Standard
Change-Makers, Inc.

P.O. Box 36550
Indianapolis, IN 46236-0550
3130 N. Mitthoeffer Rd.
Indianapolis, IN 46235-0550
(317) 899-6966
FAX (317) 899-6977
WEB:www.standardchange.com

SC-CONVERSION KIT

# Installation Instructions
SC-Conversion Kit

8M00619 REV. 2

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1.0 SC CONVERSION BASIC INSTRUCTIONS

SC CONVERSION CONTROLLER CONNECTIONS

LCD Display

Coinco / NRI Coin Acceptor

MEI (Mars) Coin Acceptor

Touchpad Ribbon Connection

SD Card Reader

Connect System 500 POWER SUPPLY

Connect System 500-E, System 600-FST, System 600-EF POWER SUPPLY

Dispenser A

Dispenser B

Dispenser C

Dispenser D

24V Power IN

24V Power OUT

Out of Service Lamp

MDB Cable

Ethernet Cable

Printer Connection

CAUTION!!!
Always disconnect the 24V Power Supply (or Power Supplies) before adding or removing a Module. Failure to do so could result in corruption of data and premature component failure!

SC CONVERSION CONTROLLER CONNECTIONS

SC Conversion Controller - BOTTOM SIDE

| 24V IN | 24V OUT | OOS LAMP | MDB | ETHER | PRINTER |

POWER OUT

POWER IN

Out of Service Lamp

MDB Cable

Ethernet (RJ-45)

Printer (9-PIN)
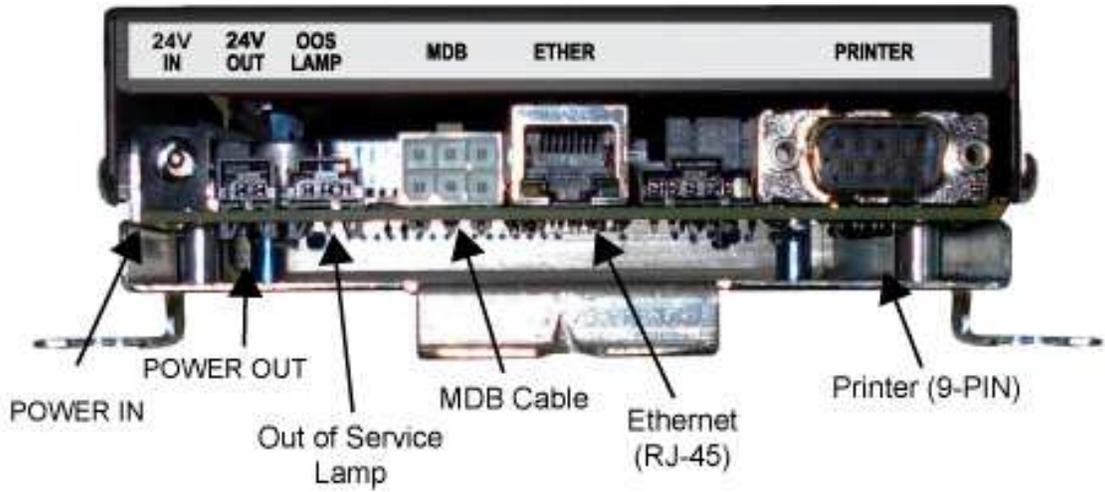
SC Conversion Controller - LEFT SIDE

COINCO   MEI

Coinco/NRI Coin Acc. Connection

MEI Coin Acc. Connection
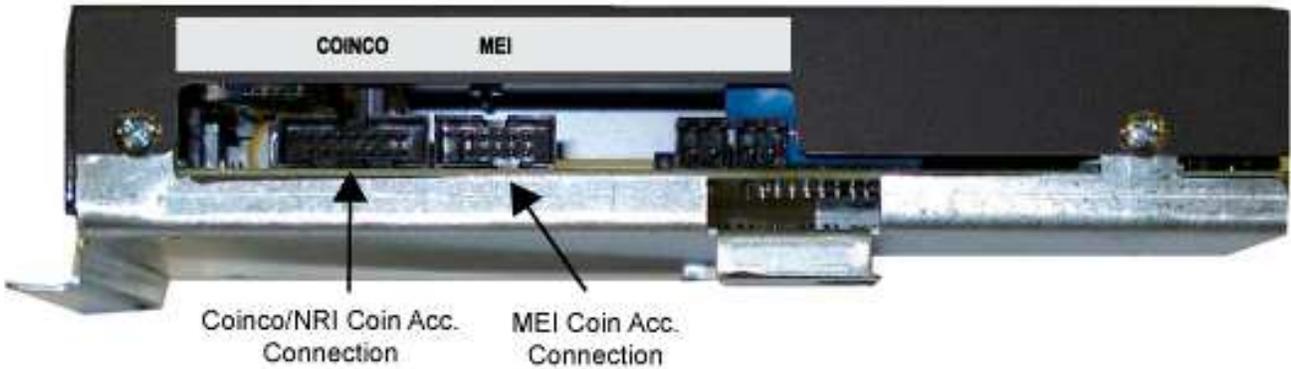
SC Conversion Controller - RIGHT SIDE

| D | C | B | A | 500-E 600 | SYS 500 | SD |

D C B A

Dispenser (Coin Hopper) Connections

System 500-E, System 600-FST, System 600-EF Power Supply Connection

System 500 Power Supply Connection

SD Card Reader
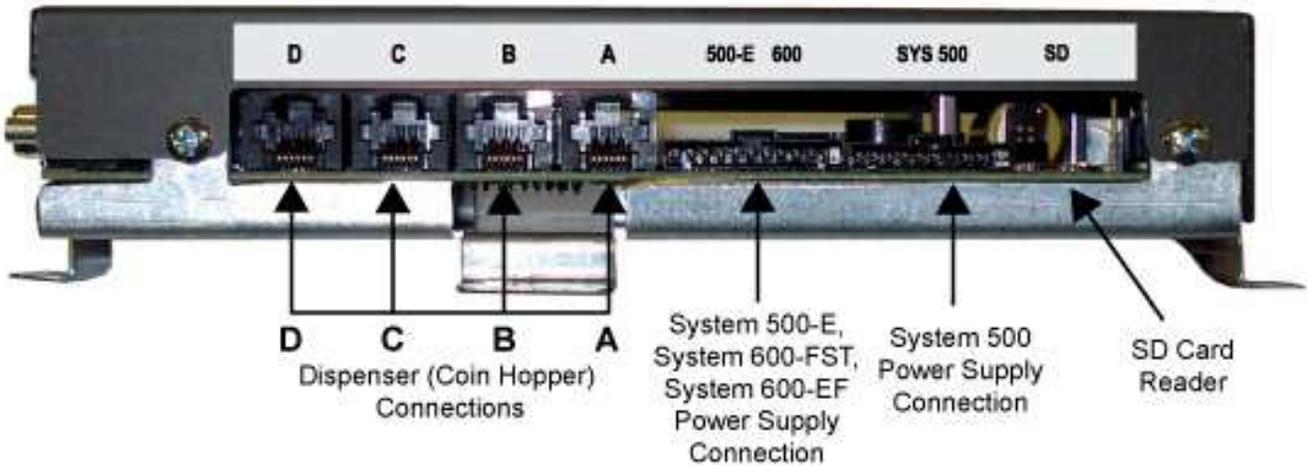
SC Conversion Kit
Connections Chart

*Connect only if replacing the System 500 (Black Back Cover) Bill Acceptor

COIN ACCEPTOR
MEI or NRI / COINCO
(Only if Coin Acceptor installed)

40-Watt Power Supply

LCD DISPLAY   SD

Firmware Updates

COINCO

* Sys500 Comm Cable

Sys500-E, Sys600-FST, Sys600-EF Comm Cable

MEI

Hardwire Connection to 120VAC Electrical

YES   NO

DISP A

DISP B

DISP C

DISP D

COIN HOPPERS (UP TO 4),
NOTE: HOPPER POWER CORDS PLUG INTO POWER SUPPLY PLUG-INS

PWR PWR
IN OUT OOS MDB ETHER PRNTR

Serial Connection for Printer

ETHERNET CABLE TO MODEM/ROUTER

TO HI-SPEED INTERNET ROUTER

POWER SUPPLY

TO MDB-ENABLED BILL ACCEPTOR

OUT OF SERVICE Lamp

PWR OUT connects to a Printer

IMPORTANT NOTE: THE SC CONVERSION CONTROLLER MUST BE PLUGGED INTO THE 120VAC OUTLET IN THE MACHINE.
DO NOT PLUG THE CONTROLLER INTO THE 40-Watt POWER SUPPLY!

Navigating The Available Menus

1. *MAIN MENU ITEMS – Each m*ain menu item relates to either a *Setting* or a *Report* feature.
   a. *Settings* are nothing more than system parameters that can be used to establish the machine behavior. Settings will typically relate to the hardware modules that you have purchased. For example, the "Bills Accepted Settings" menu relates to the bill acceptor and can be used to set the bill denominations to be accepted. As a result you can change the acceptance and security behaviors of the machine.
   b. *Reports* allow you to view records that are stored in the machine. These records are useful for accounting and troubleshooting. See the "Report And Print Features" (section 1.3) for an explanation of the benefits of each report.

