

# Hi5 Integrated User Guide

Handpoint

# Hi5 Integrated User Guide

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# 1. QUICK GETTING STARTED GUIDE

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This guide will help you get to know your Hi5 and make your first transaction as an integrated payment terminal.

## 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 the following: your Hi5 card reader, a USB connector (either a mini USB or macro USB depending on which version you have) and a charger.



## 1.2. GETTING TO KNOW YOUR Hi5

Here are the product details for your Hi5 card reader:



#	Name	Description
1	Printer paper slot	Receipts print out from here. The printer paper should be inserted with the paper sticking out of this slot before use.
2	Clock	Shows the time, hours : minutes : seconds

3	Charging port	The round port is for battery charging, using the included charger
4	USB port	The USB cable used for this port is for device programming and debugging so not relevant for live card transactions
5	Up/down arrows	Move up and down the menus, then select by pressing the OK button (see n. 10)
6	Cancel button	To cancel transactions when applicable, or other actions
7	NFC Status Lights	These lights indicate the status of a contactless transaction
8	EMV chip reader	Insert card with chip into the slot (facing up)
9	Back button	To erase keyed numbers
10	OK button	To select or confirm actions
11	Power button	To turn on and off, hold button down for a couple of seconds and follow commands
12	Magnetic stripe reader	Swipe card with the magnetic stripe facing left
13	Icons	Here on the screen are icons which show battery life and other info such as the Bluetooth connection (see section X.X)

### 1.3. HOW IT WORKS

The Hi5 is a dual payment solution so it works as both a standalone terminal as well as integrated to an app via Bluetooth. In this guide, you are provided information for the Hi5 as an **integrated solution**.

Here is the short version of how the Handpoint solution works as an integrated terminal:



1. The Point of Sale application (POS app) on your device initiates a transaction on the Hi5 using Bluetooth
2. Customer inserts card and follows the directions on the Hi5 screen
3. The Hi5 sends the transaction information encrypted via Bluetooth to the POS app
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 Hi5 via Bluetooth
7. The Hi5 reads the response, finalizes the transaction and prints out the card receipt whilst also sending it to the POS app
8. Customer removes card and the merchant provides the customer the sale receipt through the POS app

## 1.4. GET STARTED

The first time you connect, you have to register the Hi5 to the point of sale application. Please follow the instructions in your POS app to connect and register. Each version of the POS app (Point of Sale application) does this differently.

The first transaction:

1. Make sure that the smartphone, computer or tablet you're using with the Hi5 has Bluetooth turned on
2. Turn on the Hi5 by pressing and holding the Power Button (⏻) for a couple of seconds
3. Pair the Hi5 to the Bluetooth device
4. Follow the instructions on your POS app to register the Hi5
5. Wait until you see the Bluetooth icon (📶) on the Hi5 screen (see #13 in section 1.2). When that icon appears, the Hi5 is connected. This may take a few seconds
6. Initiate a transaction in the POS app on the smartphone, computer or tablet
7. When the message **"UPDATING READER"** appears, the Hi5 will start downloading and installing the update. When the Hi5 has finished, the message **"UPDATE COMPLETE"** will appear
8. When the message **"INSERT CARD"** is displayed, insert the card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
9. Enter PIN using the keypad and press the OK Button (O) (use the Back Button (<) to erase and then the keypad to re-enter pin if you make a mistake), or cancel by pressing the Cancel Button (X)
10. When message **"REMOVE CARD"** appears, remove the card from the EMV chip reader

The POS app is responsible for providing the customer with the sale receipt created by the Hi5, whilst the Hi5 will produce the card receipt.

## 2. HI5 SPECIFICATIONS

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Here below are the technical specifications of the Hi5 and information about the software and configurations.

### 2.1. HARDWARE TECHNICAL SPECIFICATION

<i>Display</i>	320 x 240 px TFT Color LCD
<i>Card readers</i>	Landing type smart card reader, triple track bi-directional magnetic card reader
<i>Battery</i>	Rechargeable Li-ion 7.4V, 1300 mAh
<i>Connectivity</i>	Bluetooth 3.0 Class 2
<i>Certifications</i>	CE, FCC, PCI PTS 3.x, EMV Level 1 Contact, EMV Level 2 Contact, EMV Level 1 Contactless, VISA payWave, MasterCard Contactless, American Express Expresspay, Discover Zip, Apple® MFi
<i>Dimensions (LxWxH), mm</i>	172 x 76 x 49
<i>Weight, g</i>	320
<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>Power Supply</i>	9V through power supply

### 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) using Bluetooth.

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 Hi5.

