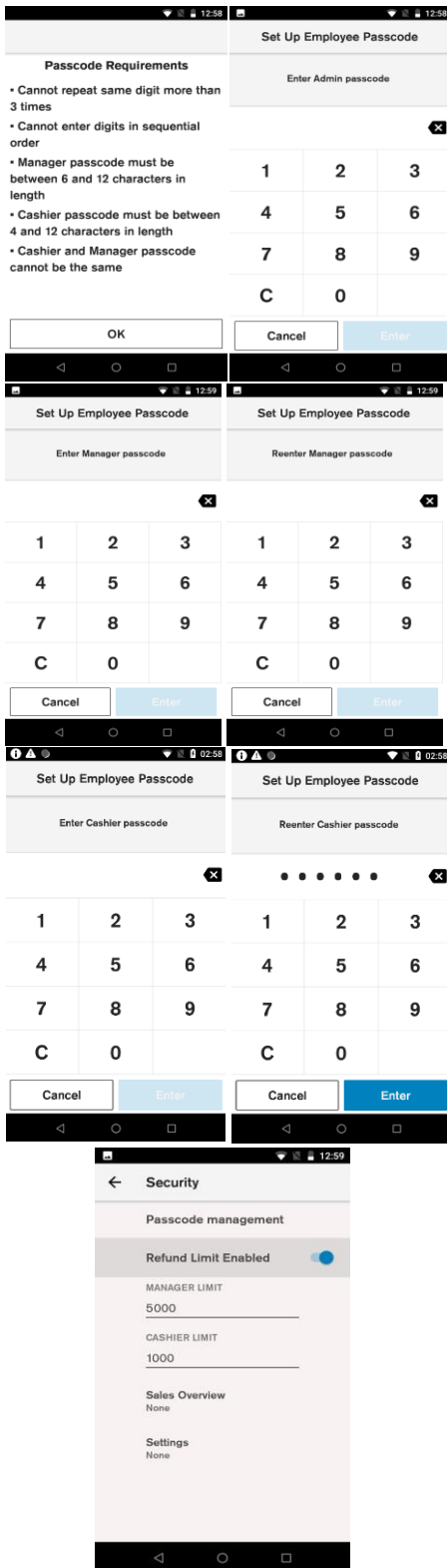
### Description

The passcodes can be set up in Connect Express menu. The Settings menu allows the merchant to view and change certain settings. When accessing the settings menu for the first time the user will be prompted to create passcodes, later, if needed, the passcodes can be changed there as well. The security menu is used to configure secure options.

### User action

Go to Connect Express menu and select Settings. Then select Security.

## Passcode Setup



### Description

If the passcode hasn't been set up during OOB, the "Passcode Requirements" information will be displayed.

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

To set up the employee passcodes you need to request the daily admin passcode from Helpdesk.

### Description

Create and confirm the passcode for the Manager.

### User action

- Enter the Manager passcode.
- Re-enter the Manager passcode.

### Description

Create and confirm the passcode for the Cashier.

### User action

- Enter the Cashier passcode.
- Re-enter the Cashier passcode.

### Passcode management

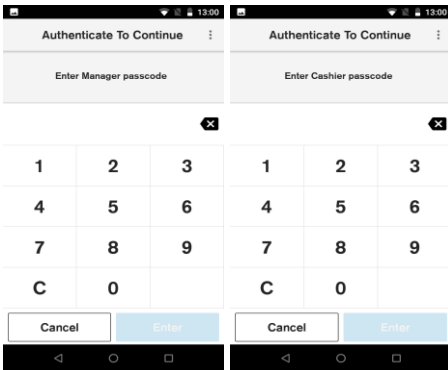
- The passcode can be changed on the terminal, if the current passcode is known. The Manager can change the Cashier passcode
- The user can reset the passcode using the daily Admin password which can be obtained by calling Helpdesk.

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

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



*User Authentication Management*

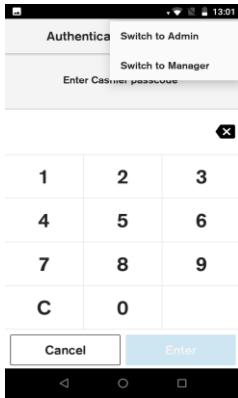


**Description**

The Manager and the Cashier authentication prompt.

**User action**

Enter the Manager or the Cashier passcode on the device for authentication.



**Description**

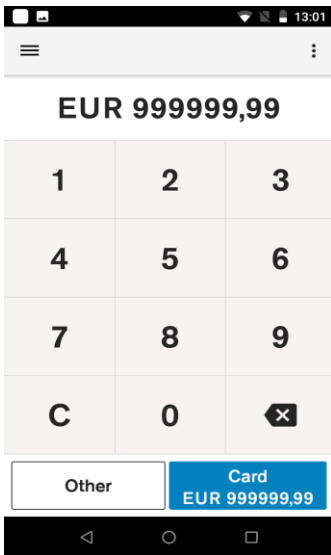
Select different role at the authentication prompt.

**User action**

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

## PAYMENT FUNCTIONS

### Transaction Selection



The transaction selection step consists of two parts:

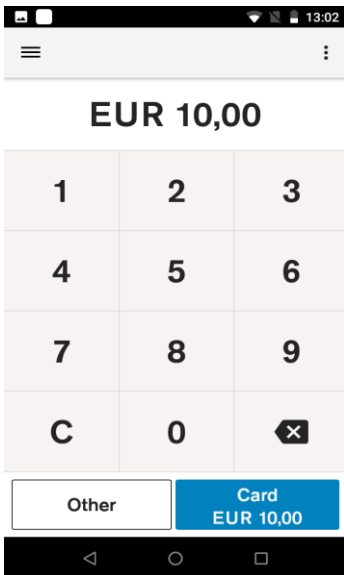
#### Amount Input

The maximum possible amount value can be configured and by default it is set to €1000000.

#### Transaction Type Selection

The terminal provides the merchant with the option to choose the transaction. The merchant can see the available transaction types by selecting the button “Other”.

### Purchase



#### Description

The merchant is prompted to enter the amount of the transaction. The transaction amount is validated to ensure that the maximum amount is not exceeded. Purchase transactions with amount 0.00 are not allowed.

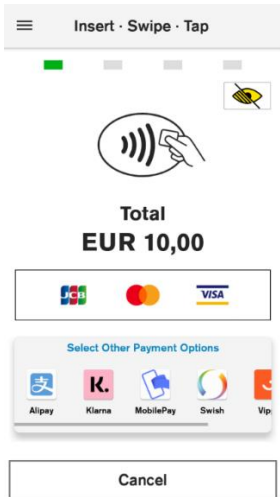
#### User action

Selecting the “Card” button starts the card payment.

Selecting the “Other” button presents the user with other transaction options such as refund.

Pressing the “C” button will reset the current amount.

The top left menu gives access to administrative functions.

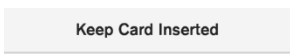


**Description**

After the amount has been entered, and the button “Card” has been selected the Customer can insert, tap, or swipe the card.

**User Action**

The user inserts, taps or swipes payment card to proceed with payment processing.



**Description**

After the card is inserted, tapped or swiped, the terminal indicates that it is processing card data, by showing “Please Wait...” screen.

**User Action**

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



**Description**

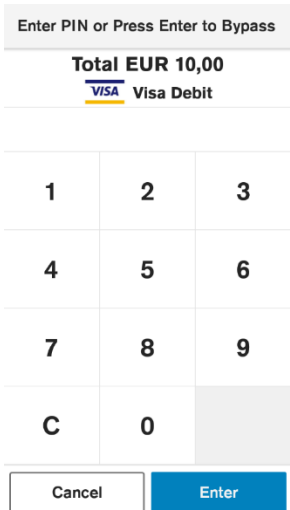
If the CVM for the card is PIN, then the PIN will be prompted after the “Please Wait...” screen.

If the customer has entered an incorrect offline PIN and “Enter” has been selected, the terminal will display a warning message that an incorrect PIN has been entered.

PIN Bypass is available for card that support both PIN and Signature CVMs. The customer can press “Enter” without entering a PIN. If PIN Bypass is not enabled, the “Enter” key is not enabled until 4 digits are entered This will be displayed only for cards that use a PIN as the cardholder verification method, otherwise the terminal will skip this screen and move to authorisation of the card.

**User Action**

The user must enter the PIN and select the “Enter” button. The user can reset the PIN entry by pressing the “C” button.





**Description**

After the card data has been read, the device will display the message “Authorising...”. This indicates that the device is performing online authorisation by communicating with the acquirer’s host system.

