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*
B	SEP-2015	Added Chip and PIN (EMV) processing for US
C	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 MasterCard Discover American Express Visa Interlink MasterCard Maestro	Visa MasterCard Interac

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 Ingenico iCMP (ICM122)	ConvergeConnect	• Chip • Swipe • Contactless • Key
Canada	Ingenico iPP320	DeviceAssistant	• Chip • Swipe

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.

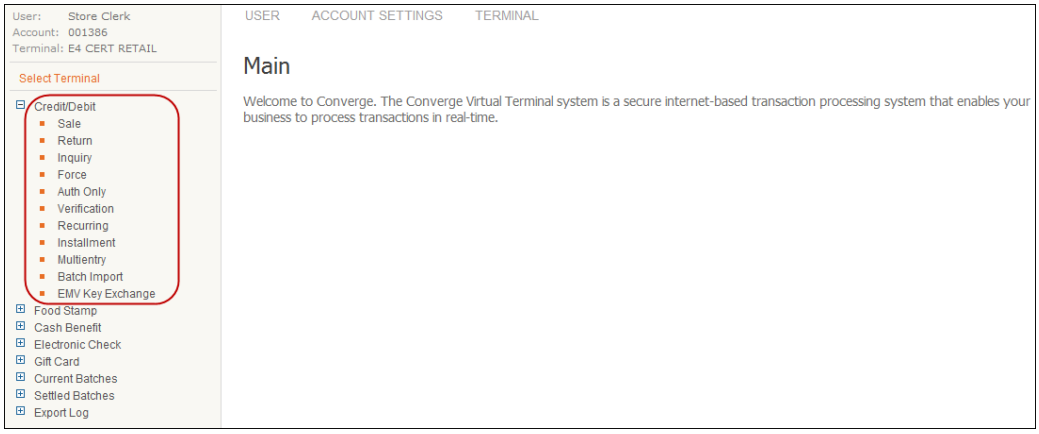
This section describes how to:

- 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

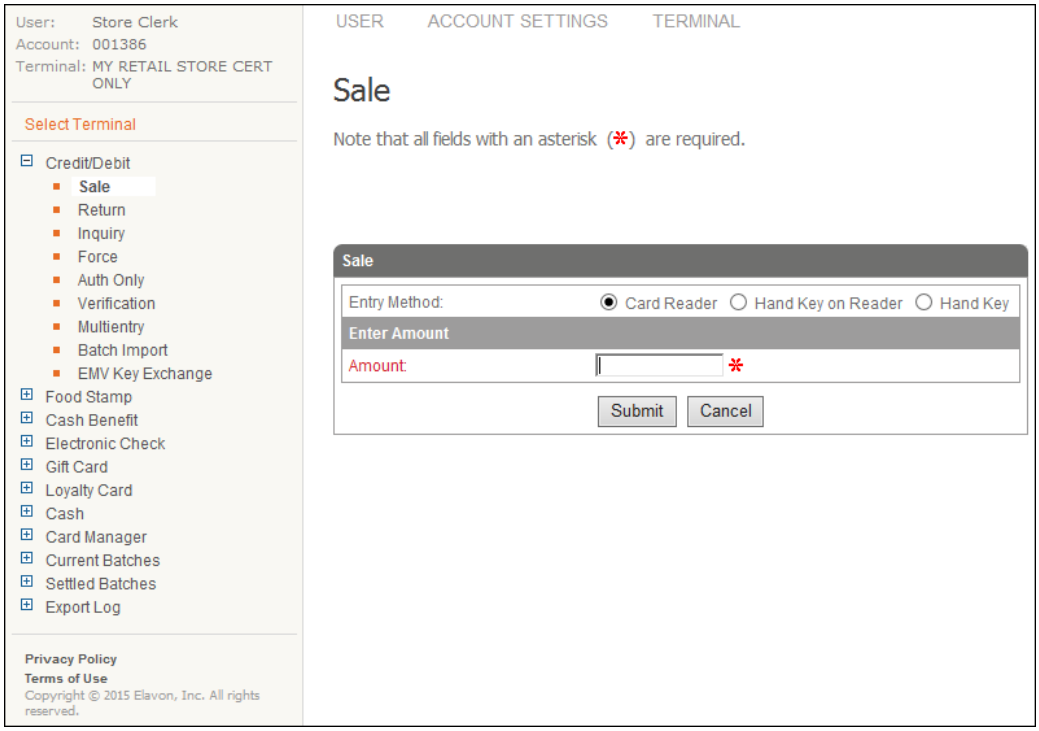
The **Sale** transaction allows you to obtain real-time authorization for credit or debit cards.

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



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

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.

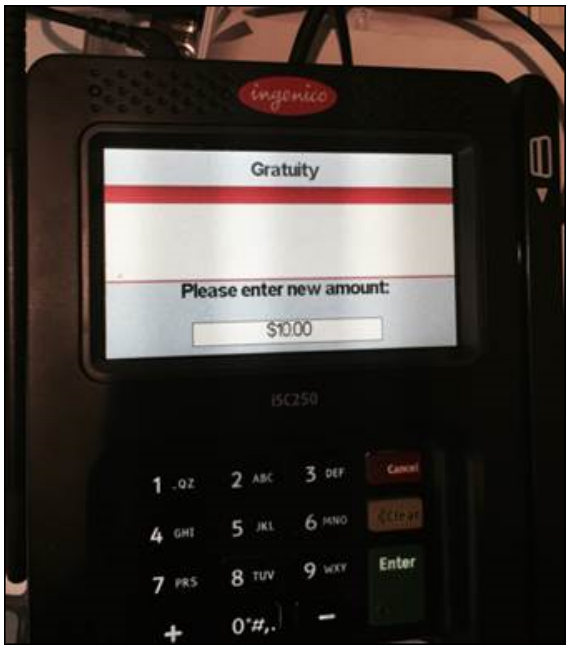
4. Click **Submit**.

   - 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.

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.

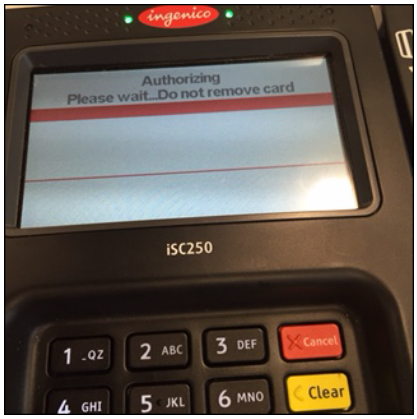
8. The customer inserts the card into the PIN Pad entry device and follows the device prompts

   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 **OK** or red button to **Cancel**. Amount confirmation on a *Service* 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 **OK.**

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

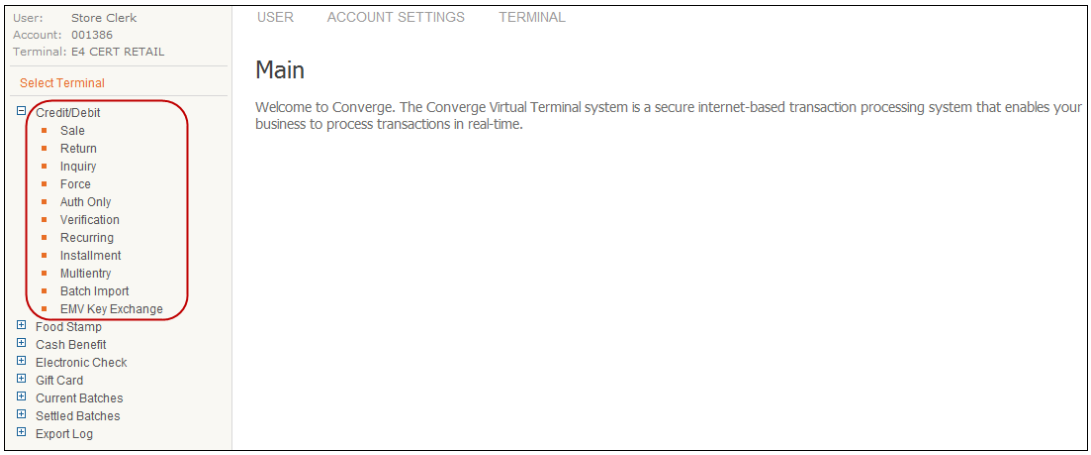
13. On the application response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.

