

# THE CARDMASTER V8

## SET UP AND OPERATION MANUAL

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## **SAFETY CONSIDERATIONS**

1. Unplug the machine when servicing – failure to do this could cause serious injury.
2. If the power cord is damaged, the manufacturer, its service agent, or a similarly qualified person must replace it.
3. Permanent bypass of any safety switches may cause serious injury.
4. Refer to the “Machine Mounting” section of the manual for proper installation instructions.
5. A three-prong grounded outlet must be used to power this machine.
6. Do not overload power circuits.
7. Do not use extension cords to run power to this machine.

## **UNPACKING**

When the machine is received, it should be carefully unpacked and checked closely for any possible damage. If a freight company is involved and there is damage, please notify them immediately. They will need to thoroughly inspect the damage and fill out a report. Please **do not** install the machine until this has been done.

Please remove and save packing materials for later use.

### **STANDARD MACHINE PACKING LIST**

<b><u>QUANTITY</u></b>	<b><u>DESCRIPTION</u></b>
<b><u>CMV8</u></b>	
1	PHONE CARD MACHINE
1	4 AMP fuse
8	Weights
32	Pushbutton labels (\$5, \$10, \$20, \$50)
6	4 keys
1	Hex wrench (left side of mech)
1	Card Hook
1	Warranty certificate
4	Lag Bolts
1	Operation Manual
1	Black cover for card display

\*If the machine is equipped with a modem, alarm, or printer an Options Manual will be included.

## MACHINE MOUNTING

A few things to note before the Card Master Machine mounting takes place:

1. Tools needed:

- |                               |   |
|-------------------------------|---|
| a. electric drill             | e. 1/4" nut driver or<br>flathead screwdriver |
| b. 1/4" drill bit             | f. ratchet                                    |
| c. 1/8" drill bit             | g. 7/16" socket                               |
| d. rubber mallet or<br>hammer | h. 7/16" wrench                               |

2. Hardware included with the base:

- |                   |                  |
|-------------------|------------------|
| 4 – 1/4"-20 bolts | 4 – stud anchors |
| 4 – 1/4" washers  | 4 – nuts         |
| 4 – spacers       | 4 – washers      |

3. It is recommended to mount the base to the floor before mounting the cabinet to the base.
4. The Optional Hardware is designed for locations where drilling into the floor is not practical. Consult your distributor or TMI sales representative for more information about the Optional Hardware.
5. It is always recommended to mount the cabinet to the base assembly. Mounting to either the wall or to the floor is also recommended but it is not necessary to mount to both. When using a base and your machine has a CSA sticker on it you must either mount the machine to a wall or the base to the floor. **If this is not done your machine is not CSA compliant.**

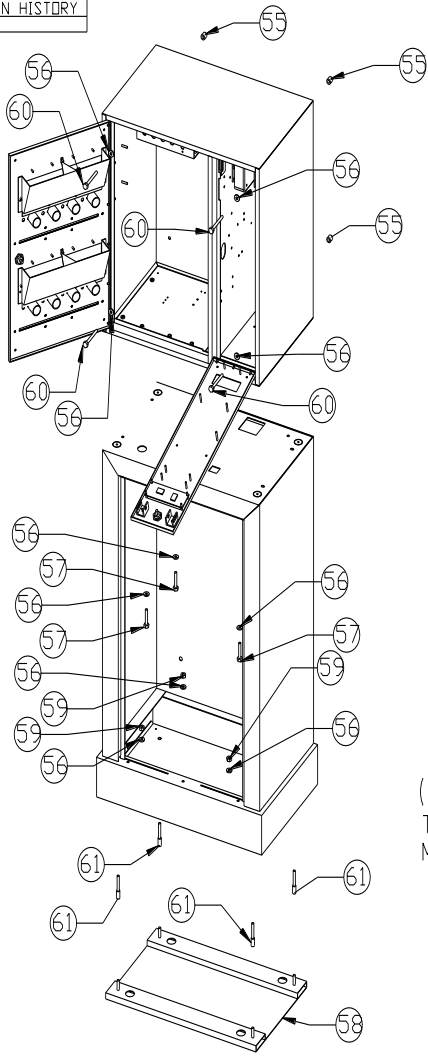
**Decide whether you are going to mount the base to the floor or the cabinet to the wall.**

1. Mounting the base assembly to the floor **without** the Optional Hardware.
- Drill four 1/4" holes 3/4" deep using the Anchor Hole Pattern shown in the mounting diagram on page 5.
  - Hammer the four stud anchors into the holes that you have drilled.
  - Remove the front door of the base assembly (or access panels if your base does not have a door)
  - Place the base assembly on the 4 stud anchors.
  - Place a washer a spacer and a nut on each stud anchor and fasten securely.
  - Re-install the base front door (or access panels if your base does not have a door)

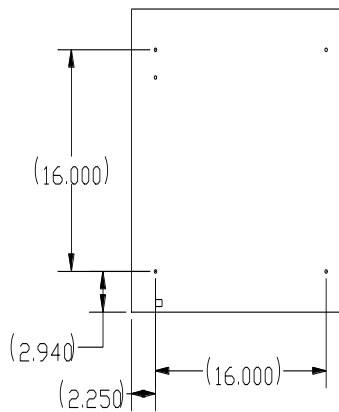
2. Mounting the CM cabinet to the base assembly.
  - a. Remove the front door on the base assembly (or access panels if your base does not have a door)
  - b. Run the power cord from the CM cabinet through the hole in the top of the base assembly.
  - c. Finish running the power cord out the hole in the back of the base assembly.
  - d. Place the CM cabinet on top of the base assembly.
  - e. Place the ¼-20 bolts and a ¼" washer into each hole as shown in the Diagram on page 5.
  - f. Re-install the front door on to the base assembly (or access panels if your base does not have a door).
  
3. Mounting the CM Cabinet and Base Assembly to the wall.
  - a. Having already done step (2), drill four 1/8" holes in the wall using the Back Hole Pattern as shown in the mounting diagram on page 5.
  - b. Insert a Hex Lag Screw and a ¼" washer into the holes in the CM cabinet through into the wall.
  - c. Remember that the CM cabinet will be held more securely if the lag Screws are going into the studs in the wall.
  
4. Mounting the base assembly to the floor **with** the Optional Hardware.
  - a. Place the tape strips underneath the base mount shown in the mounting diagram on page 5.
  - b. Set the base on the base mount.
  - c. Remove the front door from the base assembly (or access panels if your base does not have a door).
  - d. Place a ¼" washer and a ¼-20 nut on each stud and fasten securely.
  - e. Remove the protective paper that is on the tape strips.
  - f. Place the base assembly in its desired location.
  - g. Re-install front door on the base assembly (or access panels if your base does not have a door).