**User Action**

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

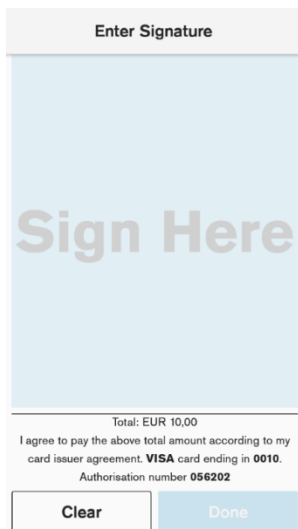


**Description**

When card data has been authorised, the terminal will show an “Approved” screen. This informs the customer that the payment has completed successfully. The customer is prompted to remove the card, if it’s still inserted. The terminal will play a notification sound until the card is removed.

**User Action**

The customer must remove the card.



**Description**

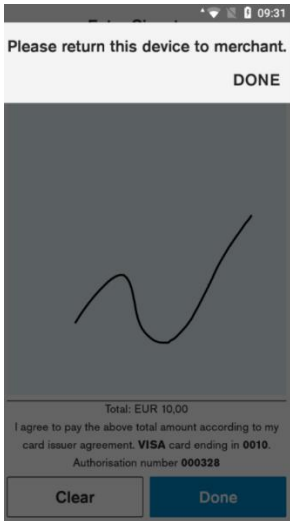
If the CVM for the card is Signature, or PIN Bypass has been selected at the PIN prompt, the device, will prompt the customer to sign the receipt. Otherwise the terminal will skip the signature validation and proceed with customer receipt printing. Signature entry is prompted when the transaction amount is higher than the signature required minimum amount.

**User Action**

The customer signs the receipt.

If the customer has made an error while signing the receipt, the signature can be cleared by pressing the “Clear” button.

The customer presses the “Done” button, when the receipts has been signed.



**Description**

The device prompts the customer to return the device to the merchant, to verify signature.

**User action**

Customer gives back the terminal to the merchant. The merchant presses the “Done” button, when the device has been returned.



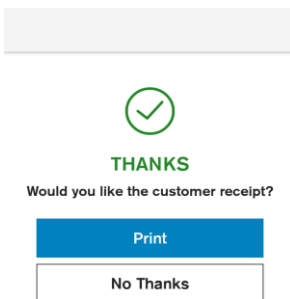
**Description**

The device prompts the merchant to approve or reject the signature.

**User action**

If the signature does not match with the signature on the card, the “No” button must be pressed. The transaction will be declined, and a reversal will be sent.

If the signature matched the signature on the card, the “Yes, Approve” button must be pressed.

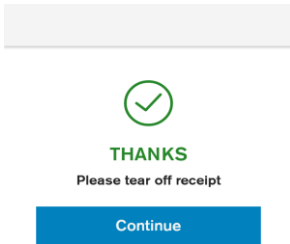


**Description**

When the transaction has been approved and the card removed the terminal will prompt the user to select the option to print the customer receipt.

**User action**

If the button “Print” is selected, then the customer receipt will be printed. If “No Thanks” is selected, the device will proceed with the merchant receipt printing.

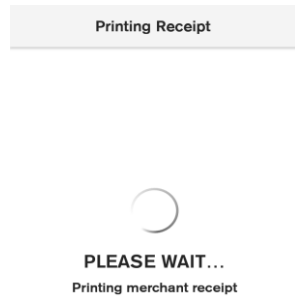


**Description**

In the event when 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 receipt is printed. If the tear off screen times out, the merchant receipt will be printed.

**User action**

The user presses the “Continue” button when customer receipt has been teared off.



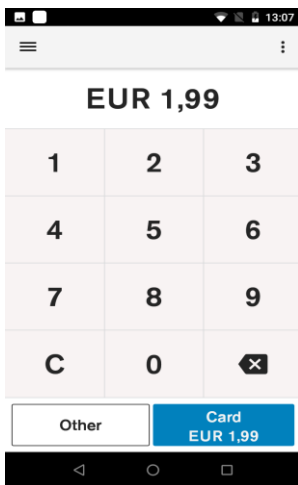
**Description**

The device prints out merchant receipt. After the terminal prints receipts the full payment process is completed. The device returns to the default amount entry screen.

---

*Refund transaction*

---



**Description**

The merchant is prompted to enter the amount of the transaction. The transaction amount is validated to make sure it does not exceed the maximum amount. Refund transactions with an amount of 0.00 are not allowed.

Pressing the “C” button will reset the current amount.

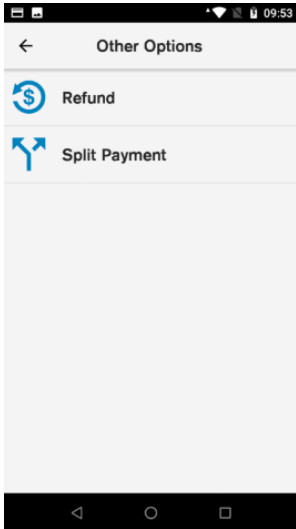
The top right menu allows the merchant to clear the amount.

The top left menu gives access to administrative functions.

Selecting the “Other” button presents the user with other transaction options such as refund.

**User action**

The user must select the “Other” button to access the refund option.

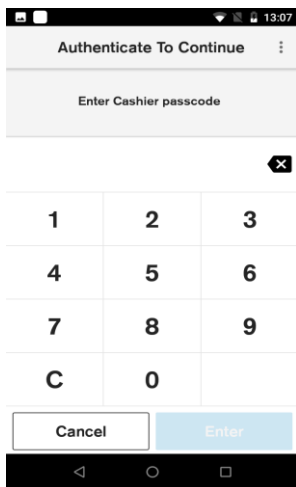


**Description**

By selecting the “Other” button, the terminal will display the non-purchase transaction types.

**User action**

The user must select “Refund”.

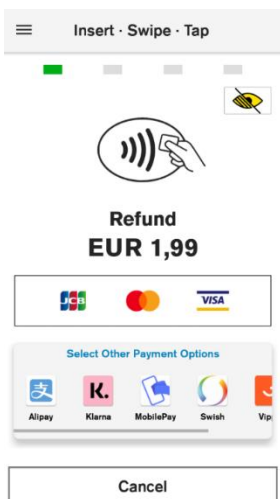


**Description**

If the user authentication feature is enabled, the user is prompted for the passcode before performing refund transaction.

**User action**

The user must enter the cashier, the merchant or the admin passcode, to proceed with the processing of the refund transaction.



**Description**

After user authentication the customer can insert, tap, or swipe the card.

**User action**

The user inserts, taps or swipes payment card to proceed with payment processing.

Keep Card Inserted



PLEASE WAIT...



### Description

After the card is inserted, tapped or swiped, the terminal indicates that it is processing card data, by showing “Please wait...”.

### User action

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

Keep Card Inserted



AUTHORISING...



### Description

After the card data has been read, the device will display the message “Authorising...”. This indicates that the device is performing online authorisation by communicating with the acquirer’s host system.

### User action

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

Please Remove Card

 VISA DEBIT



APPROVED

Transaction completed successfully



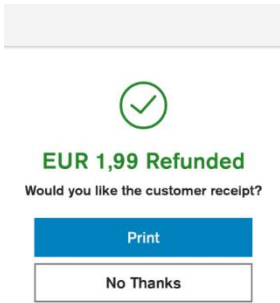
### Description

When card data has been authorised, the terminal will show an “Approved” screen. This informs the customer that the payment has completed successfully. The customer is prompted to remove the card, if it’s still inserted. The terminal will play a notification sound until the card is removed.

### User action

The customer must remove the card.





**Description**

When the transaction has been approved and the card removed the terminal will prompt the user to select the option to print the customer receipt.

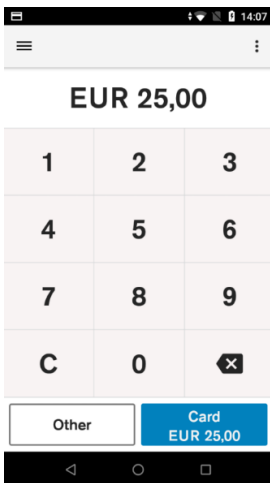
**User action**

If the “Print” button is selected, then the customer receipt will be printed. If “No Thanks” is selected, the device will proceed with the merchant receipt printing.

---

*Split Payment*

---



**Description**

The merchant is prompted to enter the transaction amount. The transaction amount is validated to make sure it does not exceed the maximum amount.

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

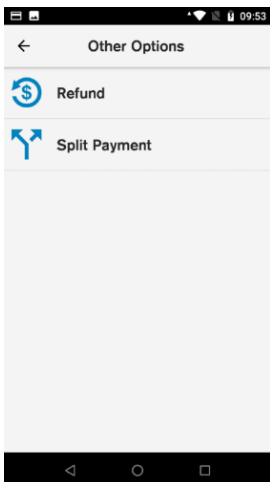
The top right menu allows the merchant to clear the amount.

The top left menu gives access to administrative functions.

Selecting the “Other” button will show the various transaction type options such as split payment.

**User action**

The user must select the “Other” button to access the split payment option.