2. *GETTING STARTED* - Always start at the "MAIN MENU" screen. Note – you can return to the Main Menu screen at any time by pressing the EXIT button one or more times. Find the desired Setting or Report by pressing the RIGHT (forward) arrow button. To view the previous main menu, item simply press the LEFT (back) arrow. Once you have found the desired setting or report, you can then go *down* into the *Details List* for this item to view additional details related to it. Note – the main menu headings are in CAPS (all capitalized letters).
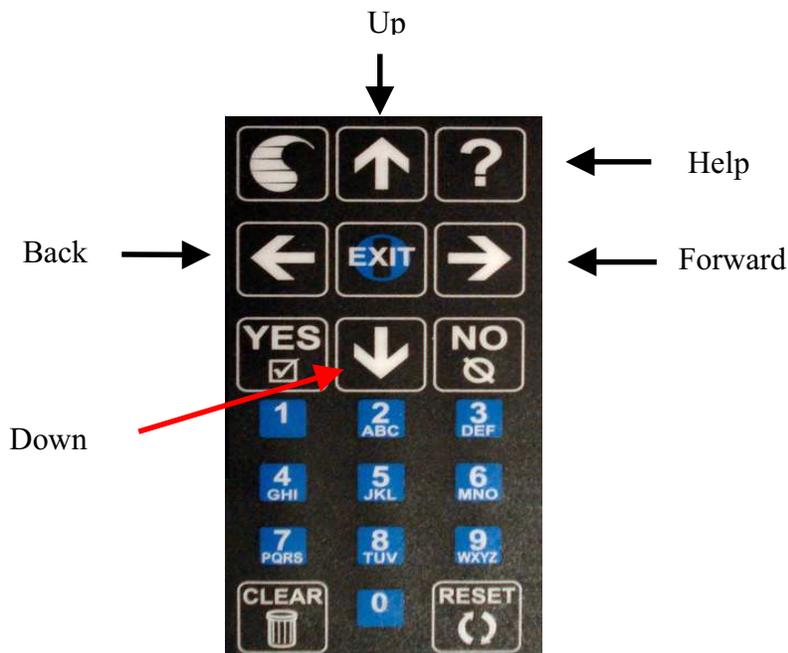
3. *DETAIL LISTS* – The UP and DOWN arrow buttons are used to navigate up and down through the list of details for a given *feature group*. You can move down in the list by pressing the DOWN arrow button. You can move up in the list by pressing the UP arrow button.

   When the end of the list is reached, the following message is displayed: "end of list". At this point you can press either the EXIT or DOWN arrow button to get back to the top of the list.

4. *BUILT IN HELP* – Help screens have been included in the SC Conversion so you no longer need a manual to figure out how to navigate through the available Feature Screens. The help screen for each feature can be viewed at any time by pressing the "?" button. Some help screens will not fit on a single display screen so it may be necessary to press the question-mark button (**?**) a second or third time in order to view the next help screen. The help screens include detailed information that pertains to the feature you are viewing or setting.

5. *ENTERING TEXT* – some *Settings*, for example setting the header information for a transaction receipt, require that you enter text. The text entry process was modeled after the process used in older cell phones, whereby the numeric keypad also doubles as a text keypad. For example: the #2 button is also used to enter the A-B-C text characters, the #3 button is for the D-E-F characters and so on. Use the picture shown here to determine which text characters are associated with the SC Conversion numeric keys. The lower case text characters are also available. To view these you will need to press the associated numeric key multiple times.

6. *DEFINITIONS* – In this manual the words value and type will be used to describe dispensers. Such as a 25¢ coin dispenser. The value is 25¢ and the type is coin. The value can be in nickel increments from 5¢ up to $99.95. The type can be coin or token.

Main Menu Descriptions And Menu Navigation

Following is a list of the features along with a brief description of how each one is used to enhance the operation of the machine. A detailed explanation for each feature along with an explanation for each setting available is also available with the *built in help* feature in the SC Conversion.

Also included in this document is a diagram (flowchart) showing how to step through the detail list for each Menu. Things to remember when using the SC Conversion:

- Pressing the Help button at any time will display help text explaining more about the Menu item you are looking at.
- If the "Clear" button is pressed at the beginning (top) of a Main Menu, the details for that list will be set to the factory defaults if it is a *Setting,* or cleared if it is a *Report*. Example: pressing the Clear button at the beginning of the *Audit Report menu* will clear (set to zero) all audit totals.
- If you lose track of where you are at in the menu, you can return to the Main Menu screen at any time by pressing the EXIT button one or more times.
- Pressing the "right arrow" or "left arrow" button will step you through the feature groups as illustrated below.
- The machine is disabled anytime the menu is at a report or setting menu item. If the machine has been left in a report menu, the menu will be returned to the Main Menu two minutes after the last key was pressed. This is to prevent the machine from inadvertently being left out of service. If the machine is left at a setting menu item, it will remain out of service until manually returned to the Main Menu.

Report and Print Features

REPORTS - The Report features available with the SC Conversion are designed to assist with the accounting (tracking money in and out of the machine) and diagnostics (preventative maintenance and troubleshooting) of the machine. These features are particularly useful in route operations or operations where the machine owner does not collect the revenue or service the machine. A list of the reports available and a brief description of the benefits for each are shown below.

- **Perpetual Audit**- can be viewed in detail format or printed in detail or summary format. This audit CANNOT be cleared and therefore is useful in identifying discrepancies in the Resettable Audit.

- **Resettable Audit**- can be viewed in detail format or printed in detail or summary format. This audit can be cleared therefore it is useful in identifying the amount of revenue that was present since the last time the machine revenue was removed. Ideal for daily or weekly route services.

- **Accept Report** – can be viewed or printed. This report will show the last 50 bills or coins accepted and when they were accepted. This is useful in settling disputes with users who think they deposited a larger bill denomination than they actually did. This occurrence has become more common with the introduction of new bill designs that look similar at first glance.

- **Event Report** – can be viewed or printed. This report includes a time stamp for any significant events (errors, transfers…) that have occurred. It is useful in diagnosing the source of defective modules or for identifying modules that need preventative maintenance.

PRINTED REPORTS - Printed copies of the audit and diagnostic reports can be used to track the flow of money through the machine. For example, a printed copy of the audit can be returned with the collected revenue each time the machine is serviced. The printed report will include an itemized total of all money deposited/dispensed, as well as a time/date stamp showing when the report was printed.
Printed reports are also useful in determining when preventative maintenance is needed. For example, a printed copy of the Event Report (error report) can be obtained by the person collecting the revenue and then submitted to a technical person for early failure analysis. This report identifies any significant machine events that can contribute to an error and each *event* is time/date stamped.

PRINTING FEATURES – The printing of reports is made simple and *quick* using the printing features of the SC Conversion. For a complete list of the printing features available, step through the "Printer Settings" menu of the SC Conversion in section 1.14. One example of a handy feature is the *Quick Print* feature. This feature allows you to group a set of reports that can to be printed all at once each time a single button on the keypad is pressed; the Zero (0) button

PRINTER OPTIONS – The *Printer* option kit can be purchased and used with any MC machine model. Some machine models, primarily those with Credit Card acceptance capability, can include a *Printer*. This printer is also capable of printing reports in addition to printing a customer transaction receipt.

Navigating The Main Menu List

Important Note – some Main Menu items may not be available based on the configuration of your machine. For example, if you do not have a coin acceptor, Coin Vend Settings will not be present. These menu items apply to a basic changer configuration.

MAIN MENU ITEMS

```
                          ACCEPT
                          REPORT

CONFIGURATION                              AUDIT REPORT
   REPORT

OTHER SETTINGS                             DISPENSER
                                           SETTINGS

 DISPENSER                                BILLS ACCEPTED
ALERT SETTINGS                              SETTINGS
                                             Note 2

   EMAIL                                  ACCUMULATE
  SETTINGS                               VEND SETTINGS

PRINTER REPORTS                           COIN VEND
                                           SETTINGS
                                            Note 1

PRINTER SETTINGS                          BILL VEND
                                          SETTINGS
                                           Note 2

        FAST VEND           EVENT
        SETTINGS            REPORT
         Note 2
```
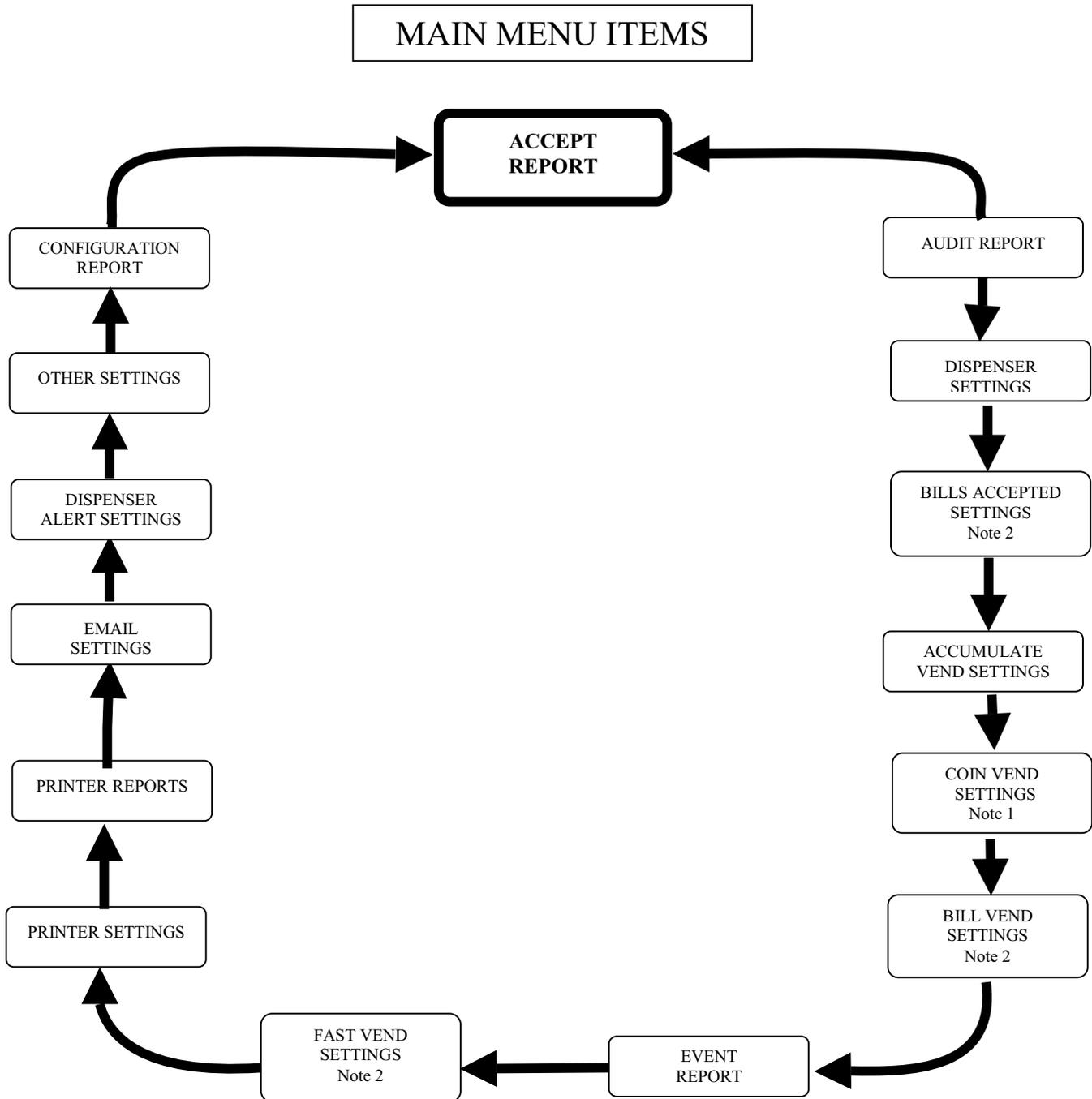
Note 1: Coin acceptor is always assumed to be there.
Note 2: If bill acceptor is in machine.