# CMV8 MOUNTING DIAGRAM

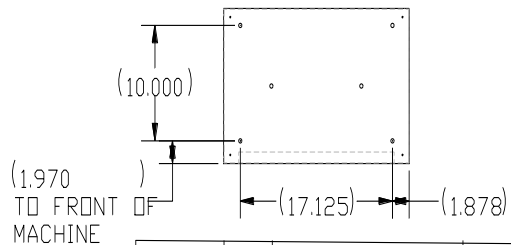
REVISION HISTORY



BACK OF MACHINE DIMENSIONS



BOTTOM OF BASE ASSEMBLY DIMENSIONS



**TMI**  
TECHNIK MFG. INC.  
COLUMBUS, NEBRASKA

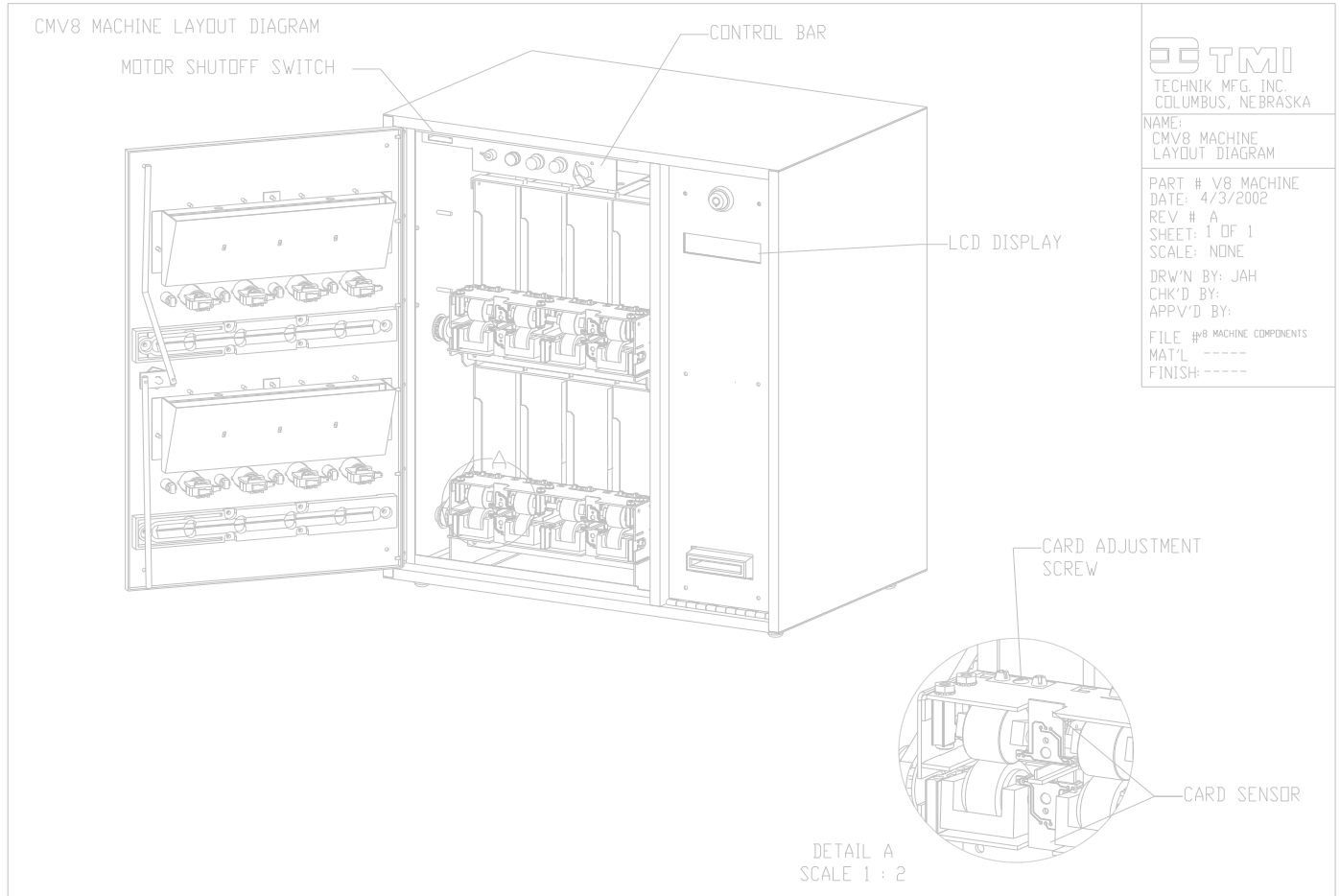
NAME:  
CMV8 INSTALLATION  
INSTRUCTIONS

PART # CMV8  
DATE: 8/12/99  
REV # A  
SHEET: 1 OF 1  
SCALE: NONE  
DRW'N BY: KEC  
CHK'D BY:  
APPV'D BY:  
FILE # CMV8  
MAT'L  
FINISH:

ITEM NO.	QTY.	PART NO.	DESCRIPTION
55	4	052-013	1/2" SPACER
56	12	014-007	1/4" ID WASHER
57	4	050-136	1/4-20 X 1.5" BOLT
58	1	069-025	BASE MOUNT
59	4	014-006	8-32 NUT
60	4	500-186	LAG SCREW
61	4	069-026	STUD ANCHOR

# MACHINE COMPONENTS DIAGRAM

## CM-V8



## AUTOMATIC SEQUENCING

The power switch is located on the main control bar inside the dispensing side of the machine. When the machine is first turned on, it will start its automatic sequencing. The sequence starts with three audible “beeps”. The LCD will display important information (software version information, and the number of columns it has been initialized for). The machine will cycle each row’s solenoid and pushbutton light at the same time. Each row carriage should “lift” and each corresponding light should light. This automatic sequencing is to be used as an aid to ensure that the electronics and moving parts are working properly.

## **MODES OF OPERATION**

As you are facing the front of the machine with the product door open, you will see the control bar in the dispensing side of the machine. The selector knob allows you to select either **VEND, PRICE, COUNT, MOTOR, OR SERVICE.**

To change modes of operation, use the selector switch located on the control bar.

**VEND MODE:** This mode is what the machine should be in during normal operation.

**PRICE MODE:** This mode is used to price the individual columns.

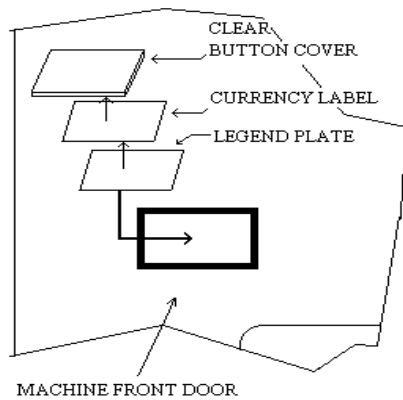
**COUNT MODE:** Used to check and clear accounting information.

**MOTOR MODE:** Used to count inventory, clear a jammed card, adjust card thickness and troubleshooting.

**SERVICE MODE:** This mode is used for assisting in troubleshooting and adjustments. All normal vend mode functions are available except money accepted and cards dispensed are not recorded into the accounting information. When in the service mode, the audible alarm (single beep) will sound briefly every 15 seconds to serve as a reminder that you are in the service mode.

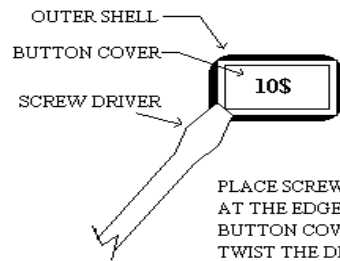
## **INSTALLING PUSHBUTTONS**

The pushbutton assembly includes the clear top cap, the pushbutton label, the white plastic back, and the pushbutton itself. Insert the currency legend into the clear top cap so that when looking at the front of it, it reads correctly. Place the white plastic back in next, and then simply snap into the pushbutton fixture. To remove the cover, use a thin screwdriver and pry it loose between the clear cap and the outer shell. Note the following illustration.



**INSTALLING BUTTON COVER**

**REMOVING BUTTON COVER**



PLACE SCREW DRIVER AT THE EDGE OF THE BUTTON COVER AND TWIST THE DRIVER. REPEAT THIS FOR THE REMAINING EDGES OF THE BUTTON COVER.

---

**IMPORTANT:** BE SURE TO GO THROUGH THE “**PRICING THE MACHINE**” SECTION OF THIS MANUAL AFTER CHANGING THE CURRENCY LABELS.

**PRICING THE MACHINE**

For the pricing mode, you must turn the selector knob to the “**PRICE**” position. Notice the display on the front of the machine is reading, “**Price column A**”. Below that a dollar amount is displayed. To change to the price of the card you are selling:

1. Press the “**CLEAR**” button (red) to select a desired price.
2. Press the “**SELECT**” button (black) to change rows and repeat step one.
3. Repeat this procedure for all rows of the machine so that they are priced at the denomination given on the front of the machine.

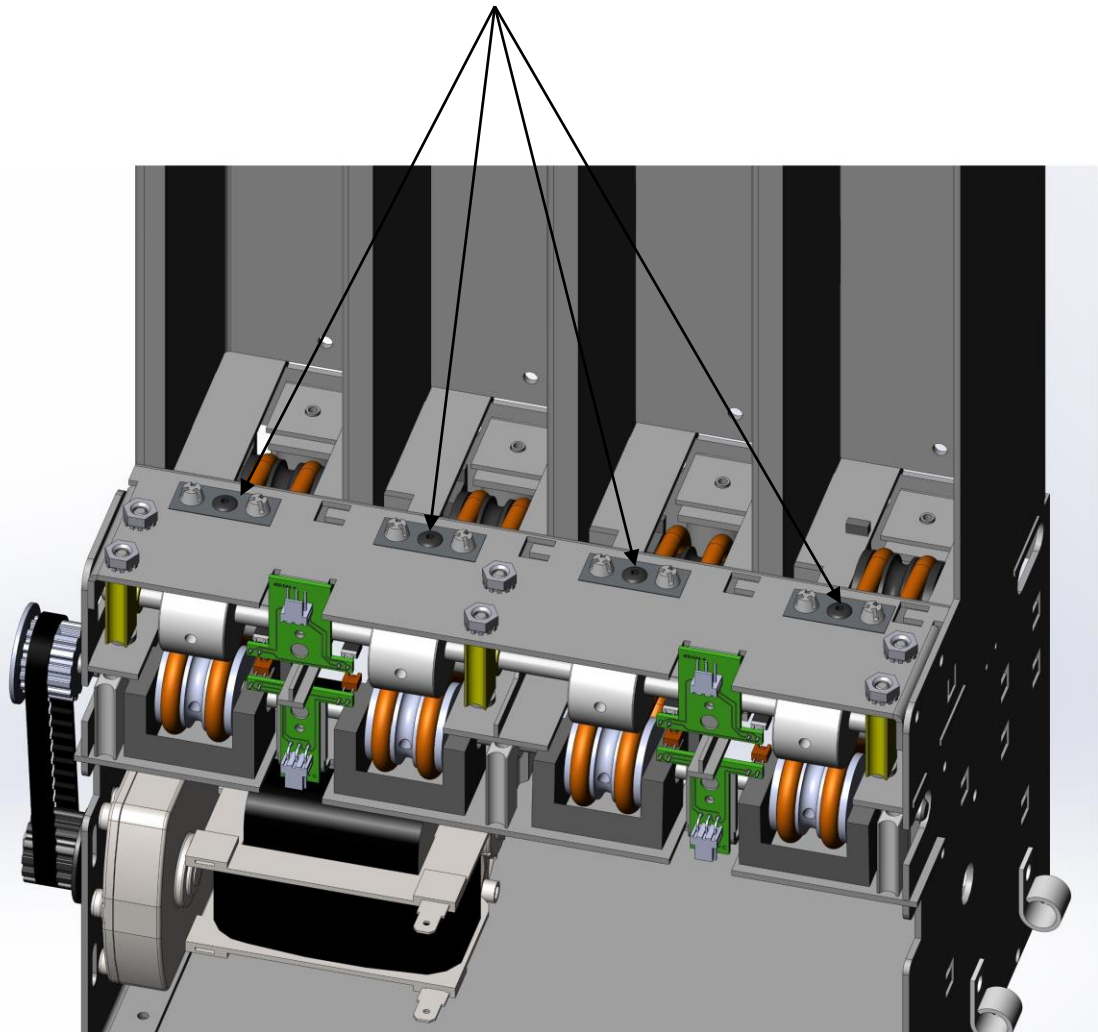
When pricing is completed return the selector knob to the “**VEND**” position. The machine is now ready to vend cards.