14. On the PIN Pad the **APPROVED** message displays for a successful transaction.

To Process Credit/Debit Card Return Transactions

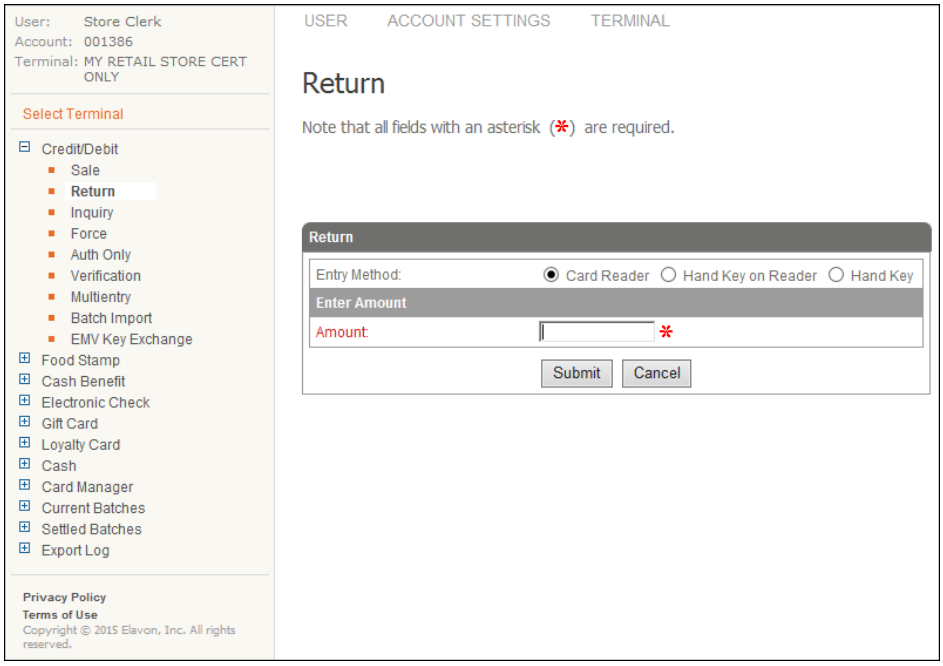
The **Return** transaction allows you to issue a refund for credit or debit cards.

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.

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:

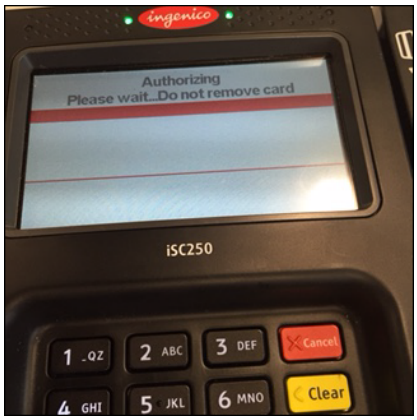
3. Enter the **Amount** of the return.
4. Click **Submit**.
5. The customer inserts the card into the PIN Pad entry device and follows the device prompts

   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 **OK** or red button to **Cancel**. If the customer has entered a gratuity on a *Service* 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 **OK.**

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

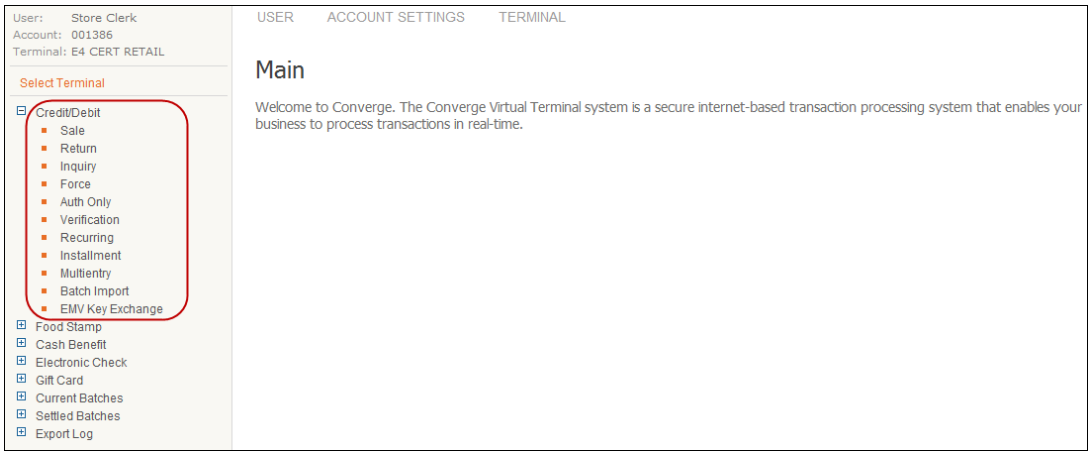
10. On the application response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.

11. On the PIN Pad the **APPROVED** message displays for a successful transaction.

To Process Credit Card Force Transactions

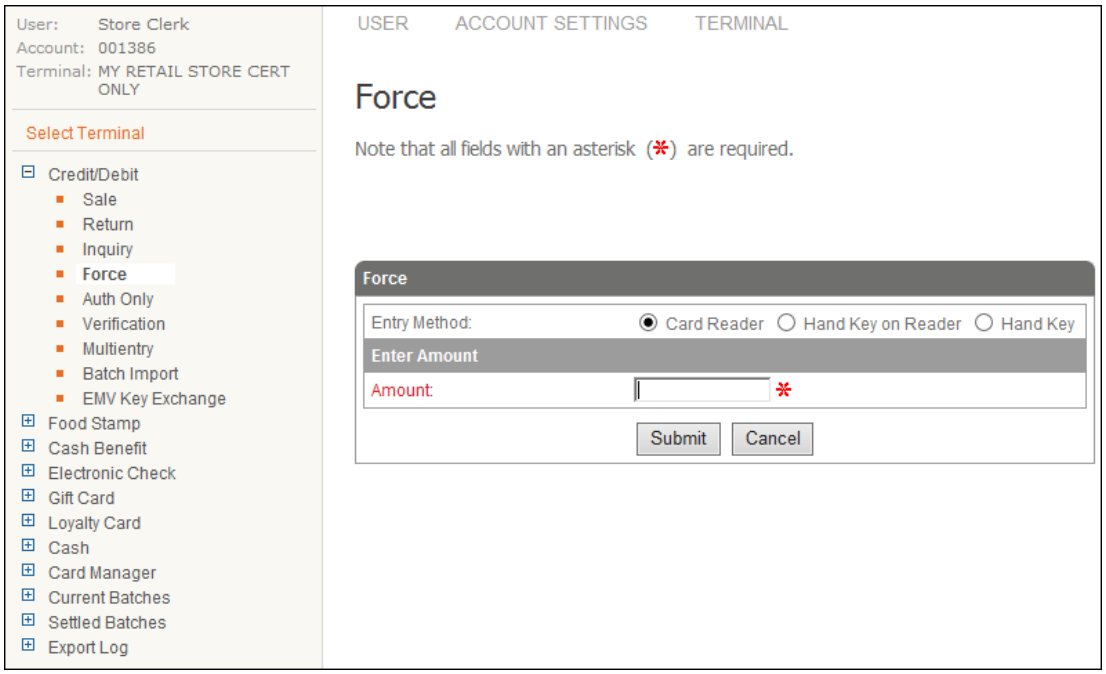
The **Force** transaction allows you to enter a previously approved authorization for credit sale transactions. Typically the authorization is obtained by phone.

