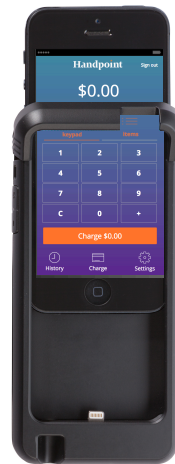


# Handpoint\*

## HiPro Card Reader User Guide



# HiPro Card Reader User Guide

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# 1. QUICK GETTING STARTED GUIDE

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This guide will help you get to know your HiPro card reader and make your first transaction.

## 1.1. WHAT'S IN THE BOX?


When you receive the box, check if the Handpoint seal is still intact. It should show you if someone has opened the box before you. Inside the box you should find your HiPro card reader and a USB mini-B connector.



## 1.2. GETTING TO KNOW YOUR HIPRO CARD READER

Here is your HiPro card reader from all angles. The table below describes what you see.



#	Name	Description
1	Clock	Shows the time, hours : minutes : seconds
2	Icons	Here on the screen are icons which show battery life and other info
3	Serial Number	The serial number (SN) is displayed here
4	Keypad	To input the pin number or other info
5	Power	To turn on and off, hold down this button for a couple of seconds
6	Up/down arrows	To move up and down menus, to select press  [OK button]
7	Cancel	To cancel transactions when applicable, or other actions
8	Back	To erase keyed numbers
9	OK	To select or confirm actions
10	Magnetic stripe reader	Swipe card with the magnetic stripe facing forward
11	Hardware label	Shows the Hardware Version (HW ver), Serial Number (SN) and barcode, which shall be required for identifying your card reader for updates or support questions

<b>12</b>	iPhone Lightning connector	This connects the HiPro card reader and the iPod Touch device once it has been inserted in the slot
<b>13</b>	Barcode scanner	To scan product barcodes
<b>14</b>	Europay, MasterCard and Visa (EMV) chip reader	Insert card with chip into the slot
<b>15</b>	Charging plug	Plug in the charging cable (USB mini-B connector) to charge the battery using a USB charger or computer
<b>16</b>	Scanner button	Push this to activate the scanner if it's in single-scan mode (see 3.2.9)

## 1.3. GET STARTED

The first time you connect, you have to register the HiPro card reader to the point of sale application. Please follow the instructions in your POS app to connect and register. Each version of the POS app does this differently.

If you are using the HiPro card reader with a linked mPOS application, please view section 1.3.1. Otherwise, if you are using a third party POS software application, skip straight to 1.3.2.

### 1.3.1. GET STARTED WITH MPOS

#### 1. Download the mPOS app

This could be on either the Play Store for Android or the App Store for iOS, so please check with your provider.

#### 2. Account Set-up

In order to use the mPOS app to accept card payments, you need to be set up with your own merchant account. If you are unsure if you have an activated account, please get in touch with your provider of the mPOS solution.

#### 3. First Time Login

When you open the mPOS app for the first time, you must sign up with the same e-mail you address provided for setting up your Merchant Account and a unique, safe password. If you wish to use an alternative e-mail address, contact your provider to update your account.

#### 4. Connect your Card Reader and the App

a) The mPOS app will prompt you to pair your card reader. Ensure your iPod Touch device (5th/6th generation) has been fully inserted into the HiPro card reader (lift and open the top latch and secure onto the lightning connector). Select the correct card reader from the options provided (identifiable from the serial number which is also at the back of your card reader).

b) If your card reader's serial number does not appear when prompted, you can go into 'Settings', select 'Device', and you should find your card reader's serial number as an option there.

## 5. Card Reader Initialization





- a) Initiate a transaction in the mPOS app on the device.
- b) When the message "UPDATING READER" appears, the HiPro card reader will start downloading and installing the update.
- c) When the HiPro card reader has finished, the message "UPDATE COMPLETE" will appear.
- d) Your card reader will automatically restart

## 6. Live Transactions

Once your card reader has restarted, you can start accepting payments with your mPOS solution!

### 1.3.2. GET STARTED WITH POS: YOUR FIRST TRANSACTION

The first transaction:

1. Make sure that the iPod Touch device (5th/6th generation) you're using is fully inserted into the HiPro card reader (lift and open the top latch and secure onto the lightning connector)
2. Turn on the HiPro card reader by pressing and holding  [Power button] for a couple of seconds
3. Follow the instructions on your POS app to register the HiPro card reader
4. Initiate a transaction in the POS app on the iPod Touch device
5. When the message "UPDATING READER" appears, the HiPro card reader will start downloading and installing the update. When the HiPro card reader has finished, the message "UPDATE COMPLETE" will appear
6. When the message "INSERT CARD" is displayed, insert the card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader
7. Enter PIN using the keypad and press  [OK button] (use  [Back button] to erase and then the keypad to re-enter pin if you make a mistake), or cancel by pressing  [Cancel button]
8. When message "REMOVE CARD" appears, remove the card from the EMV chip reader

The POS app is responsible for providing the customer with the receipt created by the HiPro card reader.