## **CARD THICKNESS ADJUSTMENT PROCEDURE**

1. With a 9/64" hex head wrench, turn the adjustment screw on the dispenser counterclockwise until a card will not pass the adjustment mechanism.
2. Place the supplied calibration card in the bottom of the column.
3. Place card weight on top of the card with the word "FRONT" facing forward.
4. Insert the hex head wrench into the adjustment screw.
5. Try to dispense the card and turn the adjustment screw clockwise until the card is dispensed. It may take a few tries before the card is dispensed smoothly.
6. Once the card is dispensed, the column is properly adjusted.

ADJUSTMENT SCREW FOR EACH COLUMN



## LOADING / UNLOADING CARDS

You are now ready to start loading your cards. Once the cards are in the rows, place a weight on top of the stack. The weight should be in so that the word “front” is facing you, right side up.

In “**SERVICE**” mode, insert cash in the bill acceptor to make sure the correct numbers of cards are dispensed, and the mechanism is functioning properly.

For unloading cards, a card hook is provided that allows for easy removal of the bottom-most cards.

## SOLD OUT LAMPS

The Cardmaster Machine has the following features so that it may be easier to determine “**sold out**” conditions and remaining inventory cycle count.

The “**sold out**” light will indicate either the column is out of cards, or a dispensing problem has occurred.

- If the “**sold out**” light is on **solid**-the column is out of cards
- If the “**sold out**” light is **blinking**- a card was not dispensed when the column was selected.

## CHECKING THE COUNTS

The Cardmaster machine has “**re-settable**” and **non “re-settable**” accounting information. When the selector knob is on “**COUNT**”, this information can be viewed on the display on the front of the machine.

The “**SELECT**” button is used to view the counts for cash and cards. The “**SELECT**” button will cycle through each column’s information of total and period counts. The cash and cards titled “**PERIOD**” are re-settable counts. The “**PERIOD**” is from the previous time the counts were cleared.

The re-settable counts can be cleared by pressing the “**CLEAR**” button. The cash and cards titled “**TOTAL**” are non-re-settable. The non-resettable counts will keep lifetime total until the machine is re-initialized.

Returning the selector knob to “**VEND**” will set the machine to normal operations.

## MOTOR MODE / COUNTING FEATURE

For inventory purposes, the Cardmaster machine will electronically count the remaining cards in each column.

- Place the selector knob in the “**MOTOR**” position. The motor will run constantly.  
**NOTE:** The product door must be open, and the “**motor kill switch**” must be bypassed. This is done by taking the brown cap off of the on/off switch and inserting it into the slot, directly to the left. The motor will constantly run when this cap is in the slot.
- To count the remaining cards in a column, press the pushbutton for that column. The machine will then dispense the cards from that column. The machine will count each card dispensed.
- To stop the column from dispensing before empty, press the push button for that row for one second. Note that the cards will stop dispensing, and the count on the credit display will indicate the number of cards dispensed. This count will reset to zero when the pushbutton is pressed again.

## INITIALIZING PROCEDURE

This procedure allows automatic reprogramming of the entire system. All pricing and re-settable counts will be lost.

This procedure is as follows:

1. Position the selector knob to the “**PRICE**” position.
2. Hold down the “**CLEAR**” button
3. Turn the machine off and back on.
4. Wait for the audible signals (beeps)
5. Release the “**CLEAR**” button

## RESET PROCEDURE

If this machine malfunctions, it will automatically shut down. Once a card jam is cleared, the machine must be reset. Simply move the power switch to the off position for about 3 seconds, and then back on. The machine is reset. The machine has a battery backup for memory so shutting the power off and on again does not cause the machine to lose its count or program.

## TROUBLESHOOTING

**WARNING!!!! WARNING!!!! WARNING!!!! WARNING!!!! WARNING!!!!**  
**ALWAYS UNPLUG THE MACHINE PRIOR TO**  
**SERVICING THE MACHINE**

### ERROR CODES

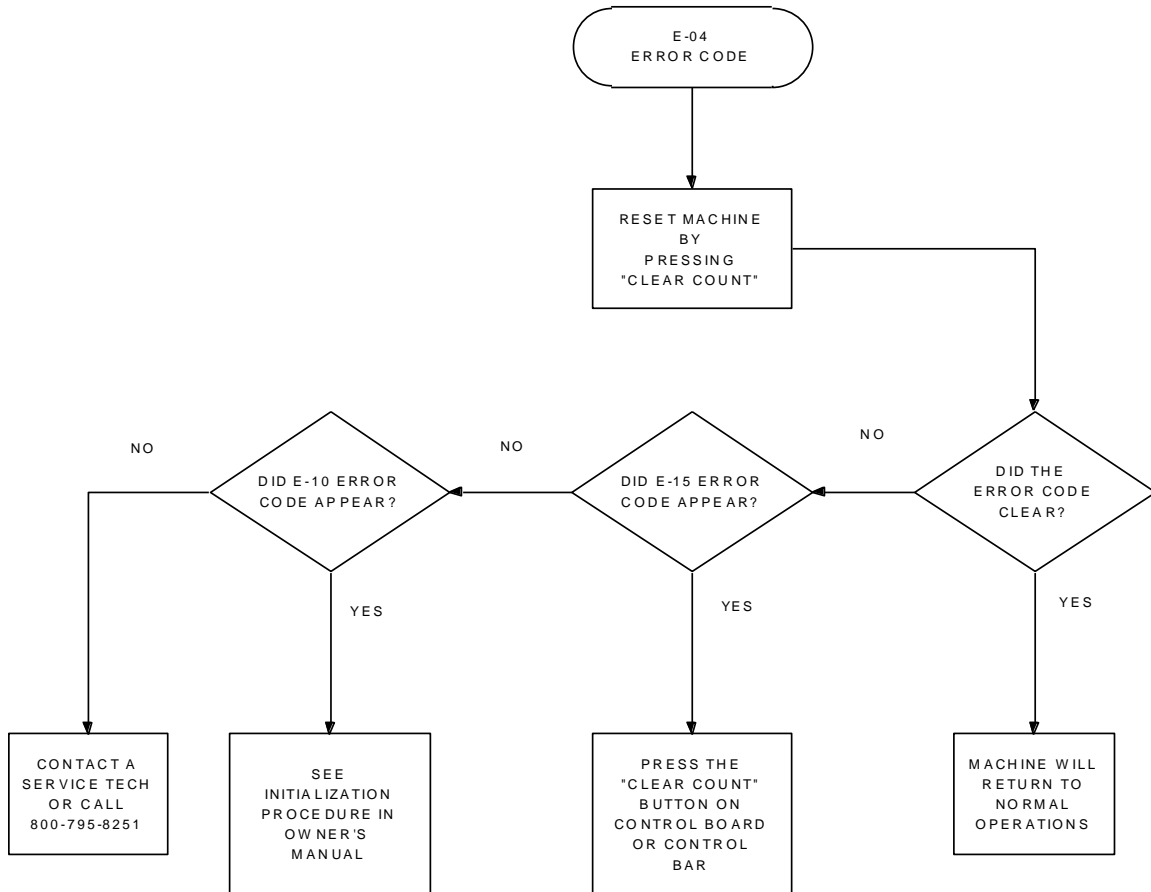
#### Diagnostic flow charts follow for each error code

The machine has the ability to determine its own reason for not functioning. It has several error codes that tell you where the problem is occurring. The codes will appear on the display, located on the cash door. The codes that may be encountered are as follows.

