Card & Change Dispenser (CCD)
Operational Manual

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ABOUT THIS MANUAL

This manual will provide the operator with important information about installing and maintaining the Card & Change Dispenser (CCD). General information is provided for the hopper, validator, stacker and controller. However, if additional information is needed for these components, please refer to the appropriate manual. To obtain assistance from the manufacturer, please call (800) 837-5561 or (419) 867-4858.

When calling for assistance, it is very important to have serial numbers readily available. Please record these numbers in the spaces provided. It is important to account the serial numbers for each hopper.

CCD Serial #_____

Validator Serial #_____

Hopper Serial #_____

Card Dispenser Serial #_____

Stacker Serial #_____

Printer Serial # _____

Controller Serial #_____

Key/Lock #_____

Please complete the warranty card, which was included with your changer, and return it to the manufacturer.

I. INTRODUCTION

The Hamilton Card Dispenser and Changer is a tool designed to help market your car wash through the use of Hamilton Customer Value Cards. These cards build repeat business and customer loyalty while offering the customer a convenient method of payment for car wash services. This machine and the value cards it dispenses are designed to work exclusively with the Hamilton Data Access Network and its associated components.

The Card Dispenser can accept bill denominations of $1, $5, $10, and $20 or credit cards as methods of payment for a new card purchase or card recharge transaction. The machine comes equipped with a large capacity coin hopper which allows it to function as a bill changer or token vendor as well. When the hopper contains tokens they can be purchased using cash, credit cards, or value cards.

The Card Dispenser can print a receipt for any Hamilton equipment that is connected to the D.A.N. These devices can include the Gold Line, HTK, Self-Serve Bays, Vacuums and ACW 4/5 with credit card. This allows customers the opportunity to obtain a receipt from any and all Hamilton equipment (connect to D.A.N.) on the site .

An optional External Display is available to scroll customized messages in a large, bold fashion. These messages can be used for promotions at the car wash and to draw attention to the machine and the Customer Value Cards it sells.

II. INSTALLATION

NOTE: It is very important to read and understand all of these instructions before attempting installation. HAMILTON WILL NOT BE RESPONSIBLE FOR INJURY DUE TO IMPROPER INSTALLATION.

MOUNTING

Cabinets are constructed for through wall mounting. Changers should be securely fastened to the wall. Fasteners to be used should be recommended by your engineer as to strength and suitability for wall composition. Hamilton will not be responsible for injury due to improper installation.

1. Cut an opening in the wall measuring a minimum of 35 1/4" H x 18 1/2" W.

2. Caulk around the outside edge of the opening.

3. *DURING INSTALLATION, REMOVE ALL MAJOR COMPO-NENTS FROM THE CHANGER.*

4. Place the cabinet in the opening and press until the flange is flush on all sides.

5. Fasten the cabinet by bolting or welding a 2" angle on both sides of the cabinet.

CABINET: 34-3/4" H x 18" W x 20-5/16" D.
FACEPLATE: 38-1/4" H x 21-5/8" W.

ELECTRICAL

CAUTION! TO AVOID SEVERE INJURY OR DEATH, ALWAYS DISCONNECT POWER TO THE MACHINE WHEN SERVICING.

This changer is operated on 120VAC, 60 Hz. A GROUND FAULT INTERRUPTER IS REQUIRED. The CCD uses a 5 AMP CIRCUIT BREAKER. This unit may be hard-wired with conduit if desired.

III. OPERATION

To operate the card dispenser the user must follow the instructions displayed on the machines 2-line 20-character LCD display. The machine uses a simple three button interface. The SCROLL button is used to view up to five transaction choices then the ENTER button is used to select the choice. The CANCEL button is used to back out or cancel the transaction. In addition, voice prompts are used to help guide the customer through the transaction.

The user can select from one of the following four types of transactions.

Purchase New Card

The customer can choose from up to four price/value selections when purchasing a new card. The cards do not contain any value until they are activated at the time of purchase. This allows for maximum flexibility with pricing and reduces the concern if cards in the dispenser are damaged or stolen. A new card purchase can be paid for using cash or credit cards.

Add Value to Card

First the customer must swipe the value card he wishes to add value to. Then the customer can choose from up to four price/value selections. A card recharge purchase can be paid for using cash or credit cards.

Check Card Balance

First the customer swipes the value card they want to check the balance of. Then a few seconds later the card balance is shown on the LCD display. The balance information will remain displayed for several seconds, but if for any reason you want to clear it early you can press CANCEL and you are ready to start the next transaction.

Make Change / Purchase Tokens

Depending on the hopper contents, the customer can choose to change a bill or purchase tokens. If the hopper contains currency then you simply insert your bill into the validator and collect your change. If the hopper contains tokens then the customer can choose from up to four price/token amounts. Tokens can be purchased using cash, credit cards, or optionally value cards. Change can only be dispensed as a result of inserting a $1, $5, $10, or $20 dollar bill into the validator.

Print Card Receipt

First the customer swipes either the Credit Card or Value card to retrieve the receipt for the transaction used by that card. If there was more then one transaction then multiple or a combined receipt will be printed. Note: The owner can set the length of time that the transaction data will be available for the customer to retrieve a receipt.

IV. PROGRAMMING

Programming the various configuration parameters in the card dispenser is accomplished using two mechanisms; the handheld programmer and the D.A.N. configuration screens. The handheld will be covered first because it must be used to program the network settings that establish a connection to the Data Access Network. After the network connection has been established and the hopper contents defined the rest of the programming is done from the D.A.N. user interface.

Connect the handheld programmer to the controller as shown in the illustration and apply power to the machine. Use the following instructions as a guide to the programming menus on the handheld.
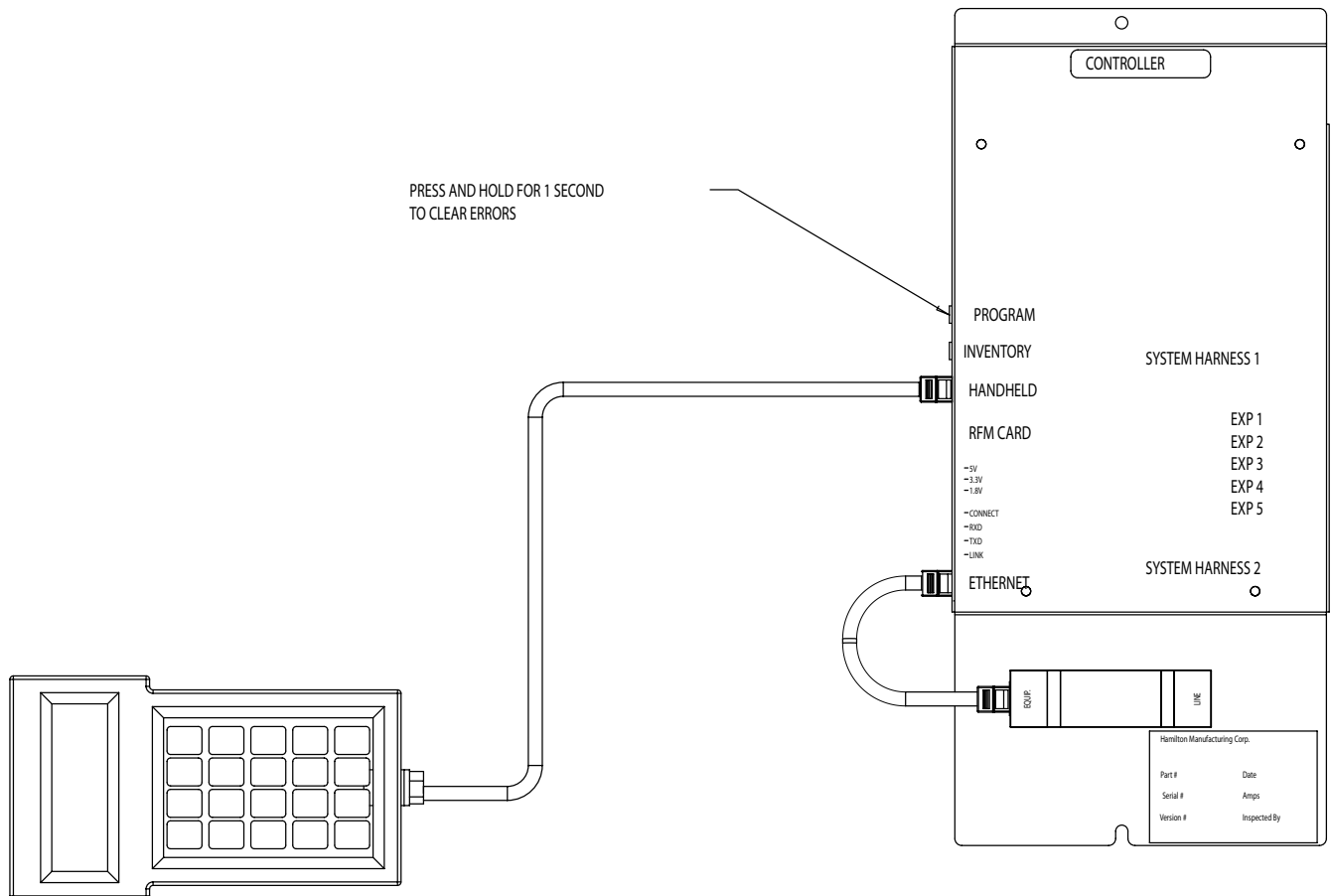
Network

View Connection

- **To enter into programming mode press "ESC".**

- Model, version, date and time will be displayed momentarily

- Next screen displays:

  F1 Network
  F2 Configure
  F3 Audits
  F4 Update EXIT-Quit

- **Press F1 for Network.**

- Next screen displays:

  F1 View Connection
  F2 DHCP: OFF
  F3 Set DAN IP
  <-- PRV ESC-BACK Nxt -->

- **Press F1 for View Connection.**

- Next screen displays:

  DHCP OFF
  Cont 192.168.001.080
  Mask 255. 255. 255.000
  <--PRV ESC-Back Nxt-->

- **Press Nxt--> to view more connections.**

- Next screen displays:

  DAN 000.000.000.000
  DAN Port 0
  Local Port 0
  <--PRV ESC-Back Nxt-->

- **Press Nxt--> to view more connections.**

- Next screen displays:

  MAC:
  00:60:35:02:49:89

  <--PRV ESC-Back Nxt-->

- **Press ESC twice and return to the main menu.**

<u>Configure DHCP</u>

- **To enter into programming mode press "ESC".**

- Model, version, date and time will be displayed momentarily.

- Next screen displays:

> *F1 Network*
> *F2 Configure*
> *F3 Audits*
> *F4 Update   EXIT-Quit*

- **Press F1 for Network.**

- Next screen displays:

> *F1 View Connection*
> *F2 DHCP: OFF*
> *F3 Set DAN IP*
> *<-- PRV ESC-BACK Nxt -->*

- **Press F2 for DHCP.**

- Note: **DHCP must be OFF**. If DHCP is ON, then press F2 to turn off DHCP

- **Press ESC to return to main menu.**

Set DAN IP

- **To enter into programming mode press "ESC".**

- Model, version, date and time will be displayed momentarily.

- Next screen displays:

> *F1 Network*
> *F2 Configure*
> *F3 Audits*
> *F4 Update   EXIT-Quit*

- **Press F1 for Network.**

- Next screen displays:

> *F1 View Connection*
> *F2 DHCP: OFF*
> *F3 Set DAN IP*
> *<-- PRV ESC-BACK Nxt -->*

- **Press F3 to set DAN IP.**

- Next screen displays:

> *SET DAN IP*
> *192.168.001.010*
>
> *ESC Back*

- **Using the numeric key pad input the appropriate NUMERIC value. Left and right arrow keys may be used to expedite the entry.**

- **Press ESC to save entry. This will return you to the previous menu.**

- **Press ESC to return to main menu.**

Set Controller IP

- **To enter into programming mode press "ESC".**

- Model, version, date and time will be displayed momentarily.

