

# Converge

## Chip and PIN (EMV) Transaction Processing Addendum

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## Preface

This document describes step by step procedures on how to setup and use your Virtual Terminal to process Chip and PIN transactions. This is the EMV capability in a face-to-face environment in the US and Canadian regions.

This document is intended for users of the Converge product and contains the information necessary for them to be able to process Chip and PIN transactions effectively.

## **Typographical Conventions**

Throughout this user guide, you will see words and phrases that appear in different fonts and formats. The following list describes the typographical conventions used in this guide.

Bold Text

Indicates a menu option, a window title, buttons, etc. that you can use to identify a part of the user interface.

Examples:

Print or Save As dialog box

Menu selection sequences

Indicates a series of menu options that you need to select in a particular sequence and listed in one step. Each menu option is separated by a pipe (|)

Example:

- 1. Choose File | Save As | File Name and enter the name of the document.
- Courier text

Indicates examples of software code. Usually this type of text is encapsulated in a code box as illustrated below.

Example:

```
Begin Header
<head>
<title>Batch Import</title>
</head>
End Header
```

Bold courier text

Indicates a command that you would type into a command prompt window. Example:

cd c:\users\

- Italicized text Indicates that the word or phrase is:
- A reference to another document Example: Refer to the *Elavon User Guide*.
- Emphasized for clarification.

Examples:

You do *not* need to select **Apply**.

• The word is replaceable text, such as a variable for a piece of code that you need to enter the appropriate value for your implementation. Example:

```
<xml>
<country_code>Country Code</country_code>
</xml>
```

## **Related Documentation**

The following documents are available related to the Converge product:

- Converge Getting Started Guide
- Converge System Administration Guide
- Converge Peripheral Device Installation and Setup Guide
- Converge Transaction Processing Guide
- Converge Developer Guide
- VirtualMerchant Mobile User Guide

## **Revision History**

The following table provides a description of the changes made to this document from its origination to the current release.

Revision	Date	Revision Notes
A	FEB-2015	Original release of the Converge Chip and PIN (EMV) Transaction Processing Addendum
В	SEP-2015	Added Chip and PIN (EMV) processing for US
С	OCT-2015	Key entry using the iSC250 is now supported
D	NOV-2015	Added iCMP as supported device and device setup addition
E	FEB-2016	Added Return and Force transaction types for US Added gratuity entry in the device for the Service market segment

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## **Chapter 1: Introduction**

EMV which stands for Europay, MasterCard, and Visa is a global standard for cards embedded with computer chips and the technology used to authenticate chip-card transactions. U.S. card issuers are migrating to the new technology to protect consumers and reduce the costs of fraud.

Chip card might be called any of of the following terms:

- Smart card
- Chip card
- Smart-chip card
- Chip-enabled smart card
- Chip-and-choice card (PIN or signature)
- EMV smart card
- EMV card

This addendum provides Chip and PIN transaction processing information as a supplement to the *Converge Transaction Processing Guide*. This addendum is intended for the United States and Canadian audiences and focuses on processing chip card transactions

The following card types are supported when processing Chip and PIN transactions:

US	Canada
Visa	Visa
MasterCard	MasterCard
Discover	Interac
American Express	
Visa Interlink	
MasterCard Maestro	

**Important Note:** Other brands are supported as swipe or hand keyed. The following transaction types are supported when processing Chip and PIN transactions:

- Sale/Purchase
- Return
- Force
- Auth Only
- EMV Key Exchange

The following devices are supported when processing Chip and PIN transactions:

Region	Device	Peripheral Driver
U.S.	Ingenico iSC Touch 250 Ingenico iCMP (ICM122)	ConvergeConnect
Canada	Ingenico iPP320	DeviceAssistant

## **Chapter 2: Prerequisites**

To perform Chip and PIN processing you must first have a supported device, download and setup the peripheral driver, and have your terminal set up for EMV processing.

Preparation for Chip and PIN processing includes:

1. Install or update your peripheral driver, **ConvergeConnect** or **DeviceAssistant** depending on the device you wish to use, consult table below for more information.

Region	Device	Peripheral Driver	Entry Mode
U.S.	Ingenico iSC Touch 250	ConvergeConnect	• Chip
	Ingenico iCMP (ICM122)		<ul> <li>Swipe</li> </ul>
			Contactless
			• Key
Canada	Ingenico iPP320	DeviceAssistant	• Chip
			<ul> <li>Swipe</li> </ul>

- 2. Connect your device to your PC.
- 3. Configure your devices with the DeviceAssistant Utility for those devices supported by DeviceAssistant.
- 4. Configure your devices within Converge.
- 5. Run a transaction.

#### Notes:

- Refer to the *Converge Peripheral Device Installation and Setup Guide* for more information on supported peripheral devices, installation, and setup of your peripheral devices.
- You must upgrade to the latest available Peripheral Driver in order to process Chip and PIN. If **ConvergeConnect** has been previously installed and an update is required, the system will let you know that an update is needed. We strongly recommend that the upgrade is done after business hours.

## Chapter 3: Performing Chip and PIN Transactions for US

The **Credit/Debit** transaction screen allows you to enter a credit or debit card transaction using an EMV capable device. This option is only available for terminals configured with EMV and a **Market Segment** set as **Retail** or **Service**.