### 1.4. HOW IT WORKS

This section shall demonstrate a short version of how the Handpoint solution technically works, whether you are using a linked mobile Point of Sale (mPOS) application or an alternative Point of Sale (POS) software application.



1. The mPOS/POS app downloaded on your device initiates a transaction on the HiPro card reader
2. Customer inserts card and follows the directions on the HiPro card reader screen
3. The HiPro card reader encrypts the transaction information and sends it to the POS app via the lightning port
4. The POS app forwards the encrypted transaction information to the Handpoint gateway via an internet connection which processes the transaction using your acquirer
5. The Handpoint gateway receives a response from the acquirer and forwards the encrypted response to its internet connection
6. The POS app forwards the encrypted response to the HiPro card reader via the iPod Touch connection
7. The HiPro card reader reads the response, finalises the transaction and sends a receipt to the POS app
8. Customer removes card and the merchant provides the customer the receipt through the POS app



## 2. HIPro CARD READER SPECIFICATIONS

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Below are the technical specifications of the HiPro card reader and information about the software and configurations.

### 2.1. HARDWARE TECHNICAL SPECIFICATION

<i>Display</i>	LCD, monochrome, 128x32
<i>Card readers</i>	Landing type smart card reader, triple track bi-directional magnetic card reader
<i>Barcode Scanner</i>	EM3095 embedded 2D barcode scan engine
<i>Battery</i>	Rechargeable Li-po 3.7V, 620 mAh
<i>Connectivity</i>	USB mini-B
<i>Certifications</i>	CE, FCC, PCI PTS 3.x, EMV Level 1 Contact, EMV Level 2 Contact, EMV Level 1 Contactless, VISA, MasterCard and potentially other card schemes, depending on the selected acquirer
<i>Dimensions (LxWxH), mm</i>	110 x 69 x 17
<i>Weight, g</i>	123
<i>Operational temperature range</i>	-10 °C to +40 °C / 5 to 90% RH
<i>Storage temperature range</i>	-15 °C to +50 °C / 5 to 90% RH
<i>Drop test</i>	1.5 m, 6 faces + 4 edges on concrete
<i>Power Supply</i>	5V through mini USB

### 2.2. TERMINAL SOFTWARE AND CONFIGURATIONS

Handpoint develops the terminal software as well as the terminal configurations. The terminal software communicates with your POS app (Point of Sale application) through the lightning port.

The configuration is specific to each merchant and cannot be seen or modified by you. The configurations are created by the Handpoint system and remotely pushed to your HiPro card reader.

In the case of a critical update, Handpoint can automatically and remotely push the latest software or configuration version onto your HiPro card reader. See section 3.6 to see what happens if an update is pushed.

To find which software and configuration versions your HiPro card reader has, please refer to section 3.4.

## **2.3. SECURITY**

All card information is encrypted using Triple Data Encryption Algorithm (3DES) with a Derived Unique Key Per Transaction (DUKPT) key management process. Each transaction is encrypted with 3DES using a unique key per transaction before being sent to the Handpoint gateway through the POS app. The Handpoint's terminal software is certified as PCI Point-to-Point Encryption (P2PE) compliant.

For security reasons, it is essential that during a transaction the merchant and all employees must not request a cardholder to divulge their PIN nor accept the PIN from the cardholder in an oral or written manner.

# **3. HIPRO CARD READER USER GUIDE**

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Here are further instructions how to use the different functions of your HiPro card reader.

## **3.1. CONNECTING YOUR HIPRO CARD READER**

To be able to take payments your HiPro card reader needs to be connected by inserting the iPod Touch which has the POS app that works with it.

The first time you connect you have to register the HiPro card reader to your POS app. Please follow the instructions from your POS app to connect and register. Each POS app does this differently.




## **3.2. TRANSACTIONS**

Transactions are initiated by the POS app on your iPod Touch. Depending on your acquirer and/or agreement with your POS app provider, the following features may be enabled.

### **3.2.1. Chip & Pin**

The HiPro card reader supports Chip & PIN cards. For Chip & PIN transactions use the EMV chip reader (see #14 in section 1.2).

This is an example of what happens in a Chip & PIN transaction:



1. Transaction is initiated in the POS app on the iPod Touch
2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader
3. Enter PIN using the keypad and press  [OK button] (Use  [Back button] to erase and then use the keypad to re-enter pin if you make a mistake), or cancel by pressing  [Cancel button]
4. When message "REMOVE CARD" appears, remove the card from the EMV chip reader

The merchant is responsible for providing the customer with the receipt from the POS app.