- Next screen displays:

> *F1 Network*
> *F2 Configure*
> *F3 Audits*
> *F4 Update   EXIT-Quit*

- **Press F1 for Network.**

- Next screen displays:

> *F1 View Connection*
> *F2 DHCP: OFF*
> *F3 Set DAN IP*
> *<-- PRV ESC-BACK Nxt -->*

- **Press Nxt --> for next screen.**

- Next screen displays:

> *F1 Set Cont IP*
> *F2 Set Mask*
> *F3 Ping*
> *<--PRV ESC-Back Nxt-->*

- **Press F1 to Set Cont IP.**

- Next screen displays:

> *SET Controller IP*
> *192.168.001.080*
>
> *ESC Back*

- **Using the numeric key pad input the appropriate NUMERIC value. Left and right arrow keys may be used to expedite the entry.**

- **Press ESC to save entry. This will return you to the previous menu.**

- **Press ESC again and return to the main menu**.

<u>Set Mask</u>

- **To enter into programming mode press "ESC".**

- Model, version, date and time will be displayed momentarily.

- Next screen displays:

> *F1 Network*
> *F2 Configure*
> *F3 Audits*
> *F4 Update   EXIT-Quit*

- **Press F1 for Network.**

- Next screen displays:

> *F1 View Connection*
> *F2 DHCP: OFF*
> *F3 Set DAN IP*
> *<-- PRV ESC-BACK Nxt -->*

- **Press Nxt --> for next screen.**

- Next screen displays:

> *F1 Set Cont IP*
> *F2 Set Mask*
> *F3 Ping*
> *<--PRV ESC-Back Nxt-->*

- **Press F2 for Set Mask.**

- Next screen displays:

> *Set Mask*
> *255.255.255.000*
>
> *ESC Back*

- **Using the numeric key pad input the appropriate NUMERIC value. Left and right arrow keys may be used to expedite the entry.**

- **Press ESC to save entry. This will return you to the previous menu.**

- **Press ESC again and return to the main menu.**

PING

- **To enter into programming mode press "ESC".**

- Model, version, date and time will be displayed momentarily.

- Next screen displays:

> *F1 Network*
> *F2 Configure*
> *F3 Audits*
> *F4 Update   EXIT-Quit*

- **Press F1 for Network.**

- Next screen displays:

> *F1 View Connection*
> *F2 DHCP: OFF*
> *F3 Set DAN IP*
> *<-- PRV ESC-BACK Nxt -->*

- **Press Nxt --> for next screen.**

- Next screen displays:

> *F1 Set Cont IP*
> *F2 Set Mask*
> *F3 Ping*
> *<--PRV ESC-Back Nxt-->*

- **Press F3 for Ping.**

- Next screen displays:

> *Enter IP to Ping*
> *000.000.000.000*
>
> *F1 Start   ESC Back*

- Note: The Ping function allows you to troubleshoot your network system by taking one device and pinging another to see if you are talking to it.

- **Using the numeric key pad input the appropriate NUMERIC value. Left and right arrow keys may be used to expedite the entry.**

- **Press ESC to save entry. This will return you to the previous menu.**

- **Press F1 to start the ping process.**

    If you are not talking to the other device the screen will display.

Please Wait ......

- With in a couple of seconds screen displays:

Ping 1 - Timed Out
Ping 2 - Timed Out
Ping 3 - Timed Out
F1 Again   ESC Back

- **Press ESC returns to previous menu.**

- Next screen displays:

Enter IP to Ping
000.000.000.000

F1 Start   ESC Back

- If you are talking to the other device, the screen will display:

Ping 1 - 20 ms
Ping 2 - 20 ms
Ping 3 - 20 ms
F1 Again   ESC Back

- **Press ESC returns to previous menu.**

- Next screen displays:

Enter IP to Ping
000.000.000.000

F1 Start   ESC Back

- **Press ESC returns to previous menu.**

- **Press ESC again to return to main menu.**

CONFIGURE

Hopper Contents

Set the type of coins being dispensed from the hopper. The choices are: None, Quarters, $1 Coins, $2 Coins, Tokens

- **To enter into programming mode press "ESC".**

- Model, version, date and time will be displayed momentarily.

- Next screen displays:

> *F1 Network*
> *F2 Configure*
> *F3 Audits*
> *F4 Update   EXIT-Quit*

- **Press F2 for Configure.**

- Next screen displays:

> *F1 Hopper Contents*
>
> *ESC Back*

- **Press F1 for Hopper Contents**

- Next screen displays:

> *Hopper Contents =*
> *Quarters*
>
> *<--Prev ESC-Back Nxt-->*

- **Using the left and right arrow keys, select the type of coins being dispensed from the hopper.**

- **Press ESC to save entry. This will return you to the previous menu.**

- **Press ESC again and return to the main menu.**

AUDITS

Clear Audits

- **To enter into programming mode press "ESC".**

- Model, version, date and time will be displayed momentarily.

- Next screen displays:

  > *F1 Network*
  > *F2 Configure*
  > *F3 Audits*
  > *F4 Update   EXIT-Quit*

- **Press F3 for Audits.**

- Next screen displays:

  > *F1 Clear Inventories*
  >
  > *ESC Back*

- **Press F1 to Clear Inventories.**

- Next screen displays:

  > *Clear Inventories?*
  > *Are you sure (Y/N) ?*

- **Pressing "Y" will clear your audits.**

- Screen displays:

  > *MEMORY CLEARED*

- **Pressing "N" will not clear your audits.**

- Screen displays:

  > *MEMORY NOT CLEARED*

D.A.N.

The next set of options are programmed using the D.A.N. configuration screens. They are described here in the order they appear as you select the tabs on the D.A.N. going from left to right. After you review all these options and decide how you would like the machine to operate, consult the D.A.N. Programming Manual for specific instructions on how to navigate through the interface and make the changes.

Prices

Card Purchase – This table is used to program the price and the amount of value for a new card purchase for up to four price/value selections. The prices and values are programmed in cents and do not have to be even dollar amounts. However, it is wise to consider that although credit card transactions can be easily processed in any amount, cash transactions may result in change that cannot be returned to the customer unless the pricing is in quarter increments. If you don't want to offer all four selections you can disable one or more by setting both the price and value equal to zero. Note that this table for setting the price and value for a new card purchase can be completely different from the price and values used for recharging an existing card.

Card Recharge – This table is used to program the price and the amount of value for a card recharge transaction for up to four price/value selections. The prices and values are programmed in cents and do not have to be even dollar amounts. However, it is wise to consider that although credit card transactions can be easily processed in any amount, cash transactions may result in change that cannot be returned to the customer unless the pricing is in quarter increments. If you don't want to offer all four selections you can disable one or more by setting both the price and value equal to zero. Note that this table for setting the price and value for recharging an existing card can be completely different from the price and values used for a new card purchase. This allows you to establish pricing that offers the customer a slight incentive to recharge an existing card rather than purchase a new card. Also, you could offer a lower price/value selection for recharging because you do not need to recover the cost of the card itself.

Changer - Tokens

Fixed Token Payout – This table is used to program the number of token coins dispensed from the hopper when any of the four bill denominations ($1, $5. $10, $20) are inserted in the validator. This payout table is only used when the Hopper Contents is set to Tokens, the Changer Mode is set to Immediate Changer, and the customer inserts a bill without first selecting the type of transaction.

Token Purchase – This table is used to program both the price and amount of token coins dispensed for up to four selections. This payout table is used when the Hopper Contents is set to Tokens and the customer selects Purchase Tokens. The customer can scroll through these choices and select the amount of tokens desired. He can then pay for them using cash or credit card. There is also an option to allow value cards for the purchase of tokens. By default this is not allowed. If you have bonus token pricing you may not want your customer to "double dip" the bonus by using a value card with bonus value to purchase a bonus amount of tokens. If you don't want to offer all four token amounts you can disable one or more selections by setting both the amount and the price to zero.

Changer - Options

Hopper Contents – This category is used to set the type of coins being dispensed from the hopper. The choices are: None, Quarters, $1 coins, $2 coins, or Tokens. The hopper contents can be viewed from the D.A.N. but can only be changed at the machine itself using the handheld programmer. Other programming options that relate to how the machine dispenses change are only relevant if the hopper contains currency.

Changer Mode – If the hopper contains coins this category controls how the machine dispenses change or tokens. The choices are: Immediate Changer, Selection Required, and Change for Purchase Only.

When set to "Immediate Changer" the bill validator will be enabled during the welcome message allowing the customer to insert a bill and receive change or tokens immediately without having to first select Make Change or Purchase Tokens. If the hopper contains tokens the customer will receive the number of coins programmed in the Fixed Token Payout table. This operation is just like any other stand-alone bill changer. It is the easiest and fastest for customers wishing to use the machine only to get change or tokens. A potential downside to this setting is that a customer intending to purchase a value card may insert a bill before first selecting Purchase New Card and end up with unwanted coins.

When set to "Selection Required" the bill validator is disabled until the customer uses the scroll button to select Make Change or Purchase Tokens. This prevents a customer from inserting a bill without first selecting the type of transaction desired and getting unexpected coins. Using this setting is also a way to make a customer seeking change interact more with the machine and become aware of your value cards.

When set to "Change for Purchase Only" the machine is not intended for use as a bill changer. The hopper is only used to dispense change as a result of a cash transaction for purchase or recharge of a value card.

Overpayment Mode – This category is used to determine how you want the machine to respond if a customer deposits more cash than the price of the item selected. The choices are: Change Returned, Up Sell then Change, and Up Sell then Extra Value.

When set to "Change Returned" the customer receives the item selected and the difference between the amount deposited and the price of the item is returned in change.
For example, a customer wants to purchase a value card priced at $25.00 and he inserts two twenty dollar bills. The machine issues the $25.00 value card and dispenses $15.00 in change.

When set to "Up Sell then Change" the customer receives the highest priced item the amount deposited will pay for and the balance is returned in change. For example, a customer wants to purchase a value card priced at $25.00 and he inserts two twenty dollar bills. The machine issues a value card priced at $35.00 (the highest priced card available for $40.00 or less) and dispenses $5.00 in change. This option up sells the customer to a more expensive card which presumably is a better value and reduces the amount of change dispensed.

When set to "Up Sell then Extra Value" the customer receives the highest priced item the amount deposited will pay for and the balance is added to the value card as a dollar for dollar extra value. For example, a customer wants to purchase a value card priced at $25.00 and he inserts two twenty dollar bills. The machine issues a value card priced at $35.00 (the highest priced card available for $40.00 or less) and adds an additional $5.00 in value to the card. This option up sells the customer to a more expensive card which presumably is a better value and adds any remaining credit as extra value on the card. No change is dispensed. This is the default

action when no currency is available from the hopper.

Underpayment Mode – This category is used to determine how you want the machine to respond if a customer deposits cash without reaching the minimum target price of the item selected, and then cancels the transaction. The choices are: Change Returned, Issue Card with value equal to deposit, and Print Credit Receipt.

When set to "Change Returned" the amount deposited is returned to the customer in change as long as the hopper contains currency. This effectively makes the machine act like a changer even if the Changer Mode is set to "Change for Purchase Only".

When set to "Issue Card with value equal to deposit" the customer will receive a card or a recharge with the same amount of value as he just deposited.

When set to "Print Credit Receipt" the customer will receive a receipt for the transaction showing the amount of cash deposited and a message to see attendant for a refund.

Accept Value Cards for Token Purchases - This selection allows an owner to select if her or she wants to sell their tokens to customers using their Value Cards. By not selecting "Accept Value Cards for Token Purchases" the customer will not be able to complete a token transaction with his or her Value Card. By selecting "Accept Value Cards for Token Purchases" this allows a customer to use their Value Card to complete a token purchase.