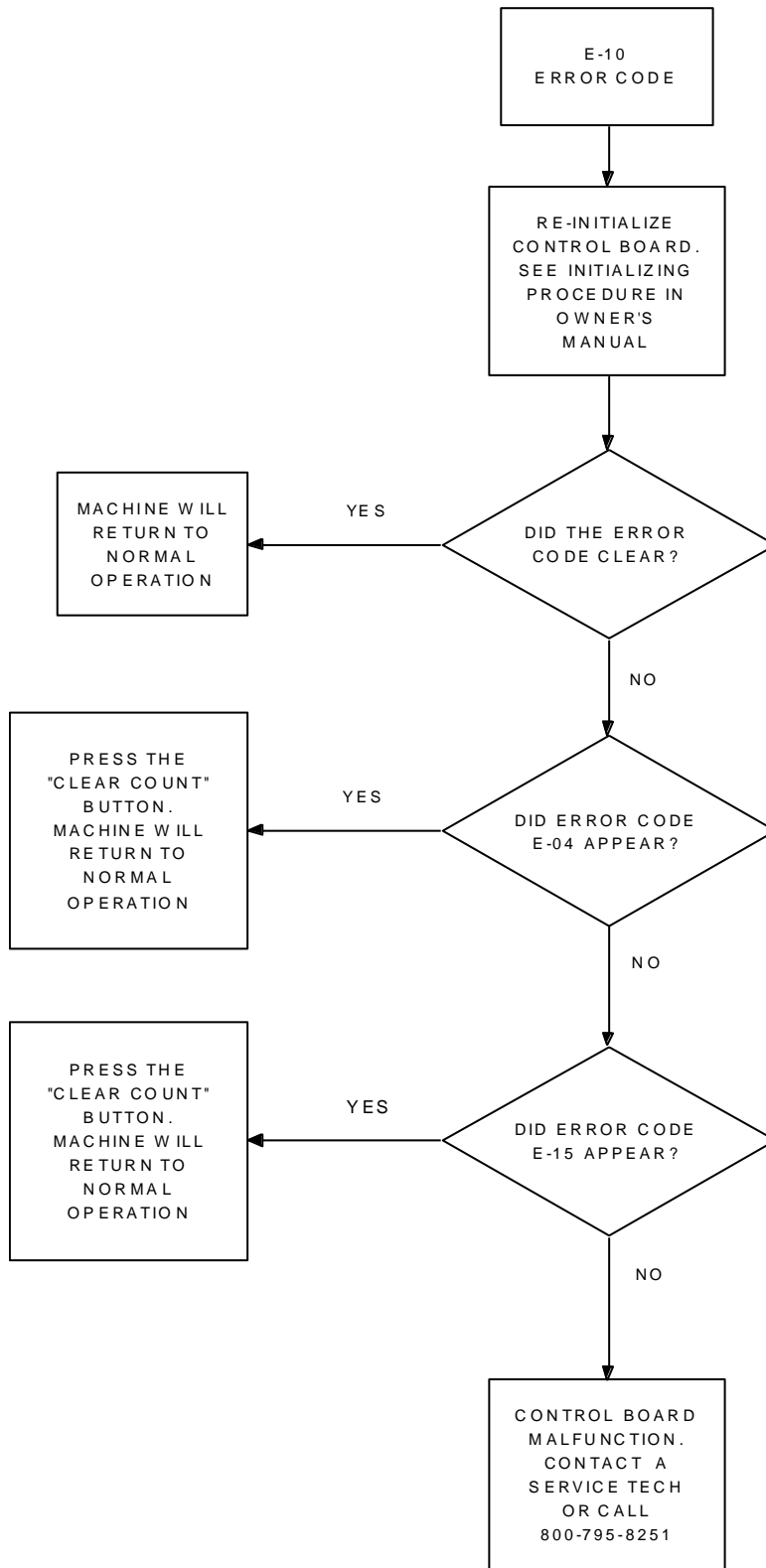
- E-04** This means that a power interruption occurred while a card was being dispensed. To clear this error code, push the **“CLEAR”** (red) button on the control bar with the power on.
- E-10** This means that the machine has lost its memory, the row denominations will default to the default pricing and the counts will be cleared. This indicates the machine needs to be re-initialized – see the **“Initializing Procedure”** section of this manual.
- E-11** This means that the bill acceptor pulse was too short in duration. Turn the machine off, and then back on. This error code will clear itself.
- E-12** This means the bill acceptor pulse was too long in duration. Turn the machine off, and then back on. This error code will clear itself.
- E-13** This means the selected ticket took too long to dispense. Remove the ticket from that row. To clear, turn the machine off, and then back on.
- E-14** This means that an unexpected card or foreign object was sensed. Physically remove the card or foreign object. To easily remove a card, turn the selector switch to the **“MOTOR”** position (the door open switch must be bypassed).  
If E-14 error codes are frequent, then, with the selector knob in **“VEND”**, press the **“CLEAR”** button. The pushbutton light will indicate the column that is causing the error code. When a column’s pushbutton light is lit, this is the column that may have a bad sensor. **Contact a service technician.**
- E-15** This means the non-re-settable counters are corrupt. The non-re-settable counts have cleared to zero. With the selector switch in the **“PRICE”** position, press the **“CLEAR”** button on the control bar to clear this code.

Please note that other error codes may occur after clearing the E-15, usually E-11 and E-04.