### 3.2.2. Chip & Signature

The HiPro card reader supports chip & signature cards. For chip & signature transactions use the EMV chip reader (see #14 in section 1.2).

This is an example of what happens in a chip & signature transaction:

1. Transaction is initiated in the POS app on the iPod Touch
2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader
3. Confirm the amount by pressing  [OK button] or cancel by pressing  [Cancel button]



The merchant is responsible for providing the customer with the receipt from the POS app. The customer should sign for the receipt, either on the smart device screen or on the paper receipt, depending on your POS solution.

### 3.2.3. Fallback to Magnetic Stripe

If the HiPro card reader cannot read the chip for some reason it will fallback to magnetic stripe. The HiPro card reader will prompt you to remove the card from the EMV chip reader (see #14 in section 1.2) and swipe the card using the magnetic stripe reader (see #10 in section 1.2). The HiPro card reader might ask you to remove and insert the card into the EMV chip reader a couple of times before falling back to magnetic stripe.

This is an example of what happens if a transaction falls back to magnetic stripe:

1. Transaction is initiated in the POS app on the iPod Touch
2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader



3. If the HiPro card reader cannot read the chip message "REMOVE CARD" appears, remove the card
4. When message "INSERT CARD" appears, insert card in the EMV chip reader
5. If the HiPro card reader cannot read the chip message "REMOVE CARD" appears, remove the card
6. When message "INSERT CARD" appears, insert card in the EMV chip reader
7. If the HiPro card reader cannot read the chip message "REMOVE CARD" appears, remove the card
8. When message "SWIPE CARD" appears, swipe card using the magnetic stripe reader with the magnetic stripe facing to the front
9. Confirm the amount by pressing  [OK button] or cancel by pressing  [Cancel button]

The merchant is responsible for providing the customer with the receipt from the POS app. The customer should sign for the receipt, either on the smart device screen or on the paper receipt, depending on your POS solution.

#### **3.2.4. Magnetic Stripe**

The HiPro card reader supports cards that only have magnetic stripes. To do a transaction with a magnetic stripe card use the magnetic stripe reader (see #10 in section 1.2). If the card has a chip the HiPro card reader will prompt you to use the EMV chip reader.

This is an example of what happens in a magnetic stripe transaction:


1. Transaction is initiated in the POS app on the iPod Touch
2. When message "INSERT CARD" appears, swipe card using the magnetic stripe reader with the magnetic stripe facing to the front
3. Confirm the amount by pressing  [OK button] or cancel by pressing  [Cancel button]

The POS app is responsible for providing the customer with the receipt created by the HiPro card reader. The customer should sign the receipt.

### 3.2.5. Pin Bypass

Pin bypass is only enabled for specific acquirers. Pin bypass allows the customer to choose if they want to enter pin or not.

This is an example of what happens in a Chip & PIN transaction with pin bypass:

1. Transaction is initiated in the POS app on the iPod Touch
2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader
3. To bypass the pin, press  [OK button] instead of entering the pin (if pin bypass is not enabled, the HiPro card reader will show the message "NOT ALLOWED")
4. When message "REMOVE CARD" appears, remove the card from the EMV chip reader

The merchant is responsible for providing the customer with the receipt from the POS app.








### 3.2.6. Gratuity/Tips

To get the gratuity/tips feature, you have to ask for it especially from your POS app provider. If you request to include gratuity/tips as an option during the transaction process, the menu appears before pin entry where the customer can choose the amount.

Below is an example of the default gratuity/tip menu for a £20,00 sale:

Menu item
No tip
18% £3,60
20% £4,00
25% £5,00
Enter amount

This is what happens in a Chip & PIN transaction with gratuity/tips enabled:

1. Transaction is initiated in the POS app on the iPod Touch
2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader
3. When the gratuity/tips menu appears, scroll menu using  [Up arrow] and  [Down arrow] to select how much you want to tip
4. Press  [OK button] to select tip amount, if you select "ENTER AMOUNT":
  - a. Enter tip amount using the keypad (use  [back button] to erase and then the keypad to re-enter amount if you make a mistake)
  - b. Press  [OK button]
5. Enter PIN using the keypad and press  [OK button] (use  [back button] to erase and then the keypad to re-enter pin if you make a mistake)
6. When message "REMOVE CARD" appears, remove the card from the EMV chip reader

The merchant is responsible for providing the customer with the receipt from the POS app.

### 3.2.7. Account Type Selection






The account type selection is only enabled for specific acquirers and only appears for cards that have multiple accounts. The menu appears before pin entry where the customer can choose which account he wants to use for that transaction.