Welcome

Welcome Messages – The machine has a 2-line 20-character display that can scroll up to four lines of user customizable text to greet the customer. Following this are four lines of fixed text which read "Press SCROLL to View 4 or 5 Choices, Press ENTER to Accept your Choice". The number of choices may only be 3 depending on the hopper configuration.

Welcome Delay – This is the amount of time after a customer steps in front of the machine before it begins speaking the welcome greeting. The value can be set from 0 to 30 seconds. If the value is set to zero the voice welcome greeting is disabled.

Receipt – Header

Receipt Headers – Up to eight lines of user programmable text can be printed at the top of every customer receipt. Typically this would include the wash name, address, and contact telephone number. The first two header lines are printed in large bold text. The remaining six lines are printed in standard size text. If you do not want to use all eight header lines you can set one or more to Not Used and they will be skipped, or leave the text blank and a blank line will be printed.

Receipt – Footer

Receipt Footers – Two lines of user programmable text can be printed at the bottom of every customer receipt. An additional two footer lines can be printed when the print registration form for new card purchase option is enabled. Typically the first two footer lines would be used for a "Thank you" message. The other two footer lines are only printed with a new card registration form and are intended for additional instructions. If you do not want to use any of the footers you can set them to Not Used and they will be skipped, or leave the text blank and a blank line will be printed.

Receipt – Options

Receipt Mode – This category controls when customer receipts are printed. The choices are: No Receipt, Ask for Receipt, or Always Print.

When set to "No Receipt" transaction receipts are not printed.

When set to "Ask for Receipt" the customer is asked near the end of a card purchase or recharge transaction if he wants a receipt to press Enter or if not press Cancel. If no selection is made within 15 seconds the default action is to not print a receipt.

When set to "Always Print" a receipt is printed for every new card purchase or recharge transaction. This is the factory default setting.

Once a receipt is printed and/or a card is dispensed the customer has 30 seconds to take them. If the customer does not take the receipt and/or the value card they will be retracted and captured inside the machine.

Print Registration Form – When this option is enabled a tear off form will be printed at the bottom of the receipt that allows the customer to register their value card purchase. The form is intended to allow you to capture customer contact information and associate it with the value card they just purchased. You can then use this information for future marketing and customer loyalty promotions. This form can only be printed along with a new card purchase transaction. By default this option is disabled.

Combine Transactions on one receipt - This category allows an owner to print out an individual receipt for each transaction used by a specific value card or credit by setting the option to "No". The owner can select the option to combine the transactions on one receipt used by a specific value card or credit card by setting the option to "Yes". If a customer would use his or her card at the vacuum and then the self-serve bay then by this setting it would either print two receipts or one combined receipt as long as the same card was used for both transactions.

Look Back Time (5 - 999 Minutes) - This category allows the owner to set the amount of time that a person can retrieve a receipt for his or her transaction. When a card is swiped at a self-bay, that transaction is held at the D.A.N. A customer then can use the Card Dispenser to retrieve a receipt. When the card is swiped at the Card Dispenser it looks up the transactions for that card for the time period based on the "Look Back Time". If a customer waits to long. Example if the Look Back Time is 120 minutes and the customer tries to get his or her receipt from 4 hours after that, the transaction will not be processed because it passed the Look Back Time.

External Display

External Display Messages – This category is used for programming up to four customizable messages on the optional external scrolling display. Each message is divided into two halves of 20-characters each. The message scrolls on the display for approximately 12 seconds before it is replaced by the next message. For those familiar with the Hamilton Autocashier the operation of the external display messages is exactly the same. Its intended purpose is to draw attention to and promote the sale of Hamilton Customer Value Cards at the card dispenser machine. Unlike the external display used with the Autocashier it is not intended as an alternate display to guide the customer through the transaction.

V. MAINTENANCE

> **CAUTION! Do not use oil, grease or solvents on any part of this changer except as clearly specified in this manual, the hopper manual, the validator manual or the stacker manual.**

HOPPER

Any lubrication in the hopper can result in a faulty payout. Empty the hopper and vacuum once a month. Use a soft brush to loosen dirt. (Refer to the hopper manual for details on maintenance.)

VALIDATOR

For Hamilton Validators, service should be done annually for maximum performance. This work should only be done by a trained technician. For validators not manufactured by Hamilton, please refer to the appropriate manual for maintenance instructions.

STACKER

Refer to the stacker manual for any maintenance instructions.

CONTROLLER

The microprocessor based Controller monitors the systems of the CCD Changer modules. If a problem is detected, the controller will display the appropriate error message on the DAN computer screen.

CARD DISPENSER

Load CVC cards mag stripe down and to the left when facing machine from door side. *The card dispenser will display a sticker that indicates the correct positioning. (Failure to do so will cause the cards to be ejected into the bottom of the cabinet when customer attempts to purchase.)*

After loading Card Dispenser press and hold the "Program" button on controller to reset empty status.

PRINTER

OPERATION

Installing a paper roll

1. Turn the new paper roll as shown. The paper should be inserted into the printer with the temperature-sensitive side up.

Turn the paper roll so that the paper leaves the roll from the top
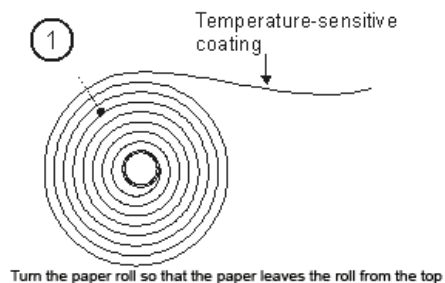
2. Tear off a full turn of the paper from the new paper roll.

Tear off a full turn from the new paper roll
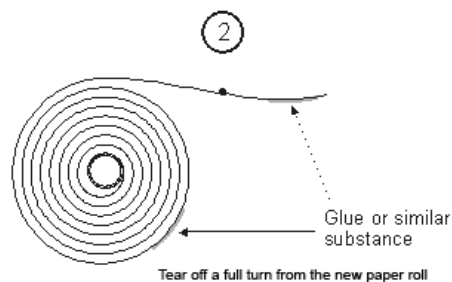
CAUTION!
This is important since the outer end of the paper is usually fixed to the roll with some type of glue or self-adhesive substance that might otherwise cause paper jam or even *print head damage*.

3. Make sure the printer is turned ON.

4. Cut the paper in a suitable angle:

70°

Thermal side (top)

Cut off at a 70°-90° angle

90°

Thermal side (top)

Suitable paper edge for auto load
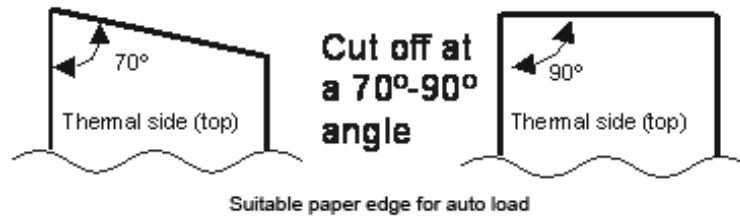
NOTE - The paper sensor is at the same side as the interface connector. If the paper is cut in a direction opposite to that as shown in the figure above, the sensor will not detect the paper.

5. Insert the paper through the paper entry opening at the back of the printer.

The printer will now feed, cut and eject a printout, and then automatically go on-line.

Insert the new paper
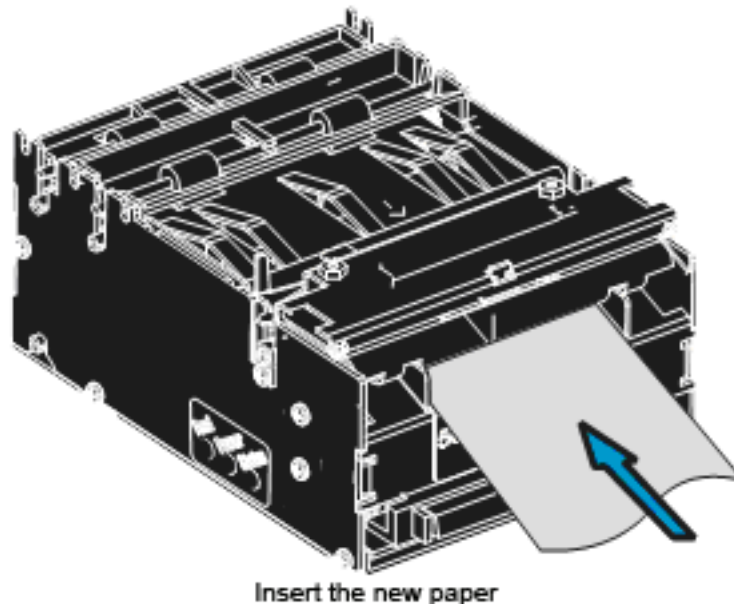
Cleaning the print head

The print head can be cleaned without removal.
1.   Open the print head.
2.   Clean the heat elements with a cotton swab immersed in ethyl or isopropyl alcohol.

Controls
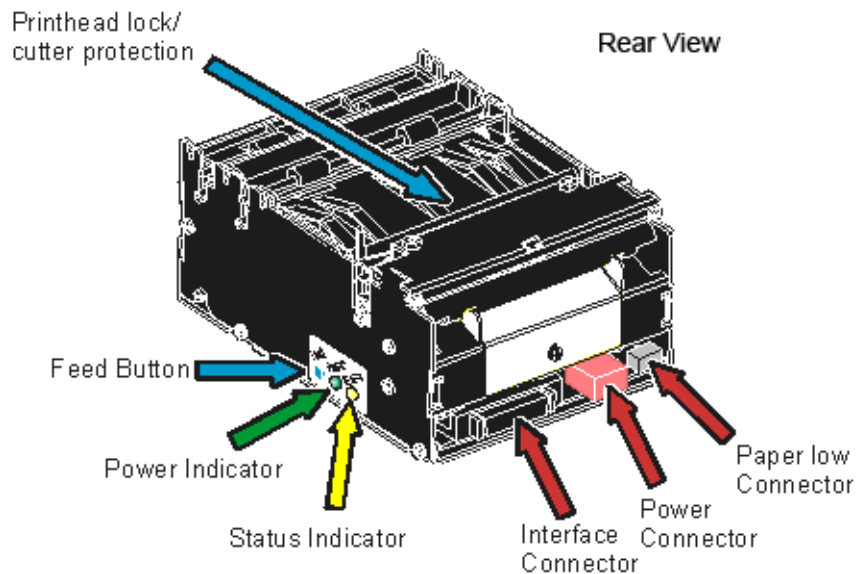
The controls are duplicated on both sides of the printer so that they are easily accessible regardless of how the printer is installed.

Feed button

The **Blue** feed-button has several functions:
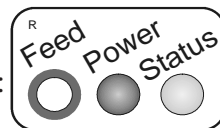
- · Short press; eject printout from presenter
- · Longer press; feed, cut, and present a complete page.
  Any data in the print buffer will be printed. If the buffer is empty the page will be blank.
  In black mark mode, the page will be synchronized with the black mark.
- · Press and hold while turning on the power, or while opening and closing the print head to print a self-test printout. See page 17.

Status indicator

The status indicator has several functions:

ON constantly — the printer is operational

Flashes rapidly — indicates error. Hold down the feed-forward button and the number of blinks will reflect the *status-code*.

1	Presenter jam, paper cannot be ejected / retracted
2	Cutter cannot return to home position
3	Out of paper
4	Printhead lifted
5	Paper feed error (under head)
6	Temp error, printhead is above 60°C
7	Presenter jam, motor cannot rotate
8	Paper jam during retract
Fast flashes	Checksum error, firmware
Steady light	Wrong firmware type or target for firmware loading

Status-codes are reset:
1   When the conditions causing them are removed
2   When the printer is turned off/on
3   When the print head is lifted and then lowered.

Blink, blink, pause, blink, blink — is the *warning-code* for paper low
The warning-code is reset automatically when the condition causing it is removed.