Using the device, the user can:

- Insert a chip card
- Tap a contactless card or mobile phone
- Swipe a card into the device
- Hand key card information

#### Notes:

- You must install the latest Peripheral Driver and configure your terminal with EMV in order to use the Ingenico devices to process Chip and PIN. Refer to the *Converge Peripheral Device Installation and Setup Guide* for more information.
- When using a supported chip card the customer has to attempt to insert the card first and if insertion fails the customer will be prompted to swipe the card. For swiped or keyed transactions refer to the *Converge Transaction Processing Guide*.
- Sale and Return transactions are applicable to both credit cards and debit cards.
- Auth Only and Force transactions can be done on credit cards only.
- Cashback is not supported at this time.
- The Ingenico devices can be used to process swiped, chip, contactless/NFC, and hand key transactions. The **Credit Card-Unencrypted Hand Key** user right must be granted in order to key in card data outside of the Ingenico devices using the key board.
- You cannot modify the amount for an EMV transaction once processed.

This section describes how to:

- Enter and process sale transactions for Credit and Debit cards
- Enter and process return transaction for Credit and Debit cards
- Enter and process force transactions for Credit cards
- Enter and process Auth Only transactions
- Perform EMV key exchange

### To Process Credit/Debit Card Sale Transactions

The Sale transaction allows you to obtain real-time authorization for credit or debit cards.

1. On the **Main** screen, select **Credit/Debit Card** to display the credit card options along with the **Main** screen.

User: Store Clerk Account: 001386 Terminal: E4 CERT RETAIL	USER ACCOUNT SETTINGS TERMINAL
Select Terminal	Main
Credit/Debit Sale Return Inquiry Force Auth Only Verification Recurring Installment Mutilentry Batch Import Edit Vkey Exchange Food Stamp Cash Benefit Electronic Check Gift Card Steffed Batches E Steffed Batches Export Log	Welcome to Converge. The Converge Virtual Terminal system is a secure internet-based transaction processing system that enables your business to process transactions in real-time.

2. Select **Sale** to display the **Sale** screen.

User: Store Clerk Account: 001386 Terminal: MY RETAIL STORE CERT ONLY	user accour	NT SETTINGS TERMINAL
Select Terminal	Note that all fields wit	ith an asterisk ( <b>X</b> ) are required.
<ul> <li>Sale</li> <li>Return</li> <li>Inquiry</li> <li>Force</li> </ul>	Sale	
<ul> <li>Auth Only</li> </ul>	Juic	
<ul> <li>Verification</li> </ul>	Entry Method:	Card Reader O Hand Key on Reader O Hand Key
<ul> <li>Multientry</li> <li>Batch Import</li> </ul>	Enter Amount	
<ul> <li>EMV Key Exchange</li> </ul>	Amount:	×
<ul> <li>Food Stamp</li> <li>Cash Benefit</li> <li>Electronic Check</li> <li>Gift Card</li> <li>Loyalty Card</li> <li>Cash</li> <li>Card Manager</li> <li>Current Batches</li> <li>Settled Batches</li> <li>Export Log</li> </ul>		Submit Cancel
Privacy Policy Terms of Use Copyright © 2015 Elavon, Inc. All rights reserved.		

#### The following example shows the **Sale** screen with the **Card Reader** option enabled.

#### Notes:

- The **Card Reader** option is always defaulted, it is used to process chip, contactless, and swiped transactions.
- The **Hand Key on Reader** option is used to process hand-keyed transactions using the Ingenico Devices.
- The **Hand Key** option is used to process hand-keyed transactions outside of the Ingenico devices. Using the keyboard the user must have **Credit Card-Unencrypted Hand Key** user right enabled. For **Hand Key** transactions refer to the *Converge Transaction Processing Guide*.
- If your current **ConvergeConnect** is out of date, transactions cannot be swiped or chip read and must be hand-keyed using the keyboard. The following message will display:



3. Enter the **Amount** of the sale.

50 00 × ¥
Card Reader O Hand Key on Reader O Hand Key
asterisk (券) are required.

#### 4. Click Submit.

- For a *Retail* terminal the customer is prompted to insert card. Proceed to step 8.
- For a *Service* terminal that accepts gratuity, the customer is prompted to enter a gratuity first before insertion of the customer's card.
- 5. The customer is given a selection of predetermined gratuities or the customer can choose **Other** to enter a different amount.

	-	
Transaction Amount:	\$5	0.00
15% \$750 18% \$9.00		
20% \$10.00	-	-
Endland Ha		
15% 10% 209		

Amount verification screen when pre-selected gratuity is chosen:



Gratuity screen when **Other** is chosen. The customer can enter a gratuity or leave it as 0.00 if they choose not to leave a gratuity.



6. The customer is prompted to verify the amount. Select **YES** or **Enter** to accept. Select **NO** or **Cancel** to start transaction over.



7. The customer is prompted to insert, swipe, or tap their card.



8. The customer inserts the card into the PIN Pad entry device and follows the device prompts

If chip card is not supported or device fails to read chip, customer will be asked to swipe card.



9. Depending on the type of the transaction and the information stored on the chip card the customer may be prompted for the following:

Prompt	Do this
Select Language	The customer chooses their preferred language.
Confirm Amount	Customer selects green button for <b>OK</b> or red button to <b>Cancel</b> . Amount confirmation on a <i>Service</i> terminal is done prior to card insertion.
Enter PIN	The customer enters the Personal Identification Number designated from the bank then selects green button for <b>OK.</b>

The PIN Pad device displays **Authorizing Please wait...Do not remove card** and the card information collected from the PIN Pad is displayed on the application screen.



10. Enter any additional required information.

**Note:** Additional required information depends on the type of card inserted. A credit card may need to have an invoice, tax, or customer code if applicable. A typical debit card doesn't require any additional information.