Accept Report

Use this menu to view a list of the most recent bills and coins accepted, in the order they were accepted, and with the time and date they were accepted. This list will store up to 50 bill and coin deposits. The most recent deposit will be first in the list.

This information can also be printed if an optional printer was purchased with the machine

```
        ACCEPT REPORT

      1.  bill acc.-A
             5 dollar          } This denomination
                                 accepted.  Please see the
      1.  07-19-05  TUE          next screen for time and
             11:13:09            date.

      2.  bill acc.-A
             dollar

      2.  07-19-05  TUE
             11:12:59

      Additional report items

          end of the
        accept report
```
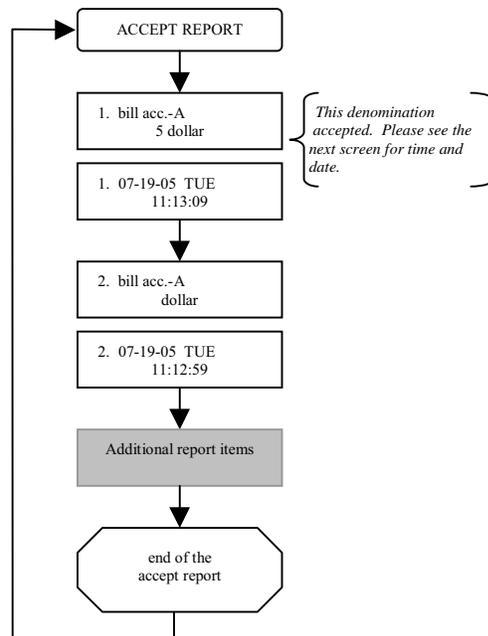
Audit Report

Use this menu to view or print a list of all revenues accepted and dispensed. A resettable and a perpetual audit are available. If you select the perpetual audit a "P)" will be displayed at the left side of the display as a reminder.


```
/------------------------------\
| DETAIL AUDIT                 |
| location id 0                |
| 5/4/16 THU 3:20 PM           |
\------------------------------/
last cleared on
5/4/16 THU 9:55 AM

revenue in=$0.00
coins in = $0.00
 5c coins = 0
10c coins = 0
25c coins = 0
 $1 coins = 0
bills in = $1.00
  $1 bills = 1
  $2 bills = 0
  $5 bills = 0
  $10 bills = 0
  $20 bills = 0
  $50 bills = 0
  $100 bills = 0

revenue out
  25c coins-A = 4

UNPAID
--------------------------------


/------------------------------\
| END OF REPORT                |
\------------------------------/
```

The resettable and perpetual audits will roll over at 10,000 for amounts or counts and $100,000 for values or money.

The count rollover is 10,000. This is for anything we are counting, like the number of quarters dispensed or the number of $5 bills accepted.
The value rollover is $100,000. This is for anything that is money. The value of revenue in for example. Each number rolls over on its' own. As an example if you have a quarter dispenser and accept only $20 bills. The quarter count will rollover long before the $20 bill count. 10,000 x $20 = $200,000. The value would have rolled over twice before the quarter count reached 10,000.

This information can also be printed if an optional printer was purchased with the machine

Dispenser Settings

Used to set the value and type of dispenser. All of these settings can be accessed even if a dispenser is not connected.

1.1.1 Dispenser Type

By default this is set to coin for making change. You can mix coins and tokens and control the dispense. As an example you can dispense one 25c token and three quarters for one dollar.

1.1.2 Dispenser Value

If a value is zero the dispenser is ignored. The dispenser has to have a value to be used. If the dispenser has a value and it is not connected the dispenser will be soldout and have an overpay error.

1.1.3 Dispenser Dump

Press YES if you want to dump the dispenser. The dispenser must be sold out to be able to dump.

Bills Accepted Settings

Use this menu to set the bill denominations that are to be accepted as well as the validation security level (high or low) applied to each during validation.

Accumulate Vend Settings

This feature allows one *optional* dispense setting in addition to the dispense settings associated to each bill denomination. Use this menu to set an amount (any amount) the machine should accumulate to, before it will vend. The amount to be vended when this level is reached is also set here.

Note – this setting is optional.

A typical use for this setting is for "accumulating" to 25 cents (2 dimes and a nickel) before vending a quarter or token valued at a quarter.

ACCUMULATE
VEND SETTINGS

accum vend
value $0.25

Pressing the help button (?) will show you "The value to accumulate to for a programmable dispense."

$0.25 in → 25¢
coin out = 1

accum override?
no

Do you want the programming of an accepted coin or bill to override the programming of an accumulate already in progress?

end of
accum settings
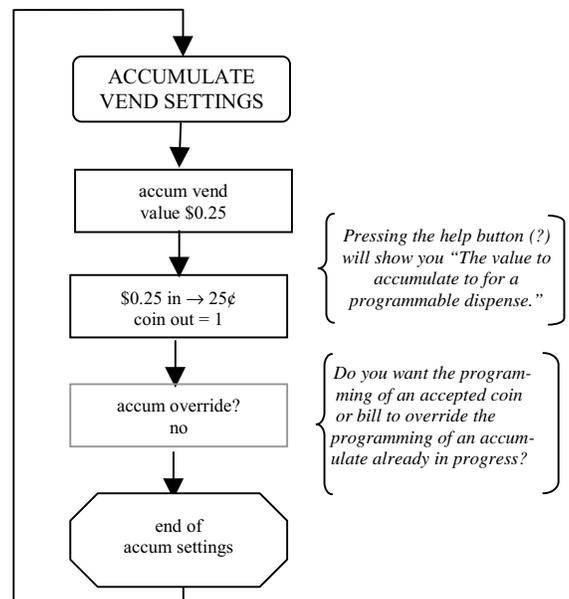
Coin Vend Settings

Use this menu to set the amount to be vended for each coin accepted through the Coin Acceptor. This is useful if you want to override *Make Best Change* (section 1.19.7). Examples would be if for a dollar coin you want to dispense five nickels and three quarters or for a quarter to dispense three nickels and one dime.

```
        COIN VEND
        SETTINGS
            │
            ▼
      25¢ in → 25¢
      coin out = 0
            │
            ▼
       $1 in → 25¢
      coin out = 0
            │
            ▼
    Additional setting
         items
            │
            ▼
      end of coin
     vend settings
```

Pressing the help button (?) will show you "Enter the quantity to dispense from this value of dispenser."
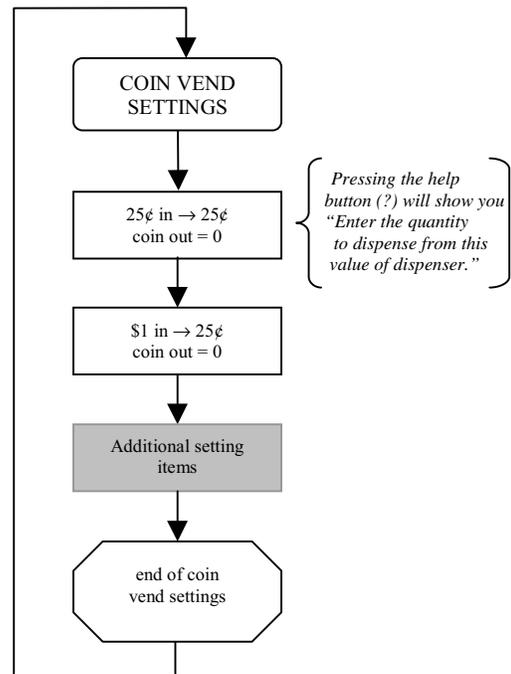
Bill Vend Settings