Power indicator
Green indicator constantly ON: 24 V present

Making a test printout
1.   Switch OFF the power.
2.   Hold the feed-forward button depressed while powering ON the printer.
      Keep the button depressed until printing starts.
      This produces a printout showing the firmware program version and date,
      control board revision number and serial number, name of loaded fonts and
      logotypes, and the parameter settings.
3.   Each successive press of the button will produce a test printout.
      Switch the printer OFF and ON again to exit self-test mode.

If a power button is not available for the printer, follow the below procedure:
1.   Lift the print head
2.   Hold the FF-button pressed while lowering the head and hold it pressed
      while an auto load of paper is done
3.   Release the button and a self-test printout will be printed
4.   The printer exits self-test mode and goes on-line

Self-test

Troubleshooting for Printer

In connection with service of the printer it is good practice to remove paper dust and lint from the paper path, cutter and sensor areas. Paper dust, when accumulated, may interfere with printer functions such as optical sensors.

To avoid smudging the paper, do not apply oil on the cutting knife.

Symptom	Suggested actions
Nothing is printed when you press the feed button in self-test mode, but the document is transported, cut and ejected.	• Check that the paper roll is turned the correct way with thermal sensitive layer facing up. • Check that the paper used meets the paper • Check that the printhead cable is fully inserted into the connectors at each end.
Paper jam	• Check cutter-home sensor.
Printer does not work at all	• Check that the printhead is closed. • Check that power is supplied to the printer. • Check the function of the paper-out sensor.
Self-test prints OK, but the printer works strangely in normal operation.	• Check that both ends of the interface cable are properly connected. • Application program might be incorrect. Contact system manager.
No cutting	• Check that the connector for the cutting motor is fully seated on the control board.
Bad cutting (uneven top and bottom document edges).	• Switch OFF printer and remove any obstructing paper particles in cutter and presenter modules.
Inconsistent cutter operation	• Check/clean cutter-home sensor.
Paper is fed straight through the printer. Paper does not loop.	• Check/clean presenter sensor. • Check setting of parameter p9.
Missing print or irregular spots.	• Paper may be too humid. Let it adapt to ambient temperature and humidity for approximately 24 hours before use. • The paper used might not meet the paper specification.
White longitudinal lines in the printout.	• Faulty print head, replace.
Faint print.	• The paper used might not meet the paper specification. • Clean print head with ethyl or isopropyl alcohol. • Adjust print contrast, see page 66.
Strange characters or graphics printed, or any kind of strange printer behavior.	• Might be caused by erroneous data sent from the host. Check validity of transferred data.

VI. PARTS
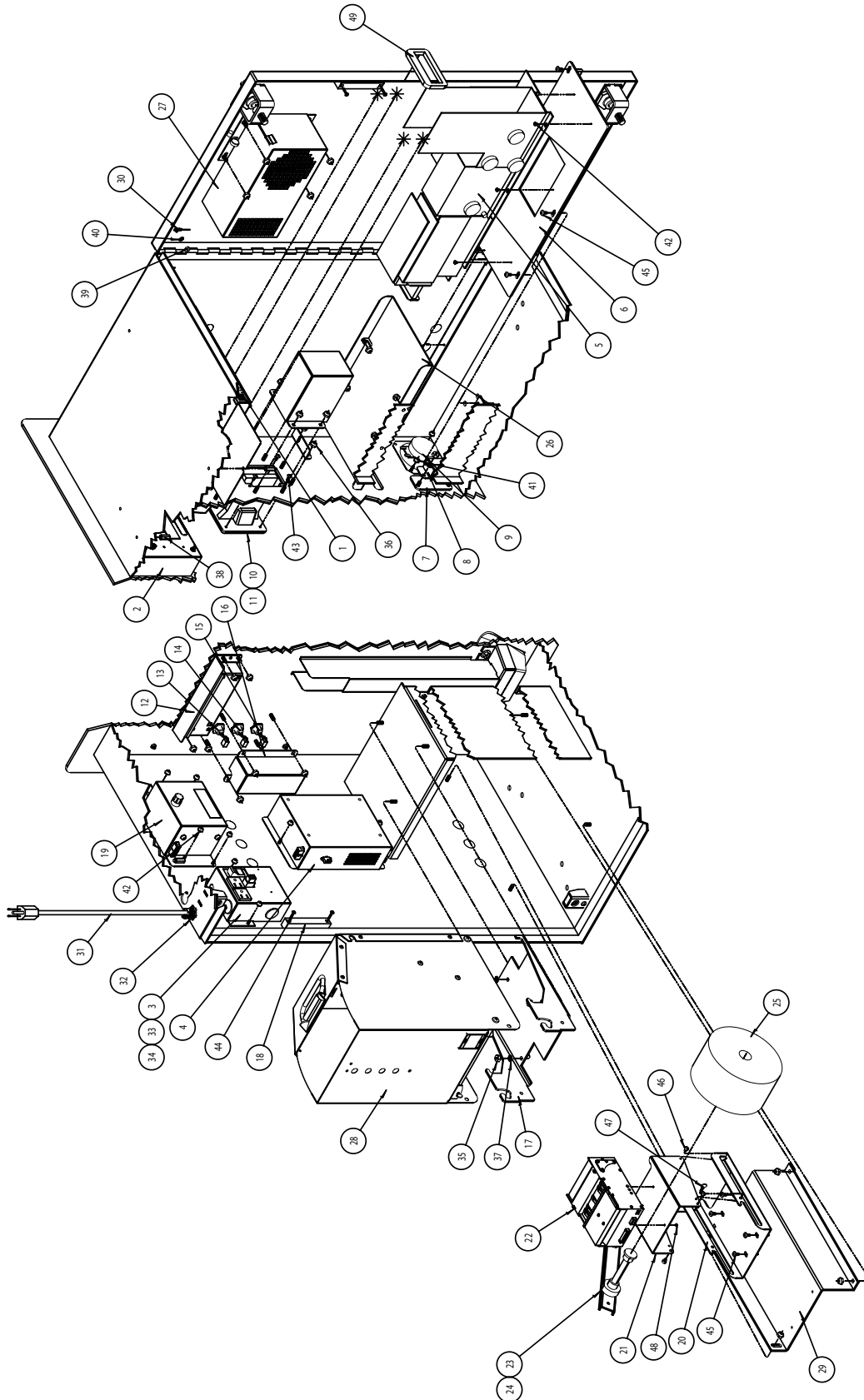
ITEM#	PART#	DESCRIPTION	QTY.
29	60-2331	PRINTER SHELF CCT (DARK)	1
28	11-0100N	HOPPER TALL (THIN NICKEL)	1
	11-0100F	HOPPER TALL (GOLD DOLLAR)	
	11-0100E	HOPPER TALL (1.125 TOKEN)	
	11-0100D	HOPPER TALL (.800 TOKEN)	
	11-0100C	HOPPER TALL (SUSAN B. ANTHONY)	
	11-0100B	HOPPER TALL (DIME)	
	11-0100A	HOPPER TALL (NICKEL)	
	11-0100	HOPPER TALL (QUARTER)	
27	47-3177	HEATER	1
26	60-2333	COVER PLATE, CCD (DARK)	1
25	47-3220	PAPER, THERMAL 80mm WIDE, 1" DIA. CORE, 6' OUTSIDE DIA.	1
24	47-3217	PAPER LOW SENSOR SWECOIN	1
23	47-3216	ROLL HOLDER SWECOIN	1
22	47-3215	PRINTER SWECOIN TTP	1
21	60-2336	PRINTER BRACKET BODY	1
20	60-2335	PRINTER BRACKET BASE	1
19	05-0018	DUAL TRANFORMER RELAY BOX	1
18	47-3200	DOOR OPEN SWITCH	1
17	11-0033	BRACKET, HOPPER	1
16	60-2326	BUTTON COVER CCD (DARK)	1
15	49-9373	BUTTON, RED	1
14	49-9402	BUTTON, GREEN	1
13	49-9305	BUTTON, BLUE	1
12	05-0032	ASSEMBLY, LCD DISPLAY DTV	1
11	48-3194	HARNESS, CARD READER INTERNAL	1
10	49-2019	CARD READER	1
9	49-0565	SPEAKER	1
8	60-2027A	ASSM, ACW G/L VOICE SENSOR	1
7	63-0359	SENSOR FILLER	1
6	60-2330	CARD DISPENCER SHELF CCT (DARK)	1
5	49-9462	CARD DISPENCER	1
4	49-9464	ASSM, POWER SUPPLY 5V/12V/24V	1
3	49-1022CLR	POWER BOX 5 AMP	1
2	05-0035	VOICE MODULE ASSEMBLY, CCD (DARK)	1
1	49-9463	CONTROLLER CCD (DARK)	1
ITEM#	PART#	DESCRIPTION	QTY.

CABINET ASSEMBLY CCD (DARK)

ITEM#	PART#	DESCRIPTION	QTY.
-	98-1010	CM3 PAD	2
-	98-1007	XR BLOCK	6
-	96-0092	WARRANTY POST CARD	1
-	98-1264	CARTON, CCD (DARK)	1
-	96-0114	DECAL OUTDOOR USE	1
-	96-2054	DECAL GENERAL INFO LARGE	1
-	96-0116	DECAL CONDUIT CONNECTED	1
49	99-0049	SEAL, VALIDATOR	1
48	90-9083	SCREW, M3 X5 PAN HEAD	3
47	90-0629	THUMBSCREW, #10-32 X 1/2"	1
46	90-0628	SCREW, #10-32 X 3/16" PHILISTER HEAD	4
45	90-9076	SCREW, #10-24 x 1/4" PAN HEAD	9
44	90-0032	SCREW,#6-32 X 5/8" PAN HEAD	4
43	90-0129	SCREW,#6-32 X 3/8" PAN HEAD	4
42	90-0130	SCREW,#6-32 X 1/8" PAN HEAD	5
41	90-0302	NUT, #10-24 NYLON LOCK	10
40	90-0612	WASHER, # 10 INTERNAL LOCK	4
39	90-0301	NUT, #10-24 X 3/8'" HEX	4
38	90-9078	NUT, COUPLING #10-24 x 3/4	2
37	90-0403	WASHER, #1/4 INTERNAL LOCK	-
36	90-9052	NUT #1/4-20 NYLON LOCK	-
35	90-0331	NUT, #1/4-20 HEX	-
-	47-0232	CABLE PANDUIT	18
-	47-0275	CABLE TIE 6"	18
34	47-0200	WIRE NUT YELLOW	2
33	47-0269	RING TERMINAL	1
32	47-0029	CONNECTOR CONDUIT	1
31	47-0217	LINE CORD	1
30	48-0051A	GROUND STRAP	1
-	48-3214	HARNESS, SWECOIN POWER	1
-	48-3206	HARNESS, VOICE CCD (DARK)	1
-	48-3205	HARNESS, MAIN CCD (DARK)	1
-	48-3204	HARNESS, CARD DISPENCER COMMUNICATION	1
-	48-3203	HARNESS, CARD DISPENCER POWER	1
ITEM#	PART#	DESCRIPTION	QTY.
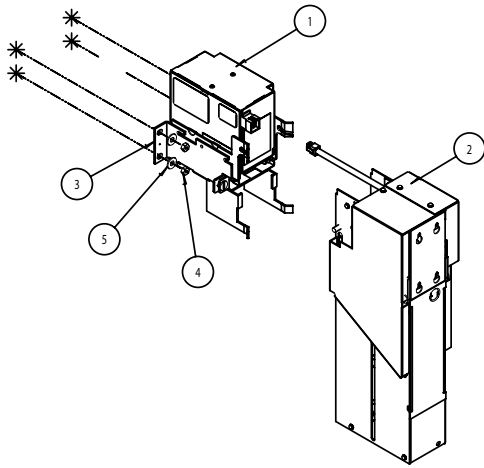
-	101-0006	MANUAL, DUAL STACKER	1
-	101-0008	MANUAL, XE VALIDATOR	1
5	90-0429	WASHER, #1/4 X 3/4 FLAT	4
4	90-0331	NUT, #1/4-20 HEX	4
-	48-3107	HARNESS, XE ADAPTOR	1
3	60-0271A	ASSEMBLY REAR LOAD DUAL BRACKET	1
2	35-0100	STACKER, DUAL	1
1	46-4001	VALIDATOR, XE	1