In the case of a critical update, Handpoint can automatically and remotely push the latest software or configuration version onto your Hi5.

Section 3.3 shows you how to find which software and configuration versions your Hi5 has.

### 2.3. SECURITY

All card information is encrypted using 3DES with a 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 P2PE (point-to-point encryption) compliant.

## 3. Hi5 USER GUIDE

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Here are further instructions how to use the different functions of your Hi5.

### 3.1. CONNECTING YOUR Hi5

To be able to take payments your Hi5 needs to be connected via Bluetooth to a smartphone, computer or tablet with a POS app (Point of Sale application) that works with it.

The first time you connect you have to register the Hi5 to your POS app. Please follow the instructions from your POS app to connect and register. Each POS app does this differently.

Connecting via Bluetooth:

11. Make sure that the smartphone, computer or tablet you're using with the Hi5 has Bluetooth turned on
12. Turn on the Hi5 by pressing and holding the Power Button (⏻) for a couple of seconds
13. Pair the Hi5 to the Bluetooth device
14. Wait until you see the Bluetooth icon (📶) on the Hi5 screen (see #13 in section 1.2). When that icon appears, the Hi5 is connected

Your device and the Hi5 should find each other every time as long as the Bluetooth of your device is on. If you are prompted to enter a pairing code, enter "0000" as the code.

### 3.2. TRANSACTIONS

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

#### 3.2.1. Chip & Pin

The Hi5 supports Chip & PIN cards. For Chip & PIN transactions use the EMV chip reader (see #8 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 smartphone, computer or tablet
2. When message "INSERT CARD" appears, insert card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
3. Enter PIN using the keypad and press the OK Button (O) (use the Back Button (<) to erase and then use the keypad to re-enter pin if you make a mistake), or cancel by pressing the Cancel Button (X)
4. When message "REMOVE CARD" appears, remove the card from the EMV chip reader

The POS app is responsible for providing the customer with the sales receipt created by the Hi5, whilst the Hi5 produces the card receipt.

### **3.2.2. Chip & Signature**

The Hi5 supports chip & signature cards. For chip & signature transactions use the EMV chip reader (see #8 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 smartphone, computer or tablet
2. When message “**INSERT CARD**” appears, insert card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
3. Confirm the amount by pressing the OK Button (O) or cancel by pressing the Cancel Button (X)

The POS app is responsible for providing the customer with the sale receipt whilst the Hi5 prints out the card receipt which the customer should sign.

### **3.2.3. Fallback to Magnetic Stripe**

If the Hi5 cannot read the chip for some reason it will fallback to magnetic stripe. The Hi5 will prompt you to remove the card from the EMV chip reader (see #8 in section 1.2) and swipe the card using the magnetic stripe reader (see #12 in section 1.2). The Hi5 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 smartphone, computer or tablet
2. When message “**INSERT CARD**” appears, insert card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
3. If the Hi5 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 Hi5 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 Hi5 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 the OK Button (O) or cancel by pressing the Cancel Button (X)

The POS app is responsible for providing the customer with the sale receipt whilst the Hi5 prints out the card receipt which the customer should sign.

### 3.2.4. Magnetic Stripe

The Hi5 supports cards that only have magnetic stripes. To do a transaction with a magnetic stripe card use the magnetic stripe reader (see #12 in section 1.2). If the card has a chip the Hi5 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 smartphone, computer or tablet
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 the OK Button (O) or cancel by pressing the Cancel Button (X)

The POS app is responsible for providing the customer with the sale receipt whilst the Hi5 prints out the card receipt which the customer should sign.

### 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 smartphone, computer or tablet
2. When message “**INSERT CARD**” appears, insert card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
3. To bypass the pin, press the OK Button (O) instead of entering the pin (if pin bypass is not enabled, the Hi5 will show the message “**NOT ALLOWED**”)
4. When message “**REMOVE CARD**” appears, remove the card from the EMV chip reader

The POS app is responsible for providing the customer with the sale receipt whilst the Hi5 prints out the card receipt.