Below is an example of menu items. Please note that they differ between acquirers and cards:

Menu item
Default
Savings
Cheque/debit
Credit

This is what happens in a Chip & PIN transaction with the account type selection enabled:

1. Transaction is initiated in the POS app on the iPod Touch

2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader
3. When the account type menu appears, scroll menu using  [Up arrow] and  [Down arrow] to find the right account type
4. Press  [OK button] to select account type
5. Enter PIN using the keypad and press  [OK button] (use  [back button] to erase and then the keypad to re-enter pin if you make a mistake)
6. When message "REMOVE CARD" appears, remove the card from the EMV chip reader

The merchant is responsible for providing the customer with the receipt from the POS app.






### 3.2.8. Cardholder Point of Sale Application Selection

The cardholder POS app selection is only enabled for specific acquirers. The menu appears before pin entry where the customer can choose which payment application he wants to use for that transaction. Here is a list of menu items:

Menu item
Credit
Debit
Cash Benefit
Food Stamp
Gift Card
Private Label

This is what happens in a Chip & PIN transaction with the cardholder point of sale application selection enabled:

1. Transaction is initiated in the POS app on the iPod Touch

2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader
3. When the POS application menu appears, scroll menu using  [Up arrow] and  [Down arrow] to find the right POS app
4. Press  [OK button] to select POS app
5. Enter PIN using the keypad and press  [OK button] (use  [back button] to erase and then the keypad to re-enter pin if you make a mistake)
6. When message "REMOVE CARD" appears, remove the card from the EMV chip reader

The merchant is responsible for providing the customer with the receipt from the POS app.

### 3.2.9. Barcode Selection

The HiPro card reader comes with an in-built barcode scanner. The scan engine supports 2D barcode scanning as well as all mainstream 1S, PDF417, QR Codes (QR1, QR2, Micro QR), Data Matrix and GS1-DataBar (RSS, RSS-Limited, RSS-14, RSS-14 Stacked and RSS-Expand).




Depending on your POS solution, you may have some of the following, different read modes:

1. Single read mode: when a barcode has been successfully read, the scanner stops.
2. Multi read mode: multiple barcodes can be read in succession. The user must manually stop the scanner.
3. Button mode:
  - 3.1. FALSE = user does not have to use the left or right button on the card reader to scan
  - 3.2. TRUE = user must press the left or right button on the card reader to scan






The scanner modes and timeout counter might be able to be configured through the POS app on the iPod Touch. The default number of seconds before the scanner deactivates after use is "0". Please get in touch with your POS provider to clarify on your barcode scanning options.

## 3.3. ADMINISTRATION MENU

To access the administration menu:

1. Press  [Cancel button] and  (back button) 



2. Enter password: **746723** and press [OK button]
3. Scroll menu using  [Up arrow] and  [Down arrow]
4. To go into sub-menus press  [OK button]
5. To select menu items press  [OK button]
6. To go out of menus press  [Cancel button]






Administration menu password:  
**746723**

About each menu item:

Menu item	Sub-menu items	Description
Version info	-	Terminal software version e.g. mPOS v.1.7.1 (236)
Device type	USB Mode	A connection type
	Save and Reset	Select to save any changes you have made in this sub-menu, the HiPro card reader restarts.
Config	Reset flash	Resets to factory settings, next time you do a transaction the HiPro card reader will download and install the software and configurations again.
	Save and Reset	Select to save any changes you have made in this sub-menu, the HiPro card reader restarts.
Screen	Font	Select either Normal (6x8) or Big (8x16).
Beep	Toggle	Turn beep on or off by selecting toggle.
Save and Reset	-	Select to save any changes you have made in the administration menu, the HiPro card reader restarts.

### 3.4. VIEW INFORMATION



To view information about your HiPro card reader:

1. Press  [Cancel button] then  [Up arrow] on the keypad
2. Scroll to see information using  [Up arrow] and  [Down arrow]
3. To exit, either wait a couple of seconds or press  [Cancel button]

About the information you see:

Menu item	Description
SN	Serial number of HiPro card reader e.g. 615009227
mPOS	Terminal software version e.g. v.1.7.1(236)
COMs	Type of connection used e.g. USB
Config	Configuration version e.g. 1
Flash	This has information about the flash memory, used by Handpoint quality assurance
EMV	EMV version e.g. 1.09 03 210514

### 3.5. BACKLIGHT & DISPLAY CONTROL

By clicking the  [Up arrow] and  [Down arrow] on the HiPro card reader, you can access a menu which has three options:

#### 1. Backlight

- ON: backlight on at all times (this is the default setting)
- OFF: backlight off at all times
- AUTO: backlight on *only* when a transaction has been started from the POS)

2. Invert Display: changes the display from a black background with white letters to a white background with black letters



3. Reset to Default: backlight on at all times with a normal display (black background with white letters)

### 3.6. UPDATING THE HIPRO CARD READER



It depends on the POS app if you can update the HiPro card reader manually. Then the update is initiated through the POS app on the iPod Touch.