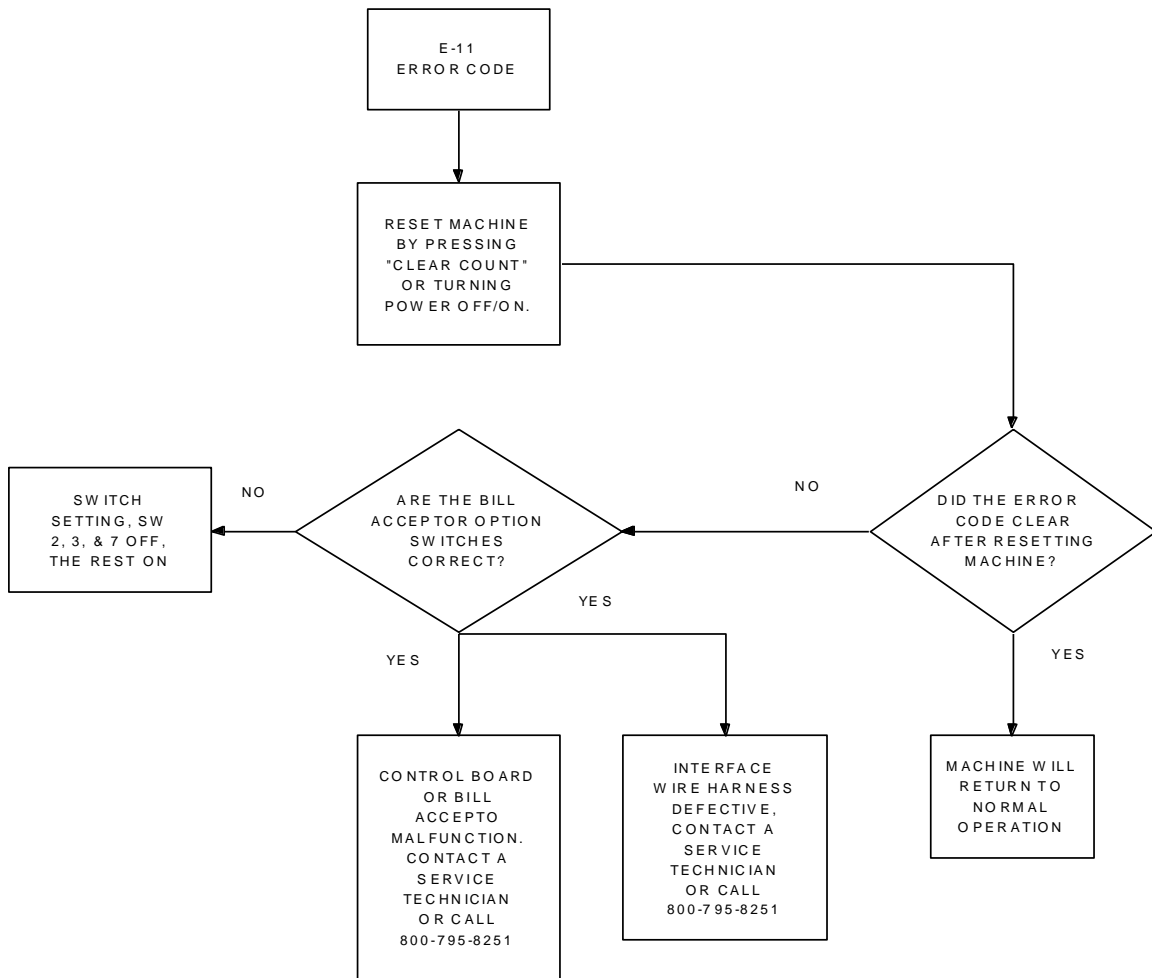
## ERROR CODES FLOW CHART



## ERROR CODES FLOW CHART

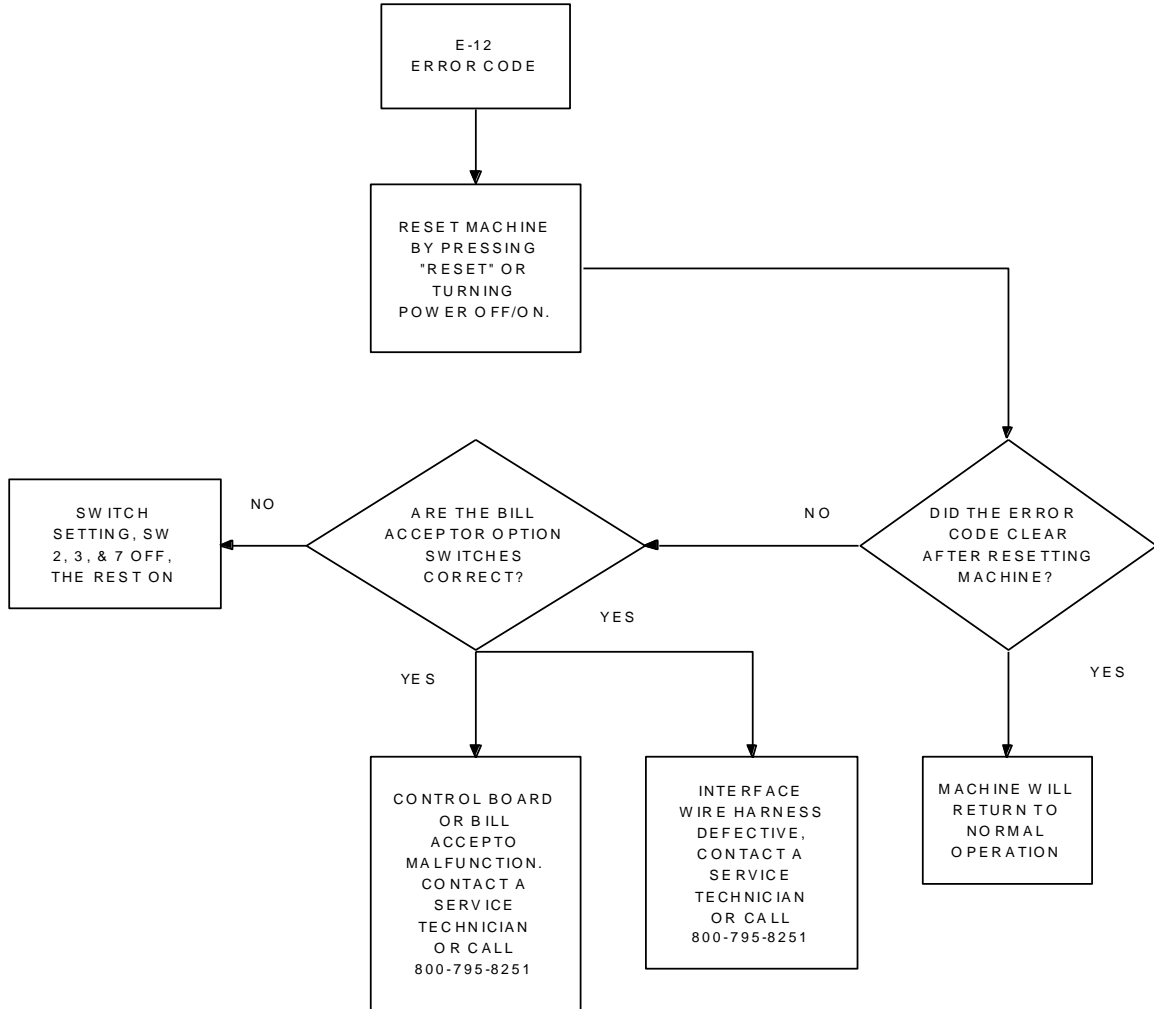


# ERROR CODES FLOW CHART

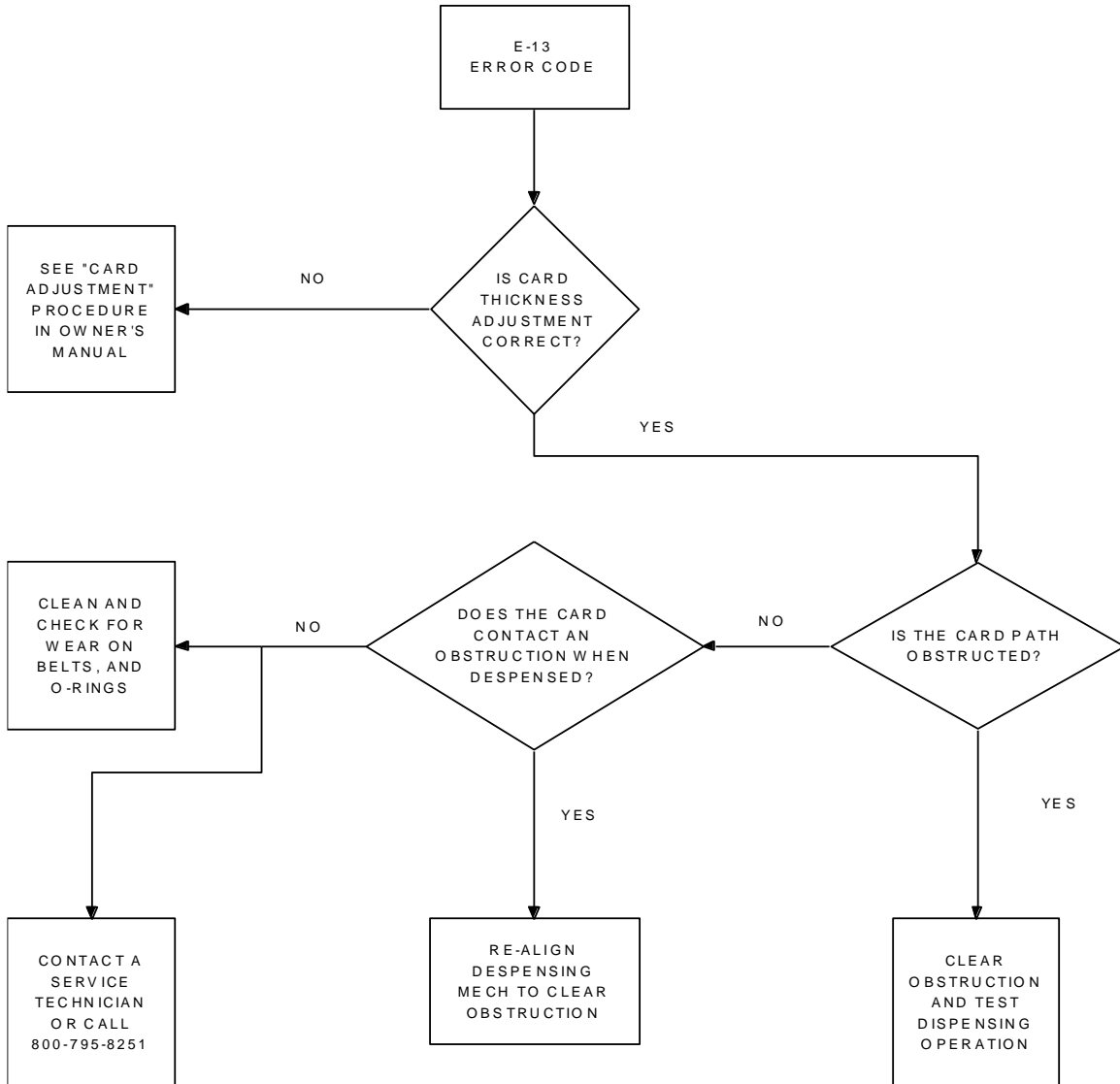




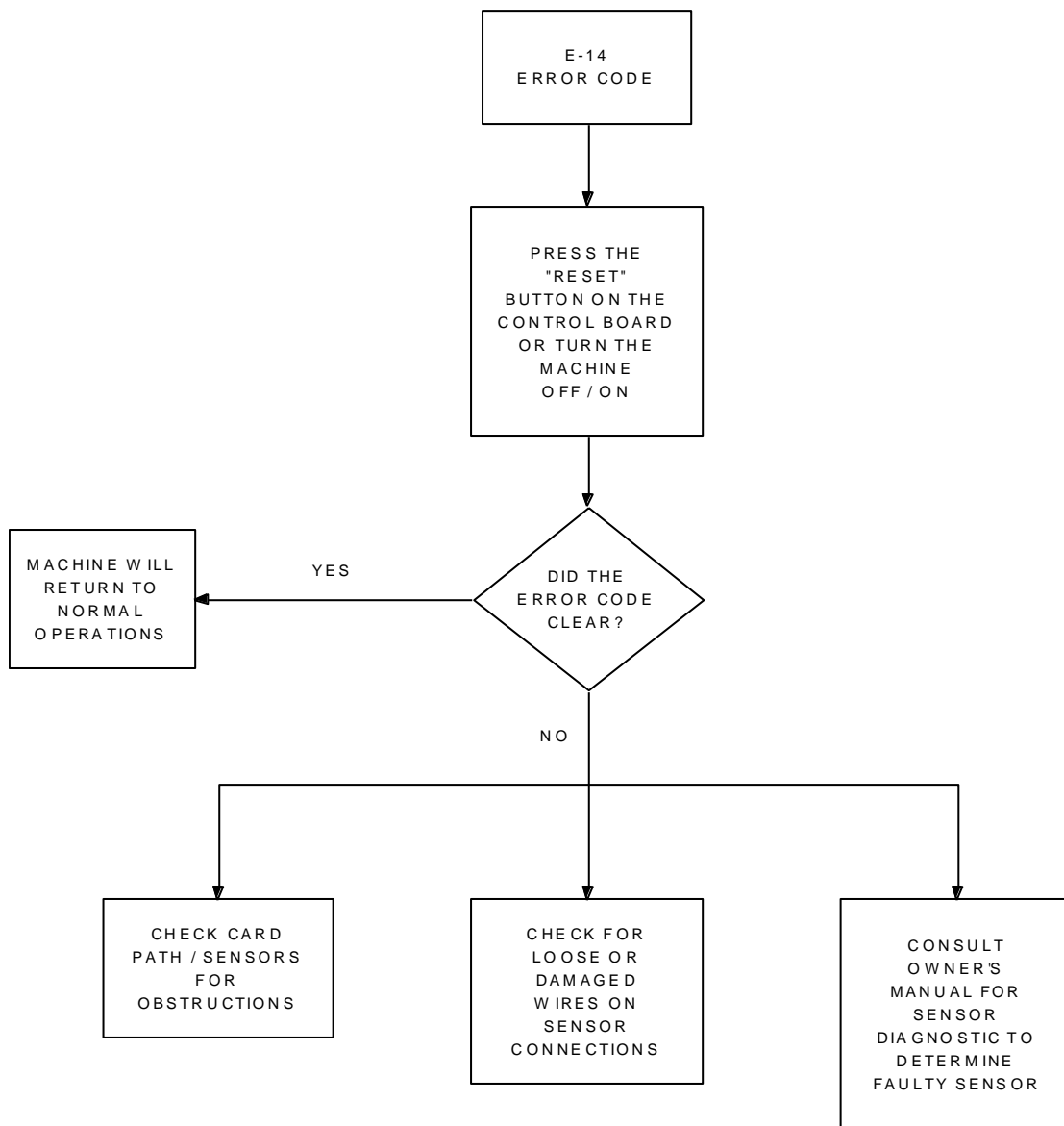
# ERROR CODE FLOW CHART



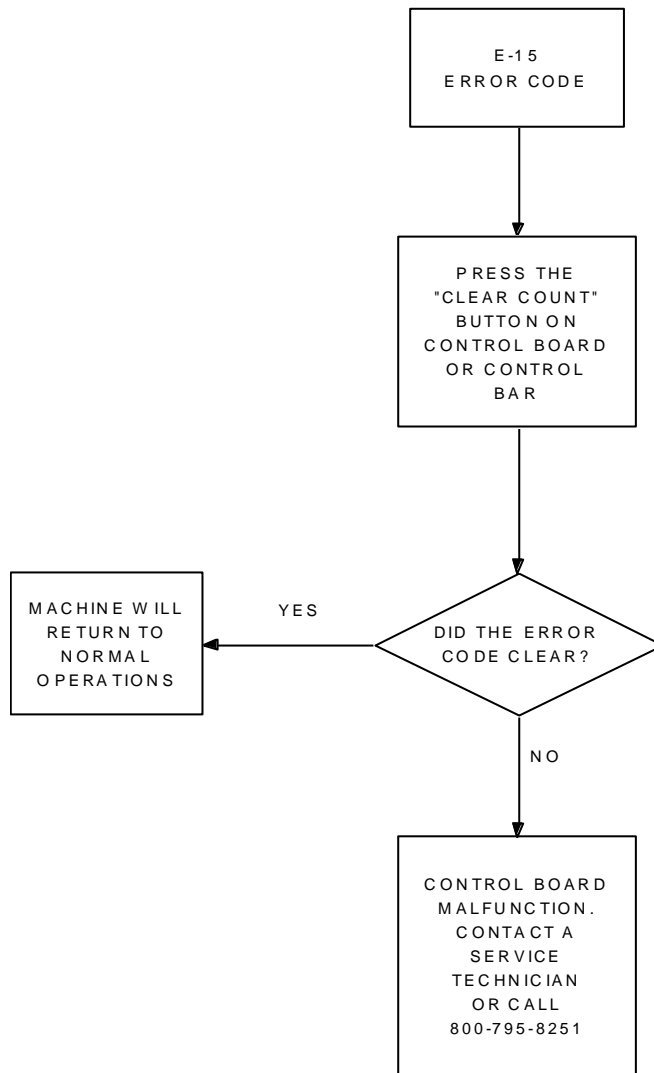
# ERROR CODES FLOW CHART



**ERROR CODES FLOW CHART**



## ERROR CODES FLOW CHART

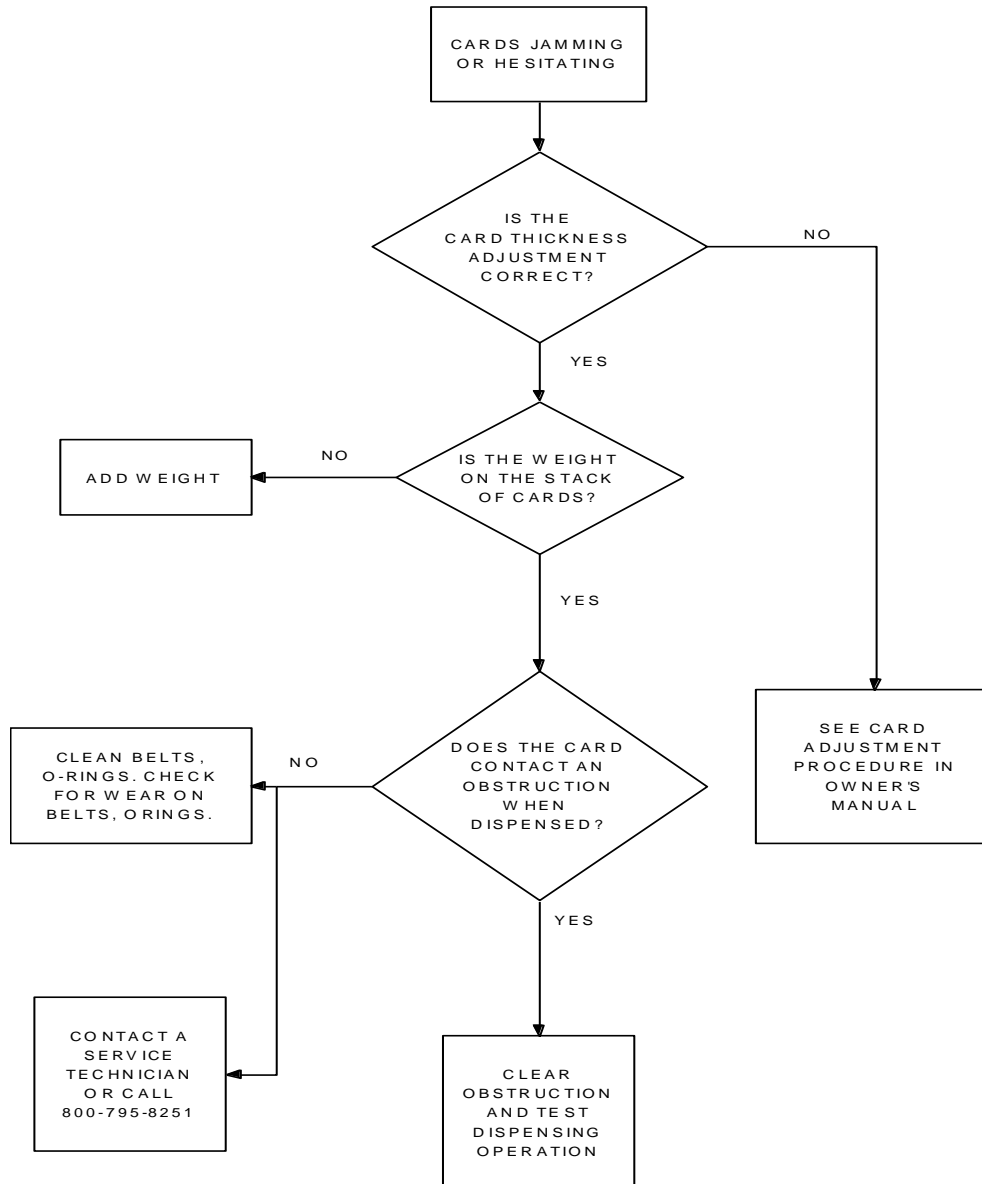


## **CARDS JAM OR HESITATE DURING DISPENSING**

1. Cards may be too thick or too thin. See "**Card Thickness Adjustment Procedure**" on page 9.

2. Cards may be damaged. Remove damaged card and try again.

## CARDS JAMMING OR HESITATING FLOW CHART

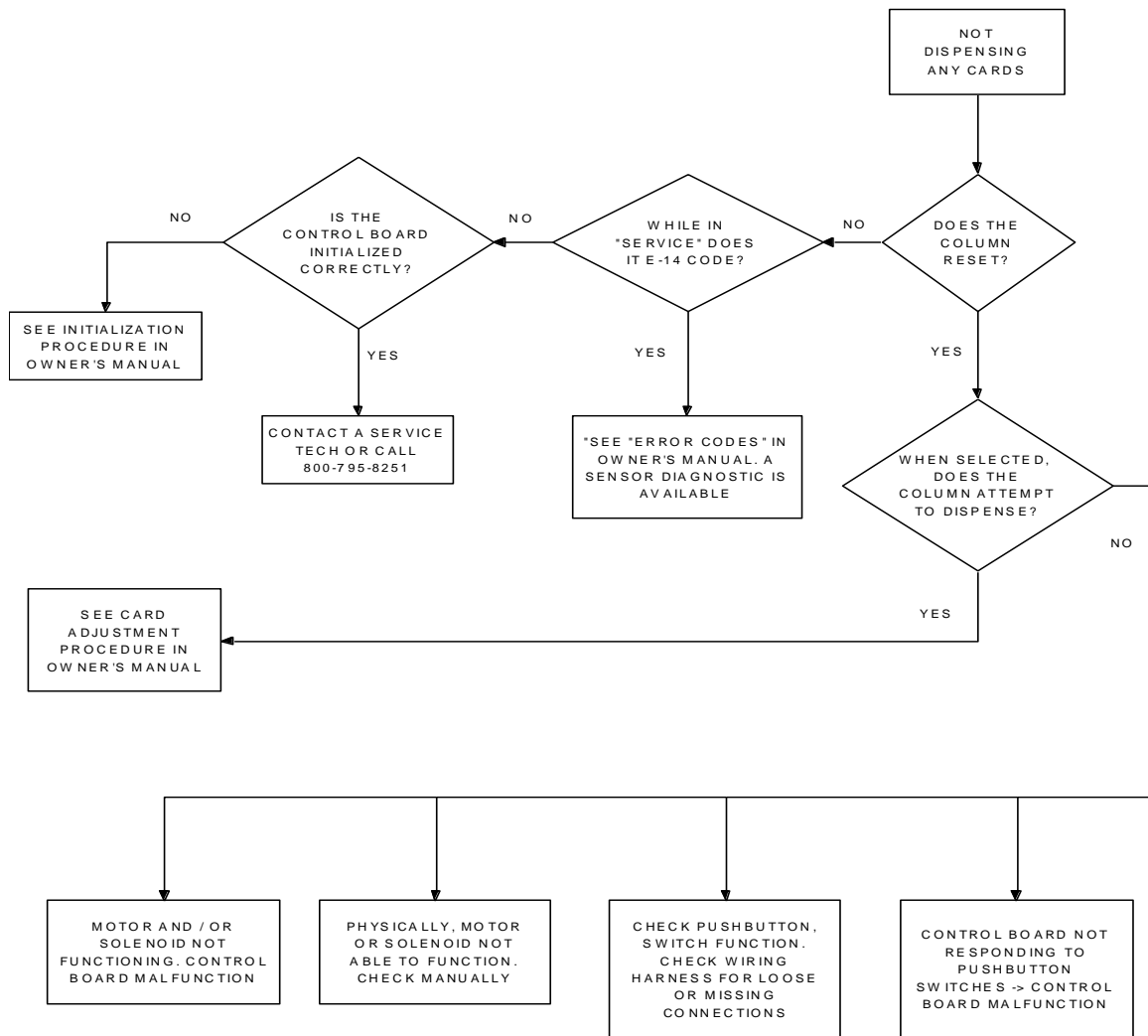