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.



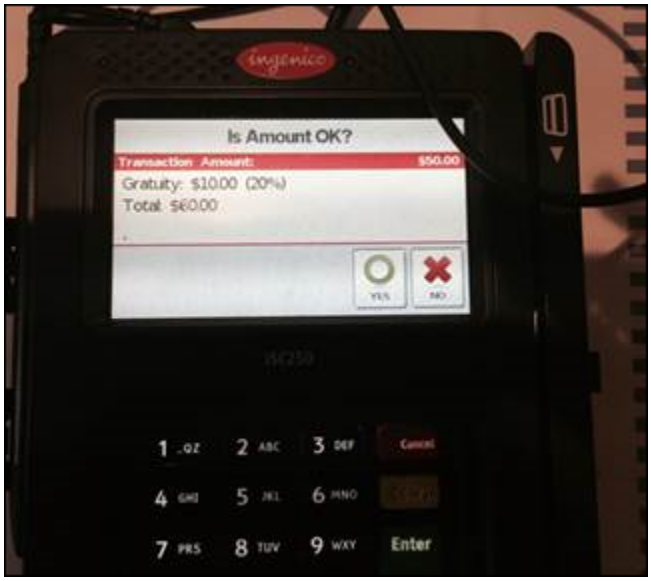
Notes:

- 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:

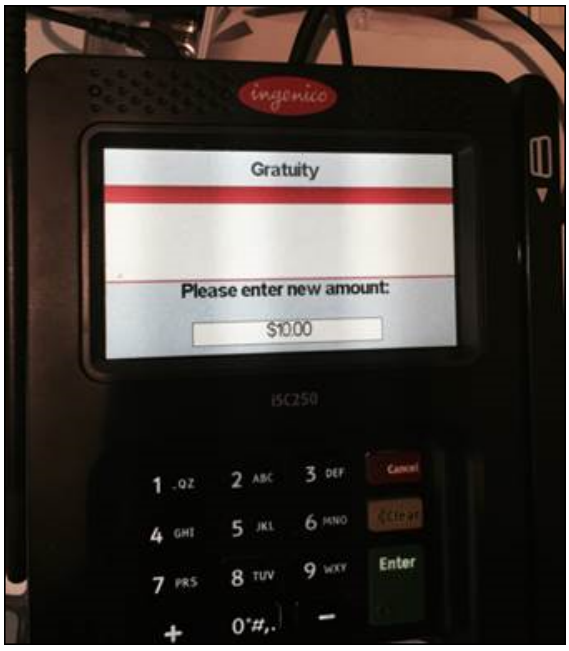
3. Enter the **Amount** of the sale to be forced.
4. Click **Submit**.
   - For a *Retail* terminal the customer is prompted to insert card. Proceed to step 8.
   - For a *Service* terminal that accepts gratuity, the customer is prompted to enter a gratuity first before insertion of the customer's card.

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.

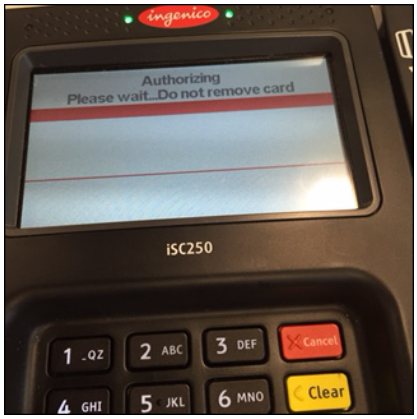
8. The customer inserts the card into the PIN Pad entry device and follows the device prompts

   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 **OK** or red button to **Cancel**. Amount confirmation on a *Service* 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 **OK.**

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

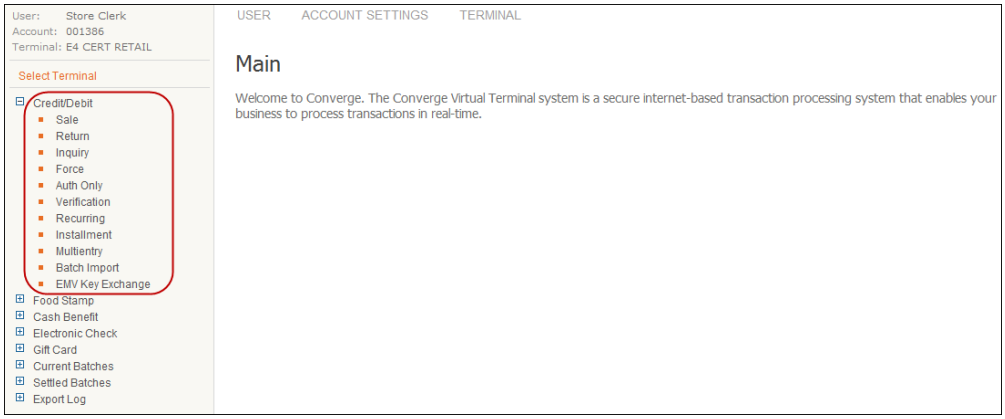
13. On the application response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.

14. On the PIN Pad the **APPROVED** message displays for a successful transaction.

To Process Credit Auth Only Transactions

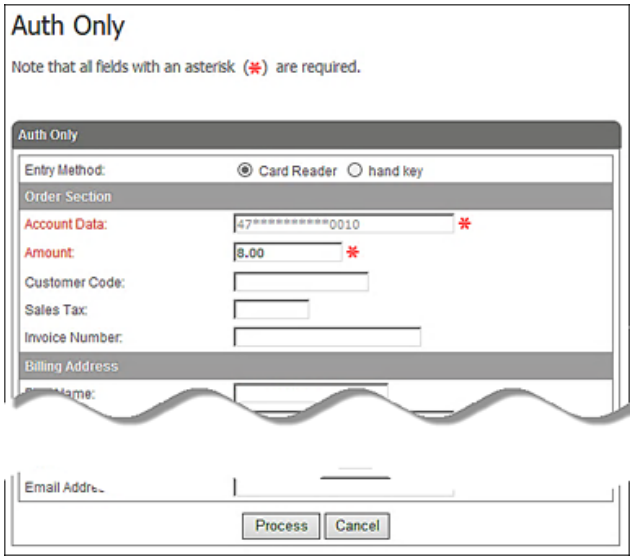
The **Auth Only** transaction allows you to pre-approve transactions that will be forced through or converted to **Sale** at a later date.

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



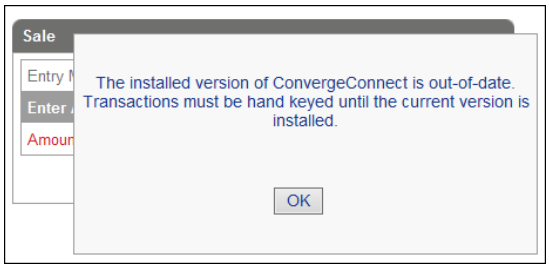
2. Select **Auth Only** to display the **Auth Only** screen.

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:



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:

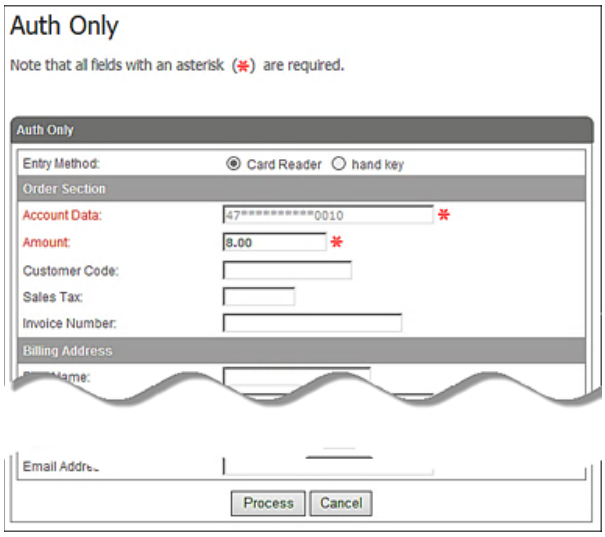
- You must install and configure the latest Peripheral Driver in order to use the Ingenico iSC250 PIN Pad to process Chip and PIN. Refer to the *Converge Peripheral Device Installation and Setup Guide* for more information.
- When using a chip card the customer has to attempt to insert the card first 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 **OK** or red button to **Cancel**.
Enter PIN	The customer enters their Personal Identification Number (PIN) designated from the bank then selects the green button for **OK**.