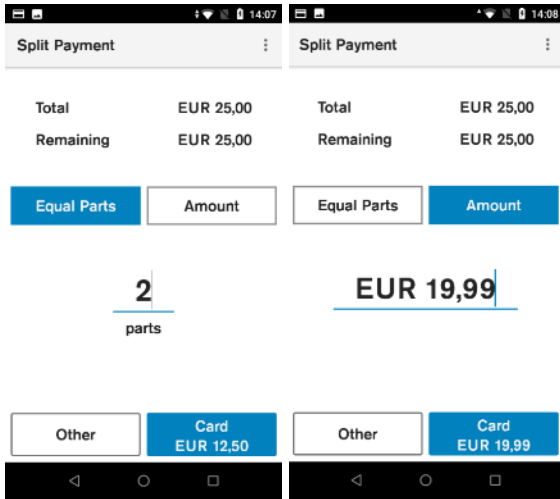


**Description**

By selecting the “Other” button, the terminal will display the non-purchase transaction types.

**User action**

The user must select “Split Payment”.



**Description**

If split payment is enabled the device allows the total amount to be paid with multiple payments.

**User action**

Selecting the “Equal Parts” button will allow the total amount to be paid in two or more equal parts.

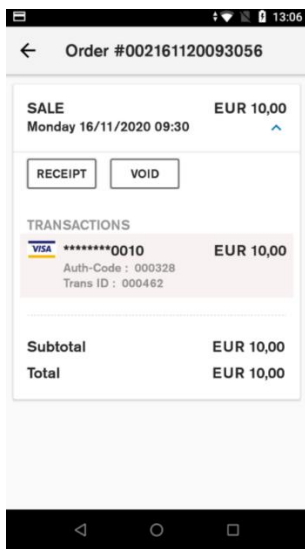
Selecting the “Amount” button will allow the total amount to be split by selecting the amount the user wants to pay.

After the “Card” button is pressed, the terminal will proceed with processing the purchase as described in pages 18-22.

---

*Void transaction*

---

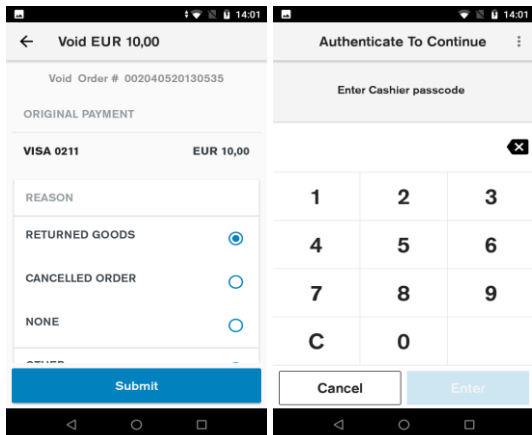


**Description**

To void a transaction, the user must go to Connect Express administration menu, then choose Order History and then the user must select an order which needs to be voided.

**User action**

The user selects the “Void” button.



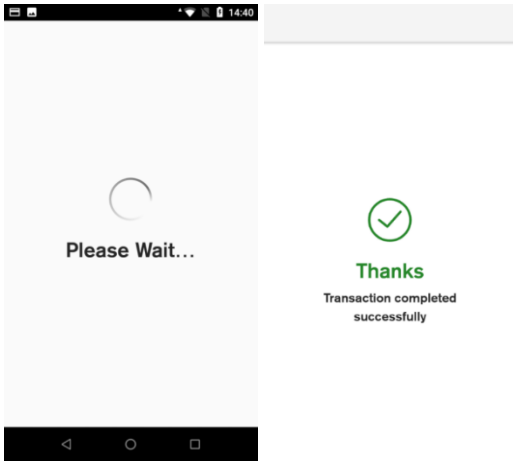
**Description**

After the “Void” button is selected, the user is prompted to select a reason for void.

The user is prompted for the merchant or the cashier passcode before performing void transaction.

**User action**

The user must select a reason for void and authenticate user to continue the void processing.

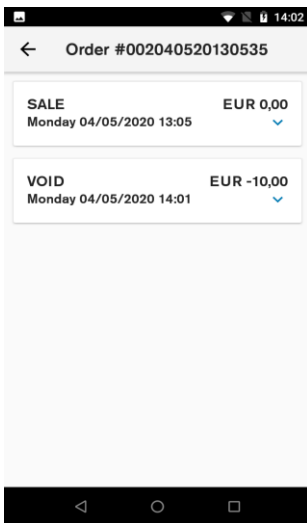


### Description

The "Please Wait..." screen displays that the device is doing an online authorisation by communicating to the host and completing the transaction successfully.

### User action

After the transaction has been authorised, the user must choose whether to print the customer and merchant receipts.



### Description

After the void transaction is completed, the user is lead back to the order screen. The user can see the details of both the sale and the void transaction.

### User action

The user can view transaction details. To get back to POS application, the user must press the back button.

## ERROR SCENARIOS

---

### *For Chip cards*

---

- Immediate Fallback to Card Swipe will be prompt after a single failed attempt for the following conditions: Card Expiry, EMV Blocked and when the terminal does not support chip transactions for the card type.
- 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 swipe the card.
- If the card is declined, the customer is notified that the card is declined and is asked to remove the card.
- If the customer removes card while it is being processed (“Please Wait”, “Authorising” displays), the transactions will be cancelled, and a reversal will be generated.

### *For Contactless cards*

---

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

### *For MSR (Magnetic Stripe) cards*

---

- If there is swipe read error, the customer is asked to present the card again. If fallback is enabled, after the configured number of retries, the merchant is prompted to use Manual entry.
- If the service code indicates a chip is present and the service code check is enabled, the customer is prompted to insert the card instead.
- If the card is expired and the expiry check is needed for this card range, the card is declined.
- If the card number check fails and the card number check is needed for this card range, then the card is declined.
- If the customer cancels the transaction, a **Transaction cancelled** message will be shown
- If the screen times out, a **Transaction cancelled/Operation Timeout** message will be shown
- If the device crashes or reboots while on card prompt screen, the payment application will restart. No power failure recovery will happen.
- Based on the card range or the AIDs, the configuration is checked to determine whether the card supports the current transaction type. If the **transaction type** is not supported by the **card**, the transaction is declined.

---

*Other*

---

- The payment configuration on the device contains card schemes that the **merchant** accepts. Customer cards will be checked against those schemes and if they are not accepted the transaction will be declined.
- If the payment application has crashed, or the device reboots while on “Please Wait...” screen, the payment application will perform a power failure recovery, this will decline the transaction and generate a reversal.

**Printer Status****Warning**

Out of paper  
Please load more receipt paper  
before retrying.

Try Again

Continue Without Receipt

 Remember my decision

- If the terminal runs out of paper during receipt printing, a warning message will be displayed. After paper is inserted the user can press the “Try Again” button. If the “Continue Without Receipt” button is pressed, then the terminal will approve the transaction without printing merchant and customer receipts.

## ORDER HISTORY

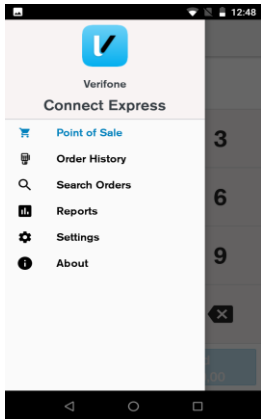
### Description

Through the administration menu the user can access the transaction history, account settings and view reports.

### User action

The user must click on the hamburger menu symbol at the top left corner to open the Connect Express administration menu.

The user must select “Order History”.



### Description

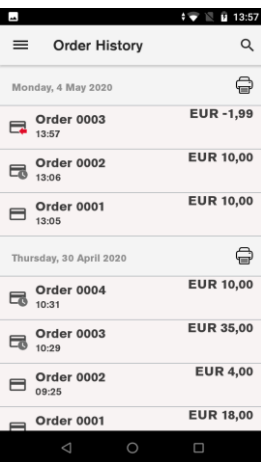
Order history displays the transaction history that is saved in the device. In Order History the user can see Order ID, Time stamp, Amount, Transaction type. The icon next to the transactions shows the transaction type whether it is a sale, refund or void transaction.

List of transactions for each day can be printed by pressing the printer symbol next to the day.

Order History List Search can be accessed by tapping on the search symbol and the top right corner.

### User action

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



## Search Orders and Advanced search

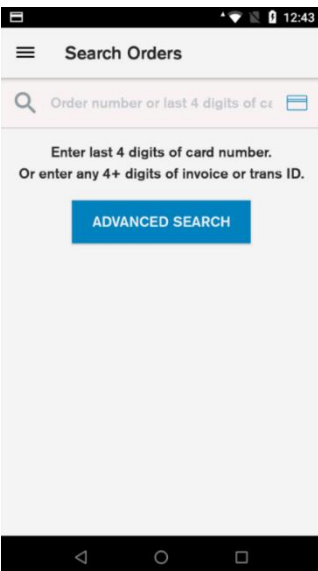
### Description

Allows the user to search for transactions using different variables. There are two types of transaction search:

1. Simple search
2. Advanced search

### User action

Simple search – the user enters 4 digits and the device searches for transactions where the last 4 digits of the card number match the digits entered. The user enters 5 or more digits and the device searched for the Order ID or Transaction ID that contains the digits entered.