## ODD COUNTS OR DISPENSING

1. Static electricity is a major contributor to this and all other electronic equipment. You must use a 3-prong receptacle.
2. At times, usually in the winter, static problems can occur. The carpet around the machine may need sprayed with a diluted mix (10:1) of Downy softener

- and water (once every two weeks.) **DO NOT SPRAY MACHINE.**
3. Low voltage causes many electronic problems. If your unit is plugged into an extension cord, or is on the same line with refrigeration equipment, etc., the 115-volt supply may be less than 100 volts. Have an electrician check the voltage supplied to the machine and repair as needed.
  4. The sensor may be dirty. The sensor is located along side the drive wheels. Should this sensor get filled with debris, it may not be able to function. Simply Blow air on it or use a cotton swab to clean this area.
  5. Total re-programming may be needed. See the “**INITIALIZING**” procedure. This procedure erases all settings and re-settable counts. The machine must now be re-programmed.

## CARDS NOT DISPENSING



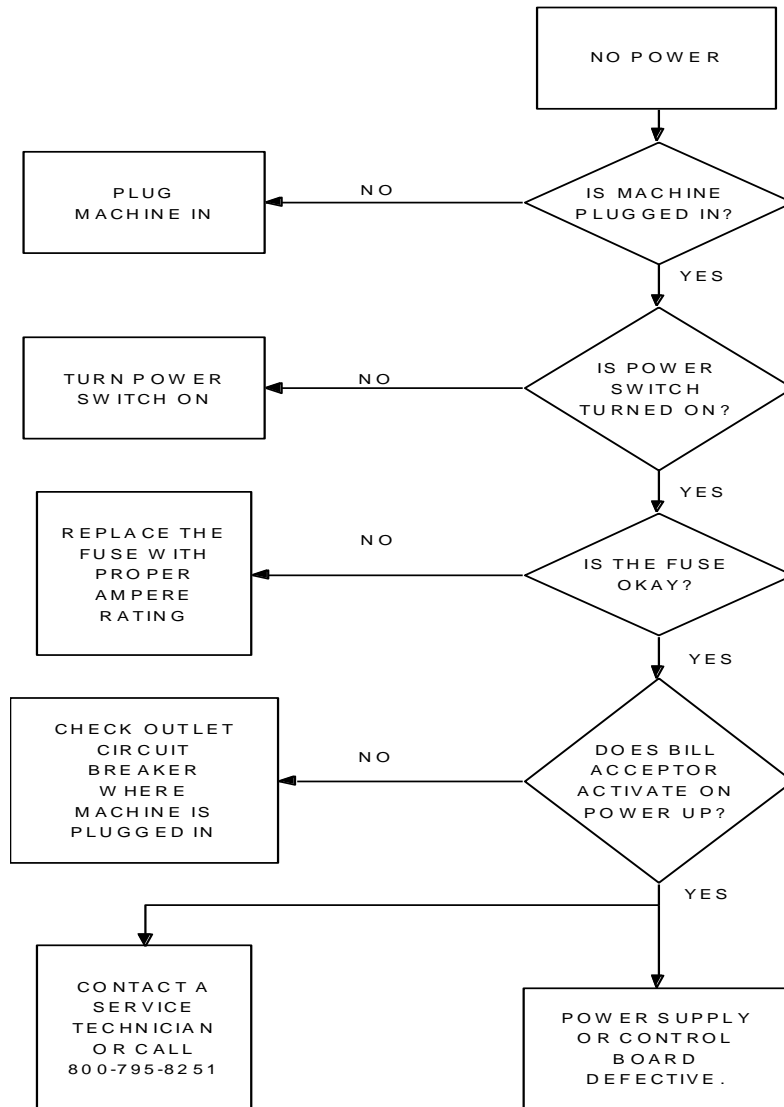
## FUSE BLOWN

If the machine shuts down and nothing works, check the fuse. The CM-V8 machine uses a 4 AMP fuse.

## POWER INTERRUPTION

It is possible that if the power dies at the same moment a card is being dispensed, the card will stop and not be dispensed. The machine recognizes this situation by displaying an E-04 error code. The machine will not operate until reset. The single card that was dispensed will not be counted in the money or card count. To correct counts if they are off, the owner of the machine can dispense one additional card and return it to the stack.