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.



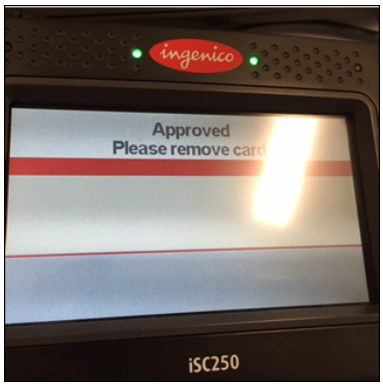
8. Enter any additional required information and click **Process** to send the transaction for authorization or **Cancel** to exit.

   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*.

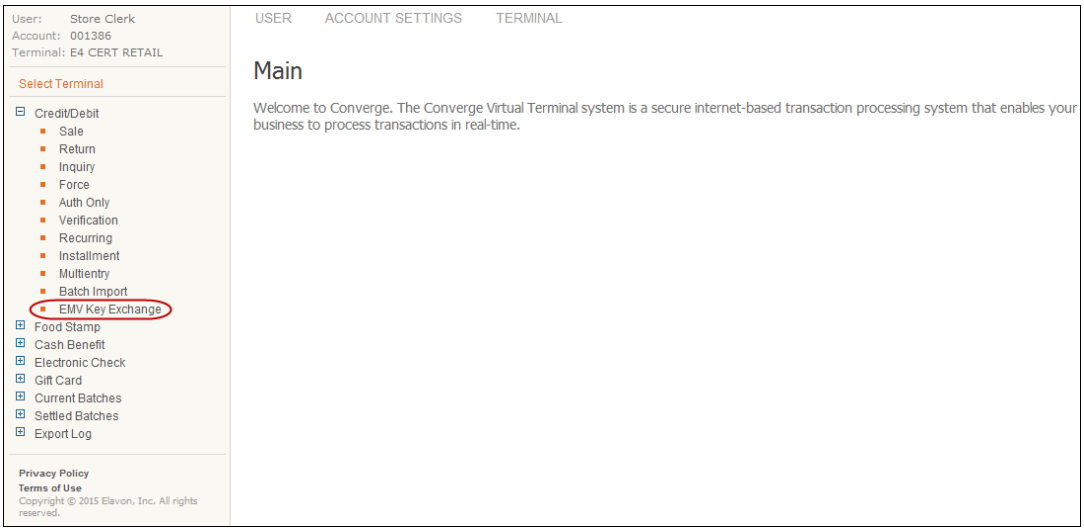
10. On the terminal the **APPROVED** message displays for a successful transaction.



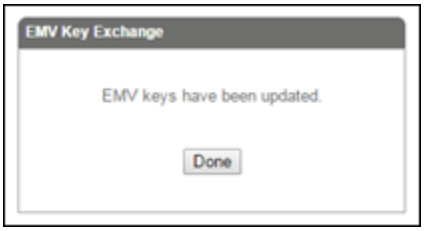
To Process EMV Key Exchange Transactions

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.



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



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.

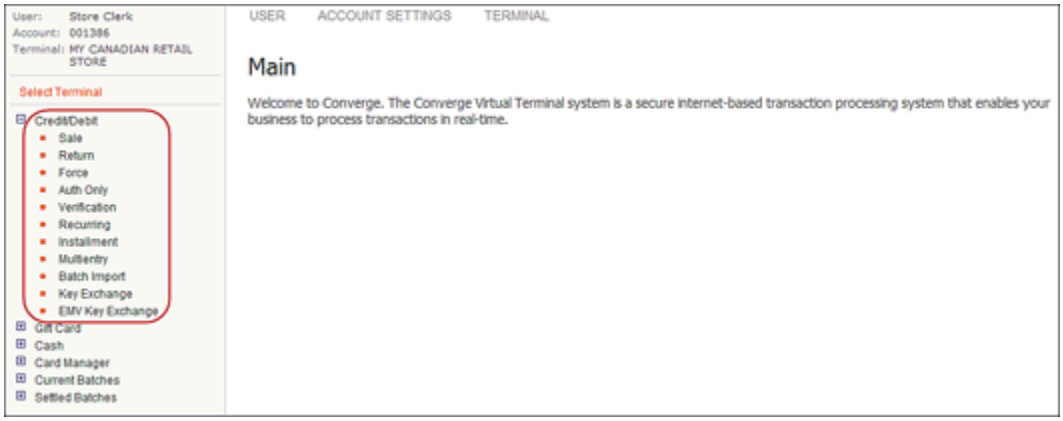
This section describes how to:

- 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

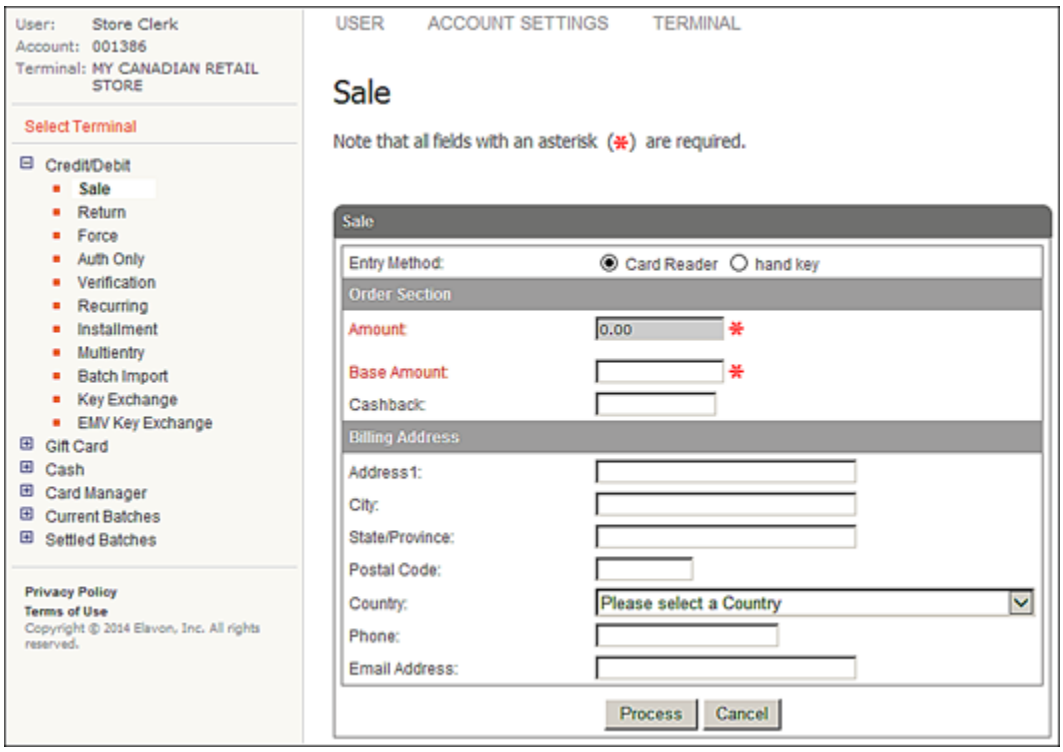
The **Sale** transaction allows you to obtain real-time authorization for credit or debit sale transactions.

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.