Handpoint pushes updates automatically and remotely to your HiPro card reader.

This is what happens when Handpoint pushes a non-critical update to your HiPro card reader:

1. Transaction is initiated in the POS app on the iPod Touch
2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader
3. Enter PIN using the keypad and press  [OK button] (use  [back button] to erase and then the keypad to re-enter pin if you make a mistake)
4. When message "REMOVE CARD" appears, remove the card from the EMV chip reader
5. The message "UPDATING READER" appears and the HiPro card reader starts downloading and installing the update, this only takes a couple of seconds. When the HiPro card reader has finished the message "UPDATE COMPLETE" appears.

This is what happens when Handpoint pushes a critical update to your HiPro card reader:

1. Transaction is initiated in the POS app on the iPod Touch
2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #14 in section 1.2) with the chip facing up and towards the HiPro card reader
3. Enter PIN using the keypad and press  [OK button] (use  [back button] to erase and then the keypad to re-enter pin if you make a mistake)
4. The gateway declines the transaction and tells the HiPro card reader to update, message "TRANS. DECLINED" appears
5. When message "REMOVE CARD" appears, remove the card from the EMV chip reader
6. The message "UPDATING READER" appears and the HiPro card reader starts downloading and installing the update, this only takes a couple of seconds. When the HiPro card reader has finished the message "UPDATE COMPLETE" appears
7. After the HiPro card reader has finished updating initiate the transaction again to charge the customer.

## 4. TROUBLESHOOTING

---

In this section are tools to help you troubleshoot. It includes instructions on how to troubleshoot communication errors between the HiPro card reader and your iPod Touch, and flash corruption issues. There is also a section with tables with some of the possible messages

that can appear on your HiPro card reader. If you are having a problem, you can try searching these tables for the message and see what you can do.




## 4.1. TROUBLESHOOTING ISSUES

Here are some instructions to help you troubleshoot issues.

### 4.1.1. Communication Errors

If the HiPro card reader shows a communication error message it means that the HiPro card reader detected a communication failure between itself and the device that it was paired/connected to. Here is what you can do to try to troubleshoot it:

Try to turn the HiPro card reader off and on again:








1. Make sure that the iPod Touch is fully inserted into the HiPro card reader and the lightning port
2. Turn off the HiPro card reader by pressing and holding  [Power button] for a couple of seconds and pressing  [OK button]
3. Turn the HiPro card reader back on by pressing and holding  [Power button] for a couple of seconds
4. Try to initiate a transaction again.

If the problem persists, please request support from your provider (see section 5).

### 4.1.2. Flash Corruption Errors

If the HiPro card reader is behaving badly in some way, it is always a good idea to reset the flash to see if it fixes the issue. Resetting the flash erases the working memory of the card reader clearing out any corrupted flash. After the flash has been reset on a card reader it needs to fetch the terminal software and terminal configurations again.

Resetting the flash:

1. Press  [Cancel button] and  (back button)
2. Enter password: **746723** and press  [OK button]
3. Scroll menu using  [Down arrow] to **Config** and press  [OK button]
4. Select "RESET FLASH" and press  [OK button]
5. Scroll down to "Save and Reset" and press  [OK button]
6. The card reader should now restart





If the problem persists then please request support from your provider (see section 5).



## 4.2. HIPRO CARD READER MESSAGES

Here are tables with some of the possible messages that can appear on your HiPro card reader. If you are having a problem you can try searching these tables for the message and see what you can do.

### 4.2.1. Successful Transaction Messages

These are messages that can appear during a successful card transactions, in alphabetical order.

HiPro card reader display text	Why it is displayed	Required action
<b>AMOUNT:</b> [amountvalue]	The HiPro card reader needs the cardholder to validate that the correct amount has been used.	The cardholder must confirm that the amount is correct by pressing  [OK button] or cancel by pressing  [Cancel button].
<b>AUTHORISED</b>	A transaction has completed successfully.	No further actions are required.
<b>COMPLETING TRANSACTION</b>	The HiPro card reader is finalising a completed transaction with your device.	Please wait for further instructions on the HiPro card reader display.
<b>PIN VERIFIED</b>	The PIN has been verified successfully.	No further actions are required.
<b>PIN:</b> [amountvalue]	The HiPro card reader is waiting for the card PIN.	The cardholder must enter their PIN and press the  [OK button] to continue or press the  [Cancel button] to cancel the transaction.
<b>PLEASE SIGN</b>	The cardholder must sign their name on the app or slip (depending on the app's features).	The cardholder must sign the slip.
<b>PLEASE WAIT...</b>	The HiPro card reader is processing an operation.	Please wait while the HiPro card reader completes the operation.