- 11. Click **Process** to send the transaction for authorization or **Cancel** to exit.
- 12. Transaction is sent for authorization, the system does the following:
  - Prompts customer for signature if applicable
  - Prints a receipt
  - Displays the response screen

- 13. On the application response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.
- 14. On the PIN Pad the **APPROVED** message displays for a successful transaction.

### **To Process Credit/Debit Card Return Transactions**

The **Return** transaction allows you to issue a refund for credit or debit cards.

1. On the **Main** screen, select **Credit/Debit Card** to display the credit card options along with the **Main** screen.



2. Select **Return** to display the **Return** screen.

User: Store Clerk Account: 001386 Terminal: MY RETAIL STORE CERT ONLY	user account settings terminal
Select Terminal	
Credit/Debit Sale Return Inquiry	Note that all helds with an asterisk (*) are required.
<ul> <li>Auth Only</li> </ul>	Return
<ul> <li>Verification</li> </ul>	Entry Method:       Card Reader      Hand Key on Reader      Hand Key
<ul> <li>Multientry</li> </ul>	Enter Amount
Batch Import     ENV/Key Evolution	Amount *
<ul> <li>Env Re Exchange</li> <li>Food Stamp</li> <li>Cash Benefit</li> <li>Electronic Check</li> <li>Gift Card</li> <li>Loyalty Card</li> <li>Cash</li> <li>Card Manager</li> <li>Current Batches</li> <li>Settled Batches</li> <li>Export Log</li> </ul>	Submit Cancel
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#### The following example shows the **Return** screen with the **Card Reader** option enabled.

#### Notes:

- The **Card Reader** option is always defaulted, it is used to process chip, contactless, and swiped transactions.
- The **Hand Key on Reader** option is used to process hand-keyed transactions using the Ingenico Devices.
- The Hand Key option is used to process hand-keyed transactions outside of the Ingenico devices. Using the keyboard the user must have Credit Card-Unencrypted Hand Key user right enabled. For Hand Key transactions refer to the Converge Transaction Processing Guide.
- If your current **ConvergeConnect** is out of date, transactions cannot be swiped or chip read and must be hand-keyed using the keyboard. The following message will display:

Sale Entry I Enter J Amour	The installed version of ConvergeConnect is out-of-date. Transactions must be hand keyed until the current version is installed.
	ОК

3. Enter the **Amount** of the return.

#### 4. Click Submit.

5. The customer inserts the card into the PIN Pad entry device and follows the device prompts

If chip card is not supported or device fails to read chip, customer will be asked to swipe card.



6. Depending on the type of the transaction and the information stored on the chip card the customer may be prompted for the following:

Prompt	Do this
Select Language	The customer chooses their preferred language.
Confirm Amount	Customer selects green button for <b>OK</b> or red button to <b>Cancel</b> . If the customer has entered a gratuity on a <i>Service</i> terminal, the base and gratuity amounts are displayed.
Enter PIN	The customer enters the Personal Identification Number designated from the bank then selects green button for <b>OK.</b>

The PIN Pad device displays **Authorizing Please wait...Do not remove card** and the card information collected from the PIN Pad is displayed on the application screen.



7. Enter any additional required information.

**Note:** Additional required information depends on the type of card inserted. A credit card may need to have an invoice, tax, or customer code if applicable.

- 8. Click **Process** to send the transaction for authorization or **Cancel** to exit.
- 9. Transaction is sent for authorization, the system does the following:
  - Prompts customer for signature if applicable
  - Prints a receipt
  - Displays the response screen
- 10. On the application response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.
- 11. On the PIN Pad the **APPROVED** message displays for a successful transaction.

### **To Process Credit Card Force Transactions**

The **Force** transaction allows you to enter a previously approved authorization for credit sale transactions. Typically the authorization is obtained by phone.

1. On the **Main** screen, select **Credit/Debit Card** to display the credit card options along with the **Main** screen.



2. Select Force to display the Force screen.

The following example shows the Force screen with the Card Reader option enabled.

User: Store Clerk Account: 001386 Terminal: MY RETAIL STORE CERT ONLY	USER ACCOUN	IT SETTINGS	TERMINAL
Select Terminal	Noto that all fields wit	han actorick (X)	are required
Credit/Debit Sale Return Inquiry	Note that all fields with	n an asterisk (*)	are required.
Auth Only	Force		
<ul> <li>Verification</li> </ul>	Entry Method:	● Ca	ard Reader 🔿 Hand Key on Reader 🔿 Hand Key
<ul> <li>Multientry</li> </ul>	Enter Amount		
<ul> <li>Batch Import</li> <li>EMV Key Exchange</li> </ul>	Amount:		*
Food Stamp		-	
🗉 Cash Benefit		Sub	mit Cancel
Electronic Check			
Gift Card			
Loyalty Card			
⊞ Cash			
Card Manager     Current Databas			
Current Batches			
Export Log			

#### Notes:

- The **Card Reader** option is always defaulted, it is used to process chip, contactless, and swiped transactions.
- The **Hand Key on Reader** option is used to process hand-keyed transactions using the Ingenico Devices.
- The **Hand Key** option is used to process hand-keyed transactions outside of the Ingenico devices. Using the keyboard the user must have **Credit Card-Unencrypted Hand Key** user right enabled. For **Hand Key** transactions refer to the *Converge Transaction Processing Guide*.
- If your current **ConvergeConnect** is out of date, transactions cannot be swiped or chip read and must be hand-keyed using the keyboard. The following message will display:



- 3. Enter the **Amount** of the sale to be forced.
- 4. Click Submit.
  - For a *Retail* terminal the customer is prompted to insert card. Proceed to step 8.
  - For a *Service* terminal that accepts gratuity, the customer is prompted to enter a gratuity first before insertion of the customer's card.