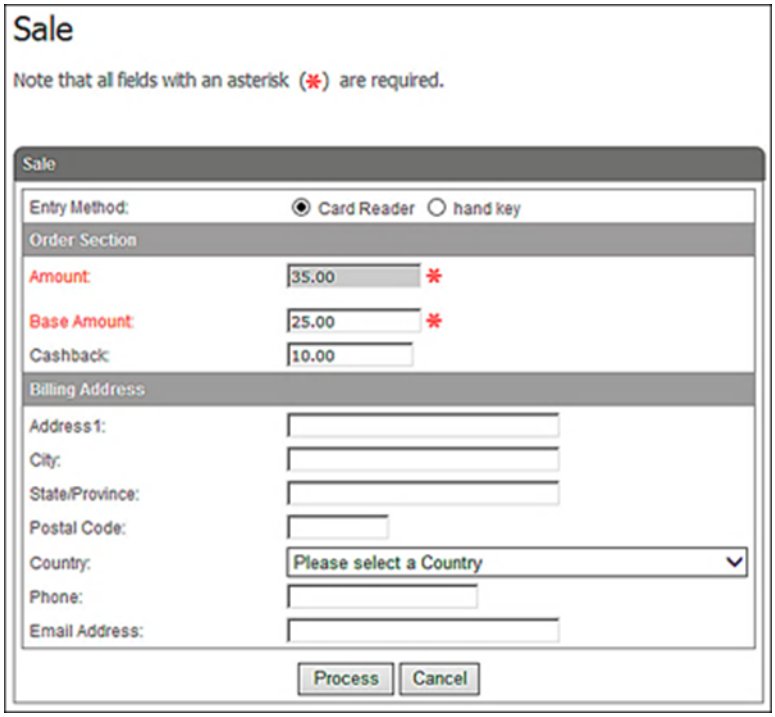
Notes:

- 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.

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 *Retail* 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 *Service* terminal, verify the gratuity. Base and total amount will be displayed, verify both amounts.
Confirm Amount	Customer selects green button for **OK** or red button to **Cancel**.
OK?	Customer selects green button for **OK** or red button to **Cancel**.

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**.

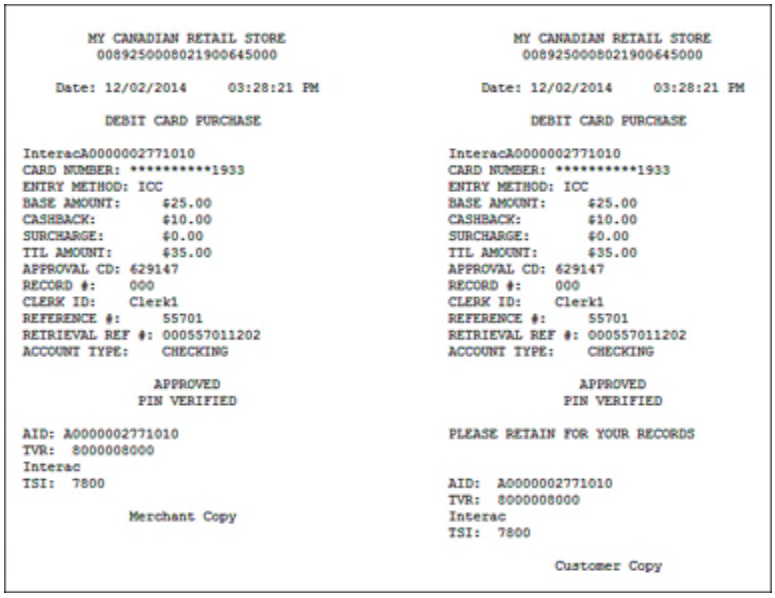
   The following example shows the payment screen after the customer has inserted a debit card.

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
00892500080219006450000

Date: 12/02/2014 03:28:21 PM

DEBIT CARD PURCHASE

InteracA0000002771010
CARD NUMBER: **********1933
ENTRY METHOD: ICC
BASE AMOUNT: $25.00
CASHBACK: $10.00
SURCHARGE: $0.00
TTL AMOUNT: $35.00
APPROVAL CD: 629147
RECORD #: 000
CLERK ID: Clerk1
REFERENCE #: 55701
RETRIEVAL REF #: 000557011202
ACCOUNT TYPE: CHECKING

APPROVED
PIN VERIFIED

AID: A0000002771010
TVR: 8000008000
Interac
TSI: 7800

Merchant Copy

MY CANADIAN RETAIL STORE
00892500080219006450000

Date: 12/02/2014 03:28:21 PM

DEBIT CARD PURCHASE

InteracA0000002771010
CARD NUMBER: **********1933
ENTRY METHOD: ICC
BASE AMOUNT: $25.00
CASHBACK: $10.00
SURCHARGE: $0.00
TTL AMOUNT: $35.00
APPROVAL CD: 629147
RECORD #: 000
CLERK ID: Clerk1
REFERENCE #: 55701
RETRIEVAL REF #: 000557011202
ACCOUNT TYPE: CHECKING

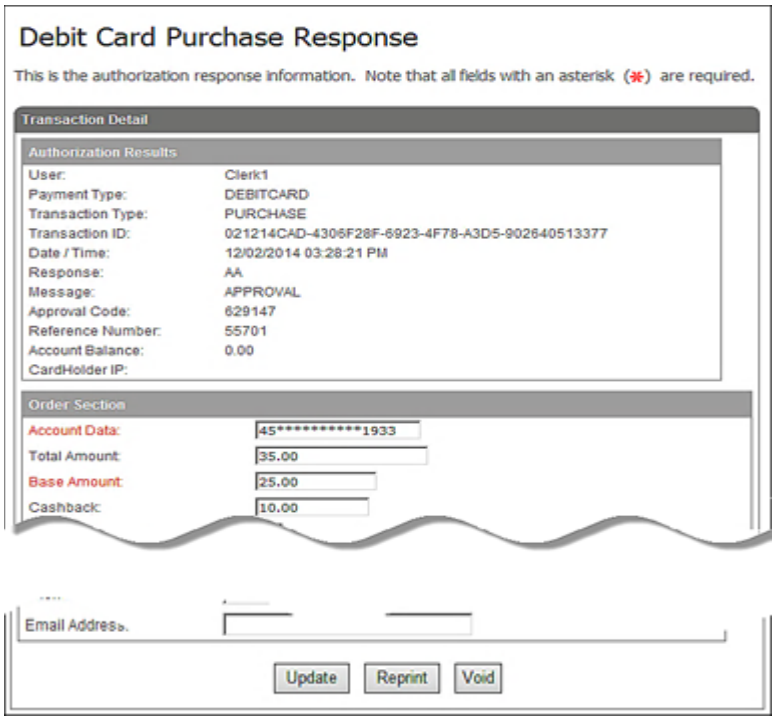
APPROVED
PIN VERIFIED

PLEASE RETAIN FOR YOUR RECORDS

AID: A0000002771010
TVR: 8000008000
Interac
TSI: 7800

Customer Copy

- Displays the response screen



Debit Card Purchase Response

This is the authorization response information. Note that all fields with an asterisk (*) are required.