Use this menu to set the amount to be vended for each bill accepted by the Bill Acceptor. This is useful if you want to override *Make Best Change* (section 1.19.7).

```
        BILL VEND
        SETTINGS
            │
            ▼
       $1 in → 25¢
      coin out = 4
            │
            ▼
       $2 in → 25¢
      coin out = 0
            │
            ▼
    Additional setting
         items
            │
            ▼
      end of bill
     vend settings
```

Pressing the help button (?) will show you "Enter the quantity to dispense from this value of dispenser."
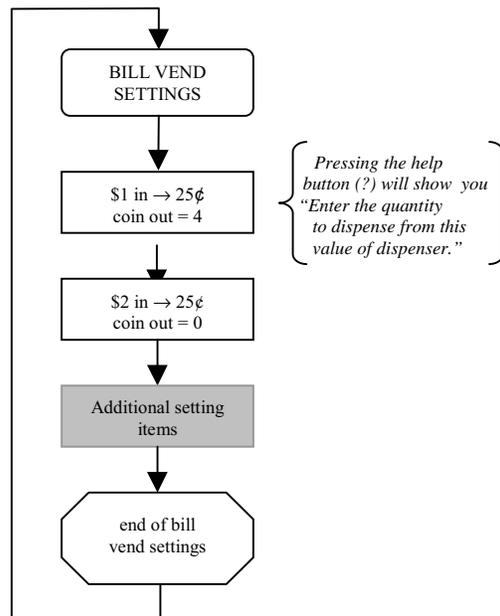
Event Report

Use this menu to view or print a historical list of events (errors, resets, and clears) that have occurred in the machine. Events are listed in the order they occurred with most recent listed first. Up to 50 events can be stored in memory along with the time and date stamp for each.

This information can also be printed if an optional printer was purchased with the machine.

```
        ┌──────────────┐
        │    EVENT     │
        │    REPORT    │
        └──────┬───────┘
               ▼
        ┌──────────────┐        Pressing the help button (?)
        │  Number of   │        will show you "The number
        │  events = 5  │        of events in this list".
        └──────┬───────┘
               ▼
        ┌──────────────┐
        │ 1.  bill acc. - A │
        │      bill acc.    │
        └──────────────┘       No help is available
        ┌──────────────┐       on this topic.
        │ 1. 07-19-05  TUE │
        │     13:58:19     │
        └──────┬───────┘
               ▼
        ┌──────────────┐
        │ 2.  EF module - EF │
        │      bill acc.     │
        └──────────────┘       No help is available
        ┌──────────────┐       on this topic.
        │ 2.  07-19-05 TUE │
        │     11:16:07     │
        └──────┬───────┘
               ▼
        ┌──────────────┐
        │ Additional report items │
        └──────┬───────┘
               ▼
        ┌──────────────┐
        │   end of the  │
        │  event report │
        └──────────────┘
```
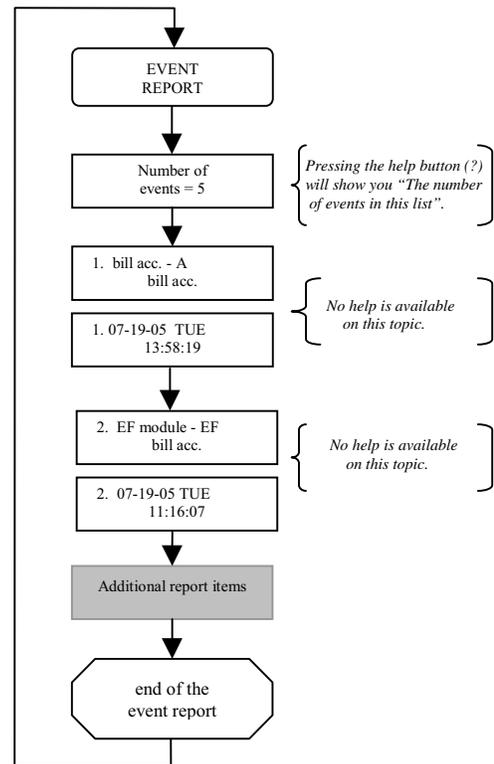
Fast Vend Settings

The machine is equipped with a feature that can detect unusual and excessive activity, usually indicative of fraudulent activity. This feature is called *Fast Vend Shut Off*. The machine will detect that the frequency of use is unusually high for a pre-determined period of time, and shut itself down for enough time to deter the thief. See the following paragraphs to learn how to set the number of deposits allowed, the time period they are allowed in, and the time the machine will be shut off if this feature is activated.

1.1.5   Bill Fast Vend Settings

This is used to restrict machine usage to normal bill transaction amounts in a given time period. The primary benefit of this feature is in the added protection against stringing should the bill acceptor stringing detection devices become defeated. This feature allows you to set the "normal" amount of bills of each type that are accepted in a given time period. If this usage pattern is exceeded the machine will shut down and stay off-line until the reset button is pressed or until the Error Time Out lapses. See OTHER SETTINGS for a description of this feature and how to set it.

Default Fast Vend Settings

USA		
Value	Quantity	Time
$1	45	15
$2	45	15
$5	20	15
$10	10	15
$20	5	15
$50	2	15
$100	2	15

Canada		
Value	Quantity	Time
$5	20	15
$10	10	15
$20	5	15
$50	2	15
$100	2	15

Mexico		
Value	Quantity	Time
$20	20	15
$50	10	15
$100	5	15
$200	2	15
$500	2	15

FAST VEND SETTINGS

update the bill fast vend? → Number of $1 45 quantity

Time for $1 15 minutes

Additional setting items

end of the fast vend settings
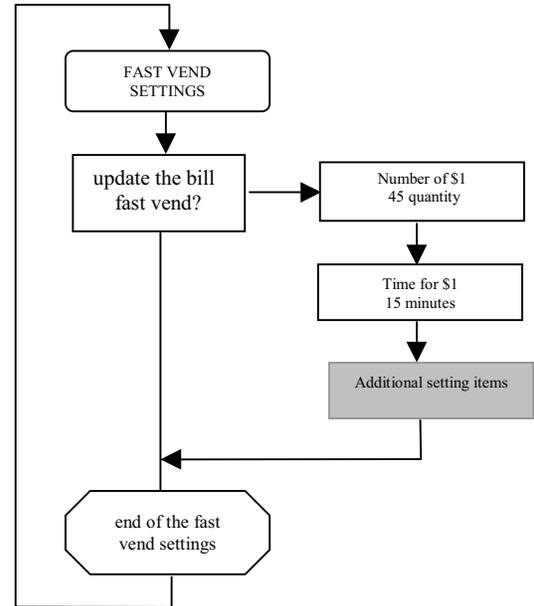
Printer Settings

Use this menu to configure the printer connected to the machine, format the receipt header and footer text. There are portable audit printers and receipt and audit printers available.

Printer Used – Select the model of the printer that you have connected to your machine.

Print a receipt – You can choose one of the following settings.
1. *always* – Print a receipt after all transactions.
2. *never* – Do not print a receipt after transactions.
3. *prompt* – The machine will ask if a customer would like a printed receipt.

Receipt Type – This decides the type of transaction that you want to print a receipt for. Normally you would select credit only. You can select to print a receipt for cash only or both.
1. *credit only*
2. *cash only*
3. *cash & credit*

Formatting Transaction Receipts – You can customize the header and footer on your receipt. The header area is typically used to identify your business location. The footer is typically used for printing a "Thank You" to the patron. See the directions at the beginning of this document for a reminder regarding the process for "Entering Text". See appendix A for a worksheet.

Quick Print Settings – This feature allows you to group multiple reports so they can be printed all at the same time whenever certain events such as the zero (0) button on the keypad is pressed or when the door of the machine being opened (optional Door Opened switch kit required). This saves time as each report does not have to be printed separately and only one event triggers the printing process.

This feature will also ask you if you want to clear the Quick Print reports after printing.

If you do not have an optional printer in your machine, you can send a report using the "Quick Email Reports" as described in section 1.19.7.

Printer Reports

Use this menu to print individual reports. To print a report press YES when prompted.
After each report has successfully printed you will be asked if you would like to clear the corresponding report.

View the list of available reports by stepping through this menu.
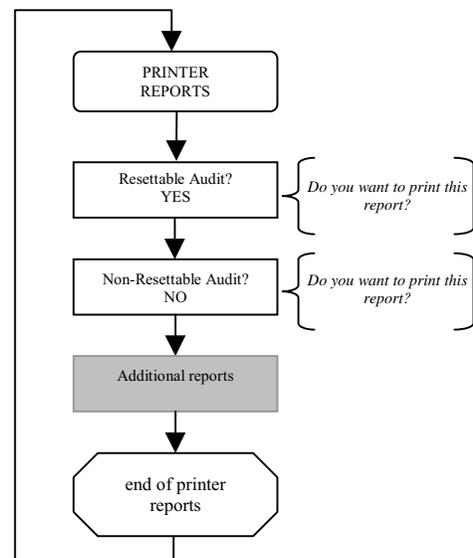
Credit Settings

Use this menu to configure credit card fees when using an MDB credit card system.

1.1.6   Credit Card Tax

If you are required to collect tax on credit card purchases then enter the percentage her.

1.1.7   Card Swipe Fee

Enter the cost of swiping a credit card.

1.1.8   Card Trans Fee

Enter percentage for the card transaction fee.

Email Settings

EMAIL SETTINGS can be found near OTHER SETTINGS. You can enter up to six email recipients to receive reports and alerts. All reports are sent at the same time. You can receive alerts and reports on your smart phone. The reports will be more useful and readable if received on a computer. It is important that the SC Conversion is connected to a router so that it can acquire an IP address. The IP address can be viewed in the CONFIGURATION REPORT.

The email settings can be protected from edit and/or viewing by using a PIN. PINs are described in OTHER SETTINGS.