## NO POWER FLOW CHART



## CALLING A SERVICE TECHNICIAN

Service is available at your fingertips. 800-795-8251

**WHEN CALLING FOR SERVICE, PLEASE HAVE YOUR MACHINE SERIAL NUMBER READY.**

## **SERIAL NUMBER LOCATION**

The machine serial number is located in three different places. Inside the front door of the machine, on the inner left side of the cabinet and on the front of this manual.

## **REGULAR MAINTENANCE**

### **Cleaning windows**

This should be done with care. Use a soft cloth with plastic cleaner. **Do not use a dry towel of any type**, this will leave scratches on the machine.

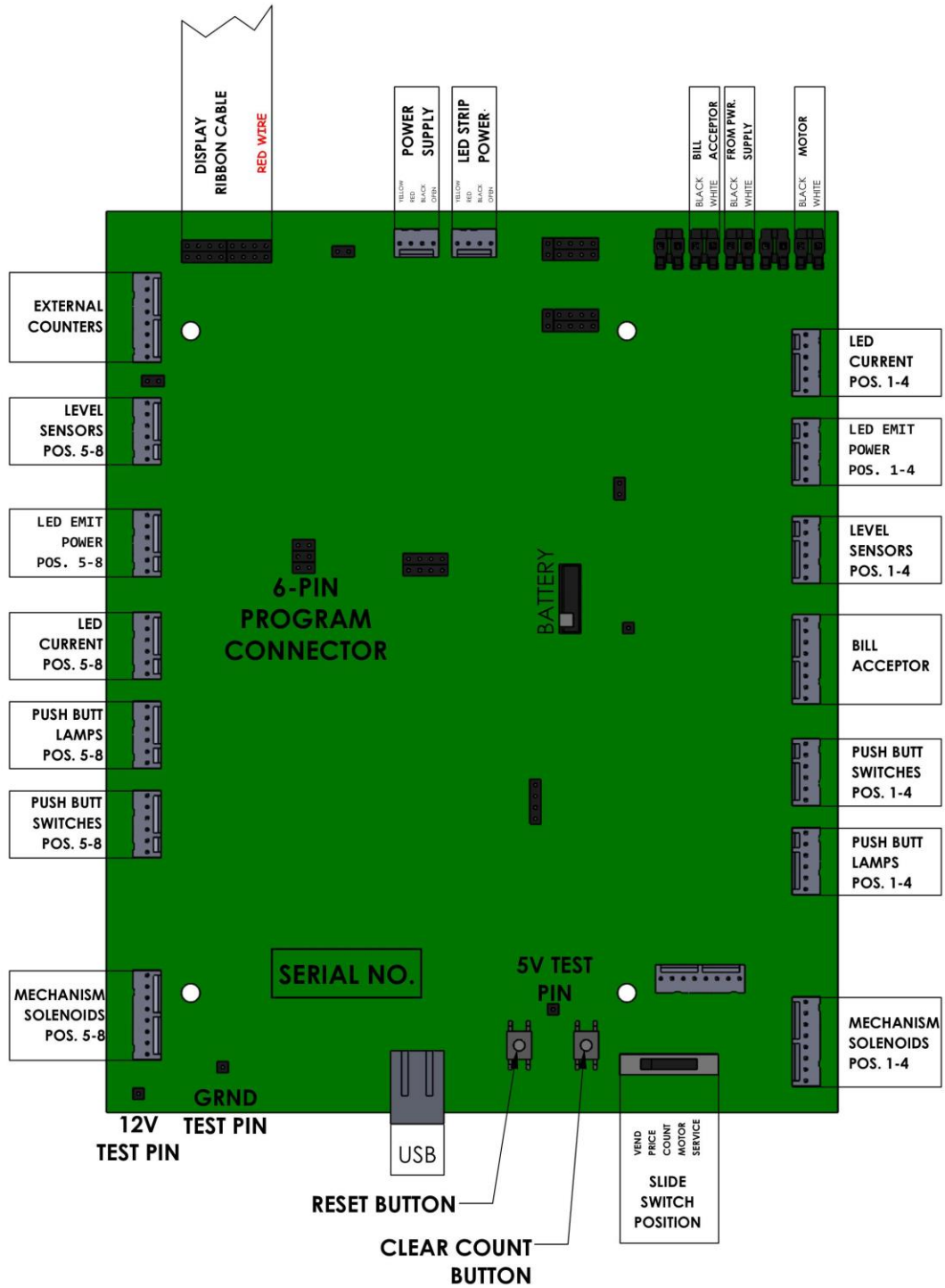
### **Machine Lubrication**

This should not be necessary. Improper lubrication can result in machine malfunction.

## **CM-V8 CONTROL BOARD**



TECHNIK MFG, INC.  
CONTROL BOARD P/N 110-090



**PYRAMID BILL ACCEPTOR**

## OPTION SWITCHES

The dipswitch control has an option switch module containing eight switches. These switches allow the unit to be customized and are normally set at Technik.

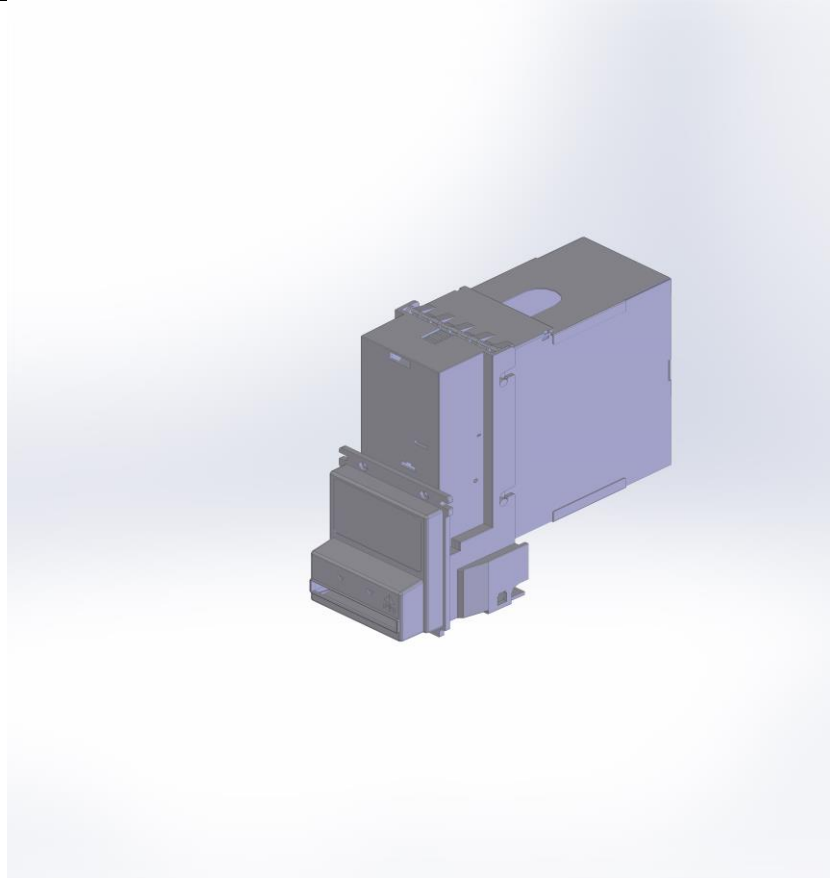
## REMOVING ACCEPTED BILLS

Bills are removed by releasing bill box lid exposing bills or removing the bill box entirely from the acceptor unit.

## CLEARING JAMS & CLEANING

Trapped bills or debris will result in poor bill acceptance or bill rejection. Remove bill box and lower housing to access bill path for clearing trapped bills or debris. Clean bill path plastic parts with a cloth moistened with a mild soap and water solution. Clean the magnetic head and optic sensors using a swab and denatured alcohol. **Do not use any petroleum based cleaning solvents, scouring pads or stiff brushes for cleaning. The Acceptor requires no lubrication at any time.**

**ATTEMPTING TO REPAIR INTERNAL MECHANISM WILL VOID WARRANTY**



**TECHNIK MFG., INC.  
1005 17<sup>TH</sup> STREET  
COLUMBUS, NE 68601**

SERVICE LOG SHEET

MACHINE SERIAL NUMBER \_\_\_\_\_ DATE INSTALLED \_\_\_\_\_  
 MACHINE MODEL TYPE \_\_\_\_\_ INSTALLED BY \_\_\_\_\_  
 BUSINESS NAME \_\_\_\_\_  
 BUSINESS ADDRESS \_\_\_\_\_  
 CITY/STATE/ZIP \_\_\_\_\_

<u>DATE</u>	<u>SERVICE PERFORMED</u>	<u>SERVICED BY</u>

# CARDMASTER MACHINE LOG SHEET

<u>DATE</u>	<u>MACHINE ROW</u>	<u>CARD VALUE</u>	<u>TOTAL CARDS</u>	<u>TOTAL CASH</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
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