<b>PRESS OK button or Cancel button</b>	The HiPro card reader needs confirmation to continue.	The cardholder must read all information on the display and then press either the  [OK button] or  [Cancel button] as applicable.
<b>PROCESSING...</b>	Cardholder authentication has completed and a financial card transaction is being processed.	Please wait for further instructions on the HiPro card reader display.
<b>REMOVE CARD</b>	The card is in the HiPro card reader and either the transaction has completed or the HiPro card reader cannot read the chip.	Please remove the card from the HiPro card reader.
<b>SALE</b>	Indicates that the current operation is a SALE transaction.	No further actions are required.
<b>SWIPE CARD</b>	The HiPro card reader is waiting for a card to be swiped against the magnetic stripe reader.	Please swipe a card through the magnetic stripe card reader.
<b>USE CHIP READER</b>	The HiPro card reader is waiting for a card to be inserted into the chip reader.	Please insert a card into the chip reader.

#### 4.2.2. Other Transaction Messages

These are messages that can appear during other card transactions, such as refunds or reversals, in alphabetical order.



HiPro card reader display text	Why it is displayed	Required action
<b>REFUND</b>	Indicates that the current operation is a REFUND transaction.	No further actions are required.
<b>REFUND ACCEPTED</b>	A REFUND transaction has completed successfully.	No further actions are required.
<b>REFUND VOID</b>	Indicates that the current operation is a reversal/voiding of a REFUND transaction.	No further actions are required.

<b>REVERSAL ACCEPT.</b>	Reversal/voiding of a SALE/ REFUND transaction has completed successfully.	No further actions are required.
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#### 4.2.3. Error Transaction Messages

These are messages that can appear during an unsuccessful card transactions, in alphabetical order.

<b>HiPro card reader display text</b>	<b>Why it is displayed</b>	<b>Required action</b>
<b>CANCELLED</b>	The current operation was cancelled by either the cardholder or the merchant. Or the HiPro card reader timed out while waiting for the card and automatically cancelled the operation.	No further actions are required.
<b>CARD BLOCKED</b>	The card that was used has been blocked.	Please ask the customer to retry the transaction with another card (non-blocked). No additional action required beyond this.
<b>CARD REMOVED</b>	The card was removed too soon during a financial transaction operation.	Please restart the operation.

<p><b>COMM. ERROR CHECK CONNECTION</b></p>	<p>Indicates that the HiPro card reader detected a communication failure between itself and the device that it was paired/ connected to.</p>	<p>If a SALE or a REFUND transaction was in progress when this occurred then you <b>MUST</b> contact your provider’s support team (see section 5) and verify whether the transaction went through or not (as they can check with their real-time terminal management system).  <i>If you fail to do so then you may be liable for any costs incurred due to any double charges.</i>  Once you have verified that the transaction did not go through then please retry the operation.</p>
<p><b>FALLBACK TO MSR</b></p>	<p>The cards chip has failed. The data on the magnetic stripe will be used instead.</p>	<p>Please wait for further instructions on the HiPro card reader display.</p>
<p><b>INCORRECT PIN</b></p>	<p>An incorrect PIN was entered.</p>	<p>The cardholder must re-enter their PIN.</p>
<p><b>INVALID CARD</b></p>	<p>The HiPro card reader could not read any data from the card.</p>	<p>Please retry the operation. If the issue persists the card may be faulty, please try another card.  If the issue still persists the HiPro card reader may require replacement, please your provider’s support team for assistance (see section 5).</p>
<p><b>LAST ATTEMPT</b></p>	<p>This is the customers last available attempt for correct PIN entry.</p>	<p>Please do one of the following:</p> <ul style="list-style-type: none"> <li>• Enter the correct PIN.</li> <li>• Press the  [Cancel button] to abort the transaction.</li> <li>• Press the  [OK button] to activate PIN bypass mode (if available).</li> </ul>



<b>NOT PROCESSED</b>	<p>This is a generic error message that indicates that the current operation was not completed due to an unexpected error.</p> <p>Reasons can include:</p> <ul style="list-style-type: none"> <li>• Communication failure between the HiPro card reader and the back end system during an update operation.</li> <li>• Invalid request object from the POS app at the start of an operation.</li> <li>• Invalid response object from the POS app during an operation.</li> </ul>	<p>Please retry the operation. If the issue persists please contact your provider's support team for assistance (see section 5).</p>
<b>PIN IS BLOCKED</b>	<p>The maximum number of PIN entry retries has been reached.</p>	<p>Please wait for further instructions on the HiPro card reader display (The HiPro card reader may fall back to signature processing).</p> <p>The cardholder needs to contact their bank/issuer for instructions on how to get the PIN unblocked.</p>
<b>PROCESSING ERROR</b>	<p>An unexpected error was encountered during transaction processing.</p>	<p>Please retry the operation. If the issue persists please contact your provider's support team for assistance (see section 5).</p>
<b>READ ERROR</b>	<p>The HiPro card reader was unable to establish a valid communication channel with the cards chip.</p>	<p>Please wait for further instructions on the HiPro card reader display.</p>
<b>REQUEST INVALID</b>	<p>A financial transaction was attempted with a magnetic stripe card that is cash only.</p>	<p>No further actions are required.</p>