Select the account you wish to edit. They can be in any order. Reports and alerts are sent out starting with Recipient 1 and ends with Recipient 6.

```
┌─────────────┐
│    EMAIL    │
│  SETTINGS?  │
└─────────────┘
       │
       │              Y      ┌─────────────────┐
┌─────────────┐─────────────│   enter name    │
│edit account?│             │   Recipient 1   │
│ Recipient 1 │             └─────────────────┘
└─────────────┘                      │
       │                             │
       │                    ┌─────────────────────┐
┌─────────────┐             │  Recipient 1 Address│
│edit account?│             │  name@domain.com    │
│ Recipient 2 │             └─────────────────────┘
└─────────────┘                      │
       ┊                             │
       ┊                    ┌─────────────────┐
       ┊                    │  send test alert│
       ┊                    │  to Recipient 1 │
       ┊                    └─────────────────┘
       ┊                             │
┌─────────────┐             ┌─────────────────┐   Y    ┌──────────────────┐
│edit account?│             │ edit Recipient 1│────────│  machine offline │
│ Recipient 6 │             │     alerts?     │        │  send email? NO  │
└─────────────┘             └─────────────────┘        └──────────────────┘
       │                                                        │
       │                                               ┌──────────────────┐
       │                                               │  machine soldout │
       │                                               │  send email? NO  │
       │                                               └──────────────────┘
       │                                                        ┊
       │                                               ┌──────────────────┐
       │                                               │ card system comm.│
       │                                               │  send email? NO  │
       │                                               └──────────────────┘
       │
       │              ┌─────────────────┐   Y    ┌──────────────────┐
       │              │ edit Recipient 1│────────│  resettable audit│
       │              │     reports?    │        │  send email? NO  │
       │              └─────────────────┘        └──────────────────┘
       │                      │                           │
       │                      │                  ┌──────────────────┐
       │                      │                  │  perpetual audit │
       │                      │                  │  send email? NO  │
       │              ┌───────────────┐          └──────────────────┘
       │              │ enable account│                  ┊
       │              │      NO       │         ┌────────────────────┐
       │              └───────────────┘         │ Perpetual Door audit│
       │                                        │  send email? NO    │
       ▼                                        └────────────────────┘
```

```
                    ↑
                    |
    ┌─────────────────┐   Y    ┌─────────────────────┐
    │   edit report   ├────────┤  send all reports on │
    │   Send time?    │        │  <    Everyday     > │
    └────────┬────────┘        └──────────┬──────────┘
             │                            │
    ┌────────┴────────┐        ┌──────────┴──────────┐
    │  send service   │        │  send all reports at │
    │  reports now?   │        │   (h:m) 11:00 PM     │
    └────────┬────────┘        └──────────┬──────────┘
             │                            │
    ┌────────┴────────┐        ┌──────────┴──────────┐
    │   print email   │        │   clear all reports  │
    │ settings report?│        │   after send? NO     │
    └────────┬────────┘        └─────────────────────┘
             │
    ┌────────┴────────┐
    │   end of email  │
    │ settings report │
    └─────────────────┘
```

1.1.9 Recipient

Name - You can change the name from the generic "Recipient X" to a more recognizable name. This is only for your reference and it is not necessary for sending an email.

Address - Enter the email address to receive the reports and alerts. If you want to send reports or alerts to your smart phone as a text message please see the Free Email to SMS Gateways (section 1.19.8). The '@' can be entered by pressing the zero key multiple times.

Test Alert – By pressing the YES button you will send a test alert to the email address you entered in the previous step. Please watch the emailing process to ensure that the email was sent correctly. As long as the address resembles name@domain.extension and you have a good connection the email will be successful so check your spelling. If there is an error make a note of the error message. Some of the possible errors are listed below.

1.1.10 Alerts

All alerts default to NO. If you wish to receive an alert press the YES button. You will receive the alert when the condition is activated and an alert when the condition is deactivated, if the deactivated is possible.

Machine offline – Offline is sent if the SC Conversion has an error that prevents it from operating. Accessing the Main Menu will put the machine offline. Online is sent when the error causing the offline goes away.

Machine Sold Out – Machine Sold Out Active is sent if when the machine is sold out.

Machine Error – Machine Error Active is sent when the machine is in error.

Door Status – Sent when the door switch is opened and when it is closed. If the door is opened within 5 minutes of closing it is seen as the same door open. A door switch kit can be connected at J6.

Reset Pressed – Sent if the reset button on the SC Conversion is pressed.

Power Returned – Sent when power returns to the SC Conversion.

Printer Error – Sent when the printer runs out of paper.

Fast Vend – This will send an alert if the Bill Fast Vend levels are exceeded. A Bill Fast Vend error will take the SC Conversion Out Of Service and will require a reset to remove the error. The Bill Fast Vend levels can be changed in "CARD AND BILL FAST VEND SETTINGS".

Dispenser Alert – Sent if a dispenser alert occurs. These are set in the DISPENSER ALERT SETTINGS.

Card System Communication - "card system communication bad" is sent if communication is lost to the card system. "card system communication good" is sent when communication returns.

1.1.11 Reports

The sending of reports default to NO. If you wish to receive a report press the YES button (number 9). The reports being sent are the same as the reports viewed and printed at the SC Conversion.

Resettable Audit – This is the same summary audit that can be viewed or printed at the SC Conversion. If the report is cleared at the SC Conversion then the report that you receive will be cleared.

Perpetual Audit – This is the same summary audit that can be viewed or printed at the SC Conversion. This can only be cleared at the factory. Eventually the numbers will rollover at 10,000. You will have to do the math accordingly.

Door Audit, resettable – This is a snapshot of the resettable audit and is sent only when the door is opened. If the report is cleared at the SC Conversion then the report that you receive will be cleared. This is not sent with the other reports.

Door Audit, perpetual – This is a snapshot of the perpetual audit and is sent only when the door is opened. This is not sent with the other reports.

1.1.12 Enable Account

Please enable the account to receive any of the reports and alerts that you have set. If not enabled reports and alerts will not be sent to this account. The account can be disabled when they are on vacation. Disabling the account will not change any of the settings in the account.

1.1.13 Report Send Time

It is necessary that the SC Conversion has power at the time the reports are to be sent. If the SC Conversion does not have power during the Report Send Time you will not receive your reports. It is

also necessary that the SC Conversion time is set correctly if you are to receive your reports when you expect them. Please see "update the time?" in OTHER SETTINGS to set the correct time.

Day – Select the day of the week to send the reports. If "None" is selected no reports will be sent. This can be useful if you only want to send reports using the Quick Email Report described below. "Everyday" is the selection to choose if you want to receive reports seven days a week.

Time – Enter the time of the day that you want to send the reports. It is recommended that the reports go out after closing. The time is a 12-hour clock. Pressing any numeric button while the cursor is under the A in AM or the P in PM will cause it to toggle.

Clear All Reports – After the reports are sent the reports that were sent and that can be cleared will be cleared at the SC Conversion. This will also affect anybody viewing or printing the reports at the SC Conversion.

1.1.14 Send Service Reports

This is a built in feature that will email the needed reports to the service department so they can help you with your problem. The problem could be something other than an email problem. Please contact the service department about your problem. They will not contact you upon receipt of the email. It also helps to have a location ID entered in OTHER SETTINGS so the reports can be identified.

1.1.15 Quick Email Reports

Similar to the Quick Print Settings this allows the owner to force sending the reports selected in EMAIL SETTINGS to the recipients by pressing the one (1) button at the Main Menu. After sending is complete you will be asked if you want to clear the reports.

1.1.16 Free Email To SMS Gateways (Major US Carriers)

Text messaging rates would apply. Note: These are examples and if they do not work please contact your cell service provider.

Alltel
[10-digit phone number]@message.alltel.com
Example: 1234567890@message.alltel.com

AT&T (formerly Cingular)
[10-digit phone number]@txt.att.net
[10-digit phone number]@mms.att.net (MMS)
 [10-digit phone number]@cingularme.com
Example: 1234567890@txt.att.net

Boost Mobile
[10-digit phone number]@myboostmobile.com
Example: 1234567890@myboostmobile.com

Nextel (now Sprint Nextel)
[10-digit telephone number]@messaging.nextel.com
Example: 1234567890@messaging.nextel.com

Sprint PCS (now Sprint Nextel)
[10-digit phone number]@messaging.sprintpcs.com
[10-digit phone number]@pm.sprint.com (MMS)
Example: 1234567890@messaging.sprintpcs.com

T-Mobile
[10-digit phone number]@tmomail.net
Example: 1234567890@tmomail.net

US Cellular
[10-digit phone number]email.uscc.net (SMS)
[10-digit phone number]@mms.uscc.net (MMS)
Example: 1234567890@email.uscc.net

Verizon
[10-digit phone number]@vtext.com
[10-digit phone number]@vzwpix.com (MMS)
Example: 1234567890@vtext.com

Virgin Mobile USA
[10-digit phone number]@vmobl.com
Example: 1234567890@vmobl.com

1.1.17 Steps in sending an email

"REPORT SENDING" – connecting and sending a report
"SUCCESS EMAIL SENT" – the email was sent to the server

1.1.18 SMTP Error codes

These are some of the possible errors that could be returned by our server and displayed if an error occurs.

CONNECTION NO SERVER
CONNECT FAILED – Could not connect to the network.
SERVER TIMEOUT - SMTP Server response has timed out, and hence the SMTP client has aborted the operation. The email has not been sent.
OPERATION FAILED - Protocol error occurred while sending email. The email has not been sent.