### 3.2.6. Gratuity/Tips

To get the gratuity/tips feature you have to ask for it especially from your POS app provider. The menu appears before pin entry where the customer can choose how much he wants to tip. Here is an example of the default gratuity/tip menu for a £20,00 sale:

<b>Menu item</b>
No tip
18% GBP3,60
20% GBP4,00
25% GBP5,00
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 smartphone, computer, or tablet
2. When message “INSERT CARD” appears, insert card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
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 the OK Button (O) to select tip amount, if you select “ENTER AMOUNT”:
  - a. Enter tip amount using the keypad (use the Back Button (<)) to erase and then the keypad to re-enter amount if you make a mistake)
  - b. Press the OK Button (O)
5. Enter PIN using the keypad and press the OK Button (O) (use the 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 POS app is responsible for providing the customer with the receipt created by the Hi5.

### 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. Here is an example of menu items, 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 smartphone, computer or tablet
2. When message “INSERT CARD” appears, insert card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
3. When the account type menu appears, scroll menu using ▲ (up arrow) and ▼ (down arrow) to find the right account type
4. Press the OK Button (O) to select account type
5. Enter PIN using the keypad and press the OK Button (O) (use the 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 POS app is responsible for providing the customer with the receipt created by the Hi5.

### 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 smartphone, computer, or tablet
2. When message “INSERT CARD” appears, insert card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
3. When the POS application menu appears, scroll menu using ▲ [up arrow] and ▼ (down arrow) to find the right POS app
4. Press the OK Button (O) to select POS app
5. Enter PIN using the keypad and press the OK Button (O) (use the 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 POS app is responsible for providing the customer with the receipt created by the Hi5.

### 3.3. ADMINISTRATION MENU

To access the administration menu:

1. Press the Cancel Button (X) and the Back Button (<)
2. Enter password: **746723** and press the OK Button (O)
3. Scroll menu using ▲ (up arrow) and ▼ (down arrow)
4. To go into sub-menus press the OK Button (O)
5. To select menu items press the OK Button (O)
6. To go out of menus press C

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	Serial	A connection type, <b>not supported by Hi5</b>
	USB Mode	A connection type, <b>not supported by Hi5</b>
	Bluetooth	A connection type, supported. A
	Save and Reset	Select to save any changes you have made in this sub-menu, the Hi5 restarts.
Config	Reset flash	Resets to factory settings, next time you do a transaction the Hi5 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 Hi5 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 Hi5 restarts.

### 3.4. VIEW INFORMATION

To view information about your Hi5:

1. Press the Cancel Button (X) 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 the Cancel Button (X)

About the information you see:

Menu item	Description
SN	Serial number of Hi5 e.g. 1216009227
mPOS	Terminal software version e.g. v.1.7.1(236)
COMs	Type of connection used e.g. Bluetooth

<b>BT</b>	The name of your Bluetooth connection e.g. PP0615009227
<b>Pass</b>	Bluetooth password e.g. 0000
<b>Config</b>	Configuration version e.g. 1
<b>Flash</b>	This has information about the flash memory, used by Handpoint quality assurance
<b>EMV</b>	EMV version e.g. 1.09 03 210514
<b>Pinutil</b>	Software library for communications (for programming)
<b>Payengine</b>	Software library for EMV kernel (for programming)

### 3.5. UPDATING THE Hi5

It depends on the POS app (Point of Sale application) if you can update the Hi5 manually. Then the update is initiated through the POS app on your smartphone, computer or tablet.

Handpoint pushes updates automatically and remotely to your Hi5.

This is what happens when Handpoint pushes a non-critical update to your Hi5:

1. Transaction is initiated in the POS app on the smartphone, computer, or tablet
2. When message “**INSERT CARD**” appears, insert card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
3. Enter PIN using the keypad and press the OK Button (O) (use the 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 Hi5 starts downloading and installing the update, this only takes a couple of seconds. When the Hi5 has finished the message “**UPDATE COMPLETE**” appears.

This is what happens when Handpoint pushes a critical update to your Hi5:

1. Transaction is initiated in the POS app on the smartphone, computer, or tablet
2. When message “**INSERT CARD**” appears, insert card in the EMV chip reader (see #8 in section 1.2) with the chip facing up and towards the Hi5
3. Enter PIN using the keypad and press the OK Button (O) (use the 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 Hi5 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 Hi5 starts downloading and installing the update, this only takes a couple of seconds. When the Hi5 has finished the message “**UPDATE COMPLETE**” appears.
7. After the Hi5 has finished updating initiate the transaction again to charge the customer

## 4. TROUBLESHOOTING

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In this section are tools to help you troubleshoot. It includes instructions on how to troubleshoot communication errors between the Hi5 and your smartphone, computer, or tablet, and flash corruption issues. There is also a section with tables with some of the possible messages that can appear on your Hi5. 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 Hi5 shows a communication error message it means that the Hi5 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:

First thing to try - turn the Hi5 off and on again:

1. Make sure that the smartphone, computer, or tablet you’re using with the Hi5 has Bluetooth turned on
2. Turn off the Hi5 by pressing and holding  (power button) for a couple of seconds and pressing the OK Button (O)
3. Turn the Hi5 back on by pressing and holding  (power button) for a couple of seconds
4. Wait for the Hi5 to connect or follow the connection instruction from your POS app. When you see the Bluetooth icon (  ) on the Hi5 screen (see #13 in section 1.2) the Hi5 is connected to the POS app.
5. Try to initiate a transaction again

Second thing to try - disconnect the Bluetooth connection and reconnect

1. Make sure that the smartphone, computer, or tablet you’re using with the Hi5 has Bluetooth turned on
2. Look for the Bluetooth name (in the BT menu item in section 3.4 in your smartphone, computer, or tablet’s Bluetooth list and disconnect according to the directions of your device
3. Reconnect the Hi5 according to the directions of your device

4. Wait for the Hi5 to connect or follow the connection instruction from your POS app. This may take a few seconds. When you see the Bluetooth icon (⌘) on the Hi5 screen (see #13 in section 1.2) the Hi5 is connected to the POS app.
5. Try to initiate a transaction again

Third thing to try - remove the Hi5 from Bluetooth devices and pair again

1. Make sure that the smartphone, computer, or tablet you're using with the Hi5 has Bluetooth turned on
2. Look for the Bluetooth name (in the BT menu item in section 3.4) in your smartphone, computer, or tablet's Bluetooth list and remove device/forget device according to the directions of your device
3. Make sure that the Hi5 is turned on
4. Look for the Bluetooth name (in the BT menu item in section 3.4) in your smartphone, computer, or tablet's Bluetooth list and pair according to the directions of your device
5. Wait until you see the Bluetooth icon (⌘) on the Hi5 screen (see #13 in section 1.2). This may take a few seconds. When that icon appears the Hi5 is connected.
6. Try to initiate a transaction again

If the problem persists, please contact support (see section 5).

#### 4.1.2. Flash Corruption Errors

If the Hi5 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 the Cancel Button (X) and then the Back Button (<)
2. Enter password: **746723** and press the OK Button (O)
3. Scroll menu using ▼ (down arrow) to **Config** and press the OK Button (O)
4. Select **"RESET FLASH"** and press the OK Button (O)
5. Scroll down to **"Save and Reset"** and press the OK Button (O)
6. The card reader should now restart

If the problem persists then please contact support (see section 5).

## 4.2. HI5 MESSAGES

Here are tables with some of the possible messages that can appear on your Hi5. If you are having a problem you can try searching these tables for the message and see what you can do.

#### 4.2.1. Transaction Messages

These are messages that can appear during transactions in alphabetical order. This is not an exhaustive list.

Hi5 display text	Why it is displayed	Required action
<b>AMOUNT:</b> [amountvalue]	The Hi5 needs the cardholder to validate that the correct amount has been used.	The cardholder must confirm that the amount is correct by pressing the OK Button (O) or cancel by pressing the Cancel Button (X).
<b>APP. BLOCKED</b>	The card application that was selected has been blocked.	The cardholder must select another application to continue or press the C/Cancel button to abort.
<b>APP. NOT AVAILA.</b>	The card application that was selected is not supported.	The cardholder must select another application to continue or press the C/Cancel button to abort.
<b>APP. SELECTION-&gt;</b>	Two or more supported card applications have been detected.	The cardholder must select the correct card application from the list to continue (e.g. VISA, MASTERCARD, AMEX, et cetera).
<b>AUTHORISED</b>	A transaction has completed successfully.	No further actions are required.
<b>CANCELLED</b>	The current operation was cancelled by either the cardholder or the merchant. Or the Hi5 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 retry the transaction with a non-blocked card.
<b>CARD REMOVED</b>	The card was removed too soon during a financial transaction operation.	Please restart the operation.