XE WITH DUAL STACKER
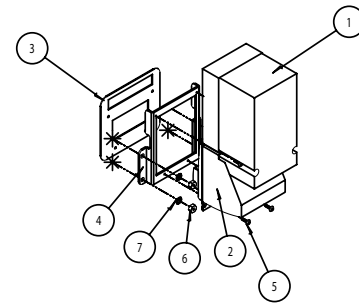
7	90-0429	WASHER, #1/4 X 3/4 FLAT	4
6	90-0331	NUT, #1/4-20 HEX	4
5	90-0145	SCREW, #8-32 x 5/8 PH	4
4	60-2228	BRACKET CASHCODE	1
3	60-2227	FACE PLATE CASH CODE	1
-	48-3149	HARNESS, RL CASHCODE	1
	46-0206	VALIDATOR, CASHCODE (US)	
2	46-0204	VALIDATOR, CASHCODE (CANADA)	1
	46-0208	VALIDATOR, MARS (AUSTRALIA)	
	46-0205	BILL BOX, 2 LOCK CASHCODE CAN	
1	46-0210	BILL BOX, 2 LOCK CASHCODE USA	1
	46-0207	BILL BOX, CASHCODE USA/AUSTR	

CASHCODE
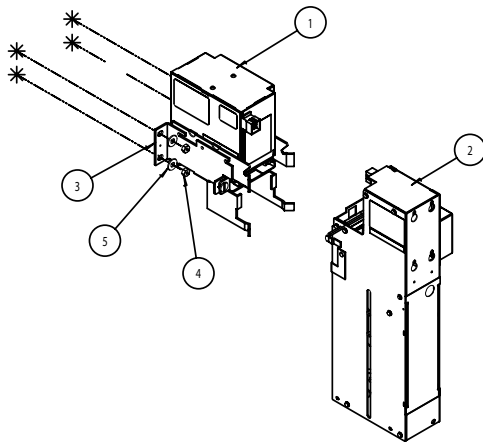
-	101-0079	MANUAL, SINGLE STACKER	1
-	101-0008	MANUAL, XE VALIDATOR	1
5	90-0429	WASHER, #1/4 X 3/4 FLAT	4
4	90-0331	NUT, #1/4-20 HEX	4
-	48-3107	HARNESS, XE ADAPTOR	1
3	60-0275A	ASSEMBLY COMBINATION VALIDATOR BRACKET	1
2	36-0036	STACKER, SINGLE	1
1	46-4001	VALIDATOR, XE	1

XE WITH SINGLE STACKER
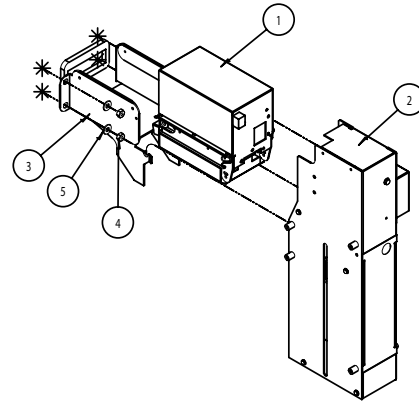
-	101-0079	MANUAL, SINGLE STACKER	1
-	101-0011	MANUAL, STA VALIDATOR	1
5	90-0429	WASHER, #1/4 X 3/4 FLAT	4
4	90-0331	NUT, #1/4-20 HEX	4
3	37-0055B	ASSM, STA R/L MOUNTING	1
-	48-3106	HARNESS, STA	1
2	37-0000	STACKER, STA	1
1	99-0000	VALIDATOR, STA	1

STA
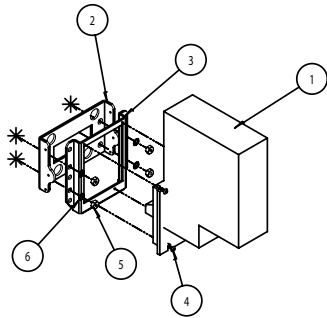
6	90-0429	WASHER, #1/4 X 3/4 FLAT	4
5	90-0331	NUT, #1/4-20 HEX	4
4	90-0145	SCREW, #8-32 x 5/8 PH	4
3	60-2051	UNIVERSAL CHANNEL	1
2	60-2050	VALIDATOR PLATE	1
-	48-3182	HARNESS, MARS & COINCO ADAPTOR	1
1	46-0200	VALIDATOR, MARS (110V)	1

MARS
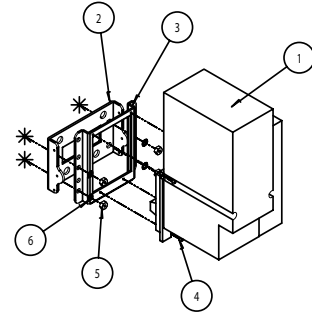
6	90-0429	WASHER, #1/4 X 3/4 FLAT	4
5	90-0331	NUT, #1/4-20 HEX	4
4	90-0145	SCREW, #8-32 x 5/8 PH	4
3	60-2051	UNIVERSAL CHANNEL	1
2	60-2050	VALIDATOR PLATE	1
-	48-3182	HARNESS, MARS & COINCO ADAPTOR	1
1	46-0168	VALIDATOR, COINCO (110v)	1

COINCO

CCD MAIN HARNESS
(48-3205)
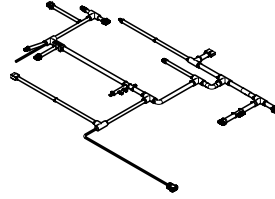
HARNESS MAIN CCD
48-3205

CONTROLLER DC1
47-3180
RECEPTACLE, 2x10 MICROFIT (MOLEX# 43025-2000)
49-9383
TERMINAL, MICROFIT FEMALE (MOLEX# 43030-0007)

Pin	Wire	Signal
1	RED #1	+5V
2		
3		
4	PINK	EXTERNAL DISPLAY TXD
5	WHITE/BLACK/YELLOW #2	BUSY 2
6	WHITE/BLUE	S1
7	WHITE/BLACK #1	BUSY
8		
9	WHITE/RED	DROP 3
10	BROWN #1	COMMON
11	BROWN #2	COMMON
12	ORANGE #1	DOOR SWITCH
13	WHITE/BLACK/BLUE	SELECT 1
14		
15	WHITE/BROWN	S5
16	WHITE/GREEN	EMPTY 3
17		
18	WHITE/BLACK/RED	SELECT 3
19	WHITE/BLACK/GREEN	SELECT 2
20		

CONTROLLER DC2
47-3213
RECEPTACLE, 2x11 MICROFIT (MOLEX# 43025-2200)
49-9383
TERMINAL, MICROFIT FEMALE (MOLEX# 43030-0007)

Pin	Wire	Signal
1	WHITE/BLACK #2	CRC RXD
2		
3	PURPLE	SOUND TXD
4		
5		
6		
7	ORANGE #2	PRINTER TXD
8		
9		
10		
11		
12		
13		
14	WHITE/GREY	PROX IN
15		
16		
17		
18		
19	WHITE/ORANGE	PRINTER RXD
20		
21	LIGHT BLUE	DISPLAY TXD
22		

CONTROLLER AC1
47-3148
RECEPTACLE, 2X8 MINI-FIT JR (MOLEX# 39-01-2160)
47-0100
TERMINAL, MINI-FIT JR FEMALE (MOLEX# 39-00-0039)

Pin	Wire	Signal
1		
2	GREEN	GROUND
3		
4		
5		
6	BLACK	L1
7	WHITE	L2
8	GREY	STACK
9		
10	RED #2	HOPPER 3
11		
12		
13		
14		
15	BLUE	ENABLE
16		

POWER BOX
47-0008
PLUG, 2X3 STANDARD (MOLEX # 03-09-2061)
47-1059
TERMINAL, MALE STANDARD .093 (MOLEX# 02-09-2118)

Pin	Wire	Signal
1	BLACK	L1
2	WHITE	L2
3	GREEN	GROUND
4		
5		
6		

AC POWER SUPPLY INPUT
48-2047
RECEPTICAL, 1 x 3 MINI-FIT JR (MOLEX# 39-01-4030)
47-0100
TERMINAL, MINI-FIT JR FEMALE (MOLEX# 39-00-0039)

Pin	Wire	Signal
1	BLACK	L1
2	WHITE	L2
3	GREEN	GROUND

TRANFORMER/RELAY
47-3126
RECEPTACLE, 2x6 MINI-FIT JR (MOLEX# 39-01-2120)
47-0100
TERMINAL, MINI-FIT JR FEMALE (MOLEX# 39-00-0039)

Pin	Wire	Signal
1	BLACK	L1
2	WHITE	L2
3	BLUE	ENABLE
4	WHITE/BLACK/GREEN	DC ENABLE
5	WHITE/BLACK/ORANGE	DC ENABLE NOT
6	GREEN	GROUND
7	WHITE/BLACK/YELLOW #1	24V AC
8		
9	BROWN #1	COMMON
10	TAN	24 VAC RETURN
11	WHITE/YELLOW	ISOLATED 24V AC
12		