1.1.19 Troubleshooting email

- If there is an SC Conversion IP address in the Configuration Report of 169.254.xxx.xxx email will not work. The SC Conversion is set to automatically obtain an IP address and if you receive one of these addresses, the SC Conversion cannot find a DHCP server within the network subnet.
- You will receive a "No server Ack" if there is not an ethernet connection.
- Check the Ethernet cable and connections to make sure they are crimped properly.

Dispenser Alert Settings

These settings allow you to display a count down of the number of items left and/or send an email alert if the number of items left is less than the alert level. The settings are for each individual dispenser in the machine. This can be useful if you want an advanced notice before a dispenser goes soldout. If you want an email alert this requires that you set up dispenser alerts in EMAIL SETTINGS.

1.1.20 Dispenser Fill Level

Enter the fill level. This is the number of items that the dispenser holds after you fill it. If the total number of quarters in the dispenser is 2000, Dispenser Fill Level = 2000.

1.1.21 Dispenser Alert Level

Enter the alert level. This is the number of items still in the dispenser at which you want an email warning you that the dispenser will soon go soldout. Dispenser Alert Level = 500.

1.1.22 Reset Dispenser Count

This is a YES/NO question. YES will reset the count back to the original fill level. This should be done every time you top the dispenser off to the fill level.

Note: This alert is only as good as the accuracy at which you refill the dispenser.

As an example: you fill your 25¢ coin dispenser A with 2000 ($500) coins. That is the total number of coins in the dispenser. The *Dispenser Fill Level* should be 2000. You set the *Dispenser Alert Level* to 500. After the dispenser has dispensed 1500 coins the machine will email a dispenser alert (if you have setup emailing a dispenser alert in EMAIL SETTINGS). This can be done because the dispenser is counting the coins that are being dispensed and it knows when it reaches the alert level. The more accurate your *Dispenser Fill Level* is the more accurate the dispenser alert will be. When you top off the dispenser to 2000 coins you would *Clear Dispenser Count* to the *Dispenser Fill Level* (2000).

1.1.23 Display Dispense Amounts

Entering YES will display the live dispenser counts on the SC Conversion display all of the time along with any machine errors. The machine will rotate though each dispenser that has a fill level entered. It is not necessary to display the dispense amount to receive a dispenser alert.

Other Settings

This feature group is where all miscellaneous settings are located. Below is a list of each one.

1.1.24 Language

Set the language (English, French, and Spanish) displayed on the internal SC Conversion display.

1.1.25 Machine Type

This is used to identify if this machine has a credit card system. The default setting used in most machines is the basic *Change* Machine type.

1.1.26 Error Time Out

This feature allows the machine to automatically reset from certain error types; at this time the Error Time Out only applies to Fast Vend Shutoff and a Stringing Detected Error, error conditions. For these errors the machine will be automatically reset following the time period in minutes you entered.

```
                    ┌──────────────┐
                    │    OTHER     │
                    │   SETTINGS   │
                    └──────────────┘
                           │
                    ┌──────────────┐      Pressing the help
                    │   Language   │      button (?) will show
                    │   English    │      you "Please select a
                    └──────────────┘      language."
                           │
                    ┌──────────────┐      A machine that
                    │ Machine type │      dispenses based on the
                    │   changer    │      bill or coin deposited.
                    └──────────────┘
                    ┌──────────────┐
                    │ Error timeout│
                    │      15      │
                    └──────────────┘
                    ┌──────────────┐      The machine will stay in
                    │ Disp Transfer│      service as long as one of
                    │  Method less │      lowest valued dispensers
                    └──────────────┘      is available.
                           │
                    ┌──────────────────┐
                    │ Additional report│
                    │      items       │
                    └──────────────────┘
                           │
                    ┌──────────────┐
                    │   end of     │
                    │ other settings│
                    └──────────────┘
```

1.1.27 Hold Escrow

During a coin accumulation through the coin acceptor (example: 2 dimes + 1 nickel = quarter payout) a customer may deposit three dimes and receive one quarter. If a five-cent hopper is not available in the machine, an escrow (unpaid balance) of 5 cents is present. This feature allows you to clear this escrow amount or simply "Hold" it and add the amount to the next deposit. Enter YES if you want to "Hold" it.

1.1.28 Dispenser Transfer

The term "transfer" refers to the machines ability to "transfer" an owed amount from a dispenser that is in error or is empty, to another dispenser in the machine. The primary purpose of the dispenser transfer feature is to keep the machine on-line even if it has to adjust the payouts.

There are four different transfer modes available with your machine:

method always – transfer to a any dispenser available
method none – do not transfer
method equal – only transfer between dispensers of the same type and value
method less – transfer to any dispenser of the same or lesser value.

It is important to note that these transfer features will only transfer dispense amounts between "like type" dispensers. The dispenser types are: *Change* (coin or bill*)* and *Token.* Example: An amount owed from a *Change* (type) dispenser cannot be transferred to a *Token* dispenser. It can only be transferred to another Change hopper.

Note: The Transfer Always mode differs from the others in that it has the ability to disable individual bill acceptance. It will transfer unpaid balances to higher valued dispensers if necessary and will disable acceptance of bills that it can no longer make change for. All other transfer modes will shut the entire machine down if it cannot make change for all bills it is capable of accepting.
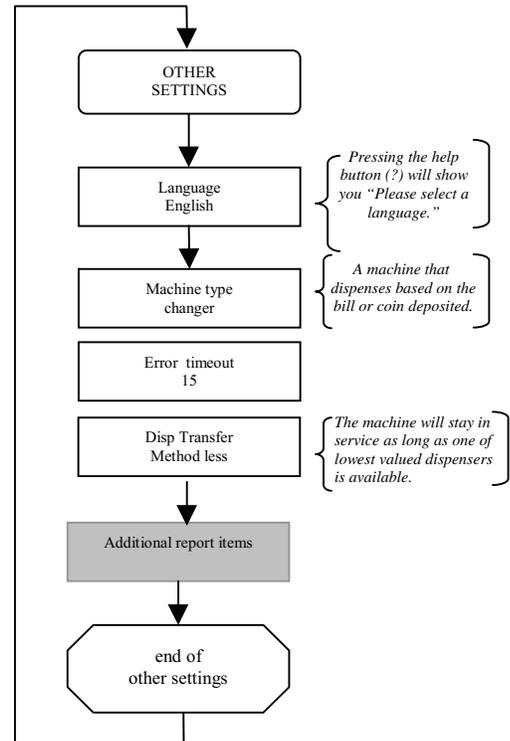
- **Maximum Dispense Rule** – this rule is used in conjunction with the *transfer always* feature to disable accepting certain bill denominations in order to avoid giving out large quantities of small denomination coins or bills. In other words, even if a lower valued dispenser exists, the owner does not wish to accept the bill and end up giving the user to many coins or bills. An example of this would be if the owner does not want to give a user $20 worth of dimes in the event that the dime dispenser is the only one still in service. In this case the max dispense rule for the dime dispenser would be set to a small number. Additional machine signage or the optional "dispenser not available when lit" kit is recommended in order to let the user know why their bill deposit is being rejected.

1.1.29 Expanded Programming

This feature is intended for advance users only and for very unique machine operating requirements. We strongly recommend that this feature not be activated.

1.1.30 Make Best Change

Used to reduce the amount of programming. This feature is the machine's default capability to complete a transaction by making the "best change" for the bill or coin accepted with the available dispensers that are functioning properly. For example: if you are issuing quarters then the machine can easily figure out how many to give out for each bill; no need to program the dispense for every bill. We strongly recommend this setting remain YES to avoid programming errors that could result in mis-pays.

1.1.31 Use the *"value"* *"type"* dispenser?

An example would be "Use the 25¢ coin dispenser?" You can choose which value and type of dispenser to use to Make Best Change. The "value" and "type" will be filled in for each cash dispenser that you have.

1.1.32 Update the Time

1. set the current date
2. set the day of the week
3. set the time along with AM or PM
   If you have an internet connection you can have the SC Conversion check it's time.
4. Select the time zone. This will be set to Eastern Time Zone at the factory.
5. Select if you are using Daylight Savings by entering YES or NO. This is the only setting you will have to update when Daylight Savings changes.
6. Next enable the internet time check for automatic time updates.

1.1.33 Update Sleep Settings

This setting allows you to automatically place the machine in a sleep mode (inhibit) during periods of the day when you do not want it to be used or when it is not supposed to be used. One start time and sleep duration time setting is available for each day of the week.

1.1.34 Update PIN Settings

Used to control access to certain feature groups based on a PIN identification number. This feature is used primarily when non-machine owners will have access to the machine. You will be required to enter a Master PIN, which allows you complete access. Next you could enter up to six secondary PINs. With each secondary PIN you can allow read and write, only read or no access at all to each Main Menu feature. Once a PIN has been entered the user will be required to enter a PIN for any

access to the menu. A PIN of 0000 (the default) removes that PIN. There must be a Master PIN to have a secondary PIN.

1.1.35 Location ID

This setting is used to set a unique identifier for each machine. This number will show up on all printed reports and emails to help identify the location of the machine. The default is 0.

1.1.36 Disable if coin errored?

If YES the machine will go offline if the coin acceptor has an error. If no the machine will continue to operate if the coin acceptor has an error. This is only useful with an MDB coin acceptor.

1.1.37 Disable if bill errored?

If YES the machine will go offline if the bill acceptor has an error. If no the machine will continue to operate if the bill acceptor has an error.

Configuration Report

It allows you to view the software version for the SC Conversion program. The type and value of each dispenser will be found here. If there is an internet connection the IP address and subnet mask will be displayed here. This feature is useful for troubleshooting.

CONFIGURATION REPORT

SC Conv. -EF
EF 01.079

Coin disp. -A
25¢ v 1.079

Pressing the help button (?) will show you "The top line is the type of dispenser and location.