The screenshot shows the 'Advanced Search' screen with the following elements:

- Back arrow, 'Advanced Search' title, and 'Clear' button.
- 'Amount' section with radio buttons for 'EXACT' and 'APPROXIMATE'.
- Currency field: 'EUR 0,00'.
- 'Trans ID' field: 'Any 4+ digits' with a search icon.
- 'RRN Number' field: '12 digits RRN' with a search icon.
- 'Invoice Number' field: '15 digits invoice' with a search icon.
- 'Card Number' field: 'Last 4 digits' with a search icon.
- 'Date' field: 'From - To'.
- 'Transaction Type' field: 'Any' with a dropdown arrow.
- 'Only Pending Offline' toggle switch.
- 'Search' button.

### Description

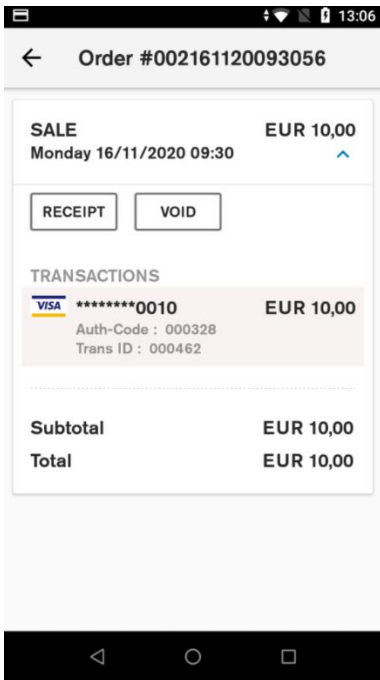
Advanced search can be accessed by pressing the “Advanced Search” button in Order History List Search view. When multiple search options have been entered in the view, the returned result will match all the specified options. Selected search criteria can be cleared by pressing the “Clear” button.

### User Action

The user can search for transaction using the following search options:

1. Exact amount. Finds orders with order amount exactly matching the entered value.
2. Approximate amount. Finds orders with order amount within 20% of the entered value.
3. Transaction ID. Finds transactions with transaction ID containing the entered sequence.
4. RRN Number. Finds transactions with RRN Number containing the entered sequence.
5. Invoice Number. Finds transaction with invoice ID containing the entered sequence.
6. Card Number. Finds transactions with card number containing entered sequence.
7. Date. Finds transactions within the entered date range.
8. Transaction type. Finds transactions of the selected transaction type.
9. Only pending offline. Finds pending offline transactions (transactions performed offline that have not been confirmed online).

*Order details and receipt reprint*



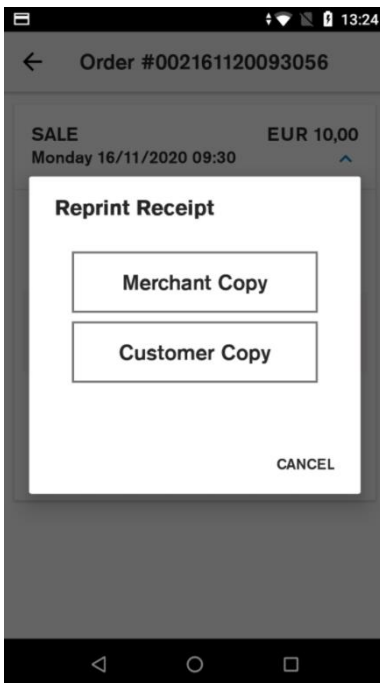
**Description**

Order history details can be accessed by selecting an item in Connect Express Order History List. It shows more detailed information about each order.

**User action**

The user can press the “Receipt” button to print copies of both the merchant and the customer receipts for the selected order.

The user can press the “Void” button to generate a reversal for the selected order. (Described in pages 26-27)



**Description**

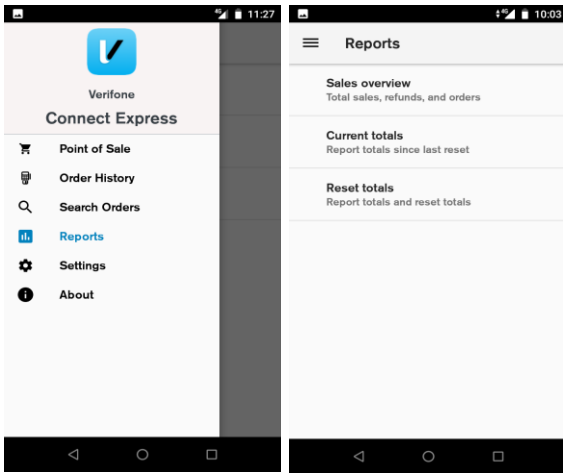
After the “Receipt” button is selected, the terminal prompts the user to select the which receipt copy needs to be printed.

**User action**

The user selects which receipt copy is needed.



## REPORTS



### Description

The user can access the reports menu by selecting reports from the Connect Express administration menu. Reports menu consists of sales overview, current totals and reset totals. In order to access the reports, the user must enter the passcode.

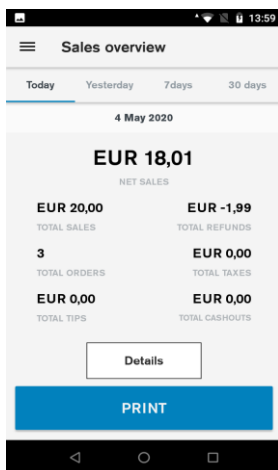
### User action

The user must select one of the available reports.

---

### Sales overview

---



### Description

Sales overview shows the number of orders and total amount for purchase, refund, tax, tip and cash out. The overview also shows the net purchase amount summarising all orders. There is an easy menu selection to show order summary for current day, yesterday, last 7 days and last 30 days.

### User action

The user selects the “Details” button. The terminal will show all orders that have been made that day (week, month). This will be displayed in the “Search Orders” menu.

The user selects the “Print” button. The terminal will print the small totals report with the same information displayed on the terminal screen

## Current totals report

Current totals		
Created Time	: 2020-09-09 09:40	
Start Date	: 2020-09-09	
End Date	: 2020-09-09	
Terminal ID	: 40000535	
Merchant Name	: VeriFone	
<b>MASTERCARD</b>		
Sale	2	EUR 700,00
Credit Total		EUR 700,00
Net Total	2	EUR 700,00
<b>VISA</b>		
Sale	2	EUR 200,00
Credit Total		EUR 200,00
Net Total	2	EUR 200,00
<b>Combined Total</b>		
Sale	4	EUR 900,00
Credit Total		EUR 900,00
Net Total	4	EUR 900,00

### Description

Current totals show the list of all transaction types with total amounts grouped by card scheme and the combined totals since last reset. The current totals report is the X reports or end of shift report.

### User action

The user can view the current totals report.

The user can print the current totals report by pressing the printer symbol at the top right corner.

## Reset totals report

Reset totals		
Created Time	: 2020-09-09 09:40	
Start Date	: 2020-09-09	
End Date	: 2020-09-09	
Terminal ID	: 40000535	
Merchant Name	: VeriFone	
<b>MASTERCARD</b>		
Sale	2	EUR 700,00
Credit Total		EUR 700,00
Net Total	2	EUR 700,00
<b>VISA</b>		
Sale	2	EUR 200,00
Credit Total		EUR 200,00
Net Total	2	EUR 200,00
<b>Combined Total</b>		
Sale	4	EUR 900,00

### Description

Before the user can reset totals, the terminal will ask for confirmation. On confirmation, the current totals are reset, and a report is shown. The reset totals report shows the list of all transaction types with total amounts grouped by card scheme and the combined totals. The reset totals report is the Z report, or end of day report.

### User action

The user must press the "OK" button to reset totals.

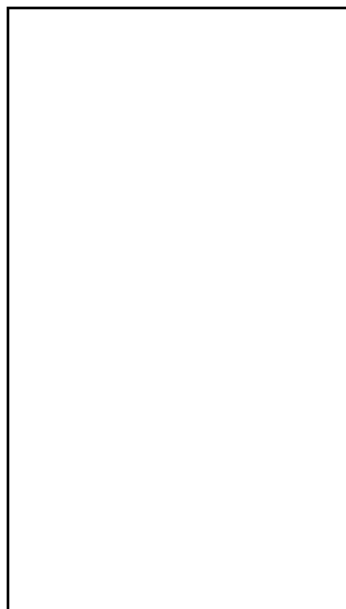
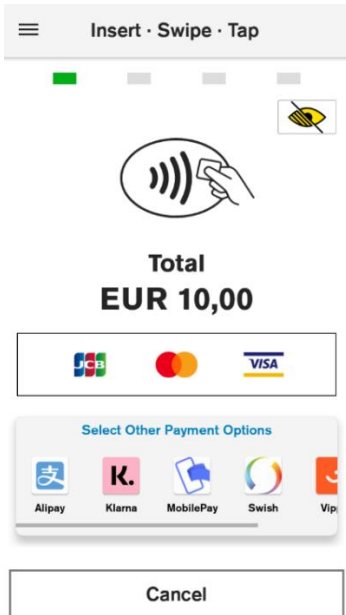
The user can view the reset totals report.