- Add Gratuity?
   \$50.00

   15% \$750
   \$50.00

   15% \$30.00
   20%

   15%
   20%

   15%
   20%

   15%
   20%

   15%
   20%

   15%
   20%

   15%
   20%

   15%
   20%

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   15%
   20%

   15%
   20%

   15%
   20%

   15%
   20%

   15%
   20%

   15%
   20%

   15%
   20%
- 5. The customer is given a selection of predetermined gratuities or the customer can choose **Other** to enter a different amount.

Amount verification screen when pre-selected gratuity is chosen:



Gratuity screen when **Other** is chosen. The customer can enter a gratuity or leave it as 0.00 if they choose not to leave a gratuity.



6. The customer is prompted to verify the amount. Select **YES** or **Enter** to accept. Select **NO** or **Cancel** to start transaction over.



7. The customer is prompted to insert, swipe, or tap their card.



8. The customer inserts the card into the PIN Pad entry device and follows the device prompts

If chip card is not supported or device fails to read chip, customer will be asked to swipe card.



9. Depending on the type of the transaction and the information stored on the chip card the customer may be prompted for the following:

Prompt	Do this
Select Language	The customer chooses their preferred language.
Confirm Amount	Customer selects green button for <b>OK</b> or red button to <b>Cancel</b> . Amount confirmation on a <i>Service</i> terminal is done prior to card insertion.
Enter PIN	The customer enters the Personal Identification Number designated from the bank then selects green button for <b>OK.</b>

The PIN Pad device displays **Authorizing Please wait...Do not remove card** and the card information collected from the PIN Pad is displayed on the application screen.



10. Enter any additional required information.

#### Note:

- Additional required information depends on the type of card inserted. A credit card may need to have an invoice, tax, or customer code if applicable.
- A **Force** transaction type requires the **Approval Code** to be manually entered for processing.
- 11. Click **Process** to send the transaction for authorization or **Cancel** to exit.

- 12. Transaction is sent for authorization, the system does the following:
  - Prompts customer for signature if applicable
  - Prints a receipt
  - Displays the response screen
- 13. On the application response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.
- 14. On the PIN Pad the **APPROVED** message displays for a successful transaction.

## **To Process Credit Auth Only Transactions**

The **Auth Only** transaction allows you to pre-approve transactions that will be forced through or converted to **Sale** at a later date.

1. On the **Main** screen, select **Credit/Debit Card** to display the credit card options along with the **Main** screen.

User: Store Clerk Account: 001386 Terminal: E4 CERT RETAIL	USER ACCOUNT SETTINGS TERMINAL
Select Terminal	Main
E Credit/Debit Sale Return Inquiry Force Auth Only Verification Recurring Installment Multientry Bath Import EtMV Key Exchange E Food Stamp E Cash Benefit E Electronic Check Gith Card Current Batches S setted Batches E ExportLog	Welcome to Converge. The Converge Virtual Terminal system is a secure internet-based transaction processing system that enables your business to process transactions in real-time.

2. Select **Auth Only** to display the **Auth Only** screen.

th Only		
ntry Method:	Card Reader O hand keep	ny -
rder Section		
ccount Data:	47**********0010	×
mount	8.00 *	
ustomer Code:		
ales Tax:		
voice Number:		
illing Address		
Name:		
mail åddr.		

The following example shows the **Auth Only** screen with the **Card Reader** option enabled.

#### Notes:

- The **Card Reader** option is always defaulted, it is used to process chip, contactless, and swiped transactions.
- The **Hand Key on Reader** option is used to process hand-keyed transactions using the Ingenico Devices.
- The **Hand Key** option is used to process hand-keyed transactions outside of the Ingenico devices. Using the keyboard the user must have **Credit Card-Unencrypted Hand Key** user right enabled. For **Hand Key** transactions refer to the *Converge Transaction Processing Guide*.
- If your current **ConvergeConnect** is out of date, transactions cannot be swiped or chip read and must be hand-keyed using the keyboard. The following message will display:

Sale Entry I Enter J Amour	The installed version of ConvergeConnect is out-of-date. Transactions must be hand keyed until the current version is installed.
	OK

3. Enter the **Amount** of the authorization.

#### 4. Click **Process**.

5. The customer inserts the card into the PIN Pad entry device and follows the device prompts.

If chip card is not supported or device fails to read chip, customer will be asked to swipe card.



#### Notes:

- You must install and configure the latest Peripheral Driver in order to use the Ingenico iSC250 PIN Pad to process Chip and PIN. Refer to the *Converge Peripheral Device Installation and Setup Guide* for more information.
- When using a chip card the customer has to attempt to insert the card first and if insertion fails the customer will be prompted to swipe the card. For swiped transactions refer to the *Converge Transaction Processing Guide*.
- EMV processing is supported for the US card brands listed in the introduction of this guide. All other card brands must be swiped or hand-keyed.
- 6. Depending on the information on the chip of the EMV card the customer will have the following prompts:

Prompt	Do this
Select Language	The customer chooses their preferred language.
Confirm Amount	Customer selects green button for <b>OK</b> or red button to <b>Cancel</b> .
Enter PIN	The customer enters their Personal Identification Number (PIN) designated from the bank then selects the green button for <b>OK</b> .

7. Customer selects green button to process.

Card information collected from the PIN Pad is displayed on the screen. The following example shows an **Auth Only** credit card transaction.

uth Only	
ote that all fields with an	n asterisk (¥) are required.
Auth Only	
Entry Method:	Card Reader      hand key
Account Data:	47************************************
Amount:	8.00 *
Customer Code:	
Sales Tax:	
Invoice Number:	
Billing Address	
Name:	$\sim$
Email Addre	
	Process Cancel

8. Enter any additional required information and click **Process** to send the transaction for authorization or **Cancel** to exit.