<b>COMM. ERROR CHECK CONNECTION</b>	Indicates that the Hi5 detected a communication failure between itself and the device that it was paired/connected to.	If a SALE or a REFUND transaction was in progress when this occurred then you <b>MUST</b> contact support (see section 5) and verify whether the transaction went through or not. <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.
<b>COMPLETING TRANSACTION</b>	The Hi5 is finalizing a completed transaction with your device.	Please wait for further instructions on the Hi5 display.
<b>CONFIRM -&gt;</b>	A card application has been selected that requires confirmation before it can be used.	The card holder must confirm the application selected by pressing the OK Button (O) or cancel the selection by pressing the Cancel Button (X).
<b>FALLBACK TO MSR</b>	The cards chip has failed. The data on the magnetic stripe will be used instead.	Please wait for further instructions on the Hi5 display.
<b>ICC NOT AVAILAB.</b>	The card application that was selected has failed to load properly.	The cardholder must select another application to continue or press the C/Cancel button to abort.
<b>INCORRECT PIN</b>	An incorrect PIN was entered.	The cardholder must re-enter their PIN.
<b>INVALID CARD</b>	The Hi5 could not read any data from the card.	Please retry the operation. If the issue persists the card may be faulty, please try another card. If the issue still persists the Hi5 may require replacement, please contact support (see section 5).
<b>LAST ATTEMPT</b>	The retry counter for PIN entry is about to be exhausted, this is your last chance.	Please do one of the following: <ul style="list-style-type: none"> <li>• Enter the correct PIN.</li> <li>• Press the 'C'/Cancel button to abort the transaction.</li> <li>• Press the OK Button (O) to activate PIN bypass mode (if available).</li> </ul>
<b>NOT ALLOWED</b>	PIN bypass has been selected by the cardholder, but it is not allowed.	The card holder must enter their PIN to continue.

<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 Hi5 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 support (see section 5).</p>
<b>PIN BYPASS SELE.</b>	<p>PIN bypass has been selected by the cardholder.</p>	<p>No further actions are required; in most cases a cardholder signature will be required.</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 Hi5 display (The Hi5 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>PIN VERIFIED</b>	<p>The PIN has been verified successfully.</p>	<p>No further actions are required.</p>
<b>PIN: [amountvalue]</b>	<p>The Hi5 is waiting for the card PIN.</p>	<p>The cardholder must enter their PIN and press the OK Button (O) to continue or press the Cancel Button (X) to cancel the transaction.</p>
<b>PLEASE SIGN</b>	<p>The cardholder must sign their name on the slip.</p>	<p>The cardholder must sign the slip.</p>
<b>PLEASE WAIT...</b>	<p>The Hi5 is processing an operation.</p>	<p>Please wait while the Hi5 completes the operation.</p>
<b>PRESS OK or C</b>	<p>The Hi5 needs confirmation to continue.</p>	<p>The cardholder must read all information on the display and then press either the OK Button (O) or the Cancel Button (X) as applicable.</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 support (see section 5).</p>

<b>PROCESSING...</b>	Cardholder authentication has completed and a financial card transaction is being processed.	Please wait for further instructions on the Hi5 display.
<b>READ ERROR</b>	The Hi5 was unable to establish a valid communication channel with the cards chip.	Please wait for further instructions on the Hi5 display.
<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>REMOVE CARD</b>	The card is in the Hi5 and either the transaction has completed or the Hi5 cannot read the chip.	Please remove the card from the Hi5.
<b>REQUEST INVALID</b>	A financial transaction was attempted with a magnetic stripe card that is cash only.	No further actions are required.
<b>REVERSAL ACCEPT.</b>	Reversal/voiding of a SALE/ REFUND transaction has completed successfully.	No further actions are required.
<b>SALE</b>	Indicates that the current operation is a SALE transaction.	No further actions are required.
<b>SALE VOID</b>	Indicates that the current operation is a reversal/voiding of a SALE transaction.	No further actions are required.
<b>SELECTED APP.</b>	A card application has been selected for this transaction.	No further actions are required.
<b>SWIPE CARD</b>	The Hi5 is waiting for a card to be swiped against the magnetic stripe reader.	Please swipe a card through the magnetic stripe reader.
<b>TRANS. DECLINED</b>	A transaction has been declined.	No further actions are required. Further information may be displayed on the Hi5 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 the Hi5 has not been configured for.	Select the correct currency and retry the operation.  Alternatively, please contact support (see section 5) and ask for the specific currency to be supported.
<b>USE CHIP READER</b>	The Hi5 is waiting for a card to be inserted into the chip reader.	Please insert a card into the chip reader.
<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 Hi5 display.

#### 4.2.2. Updating Messages

These are messages that can appear while the Hi5 is updating in alphabetical order. This is not an exhaustive list.