Transaction Detail

Authorization Results

User:	Clerk1
Payment Type:	DEBITCARD
Transaction Type:	PURCHASE
Transaction ID:	021214CAD-4306F28F-6923-4F78-A3D5-902640513377
Date / Time:	12/02/2014 03:28:21 PM
Response:	AA
Message:	APPROVAL
Approval Code:	629147
Reference Number:	55701
Account Balance:	0.00
CardHolder IP:	

Order Section

Account Data:	45**********1933
Total Amount:	35.00
Base Amount:	25.00
Cashback:	10.00

Email Address:

Update Reprint Void

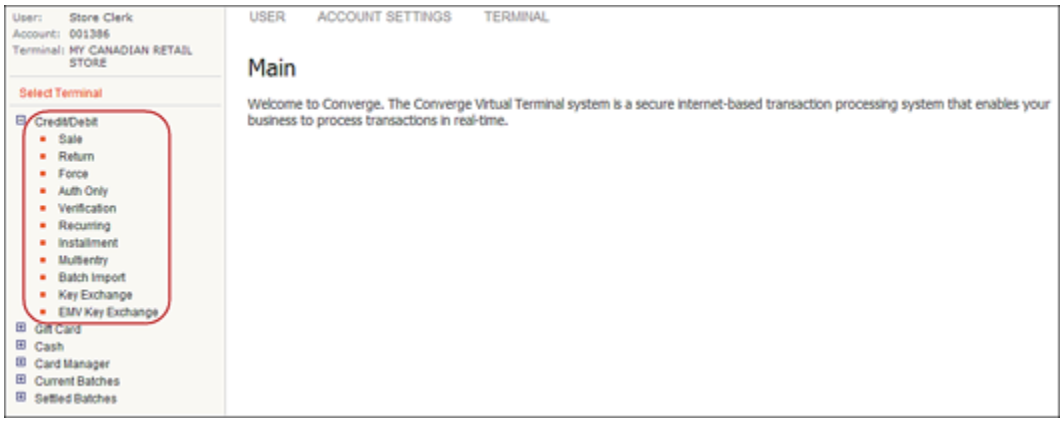
11. On the response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.

12. On the PIN Pad the **APPROVED** message displays for a successful transaction.

To Process Credit/Debit Force Transactions

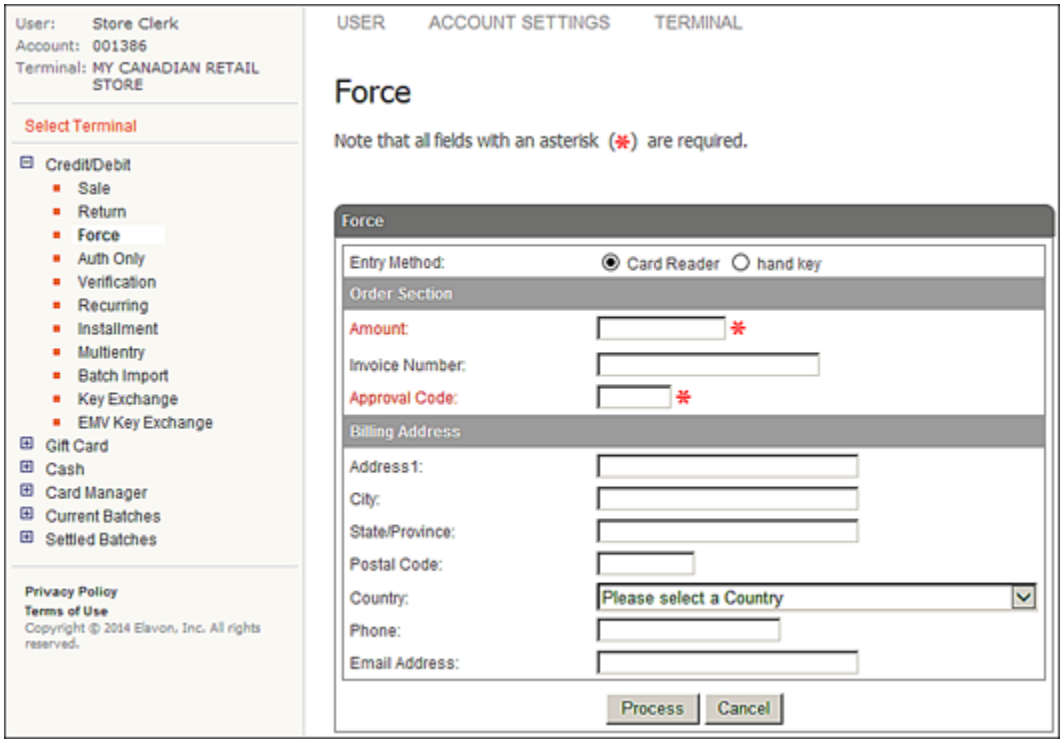
The **Force** transaction forces sale transactions when the approval code was previously obtained, such as through voice authorization. This transaction type requires the **Approval Code** to be manually entered for processing.

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.

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:

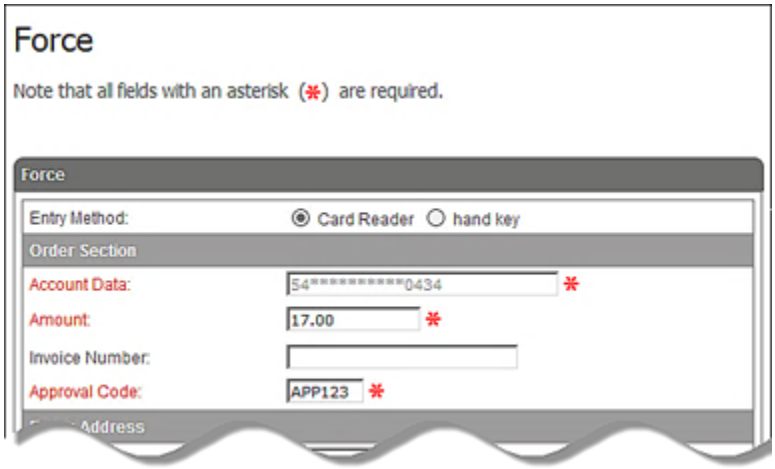
- You must install and configure the latest Peripheral Driver in order to use the Ingenico iPP320 PIN Pad to process Chip and PIN. Refer to the *Converge Peripheral Device Installation and Setup Guide* for more information.
- When using a chip card the customer has to attempt to insert the card first and if insertion fails the customer will be prompted to swipe the card. For swiped transactions refer to the *Converge Transaction Processing Guide*.
- 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	The customer chooses their preferred language: • F1 - English • F4 - French
Enter PIN	The customer enters the Personal Identification Number designated from the bank.
Confirm Amount	Customer selects green button for **OK** or red button to **Cancel**.
OK?	Customer selects green button for **OK** or red button to **Cancel**.

8. Customer selects green button to process.

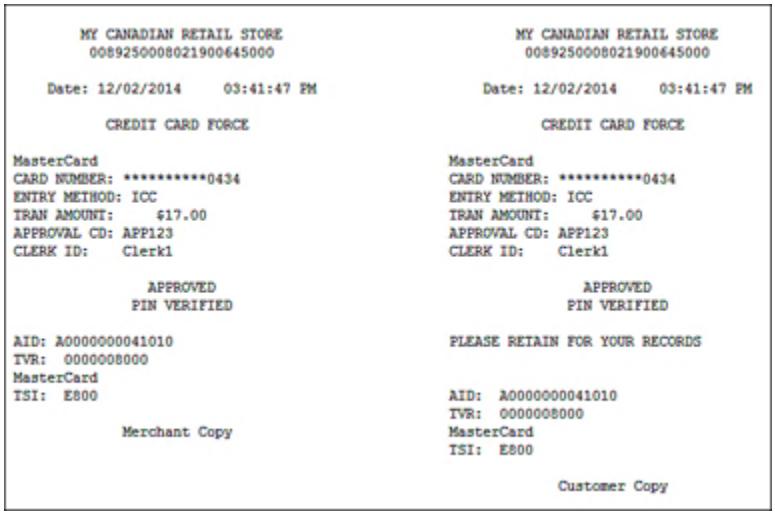
   Card information collected from the PIN Pad is displayed on the screen. The following example shows a **Force** credit card transaction.