The user can print the reset totals report by pressing the printer symbol at the top right corner.

## ACCESSIBILITY

The accessibility function allows visually impaired customers to use the payment device. It supports Assistant PIN Entry, Accessible PIN Entry and training.

### Accessible PIN Entry



#### Description

Accessible Pin entry allows blind people to enter PIN themselves without having to disclosing the PIN to the merchant.

If the accessibility option is enabled in the configuration, the user can double tap anywhere on the card prompt screen or press a tactile button (the scanner key) to enter Accessible PIN Entry mode. In this mode the PIN entry screen is blank.

Once Accessible Entry Mode is activated, the Total amount is vocalized and the instruction on how to present a card is vocalized (“Please present your card”).

The Accessible PIN Entry keypad is a standard 12pad format with 10 digits, an OK and a Cancel button. The customer can navigate through the keypad by dragging their finger across the screen. An audio feedback will be played each time the customer moves to a different key in the keypad.

The customer can double tap anywhere on the terminal screen or press a tactile button to confirm that key they last navigated to.

Once the PIN entry is done, the customer can navigate to the OK button (on the bottom right corner) and double tap anywhere on the screen or press the tactile button to confirm.

To cancel at any time during the PIN Entry, the customer can navigate to the Cancel button (on the bottom left corner) and double tap anywhere on the display or press the tactile button to exit the PIN Entry screen.

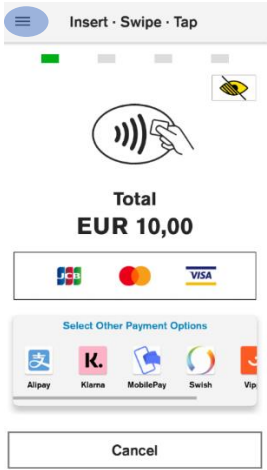
The customer will also receive audio feedback to report if PIN entry was correct or incorrect.

After two unsuccessful PIN entries in Accessibility mode, the customer will be guided through a short training exercise to explore, navigate, and practice digit entry (double tap/press the tactile button). In this mode, the terminal identifies keys using audio as they are selected. The customer selects and double taps/presses the tactile button or “Cancel” at the bottom left corner to exit training. On exiting training, the on-going transaction is cancelled, and a new transaction must be started to allow card and PIN entry.

#### User action

User enters the PIN using the accessibility feature.

Accessibility Training

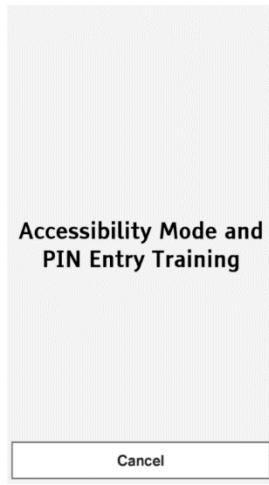
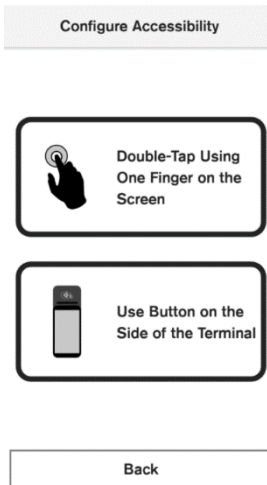


Description

Inexperienced customers can practise using the accessibility features by using the Accessible Training menu. In training menu, the terminal will speak out the pressed keys aloud.

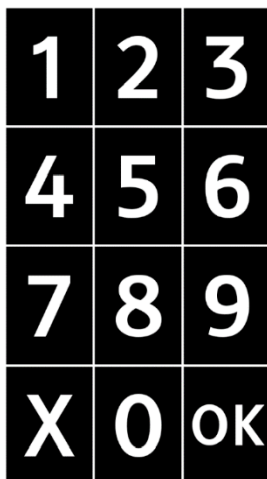
User action

In card prompt screen the user must select the hamburger menu to be able to select the accessibility training.

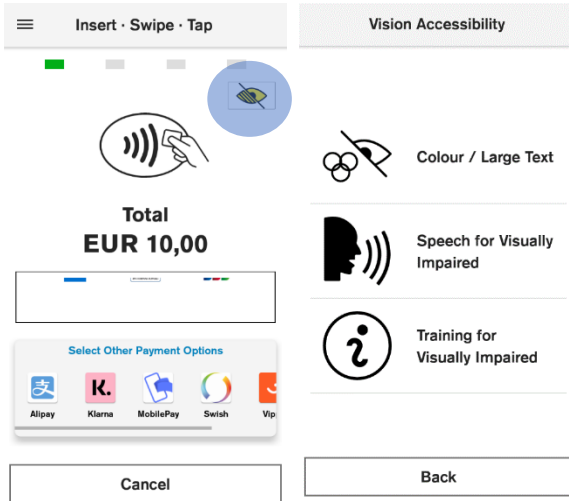


Double tap using one finger on the screen. The device will explain that it is now in the training mode and will prompt the user to tap on the screen to activate the training mode. After the user has tapped the screen, the terminal will go into training mode and display the keypad and explain the user how to use it.

Use button on the side of the terminal. The device will explain that it is now in the training mode and will prompt the user to press the tactile button to activate training mode. After the tactile button is pressed the terminal will go into training mode and display the keypad and explain the user how to use it.



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 customer can choose Assistant mode through an Assistant button on the screen.

After the button is pressed, the terminal will prompt the user to choose from one of the following options:

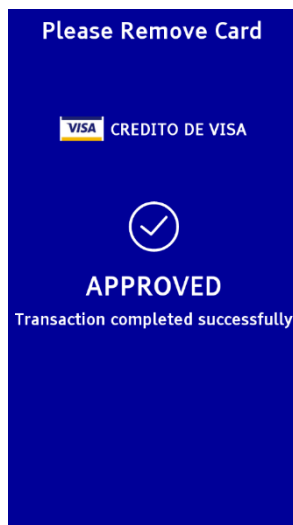
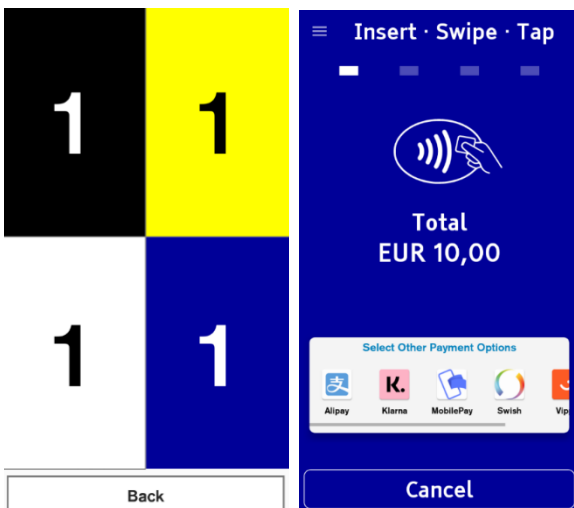
1. Colour / Large Text
2. Speech for Visually impaired (this function can be activated by double tapping the screen or pressing the tactile button on card prompt screen)
3. Training for Visually Impaired (described in previous chapter)

User action

In card prompt the user selects the Assistant button.