DOOR SWITCH

Pin	Wire	Signal
1	ORANGE #1	DOOR SWITCH

DOOR SWITCH COMMON

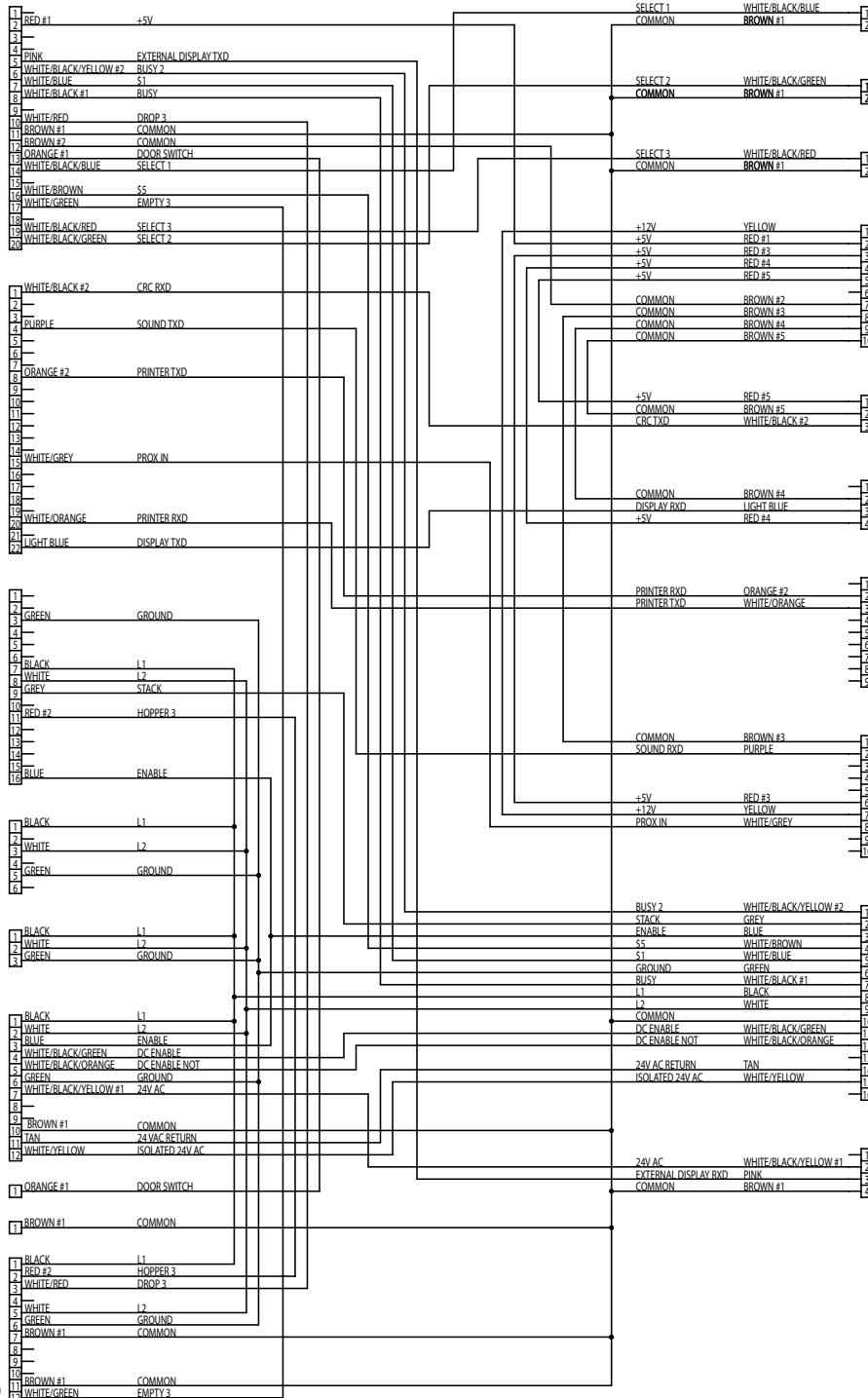| Pin	Wire	Signal
1	BROWN #1	COMMON

HOPPER
47-0052
RECEPTACLE, 3X4 STANDARD.093 (MOLEX# 03-09-1126)

47-0079
TERMINAL, FEMALE STANDARD .093 (MOLEX# 02-09-1119)

Pin	Wire	Signal
1	BLACK	L1
2	RED #2	HOPPER 3
3	WHITE/RED	DROP 3
4	WHITE	L2
5	GREEN	GROUND
6		
7	BROWN #1	COMMON
8		
9		
10		
11	BROWN #1	COMMON
12	WHITE/GREEN	EMPTY 3

SCROLL BUTTON
49-8531
RECEPTACLE, 1X2 STANDARD(MOLEX# 03-06-1022)
49-8532
TERMINAL, FEMALE STANDARD .062 (MOLEX# 02-06-1103)

Pin	Wire	Signal
1	WHITE/BLACK/BLUE	SELECT 1
2	**BROWN** #1	COMMON

ENTER BUTTON
49-8531
RECEPTACLE, 1X2 STANDARD(MOLEX# 03-06-1022)
49-8532
TERMINAL, FEMALE STANDARD .062 (MOLEX# 02-06-1103)

Pin	Wire	Signal
1	WHITE/BLACK/GREEN	SELECT 2
2	**BROWN** #1	**COMMON**

CANCEL BUTTON
49-8531
RECEPTACLE, 1X2 STANDARD(MOLEX# 03-06-1022)
49-8532
TERMINAL, FEMALE STANDARD .062 (MOLEX# 02-06-1103)

Pin	Wire	Signal
1	WHITE/BLACK/RED	SELECT 3
2	**BROWN** #1	COMMON

DC POWER
71-8551
RECEPTACLE, 2X5 MINI-FIT JR (MOLEX# 39-01-2100)
47-0100
TERMINAL, MINI-FIT JR FEMALE (MOLEX# 39-00-0039)

Pin	Wire	Signal
1	YELLOW	+12V
2	RED #1	+5V
3	RED #3	+5V
4	RED #4	+5V
5	RED #5	+5V
6		
7	BROWN #2	COMMON
8	BROWN #3	COMMON
9	BROWN #4	COMMON
10	BROWN #5	COMMON

CARD READER
49-9382
RECEPTACLE, 1X3 MICRO-FIT (MOLEX# 43645-0300)
49-9383
TERMINAL, MICROFIT FEMALE (MOLEX# 43030-0007)

Pin	Wire	Signal
1	RED #5	+5V
2	BROWN #5	COMMON
3	WHITE/BLACK #2	CRC TXD

DISPLAY
47-3195
RECEPTACLE, 2 X 2 MICRO-FIT (MOLEX # 430-25-0400)
49-9383
TERMINAL, MICROFIT FEMALE (MOLEX# 43030-0007)

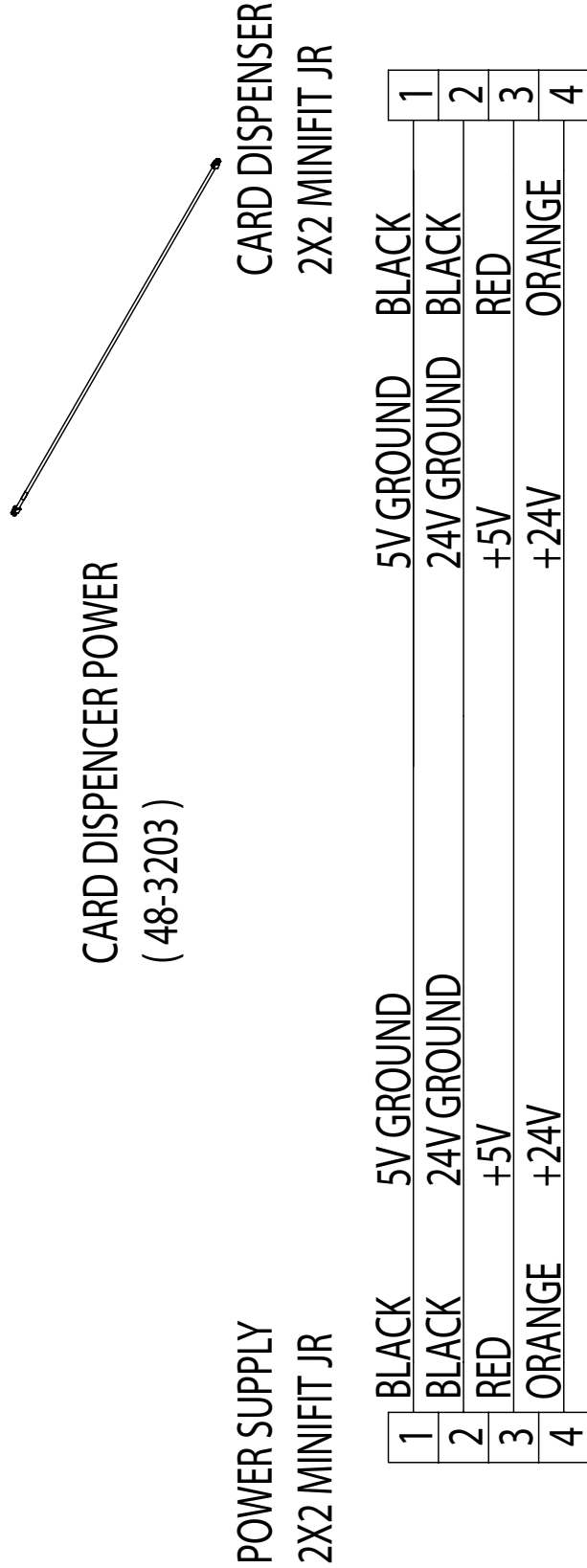| Pin	Wire	Signal
1	BROWN #4	COMMON
2	LIGHT BLUE	DISPLAY RXD
3	RED #4	+5V
4		

PRINTER
47-2039
CONNECTOR, 9 PIN D-SUB FEMALE (DIGI-KEY # 209F-ND)
47-2038
HOOD, 9 PIN D-SUB CONNECTOR(DIGIKEY # 977-009-010-031)

Pin	Wire	Signal
1	ORANGE #2	PRINTER RXD
2	WHITE/ORANGE	PRINTER TXD
3		
4		
5		
6		
7		
8		
9		

SOUND
47-3144
RECEPTACLE, 2X5 MICRO-FIT (MOLEX # 43025-1000)
49-9383
TERMINAL, MICROFIT FEMALE (MOLEX# 43030-0007)

Pin	Wire	Signal
1	BROWN #3	COMMON
2	PURPLE	SOUND RXD
3		
4		
5		
6	RED #3	+5V
7	YELLOW	+12V
8	WHITE/GREY	PROX IN
9		
10		

VALIDATOR/STACKER
49-9356
PLUG, 2x8 MINI- FIT JR (MOLEX# 39-01-3163)
47-0112
TERMINAL, MALE MINI-FIT JR (MOLEX# 39-00-0041)

Pin	Wire	Signal
1	WHITE/BLACK/YELLOW #2	BUSY 2
2	GREY	STACK
3	BLUE	ENABLE
4	WHITE/BROWN	S5
5	WHITE/BLUE	S1
6	GREEN	GROUND
7	WHITE/BLACK #1	BUSY
8	BLACK	L1
9	WHITE	L2
10		COMMON
11	WHITE/BLACK/GREEN	DC ENABLE
12	WHITE/BLACK/ORANGE	DC ENABLE NOT
13		
14	TAN	24V AC RETURN
15	WHITE/YELLOW	ISOLATED 24V AC
16		

EXTERNAL DISPLAY
47-3154
PLUG, 2x2 MINI-FIT JR (MOLEX 39-01-3043)
47-0112
TERMINAL, MALE MINI-FIT JR (MOLEX# 39-00-0041)

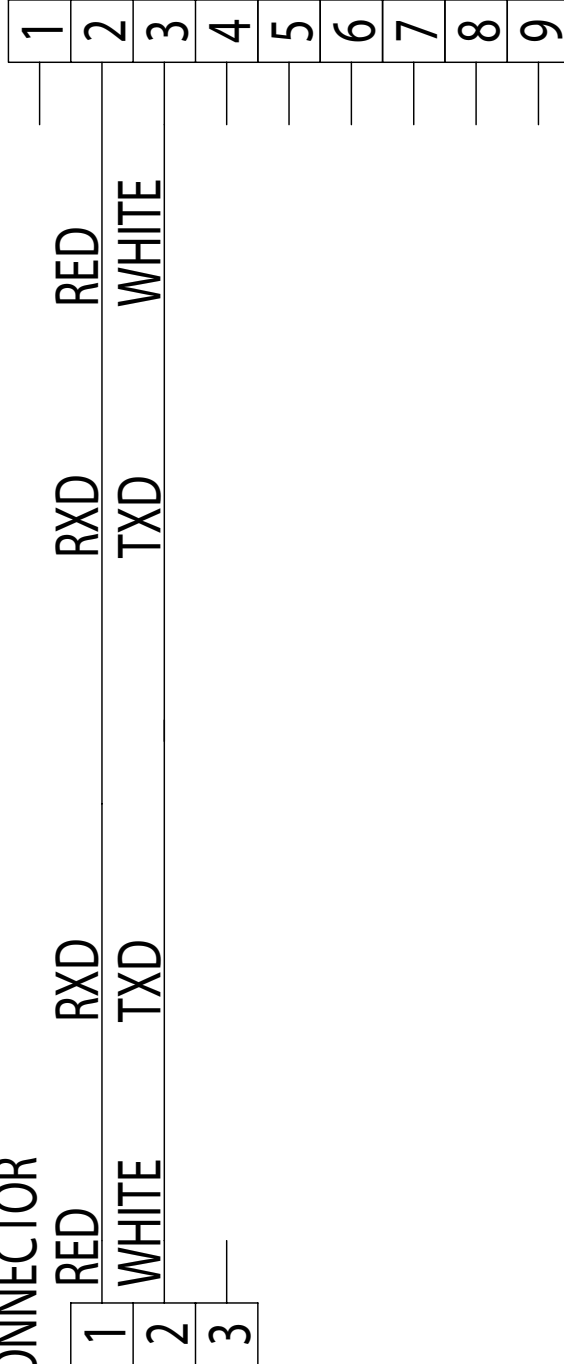| Pin	Wire	Signal
1	WHITE/BLACK/YELLOW #1	24V AC
2	PINK	EXTERNAL DISPLAY RXD
3	BROWN #1	COMMON
4		