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

   The system does the following

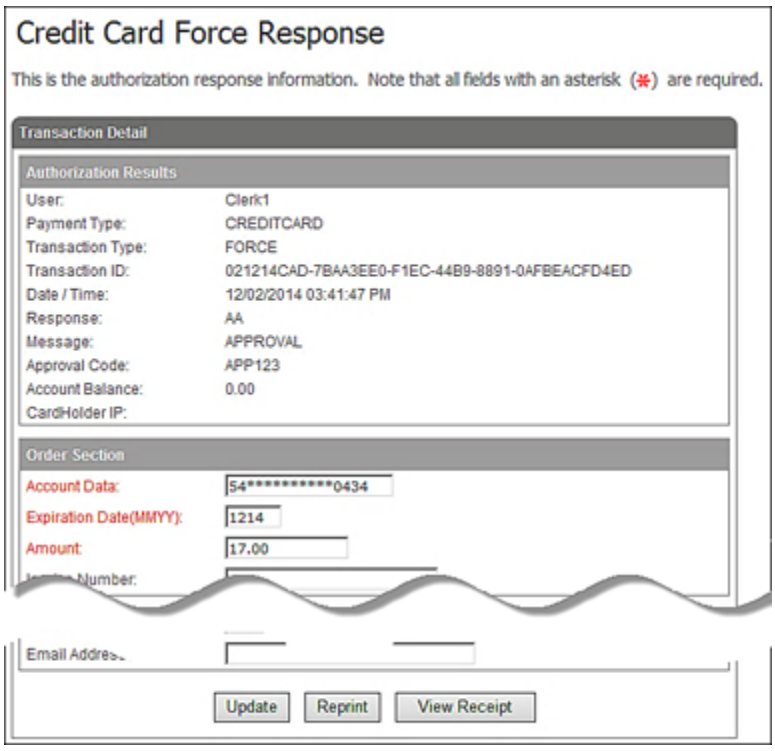
   - Prints a receipt



```
        MY CANADIAN RETAIL STORE
        00892500080219006450000

    Date: 12/02/2014     03:41:47 PM

          CREDIT CARD FORCE

MasterCard
CARD NUMBER: **********0434
ENTRY METHOD: ICC
TRAN AMOUNT:     $17.00
APPROVAL CD: APP123
CLERK ID:    Clerk1

              APPROVED
             PIN VERIFIED

AID: A0000000041010
TVR:  0000008000
MasterCard
TSI:  E800

            Merchant Copy
```

```
        MY CANADIAN RETAIL STORE
        00892500080219006450000

    Date: 12/02/2014     03:41:47 PM

          CREDIT CARD FORCE

MasterCard
CARD NUMBER: **********0434
ENTRY METHOD: ICC
TRAN AMOUNT:     $17.00
APPROVAL CD: APP123
CLERK ID:    Clerk1

              APPROVED
             PIN VERIFIED

PLEASE RETAIN FOR YOUR RECORDS


AID:  A0000000041010
TVR:  0000008000
MasterCard
TSI:  E800

            Customer Copy
```

- Displays the response screen



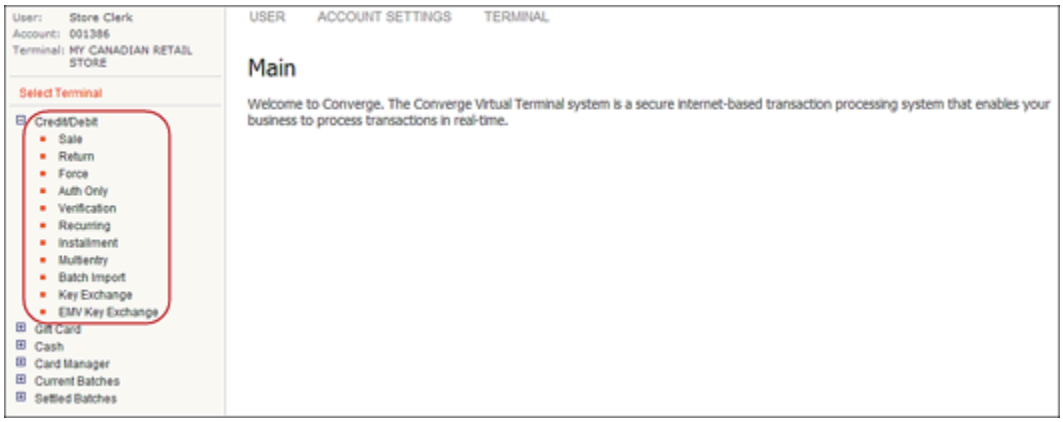
10. On the response screen you have the option to **Update**, **Reprint**, or **Void**. For more information on these options refer to the *Converge Transaction Processing Guide*.

11. On the terminal the **APPROVED** message displays for a successful transaction.

To Process Credit/Debit Auth Only Transactions

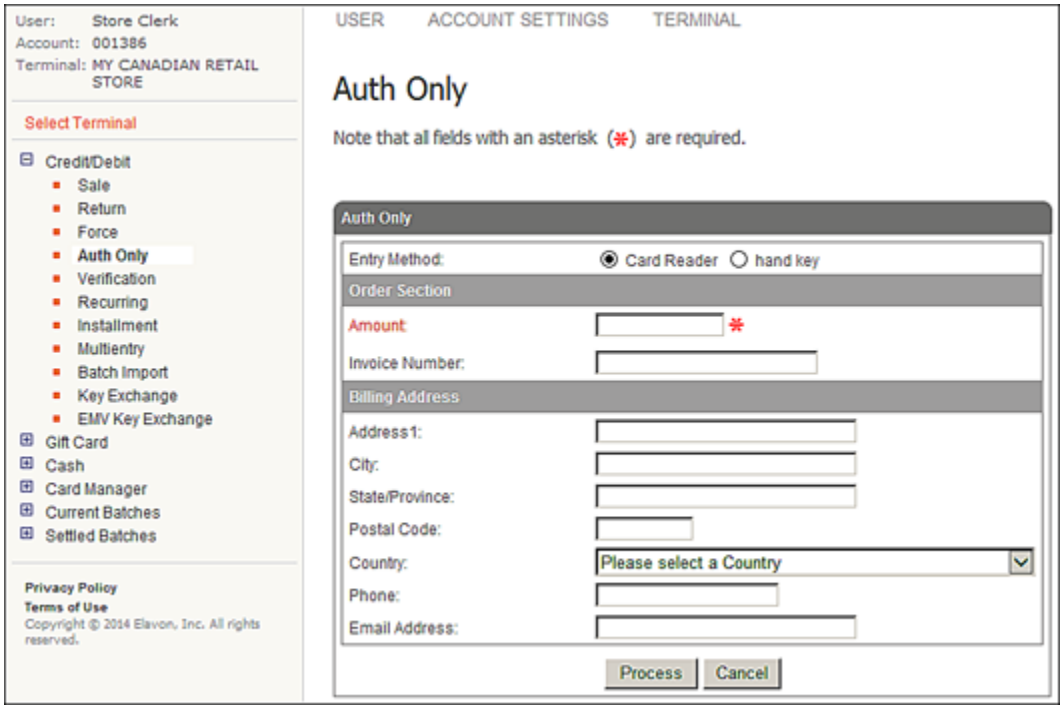
The **Auth Only** transaction allows you to pre-approve transactions that will be forced through or converted to **Sale** at a later date.

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.