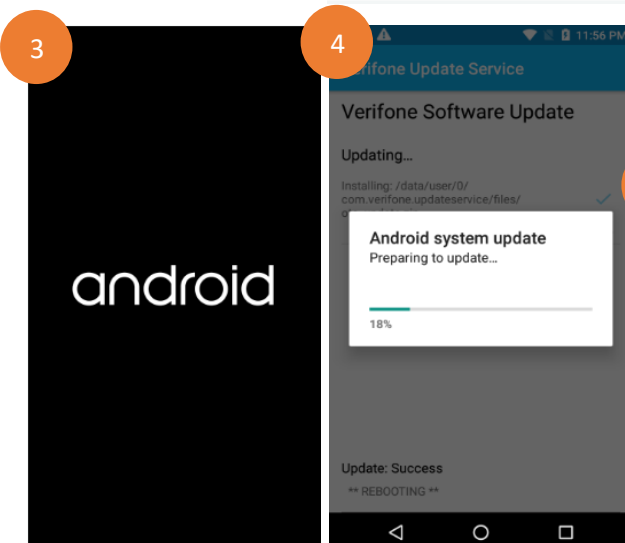
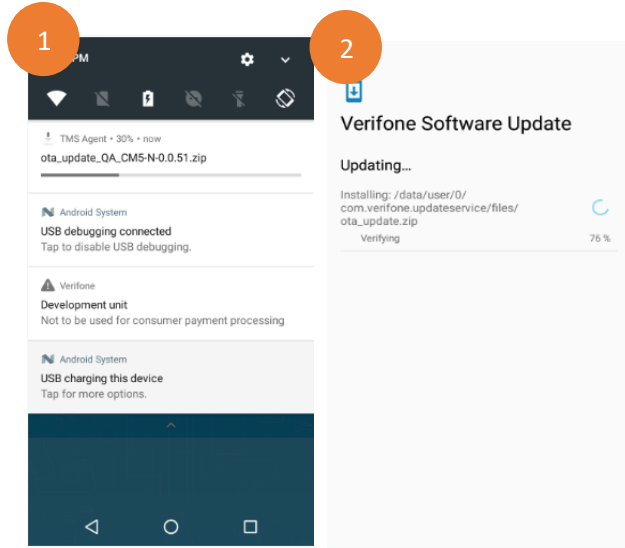
In Vision Accessibility menu the user selects the Colour / Large Text option.

The user can choose from 4 colour schemes for PIN Entry. Selected colours will be used for the duration of transaction processing.



## TERMINAL HARDWARE

### Full software update



#### Description

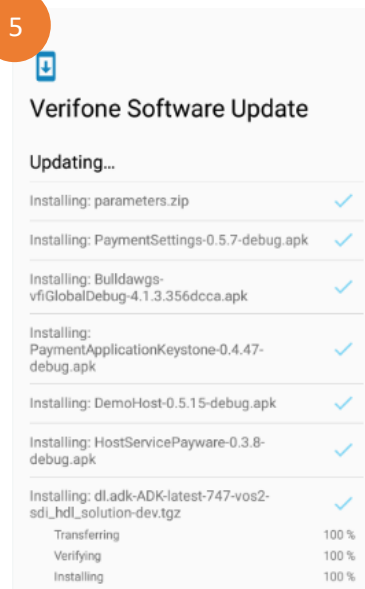
Full software updates are pushed from VHQ server and includes a new version of the Android operating system and services and a new version of Verifone’s Engage secure processor software.

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

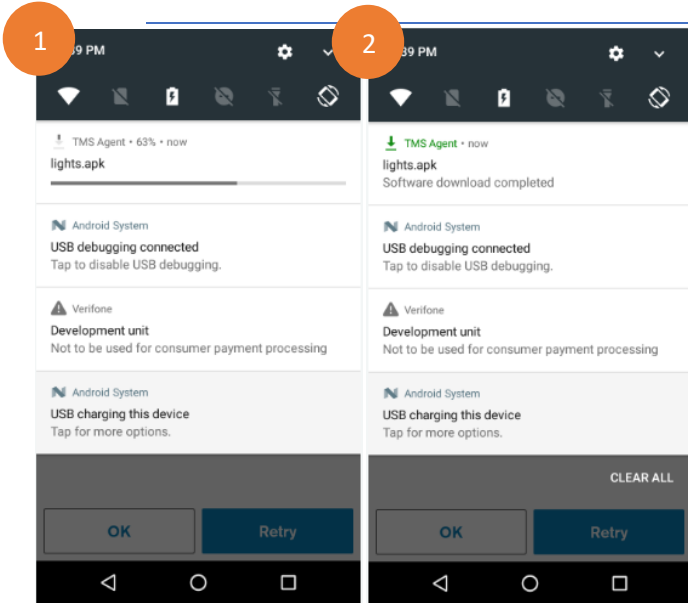
**Note:** This software update cannot be interrupted by the User. Be ready for a device reboot after the software update verification completes.

- 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 Application Update



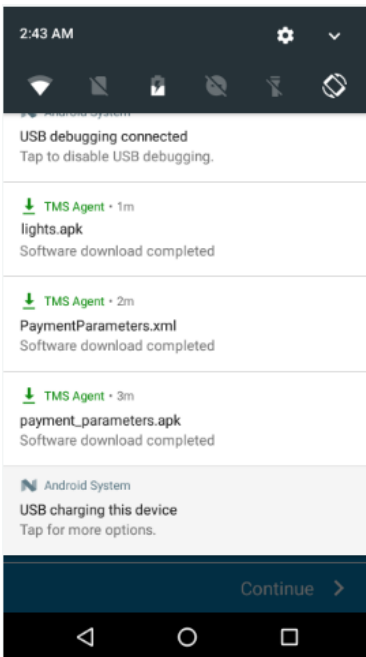
**Description**

- 1. Shows the progress of the application download.
- 2. Indicates application download has completed and that it has been installed.

**User action**

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

### Payment Application Configuration Update



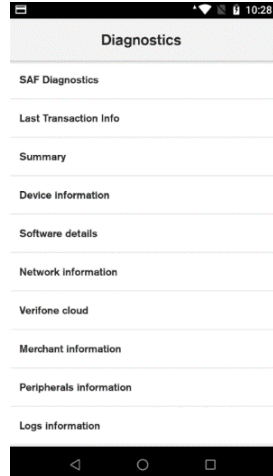
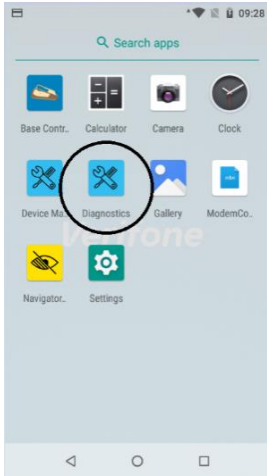
**Description**

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 the updated application needs to be restarted or the device reboot is needed, it will restart automatically.

## Diagnostics

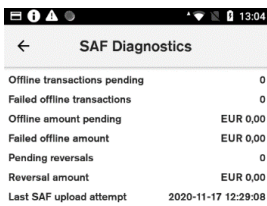


### Description

The diagnostic application can be accessed through the application launcher. The application launcher will take the user to the Android menu, where the diagnostics application can be found.

### User action

Click on the Diagnostics application.  
The app will display a list of diagnostic options.  
Select any option for further details.



### Description

SAF Diagnostics is the first option in Diagnostics menu. It shows stored offline transactions in the terminal.

### User action

If necessary, the user can upload stored transactions by pressing the “Upload offline transactions” button.

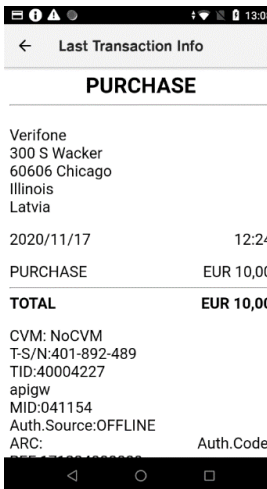


### Description

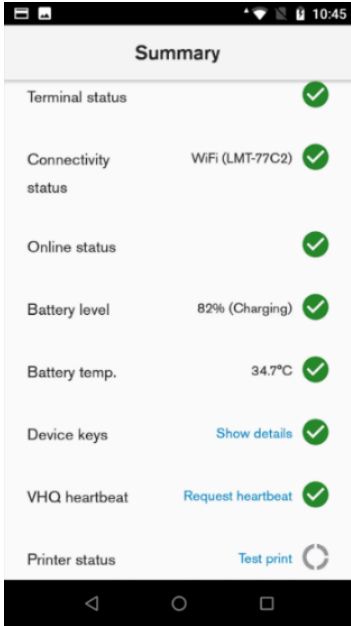
Last transaction information shows detailed information on the last transaction.

### User action

Before viewing the last transaction information, the device will ask the user to enter the manager passcode. The user can scroll down to view all transaction details.







**Description**

Summary shows the general status of the most important device functions.

Field	Description
Terminal status	Shows if payment terminal is connected or not. For mobile devices always true.
Connectivity 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
Battery level	Indicates the battery charging level (in percentage) and status (i.e. Charging or Discharging).
Battery temp.	Shows the temperature of the device battery
Device 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
Printer status	Allow to perform test receipt print to validate if the printer is detected and works accordingly.

**User action**

The user can pull down the Summary menu. This will update the status of each item.

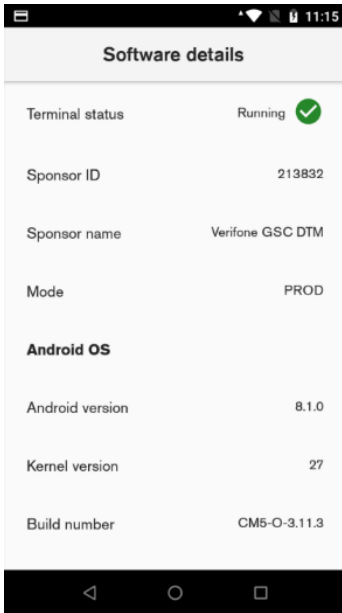


**Description**

Device information shows general information about the device.