Card Dispenser Power
(48-3203)

CARD DISPENSER
2X2 MINIFIT JR

CARD DISPENCER POWER
(48-3203)

POWER SUPPLY
2X2 MINIFIT JR

Pin	Power Supply	Wire	Card Dispenser Wire	Card Dispenser
1	5V GROUND	BLACK	BLACK	5V GROUND
2	24V GROUND	BLACK	BLACK	24V GROUND
3	+5V	RED	RED	+5V
4	+24V	ORANGE	ORANGE	+24V

Card Dispenser Communication
(48-3204)

CARD DISPENCER
9 PIN MALE DSUB

CARD DISPENCER COMMUNICATION
(48-3204)

EXPANSION PORT 2
1X3 KK CONNECTOR

Pin	Signal	Color		Color	Signal	Pin
1	RXD	RED	→	RED	RXD	2
2	TXD	WHITE	→	WHITE	TXD	3
3						4

EXPANSION PORT 2: 1 RED, 2 WHITE, 3

9 PIN MALE DSUB: 1, 2, 3, 4, 5, 6, 7, 8, 9

SWECOIN POWER
(48-3214)
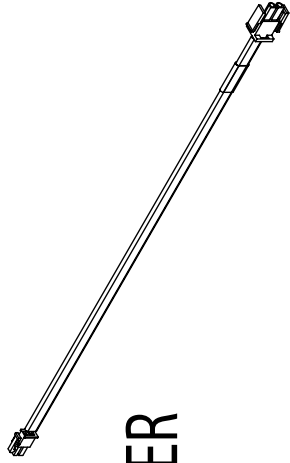
SWECOIN POWER
(48-3214)

PRINTER
1X2 MATE-N-LOK

POWER SUPPLY
1X2 MINIFIT JR

	ORANGE	24V	COMMON	COMMON	BLACK	
1	ORANGE	24V				1
2	BLACK					2
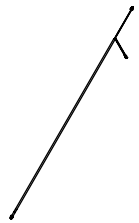
VOICE
(48-3206)

PROXIMITY SENSOR
2X2 MICRO-FIT

Pin	Signal	Color
1	V IN	GREEN
2	COMMON	BLACK
3	V OUT	WHITE
4	5V	RED

SPEAKER + BLUE — 1 — SPEAKER QUICK DISCONNECT

SPEAKER - ORANGE — 1 — SPEAKER QUICK DISCONNECT

VOICE MODULE
2X3 MICROFIT

Pin	Signal	Color
1	5V	RED
2	COMMON	BLACK
3	V OUT	WHITE
4	V IN	GREEN
5	SPEAKER +	BLUE
6	SPEAKER -	ORANGE

CABINET PREP

MOUNT USING
NUT, # 8 NYLON (90-0321)
(7 PLCS)

MOUNT USING
NUT, 8-32 X 11/32
HEX (90-0319)
(4 PLCS)

MOUNT USING
NUT, #6-32 HEX (90-0310)
(4 PLCS)

MOUNT USING
NUT, 8-32 X 11/32 HEX (90-0319)
(4 PLCS)
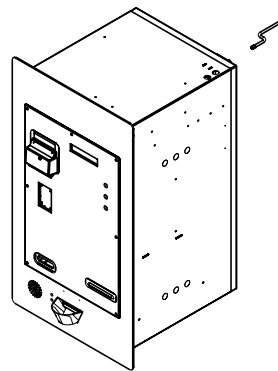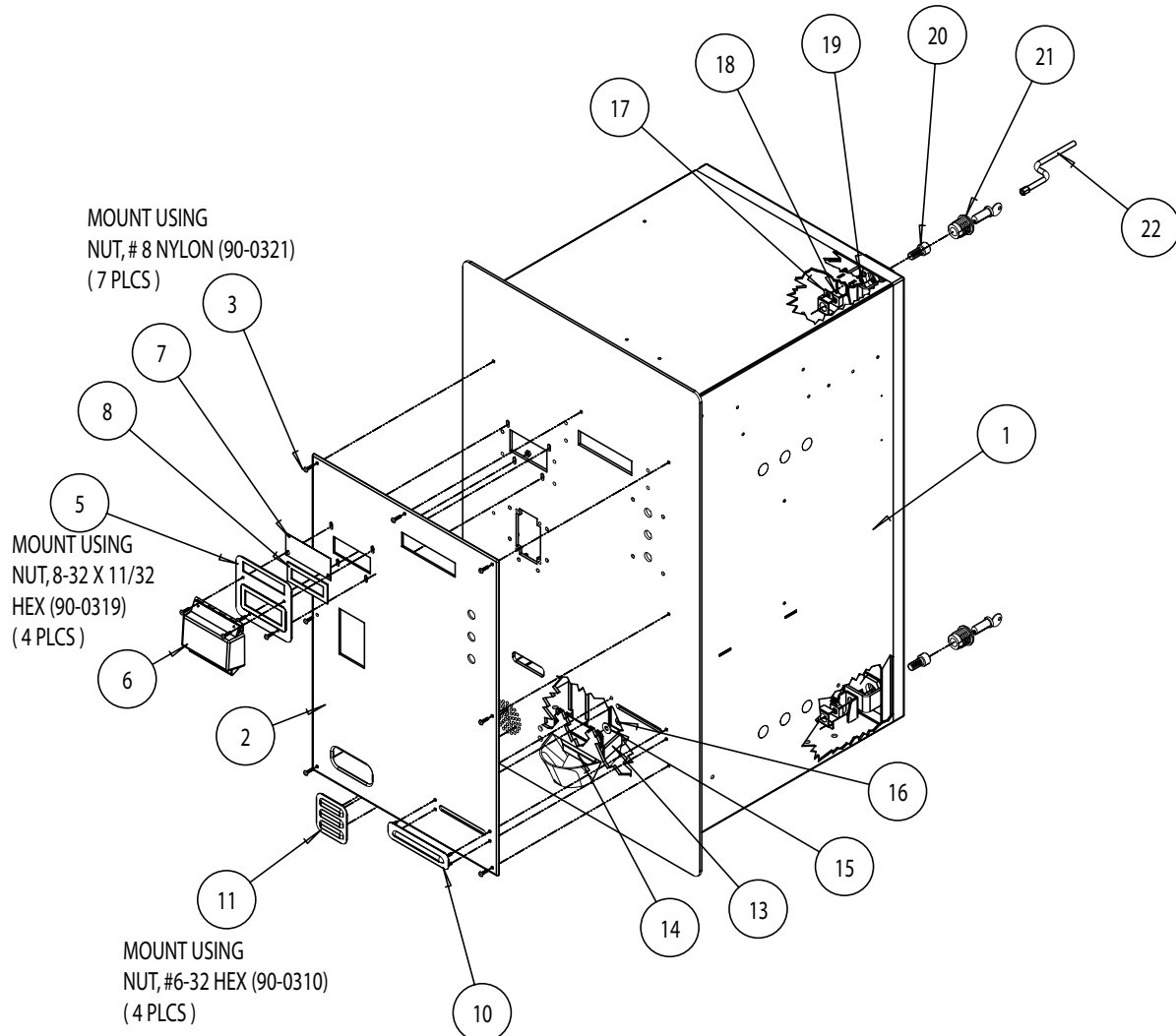
ITEM#	PART#	DESCRIPTION	QTY.
24			
23			
22	63-5040	CRANK, LOCK	1
21	63-5002	LOCK PAIR COMP	1
20	90-0275	BOLT, LOCK, SHCS 1/2-13 x 1	2
19	90-0148	SCREW, #10-24 x 3/8 PH	2
18	90-0335	NUT, #1/2-13 SQUARE CRS	2
17	61-2153	BRACKET, DOOR LOCK	2
16	90-0331	NUT, #1/4-20	2
15	90-0429	WASHER, #1/4 X 3/4	2
14	60-0359	FLIPPER, ACW ACCESS SHIELD	1
13	60-2332	ACCESS SHIELD, CCD (DARK)	1
12	90-0310	NUT, #6-32 HEX	3
11	60-2243	SPEAKER COVER	1
10	60-2328	PRINTER BEZEL	1
9	90-0319	NUT, 8-32 X 11/32 HEX	8
8	60-2054	SLIDER, COINCO	
	60-2052	UNIVERSAL VAL MOUNT SLIDER (STA & MARS)	1
	60-0282	HV-X SLIDER PLATE	
7	96-0096	ACETATE DENOMINATION PACK	1
6	60-0318A	ASSM, WEATHER SHIELD FULL COVER	1
5	60-2227	CASH CODE FACEPLATE	1
	60-0284	HV-X FACE PLATE	
4	90-0321	NUT, # 8 NYLON	7
3	90-0517	BALL STUD, #8-32 x 5/8	11
2	63-5192	LEXAN PANEL, CCD (DARK)	1
1	61-2744	CABINET, CCD W HOPPER (DARK)	1

CABINET PREP. CCD (DARK)

MOUNTING

34 3/4
20 3/4
5 1/4
4
2
7 3/8
Ø7/8
KNOCKOUTS
FOUR MOUNTING
(12 PLCS)
1 3/4
4 3/4

29 7/16
3 1/2
13/4
23 1/8
9 13/16
21 5/8

PUSH BUTTON TO SEE SELECTIONS
PUSH BUTTON MAKE SELECTION
GET RECEIPT HERE
ENTER BILLS SHOWN
ENTER CARD HERE
GET RECEIPT HERE