The system does the following

- Prompts customer for signature if applicable
- Prints a receipt
- Displays the response screen
- 9. On the response screen you have the option to **Update**, **Reprint**, or **View Receipt**. For more information on these options refer to the *Converge Transaction Processing Guide*.
- 10. On the terminal the **APPROVED** message displays for a successful transaction.



### **To Process EMV Key Exchange Transactions**

**EMV Key Exchange** is an administrative transaction that requests new EMV encryption keys to be sent to the PIN Pad to submit chip card transactions for EMV processing for MasterCard, Visa, Discover, American Express, Maestro, and Interlink. **EMV Key Exchange** is needed for all EMV capable terminals for all the supported chip transactions. The EMV key exchange manages syncing the EMV keys between the terminal and the PIN Pad. Once the EMV keys are updated, chip transactions can process properly.

- The system automatically performs **EMV Key Exchange** transactions when the terminal is enabled for EMV processing prior to running the first EMV transaction.
- The system automatically performs **EMV Key Exchange** transactions when the keys are expiring.
- The user (merchant administrator) sometimes uses this function if a **Declined By Card** error is received from the host when performing a chip transaction.

User: Store Clerk Account: 001386 Terminal: E4 CERT RETAIL	user account settings terminal Main
Credit/Debit  Credit/Debit  Credit/Debit  Sale  Return  Inquiry  Force  Auth Only  Verification  Recurring  Installment  Multientry  Batch Import  Food Stamp  Cash Benefit  Electronic Check  Gitt Card  Current Batches  Estied Batches  Fixed State  Privacy Policy  Terms of Use Copyright © 2015 Elevon, Inc. All rights reserved.	Welcome to Converge. The Converge Virtual Terminal system is a secure internet-based transaction processing system that enables your business to process transactions in real-time.

A message indicates the result of the EMV Key Exchange process.

EMV Key Exchange	
EMV keys have been updated.	
Done	

## Chapter 4: Performing Chip and PIN Transactions for Canada

The **Credit/Debit** transaction screen allows you to insert a chip card into an EMV capable terminal, swipe a transaction by means of a Magnetic Stripe Reader (MSR), or manually enter the transaction into the Converge application.

**Note:** For **Sale**, **Force**, or **Auth Only** when the terminal is EMV enabled it requires that a supported chip card be inserted and tried first before a swiped transaction will be allowed.

This section describes how to:

- Enter and process sale transactions
- Enter and process force transactions
- Enter and process auth only transactions
- Perform EMV key exchange

### To Process Credit/Debit Card Sale Transactions

The **Sale** transaction allows you to obtain real-time authorization for credit or debit sale transactions.

1. On the **Main** screen, select **Credit/Debit Card** to display the credit card options along with the **Main** screen.



2. Select **Sale** to display the **Sale** screen.

The following example shows the **Sale** screen with the **Card Reader** option enabled.

User: Store Clerk Account: 001386 Terminal: MY CANADIAN RETAIL STORE	USER ACCOUNT SE	TTINGS TERMINAL	
Credit/Debit Sale Return Force	Note that all fields with an a	asterisk (¥) are required.	
Auth Only     Verification     Recurring	Entry Method: Order Section	Card Reader O hand key	
Installment     Multientry     Batch Import     Key Exchange	Amount Base Amount Cashbark	0.00 ×	
EMV Key Exchange     Gift Card     Cash	Billing Address		
Card Manager Current Batches Settled Batches	City: State/Province:		
Privacy Policy Terms of Use Copyright © 2014 Elavon, Inc. All rights reserved.	Postal Code: Country: Phone:	Please select a Country	
	Email Address:	Process Cancel	

#### Notes:

- The **Card Reader** option is always defaulted, it is used to process chip and swiped transactions.
- The **hand key** option is used to process hand-keyed transactions. For **hand key** transactions refer to the *Converge Transaction Processing Guide*.
- 3. Enter the **Base Amount** of the sale.
- 4. Enter additional amounts. For example, **Cashback** for debit cards for a *Retail* terminal or gratuity amounts for a *Service* terminal, if supported.

Sale		
ote that all fields with an	n asterisk (¥) are required.	
Sale		
Entry Method:	Card Reader O hand key	
Order Section		
Amount	35.00 *	
Base Amount	25.00 *	
Cashback	10.00	
Billing Address		
Address1:		
City:		
State/Province:		
Postal Code:		
Country:	Please select a Country 🗸	
Phone:		

Total **Amount** will be automatically calculated and displayed on the screen.

- 5. Click Process.
- 6. The customer inserts the card into the PIN Pad entry device and follows the device prompts.



#### Notes:

- You must install and configure the latest Peripheral Driver in order to use the Ingenico iPP320 PIN Pad to process Chip and PIN. Refer to the *Converge Peripheral Device Installation and Setup Guide* for more information.
- When using a chip card the customer has to attempt to insert the card first and if insertion fails the customer will be prompted to swipe the card. For swiped transactions refer to the *Converge Transaction Processing Guide*.
- EMV processing is supported for Visa, MasterCard, or Interac. All other brands must be swiped or hand-keyed.
- 7. Depending on the type of the transaction and the information stored on the chip card the customer may be prompted for the following:

Prompt	Do this	
Select Language	The customer chooses their preferred language:	
	• F1 - English	
	• F4 - French	
Select Account	The customer chooses their preferred account:	
	• F1 - Checking	
	• F4 - Savings	
Enter PIN	The customer enters the Personal Identification Number designated from the bank.	
Cash Back?	If the customer is using a debit type of card and cash back was requested on a <i>Retail</i> terminal, verify the cash back. Base and total amount will be displayed, verify both amounts.	
Gratuity?	If the customer has entered a gratuity on a <i>Service</i> terminal, verify the gratuity.	
	Base and total amount will be displayed, verify both amounts.	
Confirm Amount	Customer selects green button for <b>OK</b> or red button to <b>Cancel</b> .	
OK?	Customer selects green button for <b>OK</b> or red button to <b>Cancel</b> .	