Field	Description
Model	Specifies the device model name
Serial number	Shows the device serial number
Manufacturer	Shows the device manufacturer
Model type	Displays the device model version
Part number	Specifies the terminal part number
Date & Time	Displays the current date, time, and time zone on the device
Battery type	Shows the battery model information
Battery level	Indicates the battery charging level (in percentage) and status (i.e. Charging or Discharging)
Battery temp.	Shows the temperature of the device battery
Battery voltage	Shows the battery voltage in mV
Voltage set point	Shows the voltage set point in mV
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





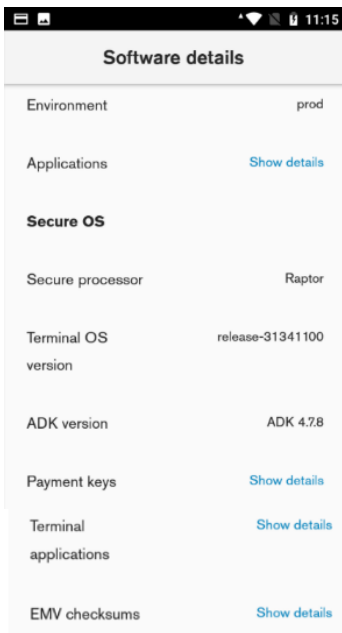
**Description**

Software details shows general information about software.

Field	Description
Terminal status	Shows of terminal is operational
Sponsor ID	Sponsor ID from the certificate
Sponsor name	Verifone
Mode	Shows the mode of the terminal

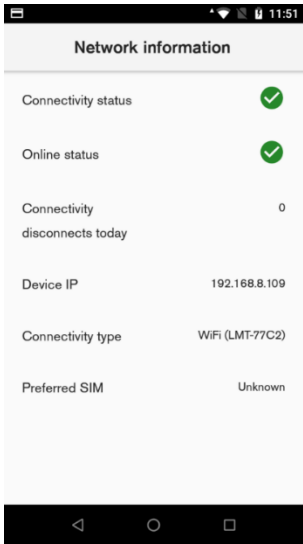
**Android Software Details:**

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:**

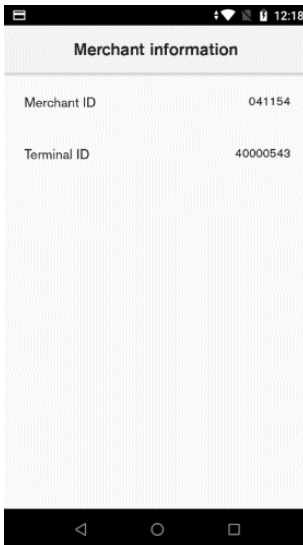
Field	Description
Secure processor	Shows the name of secure processor
Terminal OS version	VOS version installed on the engage chip
ADK version	Installed ADK version
Payment Keys	Shows installed payment keys
Terminal applications	Pop-up with list of all installed bundles and their version on the engage
EMV checksums	Shows EMV checksums



**Description**

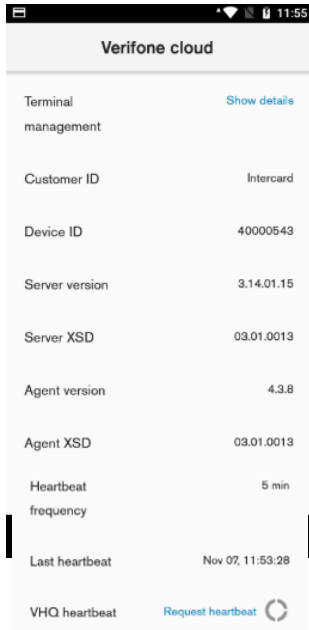
Network information shows general information about network.

Field	Description
Connectivity status	Shows if there is data network connection, such as Wi-Fi/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 Wi-Fi connectivity, or switches from Wi-Fi to mobile.
Device IP	Current assigned device IP address
Connectivity type	Current data connection type (Wi-Fi with access point name / Ethernet / Mobile)
Preferred SIM	Network name of preferred SIM card, if in use



**Description**

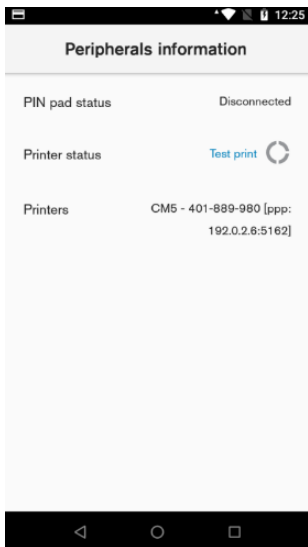
Merchant information shows the users Merchant ID and Terminal ID.



**Description**

Verifone cloud shows general VHQ information.

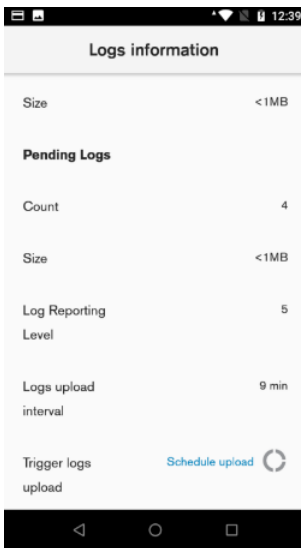
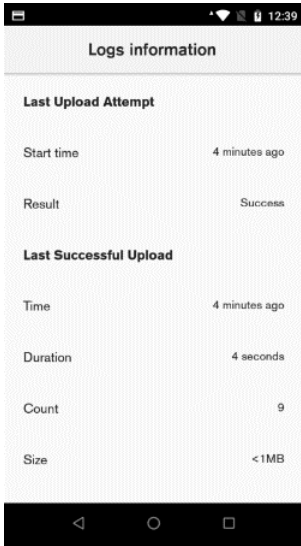
Field	Description
Terminal management	Shows VHQ server URL
Customer ID	Customer ID account on device management server (VHQ), used to identify customer and their devices hierarchy
Device ID	Terminal device ID
Server version	Shows server version
Server XSD	Shows server XSD version
Agent version	Shows agent version
Agent XSD	Shows agent XSD version
Heartbeat frequency	Frequency at which device will communicate with VHQ
Last heartbeat	Shows when the last heartbeat was sent
VHQ heartbeat	Allows to trigger VHQ heartbeat. Heartbeat type depends on maintenance schedule



**Description**

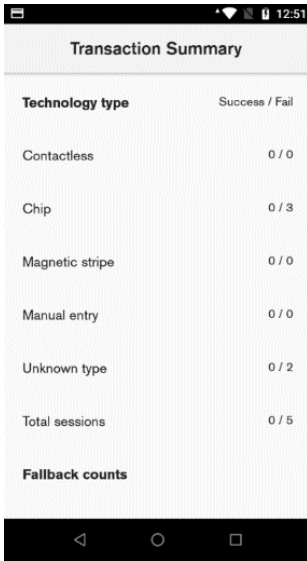
Shows information about connected peripherals devices like printers.

Field	Description
PIN pad status	Shows status of PIN pad
Printer status	Allows user to perform test print.
Printers	List of all known printers.



**Description**

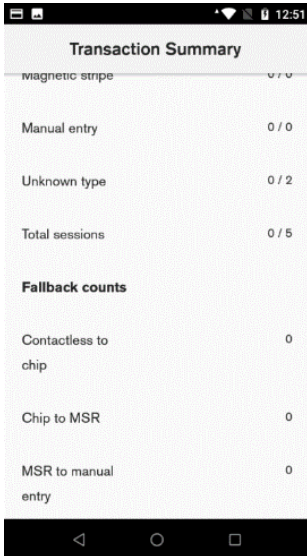
Field	Description
<b>Last Upload Attempt</b>	Information about last upload attempt
Start Time	Time when the last upload was attempted
Result	Result of the last upload attempt
<b>Last successful Upload</b>	Information about last successful upload
Time	Time of the last successful upload
Duration	Duration of the last successful upload
Count	Count of successful uploads
Size	Size of the last successful upload
<b>Pending Logs</b>	Information about pending logs
Count	Count of pending logs
Size	Size of pending logs
Log Reporting Level	The level of log reporting
Logs Upload Interval	Interval between log upload
Trigger logs upload	The user can trigger log upload



**Description**

The transaction summary shows the number of successful and failed transactions for all transaction types.

