

4 THE MASTER

DUAL LOAD

SET UP AND OPERATION MANUAL

Machine Serial Number _____



1005 17th Street
Columbus, NE 68601
Service Dept. 1-800-795-8251
Website: www.technikmfg.com
E-mail: serv@technikmfg.com

VERSION PROGRAM 1.51.1 111-029A FIRMWARE

Set Up and Operations Manual
THE MASTER 4 DUAL LOAD

Table of Contents

SAFETY CONSIDERATIONS	2
UNPACKING.....	2
MACHINE OVERVIEW	3
MACHINE MOUNTING.....	4
AUTOMATIC SEQUENCING	5
MODES OF OPERATION.....	5
INSTALLING PUSHBUTTONS	6
PRICING THE MACHINE	7
TICKET THICKNESS ADJUSTMENT	8
LOADING TICKETS	8
CHECKING THE COUNTS	12
SPECIAL FEATURES	13
INITIALIZING PROCEDURE	14
RESETTING A COLUMN.....	14
TROUBLE SHOOTING	15
ERROR CODES FLOW CHARTS	16
ERROR CODE E-04.....	16
ERROR CODE E-10.....	17
ERROR CODE E-11.....	18
ERROR CODE E-12.....	19
ERROR CODE E-13.....	20
ERROR CODE E-14.....	21
ERROR CODE E-15.....	22
TICKETS JAM OR HESITATE.....	23
ODD COUNTS AND DISPENSING.....	24
TICKETS NOT DISPENSING	24
POWER ISSUES	25
FUUSE BLOWN.....	25
NO POWER	25
POWER INTERRUPTION.....	25
NO POWER FLOW CHART	26
DOORS DO NOT CLOSE PROPERLY.....	27
REGULAR MAINTENANCE	27
SERIAL NUMBER LOCATIONS	27
FACTORY SERVICE	27
CONTROL BOARD	28
PYRAMID BILL ACCEPTOR	29
Acceptor Diagnostics.....	29
Front Bezel Lighting Flash Codes	30
Removing the Cashbox	31
Installing the Cashbox	31
Removal of the Lower Sensor Plate	32
SERVICE LOG SHEET.....	33
MACHINE LOG SHEET	34

SAFETY CONSIDERATIONS

1. Unplug the machine when servicing – failure to do this could cause serious injury.
2. If the supply 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.

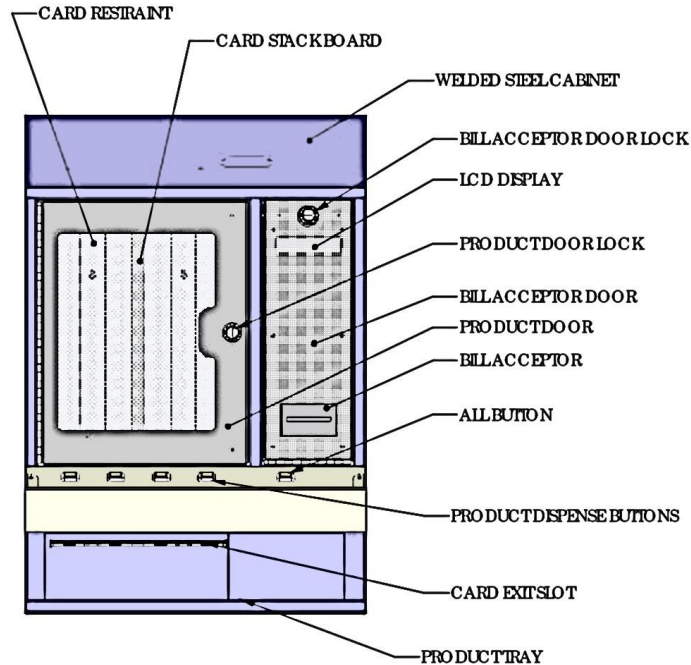
Please remove and save packing material for later use.