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:

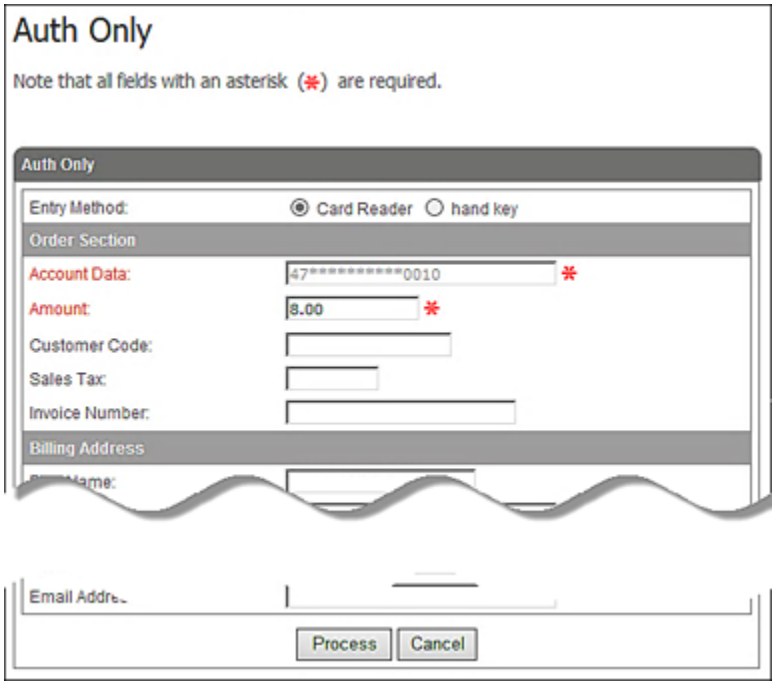
- You must install and configure the latest Peripheral Driver in order to use the Ingenico iPP320 PIN Pad to process Chip and PIN. Refer to the *Converge Peripheral Device Installation and Setup Guide* for more information.
- When using a chip card the customer has to attempt to insert the card first 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.

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: • 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.
Confirm Amount	Customer selects green button for **OK** or red button to **Cancel**.
OK?	Customer selects green button for **OK** or red button to **Cancel**.

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.

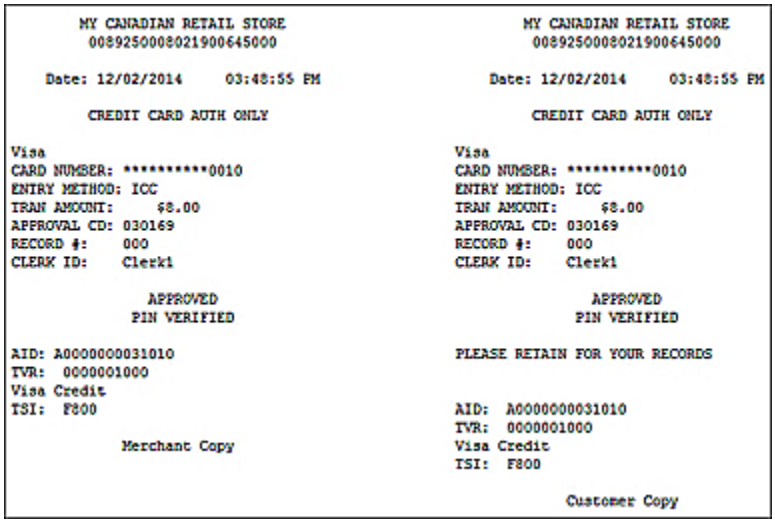


Note: Additional required information depends on the type of card inserted. A credit card may need to have an invoice, tax, or customer code if applicable. A typical debit card doesn't require any additional information.

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
00892500080219006450000

Date: 12/02/2014 03:48:55 PM

CREDIT CARD AUTH ONLY

Visa
CARD NUMBER: **********0010
ENTRY METHOD: ICC
TRAN AMOUNT: $8.00
APPROVAL CD: 030169
RECORD #: 000
CLERK ID: Clerk1

APPROVED
PIN VERIFIED

AID: A0000000031010
TVR: 0000001000
Visa Credit
TSI: F800

Merchant Copy

MY CANADIAN RETAIL STORE
00892500080219006450000

Date: 12/02/2014 03:48:55 PM

CREDIT CARD AUTH ONLY

Visa
CARD NUMBER: **********0010
ENTRY METHOD: ICC
TRAN AMOUNT: $8.00
APPROVAL CD: 030169
RECORD #: 000
CLERK ID: Clerk1

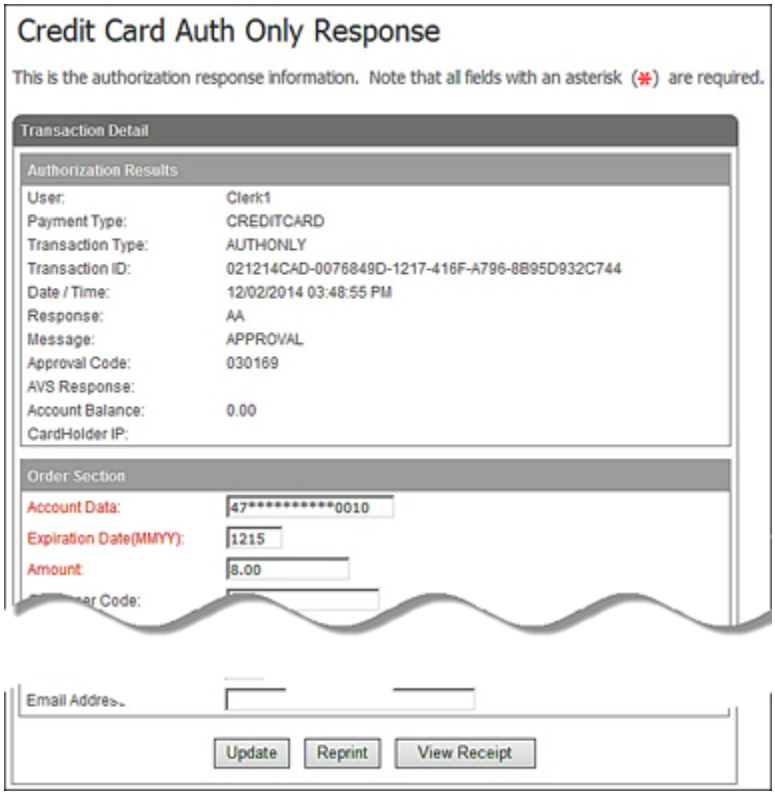
APPROVED
PIN VERIFIED

PLEASE RETAIN FOR YOUR RECORDS

AID: A0000000031010
TVR: 0000001000
Visa Credit
TSI: F800

Customer Copy

- 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

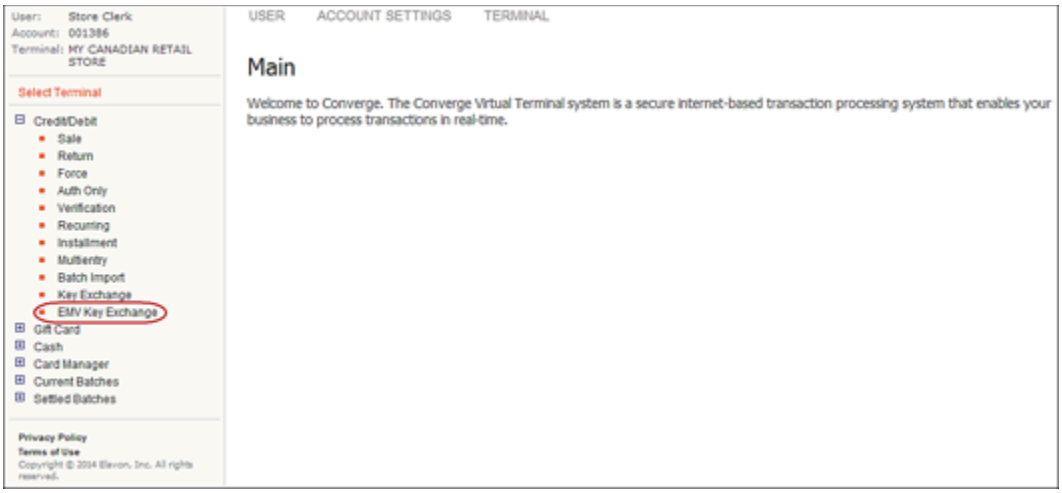
EMV Key Exchange is an administrative transaction that requests new EMV encryption keys to be sent to the PIN Pad to submit chip card transactions for EMV processing for MasterCard, Visa, and Interac. **EMV Key Exchange** is needed for all EMV capable terminals for all the supported chip transactions. 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*.



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

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*.