8. Customer selects green button to process.

Card information collected from the PIN Pad is displayed on the screen.

9. Enter any additional required information and click **Process**.

The following example shows the payment screen after the customer has inserted a debit card.

Sale		
Note that all fields with an	asterisk (¥) are required.	
Sale		
Entry Method:	Card Reader O hand key	
Order Section		
Account Data:	45************	×
Amount:	35.00 *	
Base Amount	25.00 *	
Cashback	10.00	
Billing Address		
Company:		
First Name:	John	
Last name:	Doe	
Address1:		
Address2:		
City:		
State/Province:		
Postal Code:		
Country:	Please select a Country	~
Phone:		
Email Address:		
	Process Cancel	

**Note:** Additional required information depends on the type of card inserted. A credit card may need to have an invoice, tax, or customer code if applicable. A typical debit card doesn't require any additional information.

10. Click Process to send the transaction for authorization or Cancel to exit.

#### The system does the following

• Prints a receipt

MY CANADIAN RETAIL STORE	MY CANADIAN RETAIL STORE	
0089250008021900645000	0089250008021900645000	
Date: 12/02/2014 03:28:21 PM	Date: 12/02/2014 03:28:21 P	
DEBIT CARD PURCHASE	DEBIT CARD PURCHASE	
InteracA0000002771010	InteracA0000002771010	
ARD NUMBER: ********1933	CARD NUMBER: ********1933	
NTRY METHOD: ICC	ENTRY METHOD: ICC	
ASE AMOUNT: \$25.00	BASE AMOUNT: \$25.00	
ASHBACK: \$10.00	CASHBACK: \$10.00	
URCHARGE: \$0.00	SURCHARGE: \$0.00	
TL AMOUNT: \$35.00	TIL AMOUNT: \$35.00	
APPROVAL CD: 629147	APPROVAL CD: 629147	
ECORD #: 000	RECORD #: 000	
LERK ID: Clerki	CLERK ID: Clerki	
EFERENCE #: 55701	REFERENCE #: 55701	
ETRIEVAL REF #: 000557011202	REIRIEVAL REF #: 000557011202	
CCOUNT TYPE: CHECKING	ACCOUNT TYPE: CHECKING	
APPROVED	APPROVED	
PIN VERIFIED	PIN VERIFIED	
ID: A0000002771010	PLEASE RETAIN FOR YOUR RECORDS	
VR: 800008000		
nterac		
SI: 7800	AID: A0000002771010	
	TVR: 800008000	
Merchant Copy	Interac	
	TSI: 7800	
	Customer Conv	

• Displays the response screen

ansaction Detail	
uthorization Results	
lser:	Clerk1
ayment Type:	DEBITCARD
ransaction Type:	PURCHASE
ransaction ID:	021214CAD-4306F28F-6923-4F78-A3D5-902640513377
ate / Time:	12/02/2014 03:28:21 PM
esponse:	AA
essage:	APPROVAL
pproval Code:	629147
eference Number:	55701
ccount Balance:	0.00
order Section	
ccount Data:	45******1933
otal Amount:	35.00
ase Amount:	25.00
ashback	10.00
	·
and Address.	

- 11. On the response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.
- 12. On the PIN Pad the **APPROVED** message displays for a successful transaction.

## **To Process Credit/Debit Force Transactions**

The **Force** transaction forces sale transactions when the approval code was previously obtained, such as through voice authorization. This transaction type requires the **Approval Code** to be manually entered for processing.

1. On the **Main** screen, select **Credit/Debit Card** to display the credit card options along with the **Main** screen.



2. Select Force to display the Force screen.

User: Store Clerk Account: 001386 Terminal: MY CANADIAN RETAIL STORE Select Terminal	USER ACCOUNT	SETTINGS TERMINAL
Credit/Debit Sale Return Force	Force	
<ul> <li>Auth Only</li> <li>Verification</li> </ul>	Entry Method:	Card Reader O hand key
Recurring     Installment     Multientry	Amount Invoice Number:	*
Key Exchange	Approval Code:	×
<ul> <li>EMV Key Exchange</li> <li>Gift Card</li> </ul>	Billing Address	
Cash	Address1:	
Card Manager     Current Batches	City:	
Settled Batches	State/Province:	
	Postal Code:	
Privacy Policy Terms of Use	Country:	Please select a Country
Copyright © 2014 Elavon, Inc. All rights reserved.	Phone:	
	Email Address:	
		Process Cancel

#### The following example shows the **Force** screen with the **Card Reader** option enabled.

#### Notes:

- The **Card Reader** option is always defaulted, it is used to process chip and swiped transactions.
- The **hand key** option is used to process hand-keyed transactions. For **hand key** transactions refer to the *Converge Transaction Processing Guide*.
- 3. Enter the **Amount** of the sale.
- 4. Enter the **Approval Code** for the sale.
- 5. Click Process.

- 6. The customer inserts the card into the PIN Pad entry device and follows the device prompts.