Hi5 display text	Why it is displayed	Required action
<b>CONNECTION ERROR</b>	The Hi5 detected a communication failure between itself and the backend 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 Hi5 is downloading its update.	No further actions are required.
<b>INSTALLING</b>	A configuration update for the Hi5 has been validated and the Hi5 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 on the backend system.	No further actions are required.
<b>RESTARTING...</b>	The Hi5 is about to restart after a software update.	Please wait for further instructions on the Hi5 display.
<b>SOFTWARE x%</b>	The Hi5 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 support (see section 5).
<b>UPDATES x%</b>	The Hi5 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 Hi5 has started an operation to update itself.	No further actions are required.
<b>VALIDATING</b>	A configuration update has been found for the Hi5 and the Hi5 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 Hi5 is idle or while you are in the administration menu. This is not an exhaustive list.

<b>Hi5 display text</b>	<b>Why it is displayed</b>	<b>Required action</b>
----- no config ----	No configuration is present on the Hi5 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 Hi5 and the operator has entered the administration menu and selected the version information option.	Please return the Hi5 back for replacement.
<b>BATTERY LOW</b>	The battery charge level is low.	Please recharge the Hi5.
<b>BATTERY TOO LOW</b>	An operation was started, but the battery charge level is too low to complete the operation.	Please recharge the Hi5.
<b>TO TURN OFF PRESS OK or C</b>	The power button has been pressed.	Please press the OK Button (O) to turn off the Hi5 or press the C/Cancel button to keep the Hi5 turned on.

## 5. GETTING SUPPORT

The POS app (Point of Sale application) provider should provide you with support for the whole solution, including the Hi5. 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
Clear description of issue	step by step description of what you do and how the Hi5 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 Hi5 message List to get more details
	where and when the error is appearing	The error can be coming from: Terminal (Hi5) POS app (Point of Sale application) Gateway Acquirer
	contact information of the parties involved	Issues get resolved faster when all contact information is available.
Information about the solution	Type of terminal	Handpoint has two types of terminal, Hi5 and HiPro which have different features.
	Serial number of terminal (see no.3 in section 1.2 or section 3.3)	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. bluetooth, lightning	Different connection types may have various issues such as connectivity, driver problems, configuration etc.
Log files	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.
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## 6. FAQ

Questions	Answers
<p><b>Are smartphones and tablets secure enough to accept card payments?</b></p>	<p>No, not alone. That is why we have a separate device for reading the card and PIN entry. We never store card detail information on the smartphone or tablet. All card information is encrypted with P2PE encryption and stored in Handpoint PCI-DSS certified environment.</p>
<p><b>Can I accept MOTO payments (through phone) with my card reader?</b></p>	<p>No, the card must be present to make a transaction with the card reader.</p>
<p><b>Can I lend my card reader to a friend?</b></p>	<p>No, your card reader is set up for your business, so it is not possible to lend the device to someone else.</p>
<p><b>Can I use Handpoint abroad?</b></p>	<p>Yes, Handpoint can be used anywhere in the world as long as there is access to a 3G/4G or Wifi network.</p>
<p><b>Can I use multiple phones with my card reader ?</b></p>	<p>Yes you can. But everytime you connect the Hi5 to a new device you need to register it according to the POS app instructions.</p> <p>However the Hi5 can only connect with one device at a time.</p>
<p><b>Do I still need an internet connection to use the Hi5 as an integrated terminal?</b></p>	<p>Yes, you will need to connect to the internet through 3G or Wifi on your smartphone, computer or tablet for the Hi5 to process payments.</p> <p>The Hi5 sends the encrypted transaction to your smartphone, computer or tablet using Bluetooth and the POS app forwards the transaction to the Handpoint gateway using 3G or Wifi.</p>
<p><b>How do I close and send batches?</b></p>	<p>The Handpoint gateway closes the batches automatically and sends to the acquirer for settlement at midnight each day.</p>
<p><b>What about receipts?</b></p>	<p>The Hi5 creates a receipt for each transaction and prints off the card receipt whilst sending it to the POS app.</p> <p>The POS app is responsible for showing you and providing you a way to access the sale receipt e.g. through text message, email or printer</p>

<b>What happens if my card reader is lost or stolen?</b>	Have no fears. There is no way to access money or card information through the card reader, so your money will stay safe. If your card reader is lost or stolen let your POS app provider know.
<b>Why a separate card reader?</b>	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 Hi5, smartphone, computer or tablet.