Bill acc. –A
USA

The top line is the location. The bottom line is the country.

end of configuration
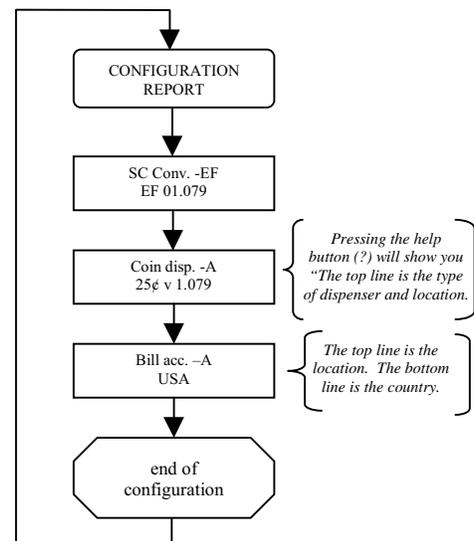
2.0 ERROR CONDITIONS

ERROR CONDITION OVERVIEW - Error conditions that occur in the machine will be shown on the SC Conversion display. Error conditions can either be "Soft Errors" which are errors that <u>DO NOT</u> result in the machine going out of service, or "Hard Errors" which are errors that <u>DO</u> cause the machine to be placed out of service. All displayed errors (except *Sold Out, Hardware Added, and Hardware Removed*) will be stored in the Error Report for viewing. The hardware added and hardware removed errors mean that a dispenser has been added or removed. Anytime either of these errors occur, be sure to check ALL vend settings for the correct desired payouts.

BUILT IN HELP – Help information has been included in the SC Conversion to reduce the need to have a paper copy of the owner's manual readily available. This information can be viewed by pressing the Help (**?**) button while viewing an error message. If this additional information is not

available in the version of software currently installed in your SC Conversion, see the printed version of **"Error Help Text"** shown below in this document.

RESETTING ERROR CONDITIONS - Error conditions can be cleared by first resolving the *error cause,* and then pressing the button labeled "RESET" to erase the error message from the display. To determine the *error cause* you must first identify the device that is in error. The device in error is shown on the top line of display. If there are multiple devices of the same type, it may be necessary to view the flash code LED on each of the devices to determine which one caused the error. Once you have identified the device in error, view the error condition (shown on second line of the display) and read any *Error Help Text* available for that error. Review the section above regarding "Built In Help" at this time if you have not already done so.

ERROR HELP TEXT - Shown below is a list of the *Error Conditions,* probable causes, and corrective actions. Note that some of the error conditions indicate that you should contact the nearest factory authorized service center.

|	
"SOLDOUT"	Indicates a dispenser does not have enough product to complete a vend.
"EMPTY"	A dispenser did not dispense in the allowed time and was not detected as sold out.
"JAMMED"	A dispenser is jammed and unable to dispense.
"PROGRAM"	Note the device in error and contact the nearest factory service center.
"EEPROM"	EEPROM failing. Note the device in error and contact the nearest factory service center.
"MOTOR"	Device has reported a motor error. Note the device in error and contact the nearest factory service center.
"SENSOR"	If the device in error message is a bill acceptor, clear the bill path and clean sensors. If device in error message is a coin dispenser, contact the nearest factory service center.
"ROM"	Note the device in error and contact the nearest factory service center.
"OUTPUT BLOCKED"	If device in error message is a bill dispenser, clear bill dispense path (jammed bill). If device was a coin dispenser, clear the coin dispenser path.
"BILLBOX"	The bill acceptors' billbox has been removed. Replace billbox then press reset button on SC Conversion to clear error message.
"BILLBOX FULL"	The bill acceptor billbox is full.
"OVERPAY"	The SC Conversion has detected an overpay. Check the dispenser for debris at the output sensor.
"FAST VEND"	The total number of bills accepted has exceeded preprogrammed limit in the preprogrammed allowable time period. Adjust the Fast Vend Settings if necessary.
"TAMPER"	The bill acceptor has detected a stringing attempt. Clear the bill path and clean sensors.
"COMM"	A communication error has occurred between the SC Conversion and another device.
"POWER LOST"	Power was lost during a dispense. This is a "soft error" and the machine will stay online. Check all power connections in the machine. If this error condition occurs frequently, have the power source to the machine checked for faulty wiring, poor grounding, etc and add a power surge filter (same as used for computers) to the machine.
"ILLOGICAL"	Bills accepted and/or vend settings conflict with standard operating patterns. Common examples: No bills programmed to be accepted or revenue to be dispensed exceeds the value of the revenue to be deposited. Check all of the Vend Settings.
"BILL ACC. - SC"	This message is displayed if the SC Conversion doesn't see any acceptors (Bill, Coin or Credit) in the system. Check acceptor cables and connections.

3.0 PRINTER MODULE

The Printer is used to provide transaction receipt to the machine user. This printer can also print audits and many other reports.

Printer Model: Custom TG02H (Receipt and Audit Printer) 2016 and later

3.1.1   Loading Paper In The Printer

Automatic Loading With Power On – Make sure that the printer cover is closed. Insert the paper into the back of the printer. When the printer senses the paper it will pull the paper in. This is a function of the printer and not the SC Conversion. See photo below.

Manual Loading With Power Off – There is no way to manually load paper.

Figure 3-1 (Custom TG02H)

Sharp blade under cover

Data Cable

Power Cable
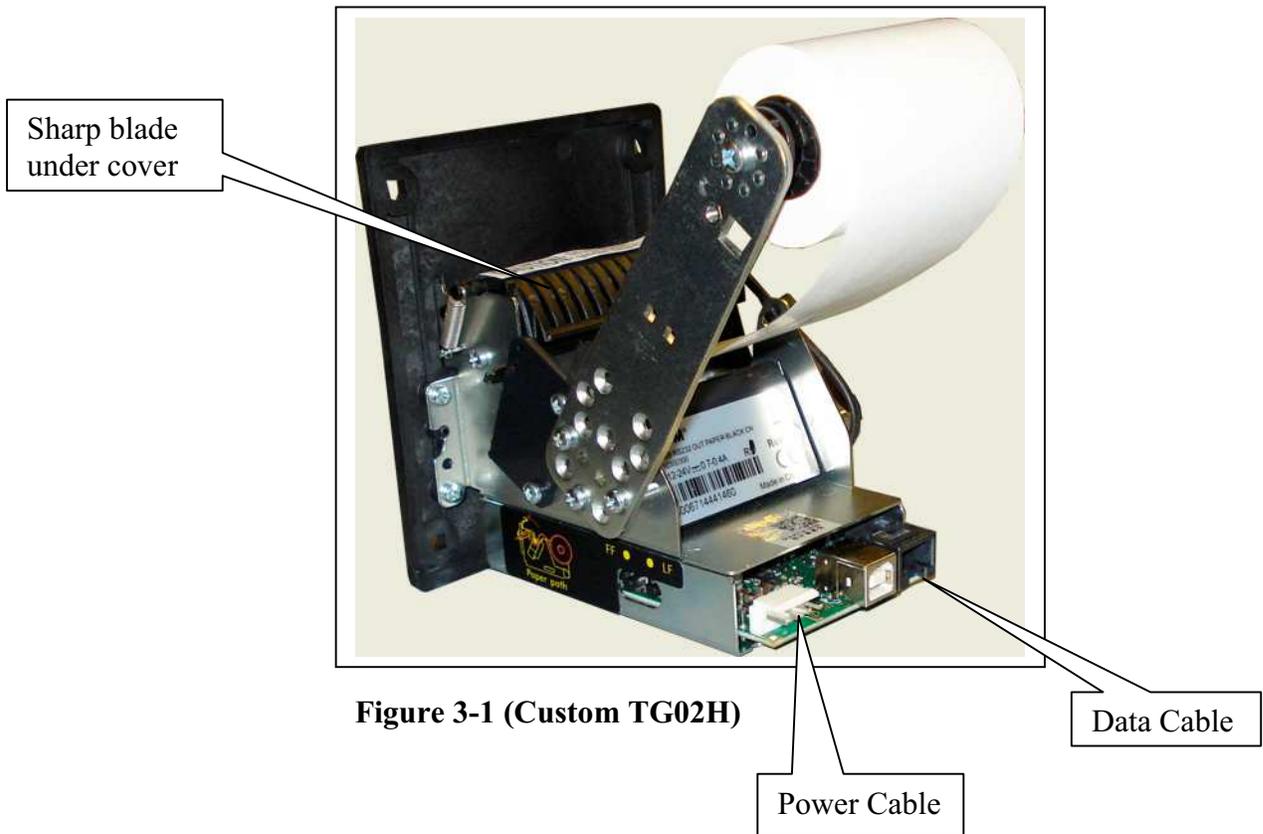
CAUTION: Be careful if you lift the cover up to clear any paper jams. There is a very sharp blade used to cut the paper.

3.1.2   Printer Troubleshooting

If the printer is not in an error mode, but will not print receipts or reports or the print out is the wrong text size, check the PRINTER SETTINGS menu for proper programming.

If paper is being ejected but not printed you should check to see if the paper is loaded upside down.

3.1.3   Printer Fault Conditions

There are no indicators on the printer for a fault condition. When the printer is low on paper the green led to the right of the connectors will blink. When the paper is full it will be on constantly.

Printer Model: Hengstler X-56 (Receipt and Audit Printer) before 2016

3.1.4   Loading Paper In The Printer

<u>Automatic Loading With Power On</u> – Pull the printer plunger out and load paper in. When the printer senses the paper it will pull the paper in and print the hardware settings of the printer. This is a function of the printer and not the SC Conversion. If you do not see anything printed you have the paper inserted upside down. See photos below.