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
Unknown type	Number of successful and failed other transactions
Total sessions	Number of total successful and failed transactions



**Description**

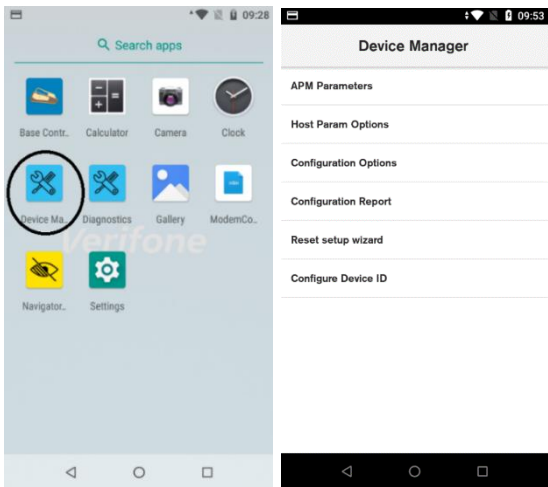
Fallback count is the number of fallbacks from one card scheme to another.

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

**User action**

Before viewing the transaction summary report, the device will ask the user to enter the admin passcode.

## Device Manager

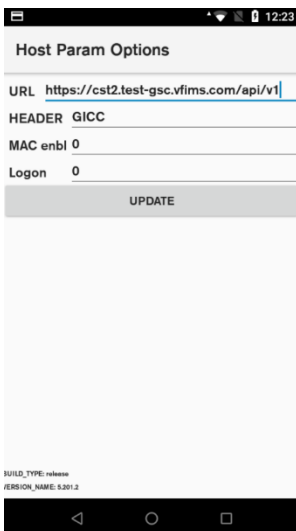


### Description

The device manager application can be accessed through the application launcher. The application launcher will take the user to the Android menu, where the device manager application can be found.

### User action

Click on the Device Manager application.  
The application will display a list of device manager options.  
Select any option for further details.

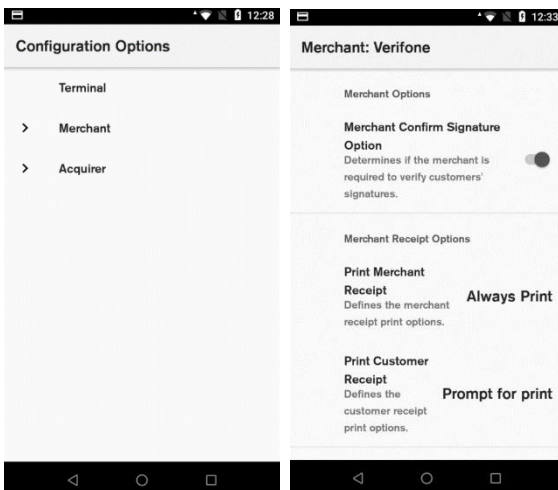


### Description

Host param options let the user view information about the host.

### User action

Before viewing the host param option, the device will ask the user to enter the admin passcode.  
The user can update host URL by editing the URL field, and after pressing the “Update” button the host URL will be updated.



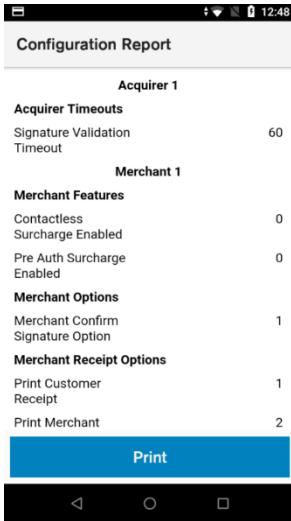
### Description

Configuration options allow the user to select the required configuration option to view and edit. Under Merchant, the user can change such things as : confirmation of signature, receipt printing, tip setting. Under Acquirer, the user can change signature validation timeout.

### User action

Before viewing the configuration options, the device will ask the user to enter the manager passcode.  
The user can view and edit configuration options.



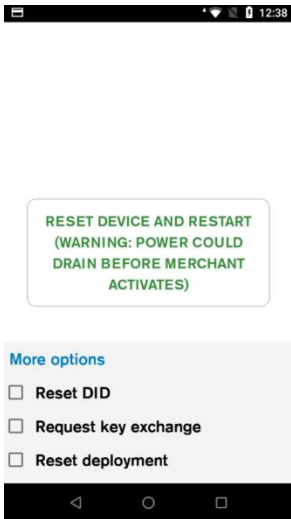


**Description**

Configuration Report shows current configuration for the device.

**User action**

Before viewing the configuration report, the device will ask the user to enter the manager passcode. The User can view and print the configuration report.

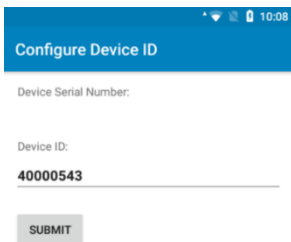


**Description**

Reset setup wizard allows the user to reset the whole OOB process.

**User action**

Before resetting the setup wizard, the device will ask the user to enter the admin passcode.



**Description**

The configure Device ID menu allows the user to reset the Device ID.

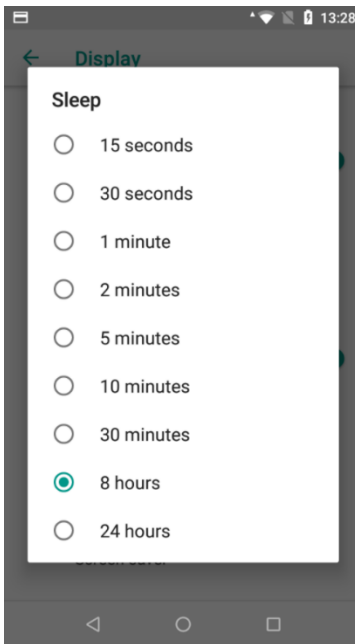
**User action**

The user can enter DID and press the “Submit” button to proceed.

---

## Lock screen and Sleep

---



### Description

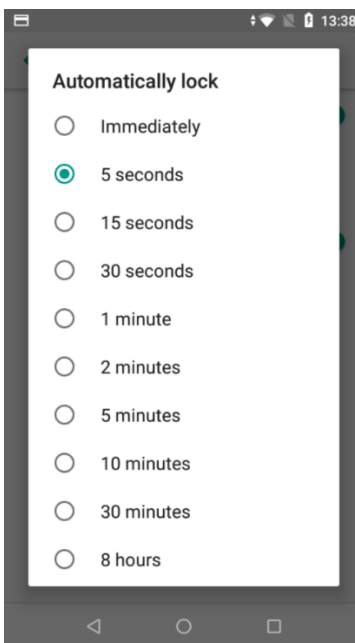
The device Automatic Lock and Sleep functionality allows control over when the device should go in battery-saving sleep mode, e.g. due to inactivity. It also allows the user to set an optional passcode to log in again (via Automatic Lock).

Local Device Lock and Sleep provides the user with the convenience of not having to provide a passcode for each login, while utilizing the standard Android battery-saving sleep features. To configure device sleep and locking frequencies, the user is presented with a list of pre-set time periods.

### User action

To set up sleep timer the user must navigate to Settings → Display → Advanced → Sleep

The user must select a device sleep frequency from the list of pre-set time periods. Configurable time periods range between 15 seconds and 24 hours.



### User action

To set up lock screen the user must navigate to Settings → Security & Location → Device security → Screen Lock

The user must choose between offered screen lock options. (Swipe, Pattern, PIN or Password)

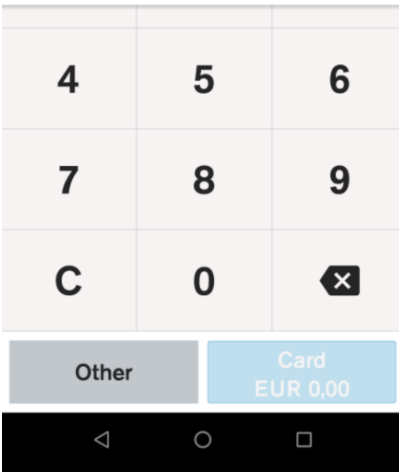
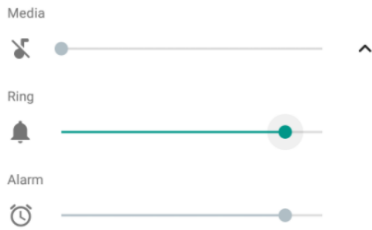
When screen lock is set, then user must press on the gear icon next to Screen lock, and move to Automatically lock

Select a device to lock frequency from the list of pre-set time periods. Configurable time periods range between Immediately and 24 hours.

---

## Sounds

---



### Description

The physical volume control buttons on the device control the volume of any audio that is active e.g. if a notification is active the volume buttons control the notification volume, or if media is active the volume buttons control the media volume.

### User action

The user can access volume controls from settings menu. Settings → Sound. Android provides the ability to independently enable/disable certain sounds outside of the volume settings. This includes Screen locking, Charging and Touch sounds. These are available when pressing on the Advanced dropdown.