#### Notes:

- You must install and configure the latest Peripheral Driver in order to use the • Ingenico iPP320 PIN Pad to process Chip and PIN. Refer to the Converge Peripheral Device Installation and Setup Guide for more information.
- When using a chip card the customer has to attempt to insert the card first and if • insertion fails the customer will be prompted to swipe the card. For swiped transactions refer to the Converge Transaction Processing Guide.
- ٠ EMV processing is supported for Visa, MasterCard, or Interac. All other brands must be swiped or hand-keyed.
- 7. Depending on the information stored on the chip card the customer will have the following prompts:

Prompt	Do this
Select Language	<ul> <li>The customer chooses their preferred language:</li> <li>F1 - English</li> <li>F4 - French</li> </ul>
Enter PIN	The customer enters the Personal Identification Number designated from the bank.
Confirm Amount	Customer selects green button for <b>OK</b> or red button to <b>Cancel</b> .

Customer selects green button for **OK** or red button to **Cancel**.

OK?

8. Customer selects green button to process.

Card information collected from the PIN Pad is displayed on the screen. The following example shows a **Force** credit card transaction.

Force		
Note that all fields with an as	sterisk (¥) are required.	
Force		
Entry Method:	Card Reader O hand ke	y .
Order Section		
Account Data:	54********0434	×
Amount:	17.00 🗙	
Invoice Number:		
Approval Code:	APP123 💥	
Address		

9. Enter any additional required information and click **Process** to send the transaction for authorization or **Cancel** to exit.

The system does the following

• Prints a receipt

MY CANADIAN RETAIL STORE 0089250008021900645000	MY CANADIAN RETAIL STORE 0089250008021900645000	
Date: 12/02/2014 03:41:47 PM	Date: 12/02/2014 03:41:47 FM	
CREDIT CARD FORCE	CREDIT CARD FORCE	
MasterCard	MasterCard	
CARD NUMBER: ********0434	CARD NUMBER: ********0434	
ENTRY METHOD: ICC	ENTRY METHOD: ICC	
IRAN AMOUNT: \$17.00	TRAN AMOUNT: \$17.00	
APPROVAL CD: APP123	APPROVAL CD: APP123	
CLERK ID: Clerk1	CLERK ID: Clerk1	
APPROVED	APPROVED	
PIN VERIFIED	PIN VERIFIED	
AID: A0000000041010 TVR: 0000008000	PLEASE RETAIN FOR YOUR RECORDS	
MasterCard		
ISI: E800	AID: A000000041010	
	TVR: 0000008000	
Merchant Copy	MasterCard	
	TSI: E800	
	Customer Copy	

• Displays the response screen

Talisación Detali	
Authorization Results	
User:	Clerk1
Payment Type:	CREDITCARD
Transaction Type:	FORCE
Transaction ID:	021214CAD-7BAA3EE0-F1EC-44B9-8891-0AFBEACFD4ED
Date / Time:	12/02/2014 03:41:47 PM
Response:	AA
Message:	APPROVAL
Approval Code:	APP123
Account Balance:	0.00
CardHolder IP:	
Order Section	
Account Data:	54***********0434
Expiration Date(MMYY):	1214
Amount	17.00
Number:	

- 10. On the response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.
- 11. On the terminal the **APPROVED** message displays for a successful transaction.

## To Process Credit/Debit Auth Only Transactions

The **Auth Only** transaction allows you to pre-approve transactions that will be forced through or converted to **Sale** at a later date.

1. On the **Main** screen, select **Credit/Debit Card** to display the credit card options along with the **Main** screen.



2. Select Auth Only to display the Auth Only screen.

User: Store Clerk Account: 001386 Terminal: MY CANADIAN RETAIL STORE	USER ACCOUNT SETTINGS TERMINA	AL.
Credit/Debit Sale Return	Note that all fields with an asterisk ( <b>*</b> ) are require	ed.
Auth Only     Verification     Recurring     Installment     Multientry	Entry Method:  Card Reader Order Section Amount:	O hand key
Batch Import     Key Exchange     EMV Key Exchange     Gift Card	Invoice Number: Billing Address Address1: City	
Card Manager     Current Batches     Settled Batches	Country: Please select a G	Country
Privacy Policy Terms of Use Copyright @ 2014 Elavon, Inc. All rights reserved.	Phone: Email Address: Process C	ancel

#### The following example shows the **Auth Only** screen with the **Card Reader** option enabled.

#### Notes:

- The **Card Reader** option is always defaulted, it is used to process chip and swiped transactions.
- The **hand key** option is used to process hand-keyed transactions. For **hand key** transactions refer to the *Converge Transaction Processing Guide*.
- 3. Enter the **Amount** of the authorization.
- 4. Click Process.



5. The customer inserts the card into the PIN Pad entry device and follows the device prompts.

#### Notes:

- You must install and configure the latest Peripheral Driver in order to use the Ingenico iPP320 PIN Pad to process Chip and PIN. Refer to the *Converge Peripheral Device Installation and Setup Guide* for more information.
- When using a chip card the customer has to attempt to insert the card first and if insertion fails the customer will be prompted to swipe the card. For swiped transactions refer to the *Converge Transaction Processing Guide*.
- EMV processing is supported for Visa, MasterCard, or Interac. All other brands must be swiped or hand-keyed.

following prompts:	
Prompt	Do this
Select Language	<ul> <li>The customer chooses their preferred language:</li> <li>F1 - English</li> <li>F4 - French</li> </ul>
Select Account	<ul> <li>The customer chooses their preferred account:</li> <li>F1 - Checking</li> <li>F4 - Savings</li> </ul>
Enter PIN	The customer enters the Personal Identification Number designated from the bank.
Confirm Amount	Customer selects green button for <b>OK</b> or red button to <b>Cancel</b> .
OK?	Customer selects green button for <b>OK</b> or red button to <b>Cancel</b> .