Figure 3-5
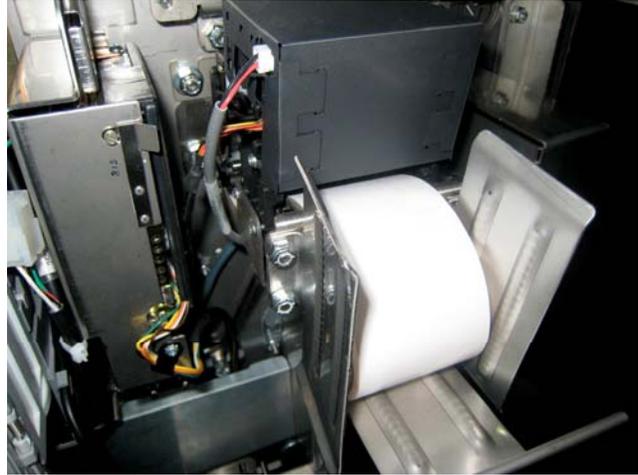
Figure 3-6

<u>Manual Loading With Power Off</u> – Pull the plunger out and load paper in. At the same time rotate the large blue knob counterclockwise to pull the paper in. See photos below.
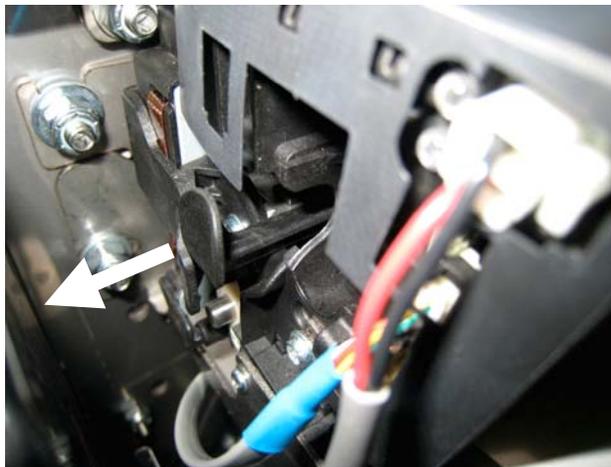

Figure 3-7
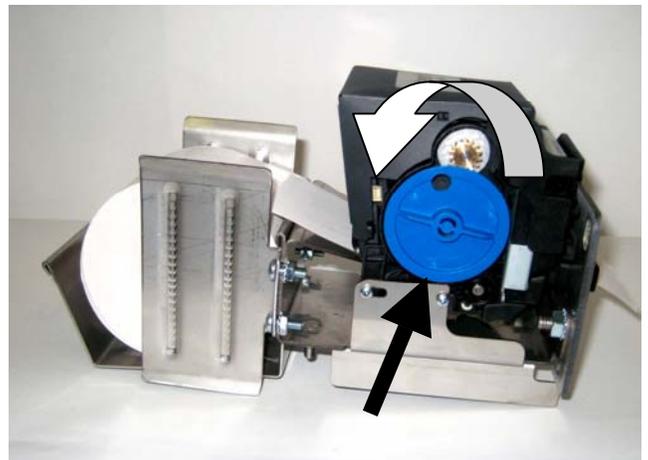
Figure 3-8

Note – Push plunger in to remove paper. **The plunger has to be pulled all of the way out for normal operation.**

The thermal paper to use should be two inches wide and thermal sensitive on the outside.

3.1.5   Printer Troubleshooting

The optional Hengstler X-56 printer includes a Red and Green LED to indicate the status of the printer. The LED conditions will indicate normal operation as well as the "out of paper" and "printer failure" conditions.

For a paper, or cutter error, press the black plunger in to remove any debris. Pull the black plunger out to reload the paper.

If both LED's are off, check the printer cable at both ends for a proper connection.

If the printer is not in an error mode, but will not print receipts or reports or the print out is the wrong text size, check the PRINTER SETTINGS menu for proper programming.

If paper is being ejected but not printed you should check to see if the paper is loaded upside down.

3.1.6   Printer Fault Conditions

Green LED	Red LED	Fault Condition
Slow Blink-----1 second on, 1 second off	Off	Normal Operation
Medium Blink-1/10 second on, 1/10 second off	Off	Out of Paper
Flicker----------Very fast twinkle Error	On – Cutter Error	Paper Error, Cutter Error
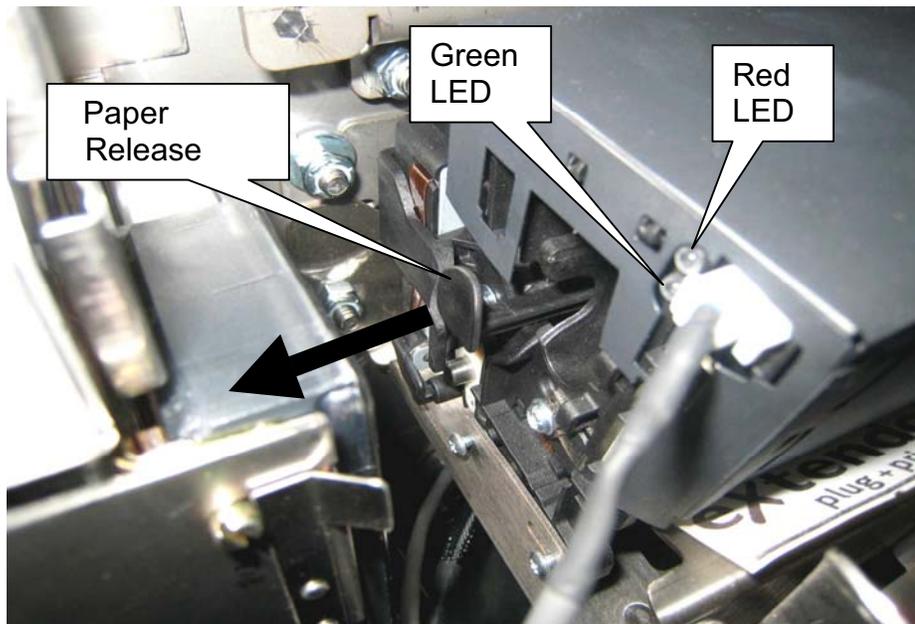
Figure 3-9

The paper release plunger should be all of the way out during normal operation.

Printer Model: Citizen CMP-20 (Portable Audit Printer)

3.1.7   Loading Paper In The Printer

<u>Automatic Loading With Power On or Off</u> – There is no way to automatically load paper.

<u>Manual Loading With Power On or Off</u> – Press the large blue button, on the right, with the word PUSH on it to open the paper door. Lay the roll in with the paper coming up near the blade. Close the door with the end paper out of the printer. See photo below.


Data Cable
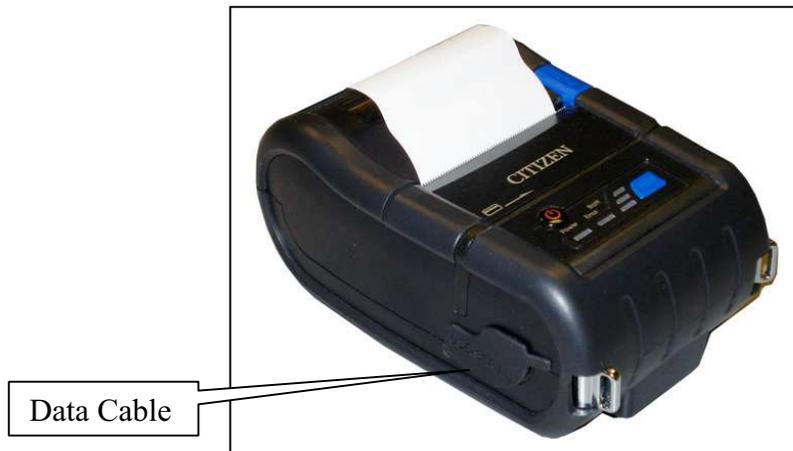
Figure 3-11 (Citizen CMP-20)

3.1.8   Printer Troubleshooting

If the printer is not in an error mode, but will not print receipts or reports or the print out is the wrong text size, check the PRINTER SETTINGS menu for proper programming.

If paper is being ejected but not printed you should check to see if the paper is loaded upside down.

3.1.9   Printer Fault Conditions

When the printer is low on paper the red error led near the power button will light. When the paper is full it will be off.

Appendix A.   RECEIPT PRINTER HEADER & FOOTER WORKSHEET

Use this worksheet to figure out how you want to format the wording of the Header and Footer that is printed on your receipts. The general rule would be to use the Header for business name and location information, and the Footer is used for "Thank You", slogan, marketing or promotional ideas.

RECEIPT HEADER: 8 LINES AVAILABLE (16 Characters per Line)

H1:																
H2:																
H3:																
H5:																
H5:																
H6:																
H7:																
H8:																

RECEIPT FOOTER: 10 LINES AVAILABLE (16 Characters per Line)

F1:																
F2:																
F3:																
F4:																
F5:																
F6:																
F7:																
F8:																
F9:																
F10:																

In addition to the Header and Footer, the printer will automatically print: LOCATION ID (default = 0) and the TIME & DATE that the receipt is printed.

NOTES:

Standard Change-Makers
SERVICE CENTERS

Standard Change-Makers – Central Region
Factory and Home Office
P.O. Box 36550
Indianapolis, IN 46236-0550
3130 North Mitthoeffer Road
Indianapolis, IN 46235-0550
(317) 899-6966
800-968-6955
FAX (317) 899-6977
WEB: www.standardchange.com

Record these numbers here for use when ordering parts.

Serial #_____

Model #_____