<b>SALE VOID</b>	Indicates that the current operation is a reversal/voiding of a SALE transaction.	No further actions are required.
<b>TRANS. DECLINED</b>	A transaction has been declined.	No further actions are required. Further information may be displayed on the HiPro card reader screen or receipt that might indicate why the transaction was declined.
<b>TRANSACTION VOID</b>	A financial transaction was cancelled due to a cardholder not responding in time to an action or directly, by the cardholder or the merchant or the card itself. Or a signature was rejected by the merchant.	No further actions are required.
<b>UNSUPPORTED CUR.</b>	A currency has been selected in the POS app that your HiPro card reader has not been set up for.	Select the correct currency and retry the operation.  Alternatively, please your provider's support team for assistance (see section 5) to find out if that specific currency can be supported.
<b>USING SIGNATURE</b>	The card has indicated that cardholder signature is required. This can be either due to fall back (e.g. max PIN retries reached) or because the card is a signature or a signature & PIN card.	Please wait for further instructions on the HiPro card reader display.

**4.2.2. Updating Messages**



These are messages that can appear while the HiPro card reader is updating in alphabetical order.

<b>HiPro card reader display text</b>	<b>Why it is displayed</b>	<b>Required action</b>
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<b>CONNECTION ERROR</b>	The HiPro card reader detected a communication failure between itself and the processing system during an update operation.	Please verify that your device has an internet connection and then retry the operation.
<b>DOWNLOADING</b>	Indicates that the HiPro card reader is downloading its update.	No further actions are required.
<b>INSTALLING</b>	A configuration update for the HiPro card reader has been validated and the HiPro card reader is applying it.	Please wait for the completion of the update process.
<b>NO UPDATE</b>	An update procedure was started, but there is no pending update to download.	No further actions are required.
<b>RESTARTING...</b>	The HiPro card reader is about to restart after a software update.	Please wait for further instructions on the HiPro card reader display.
<b>SOFTWARE x%</b>	The HiPro card reader is updating itself and has completed x% of the update.	Please wait for the completion of the update process.
<b>UPDATE COMPLETE</b>	An update operation has completed successfully.	No further actions are required.
<b>UPDATE FAILURE!</b>	An update has failed to complete.	Please retry the operation. If the issue persists, please contact your provider's support team for assistance (see section 5).
<b>UPDATES x%</b>	The HiPro card reader is updating itself and has completed x% of the update.	Please wait for the completion of the update process.
<b>UPDATING READER</b>	Indicates that the HiPro card reader has started an operation to update itself.	No further actions are required.
<b>VALIDATING</b>	A configuration update has been found for the HiPro card reader and the HiPro card reader is verifying its correctness.	Please wait for the completion of the update process.

### 4.2.3. Administration Messages

These are messages that can appear while the HiPro card reader is idle or while you are in the administration menu.

HiPro card reader display text	Why it is displayed	Required action
---- no config ----	No configuration is present on the HiPro card reader and the operator has entered the administration menu and selected the version information option.	No further actions are required.
--- no ipek loaded ---	No cryptographic keys can be found on the HiPro card reader and the operator has entered the administration menu and selected the version information option.	Please return the HiPro card reader back for replacement.
<b>BATTERY LOW</b>	The battery charge level is low.	Please recharge the HiPro card reader.
<b>BATTERY TOO LOW</b>	An operation was started, but the battery charge level is too low to complete the operation.	Please recharge the HiPro card reader.
<b>TO TURN OFF PRESS OK button or Cancel button</b>	The power button has been pressed.	Please press the  [OK button] button to turn off the HiPro card reader or press the  [Cancel button] to keep the HiPro card reader turned on.

# 5. GETTING SUPPORT

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Your provider of this POS app solution should provide you with support for the whole solution, including the HiPro card reader. They can contact Handpoint on your behalf, if needed.