6. Depending on the information on the chip of the EMV card the customer will have the following prompts:

7. Customer selects green button to process.

Card information collected from the PIN Pad is displayed on the screen. The following example shows an **Auth Only** credit card transaction.

Auth Only	
Note that all fields with an	asterisk (¥) are required.
Auth Only	
Entry Method:	Card Reader      hand key
Order Section	
Account Data:	47************************************
Amount	8.00 *
Customer Code:	
Sales Tax:	
Invoice Number:	
Billing Address	
n-stame:	
Email Addre_	
	Process Cancel

**Note:** Additional required information depends on the type of card inserted. A credit card may need to have an invoice, tax, or customer code if applicable. A typical debit card doesn't require any additional information.

8. Enter any additional required information and click **Process** to send the transaction for authorization or **Cancel** to exit.

The system does the following

• Prints a receipt

MY CANADIAN RETAIL STORE 0089250008021900645000	MY CANADIAN RETAIL STORE 0089250008021900645000		
Date: 12/02/2014 03:48:55 FM	Date: 12/02/2014 03:48:55 FM		
CREDIT CARD AUTH ONLY	CREDIT CARD AUTH ONLY		
Visa CARD NUMBER: ************************************	Visa CARD NUMBER: ************************************		
APPROVED PIN VERIFIED	APPROVED PIN VERIFIED		
AID: A000000031010 TVR: 0000001000 Visa Credit TSI: F200	PLEASE RETAIN FOR YOUR RECORDS		
Merchant Copy	TVR: 000000000 Visa Credit ISI: F800		
	Customer Copy		

• Displays the response screen

Credit Card A	uth Only Response
This is the authorization	remones information. Note that all fields with an artarist (M) are required
THS IS THE AUTIONZAUUT	response information. Note that all leds with all asterisk $(\pi)$ are required
Transaction Detail	
Transaction by tan	
Authorization Results	
User:	Clerk1
Payment Type:	CREDITCARD
Transaction Type:	AUTHONLY
Transaction ID:	021214CAD-0076849D-1217-416F-A796-8895D932C744
Date / Time:	12/02/2014 03:48:55 PM
Response:	AA
Message:	APPROVAL
Approval Code:	030169
AVS Response:	
Account Balance:	0.00
CardHolder IP:	
Order Section	
Account Data:	47********0010
Expiration Date(MMYY):	1215
Amount	8.00
er Code:	$\sim$
Email Addres	
	·
	Update Reprint View Receipt

- 9. On the response screen you have the option to **Update**, **Reprint**, or **View Receipt**. For more information on these options refer to the *Converge Transaction Processing Guide*.
- 10. On the terminal the **APPROVED** message displays for a successful transaction.

### **To Process EMV Key Exchange Transactions**

**EMV Key Exchange** is an administrative transaction that requests new EMV encryption keys to be sent to the PIN Pad to submit chip card transactions for EMV processing for MasterCard, Visa, and Interac. **EMV Key Exchange** is needed for all EMV capable terminals for all the supported chip transactions. The EMV key exchange manages syncing the EMV keys between the terminal and the PIN Pad. Once the EMV keys are updated, chip transactions can process properly.

- The system automatically performs **EMV Key Exchange** transactions when the terminal is enabled for EMV processing prior to running the first EMV transaction.
- The system automatically performs **EMV Key Exchange** transactions when the keys are expiring.
- The user (merchant administrator) sometimes uses this function if a **Declined By Card** error is received from the host when performing a chip transaction for MasterCard, Visa, or Interac.

On the other hand, the **Key Exchange** function only handles maintaining the *debit* encryption key for Interac. The **Key Exchange** function only applies to a terminal setup for *Region Canada* with *debit* processing capability unrelated to whether the terminal is EMV capable or not. The integrity of the keys is maintained per terminal number and device.

- The system automatically performs **Key Exchange** transactions once per day to retrieve new terminal debit keys.
- The user (merchant administrator) sometimes uses this function if a **MAC Key** error is received from the host when performing debit transactions with Interac.

For more information on the **Key Exchange** for Canadian debit refer to the **To Process Canadian Debit Card Key Exchange Transactions** section in the *Converge Transaction Processing Guide*.

User: Store Clerk Account: 001366 Terminal: MY CANADIAN RETAIL STORE	USER ACCOUNT SETTINGS TERMINAL Main
CreditDebit Sale Return Force Return Force Auth Only Verification Recurring Installment Multiently Batch Import Eth Key Exchange Eth Key Exchange Gord Cand Gord Cand Gord Cand Gord Manager Cash Batches Privacy Policy Ferms of the Copyright E 2014 Elivers. Inc. All rights returned.	Welcome to Converge. The Converge Virtual Terminal system is a secure internet-based transaction processing system that enables your business to process transactions in real-time.

A message indicates the result of the EMV Key Exchange process.

EMV Key Exchange
EMV keys have been updated.
Done

## **Chapter 5: Additional Resource Guides**

By now the user is able to:

- Process EMV transactions
- Manage EMV key exchanges

For general information regarding the Converge capabilities refer to the *Converge Getting Started Guide*.

For information on how to customize your terminal and setup users refer to the *Converge System Administration Guide*.

For additional information on how to use your Virtual Terminal for processing transactions refer to the *Converge Transaction Processing Guide*.

For additional information on how to install and set up your peripheral devices refer to the *Converge Peripheral Device Installation and Setup Guide*.

For additional information regarding the integration of your Virtual Terminal refer to the *Converge Developer Guide*.