11 1/2
15 13/16
13/16
18
20 5/16
1 3/4

9 3/16
19 1/16
25 5/8
38 1/4
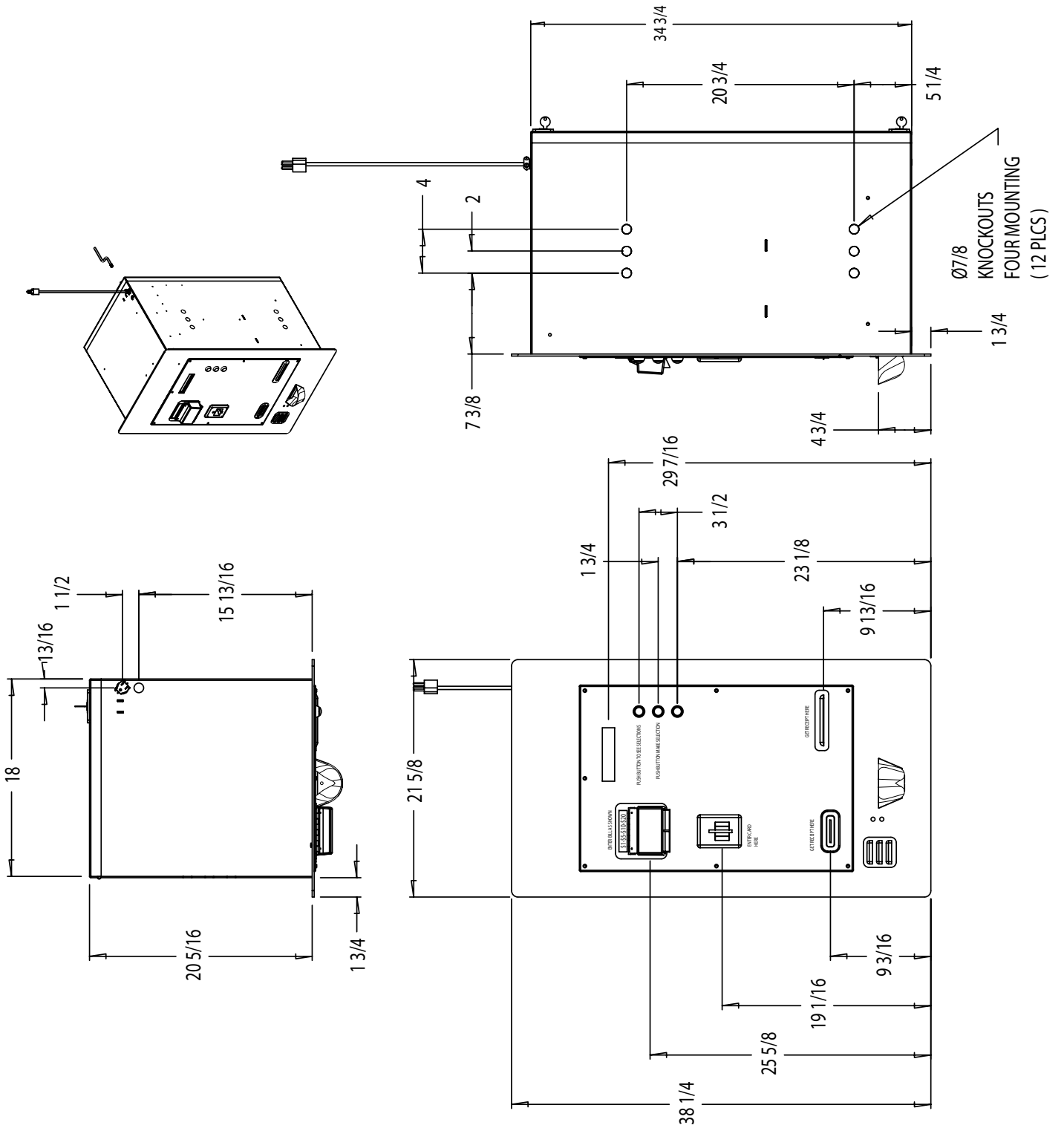
Appendix A
Bill Denomination Mylar
Installation Instructions
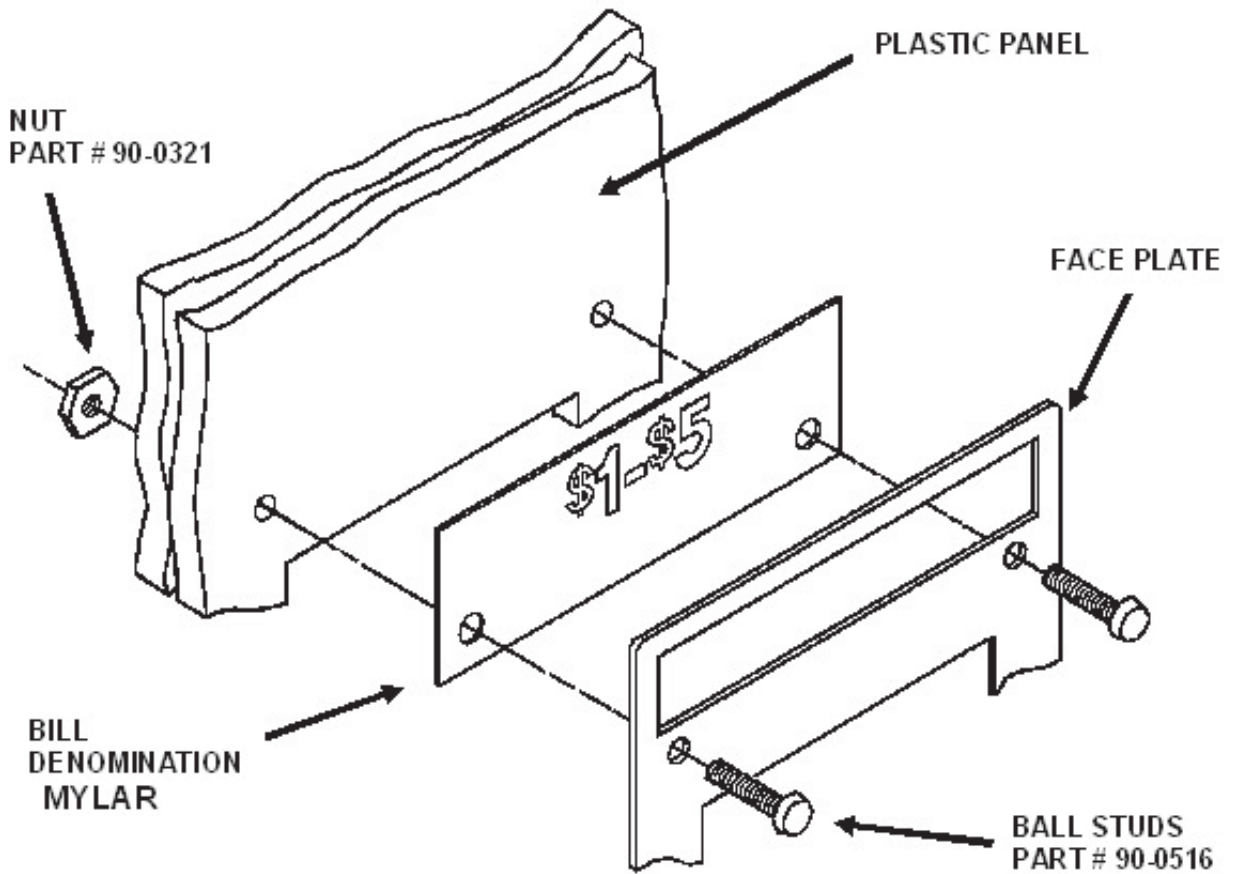
1. Loosen and remove the NUTS from the BALL STUDS.
2. Remove the BALL STUDS from the FACE PLATE.
3. Insert the BILL DENOMINATION MYLAR between the FACE PLATE and the PLASTIC PANEL until the holes in the BILL DENOMINATION MYLAR line up with the holes in the FACE PLATE.
4. Reinsert the BALL STUDS into the front of the FACE PLATE, through the BILL DENOMINATION MYLAR and the PLASTIC PANEL.
5. Replace the NUTS on the BALL STUDS and tighten.

LIMITED WARRANTY AGREEMENT
OF HAMILTON MANUFACTURING CORP.

Hamilton Manufacturing Corp., an Ohio Corporation, ("Seller") warrants to Purchaser that all new equipment shall be free from defects in material and factory workmanship for a period of one (1) year from the original shipping date. Hamilton Manufacturing Corp. further warrants if any part of said new equipment in Seller's sole opinion, requires replacement or repair due to a defect in material or factory workmanship during said period, Seller will repair or replace said new equipment. Purchaser's remedies and the liabilities and obligations of Seller herein shall be limited to repair or replacement of the equipment as Seller may choose, and Seller's obligation to remedy such defects shall not exceed the Purchaser's original cost for the equipment. Purchaser EXPRESSLY AGREES this is the EXCLUSIVE REMEDY under this warranty. There are no other express or implied warranties which extend beyond the face hereof. All warranty repair service must be performed by either a Factory Trained Service Representative or **HAMILTON MANUFACTURING CORP., 1026 Hamilton Drive, Holland, Ohio 43528 PHONE (419) 867-4858 or (800) 837-5561, FAX (419) 867-4867.**

The limited warranty for new equipment is conditioned upon the following:

1. The subject equipment has not, in the Seller's sole opinion, been subjected to: accident, abuse, misuse, vandalism, civil disobedience, riots, acts of God, natural disaster, acts of war or terrorism.
2. The Seller shall not be liable for any expense incurred by Purchaser incidental to the repair or replacement of equipment and Purchaser shall assume full responsibility for any freight or shipping charges.
3. The coverage of this warranty shall not extend to expendable parts.
4. Purchaser shall have a warranty registration card on file with Seller prior to any claim in order for warranty protection to apply.
5. No warranty coverage is applicable to any equipment used for currency other than that specified at the time of the purchase.
6. Seller expressly disclaims any warranty that counterfeit currency will not activate said equipment.
7. Seller expressly disclaims any warranty for any losses due to bill manipulation or theft or loss of cash under any circumstances.
8. Use of the equipment for anything other than its intended and designed use will void the Limited Warranty Agreement. Use of equipment for anything other than its intended and designed use includes, but is not limited to, downloading software/applications not certified by Seller such as e-mail, spyware, screen savers, viruses, worms, third party software, web search engines, cookies, spam, desktop applications, games, web surfing, etc.

Seller further warrants all repair or service work performed by a factory trained representative or Hamilton Manufacturing Corp. for a period of ninety (90) days from the date the repair or service work was performed. Purchaser's remedies and the liabilities and obligations of Seller herein shall be limited to repair or replacement of equipment as Seller may choose, and Seller's obligation to remedy such defects shall not exceed the Purchaser's depreciated value of the equipment. Purchaser EXPRESSLY AGREES this is an EXCLUSIVE REMEDY under this warranty. There are no other express or implied warranties on repair or service work performed by a factory trained representative or Hamilton Manufacturing Corp. which extend beyond the face hereof.

The limited warranty for repair and service work is conditioned upon the following:

1. The subject equipment has not, in the Seller's sole opinion, been subjected to: accident, abuse, misuse, vandalism, civil disobedience, riots, acts of God, natural disaster, acts of war or terrorism.

2. The Seller shall not be liable for any expense incurred by Purchaser incidental to the repair or replacement of equipment and Purchaser shall assume full responsibility for any freight or shipping charges.

3. The coverage of this warranty shall not extend to expendable parts.

4. Purchaser shall have a warranty registration card on file with Seller prior to any claim in order for warranty protection to apply.

5. No warranty coverage is applicable to any equipment used for currency other than that specified at the time of the purchase.

6. Seller expressly disclaims any warranty that counterfeit currency will not activate said equipment.

7. Seller expressly disclaims any warranty for any losses due to bill manipulation or theft or loss of cash under any circumstances.

8. No person or entity other than a factory trained representative or Hamilton Manufacturing Corp. has performed or attempted to perform the subject repair or service.

9. Using equipment which has been serviced or repaired for anything other than its intended or designed use such as downloading software applications not certified by Seller will void the Limited Warranty Agreement. This includes software/applications such as e-mail, spyware, screen savers, viruses, worms, third party software, web search engines, cookies, spam, desktop applications, games, web surfing, etc.

THIS AGREEMENT IS MADE WITH THE EXPRESS UNDERSTANDING THAT THERE ARE NO IMPLIED WARRANTIES THAT THE EQUIPMENT SHALL BE <u>MERCHANTABLE</u>, OR THAT THE GOODS SHALL BE <u>FIT FOR ANY PARTICULAR PURPOSE</u>. PURCHASER HEREBY ACKNOWLEDGES THAT IT IS NOT RELYING ON THE SELLER'S SKILL OR JUDGMENT TO SELECT OR FURNISH EQUIPMENT SUITABLE FOR ANY PARTICULAR PURPOSE AND THAT THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THAT WHICH IS DESCRIBED HEREIN.

The Purchaser agrees that in no event will the Seller be liable for direct, indirect, or consequential damages or for injury resulting from any defective or nonconforming new, repaired or serviced equipment, or for any loss, damage or expense of any kind, including loss of profits, business interruption, loss of business information or other pecuniary loss arising in connection with this Limited Warranty Agreement, or with the use of, or inability to use the subject equipment regardless of Sellers knowledge of the possibility of the same.

Hamilton Manufacturing Corporation

1026 Hamilton Drive
Holland, OH 43528

Sales Phone: (888) 723-4858   **Sales Fax:** (419) 867-4850
Customer Service Phone: (800) 837-5561   **Customer Service Fax:** (419) 867-4857
Parts Phone: (866) 835-1721   **Parts Fax:** (419) 867-4867
Website: http://www.hamiltonmfg.com
Email Addresses:
service@hamiltonmfg.com
sales@hamiltonmfg.com
parts@hamiltonmfg.com
info@hamiltonmfg.com