Here is a table of information you can provide which can help the POS app provider or Handpoint solve your issue:

Information	Details	How it helps
<b>Clear description of issue</b>	step by step description of what you do and how the HiPro card reader behaves	The support provider can follow your directions to reproduce the issue and experience it themselves
	error message(s)	Error message(s) give an indication of where the issue lies, the support provider can look up the error message(s) in the HiPro card reader message List to get more details
	where and when the error is appearing	The error can be coming from: Terminal (HiPro card reader) POS app (Point of Sale application) Gateway Acquirer
	contact information of the parties involved	Issues get resolved faster when all contact information is available
<b>Information about the solution</b>	Type of terminal	Handpoint has two types of terminal, HiPro card reader and HiPro which have different features
	Serial number of terminal (see #3 in section 1.2 or section 3.4)	Information about terminals configurations and their transactions can be retrieved by using the serial number

	Terminal software version (see section 3.3)	New versions of the terminal software may fix known issues
	Info about device connected to the terminal e.g. iphone6 with iOS 9.2, samsung galaxy S6 edge with Android 5.1.1 etc...	Type of device and operating system version may not be supported or some known issues with the operating system version
	Connection type e.g. lightning	Different connection types may have various issues such as connectivity, driver problems, configuration etc.
<b>Log files</b>	Terminal Software Audit log files. It is the responsibility of the POS app to fetch logs from the terminal. Your POS app provider should be able to help you send them to support	Logs are used for troubleshooting
<b>Screenshots of issue</b>	error/warning messages or receipts	The receipts can include both information and error messages from the Handpoint gateway or the acquirer

## 6. GLOSSARY

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<b>3DES</b>	Triple Data Encryption Algorithm is a security measure
<b>Device</b>	The hardware you are using to run the mPOS/POS application: iPod Touch 5th or 6th generation
<b>DUKPT</b>	Derived Unique Key Per Transaction is a secu
<b>EMV</b>	Europay, MasterCard and Visa. Technical standard for smart payment cards.
<b>MOTO</b>	Mail Order/Telephone Order. It is a type of card-not-present transaction in which services are paid for and delivered via telephone, mail, fax, or internet communication.
<b>mPOS</b>	Mobile Point of Sale. Specifying a payment app running on smart devices to accept card payments (as opposed to a full, third party POS app)
<b>NFC</b>	Near-field Communication is the technology that enables contactless payments.
<b>P2PE</b>	Point-to-Point Encryption is a security standard established by the PCI Security Standard Council
<b>PCI-DSS</b>	Payment Card Industry Data Security Standard. It is an information security standard for organizations that handle branded credit cards from the major card schemes.
<b>POS</b>	Point of Sale. An application which acts as cash register, typically going beyond just accepting card payments by also including other features such as basket handling (as opposed to just an mPOS app).
<b>Provider</b>	The contact/company who you have had direct communication with to set up your card payment solution with the Handpoint card reader(s).

## 7. FAQs

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Questions	Answers
<b>Are smartphones and tablets secure enough to accept card payments?</b>	No, not alone. That is why we have a separate device for reading the card and PIN entry. Card detail information is not saved within the app on the smartphone or tablet. All card information is encrypted with point-to-point encryption (P2PE) and stored in Handpoint's secure environment, as certified by the Payment Card Industry Data Security Standard (PCI DSS).
<b>Can I accept Mail Order/Telephone Order (MOTO) payments with my card reader?</b>	No, the card must be present to make a transaction with the card reader.
<b>Can I lend my card reader to a friend?</b>	No, only your business has been approved for using this device, so it is not possible to lend the card reader to someone else.
<b>Can I sell my card reader to someone else?</b>	No, it is advised not to resell your card reader, as it is only set up for your business and would not be transferable for someone else's business. If you are considering not to use your card payment solution any longer, please contact your provider.
<b>Can I use Handpoint abroad?</b>	It depends on your provider and your account configuration. Please contact your provider to find out your options in using your card payment solution abroad.



<p><b>Can I use multiple phones with my card reader ?</b></p>	<p>Yes you can. But everytime you connect the HiPro card reader to a new device you need to register it according to the POS app instructions.</p> <p>However the HiPro card reader can only connect with one device at a time.</p>
<p><b>Do I need an internet connection to use the HiPro card reader?</b></p>	<p>Yes, you will need to connect to the internet through 3G or Wifi on your iPod Touch for the HiPro card reader to process payments.</p> <p>The HiPro card reader sends the encrypted transaction to your iPod Touch via the lightning connection and the POS app forwards the transaction to the Handpoint gateway using 3G or Wifi.</p>
<p><b>How are my card transactions settled?</b></p>	<p>Batches of your transactions are automatically closed and sent to the acquirer for settlement at midnight each day, so you don't need to carry this out.</p>
<p><b>What about receipts?</b></p>	<p>The HiPro card reader creates a receipt for each transaction and sends to the POS app.</p> <p>The POS app is responsible for showing you and providing you a way to access the receipt e.g. through text message, email or printer (depending on the functionality of your POS app)</p>
<p><b>What happens if my card reader is lost or stolen?</b></p>	<p>There is no way to access money or card information through the card reader, so your money and information will stay safe. If your card reader is lost or stolen, get in touch your provider to let them know and discuss your card reader replacement options.</p>

**Why a separate card reader?**

We use a separate secure card reader for reading the chip and entering the PIN to protect your customers card details. This method is the most secure way to accept payments today. No card data is ever stored on the HiPro card reader or iPod Touch.