The following items are packed in the carton:

<u>QUANTITY</u>	<u>DESCRIPTION</u>
1	PULL TAB VENDING MACHINE
2	¼-20 x 1” Hex Bolts
1	Hex Key Wrench
4	Short Weights
4	Long Weights
4	Three-tab adaptors
4	Clear pushbutton covers
4	White Inside Pushbutton Backs
1	3 AMP fuse
4	\$.25 Currency legends
4	\$.50 Currency legends
4	\$1.00 Currency legends
4	\$2.00 Currency legends
6	Keys
1	Card display holder
1	Machine manual
1	Warranty certificate

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

MACHINE OVERVIEW

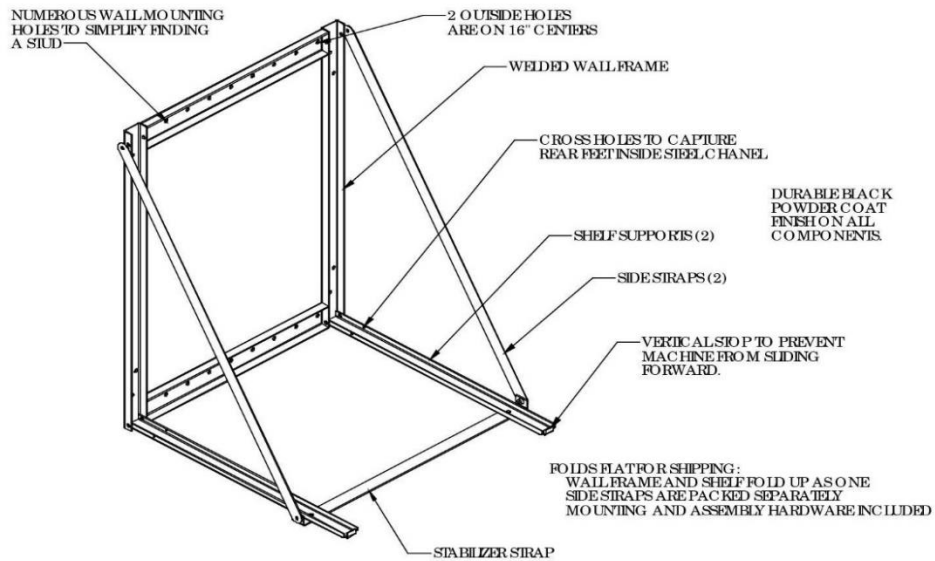
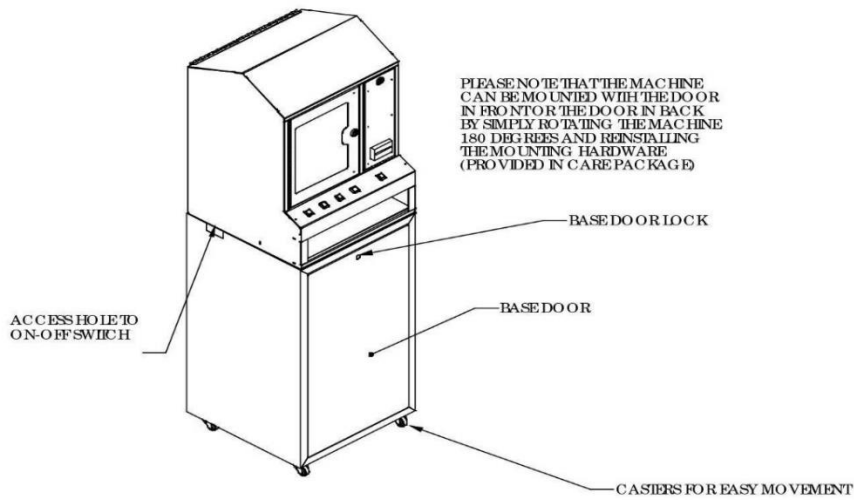


The Master 4 Dual Load is the same as the Master 4 but with the convenience of accessing the tickets and the money from the front of the machine. The machine can remain against the wall and does not have to be turned around to remove the cash and load the tickets!

If servicing the machine is required, the rear door still exists. The rear door can be used to access all the main components of the machine.

MACHINE MOUNTING

If you have purchased a base, read the instructions listed below which describe the process of mounting the machine to the base. Also, the machine can be mounted to a wall using the mounting bracket pictured below.



AUTOMATIC SEQUENCING

When the machine is first turned on, it will start its automatic sequencing. The sequence starts with three short audio “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 should “lift”, each light should light. This automatic sequencing is to be used as an aid to ensure that the electronics and moving parts are working properly. The machine will begin its normal attract mode after the automatic sequencing is completed.

MODES OF OPERATION

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

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: This mode is used to check and clear accounting information.

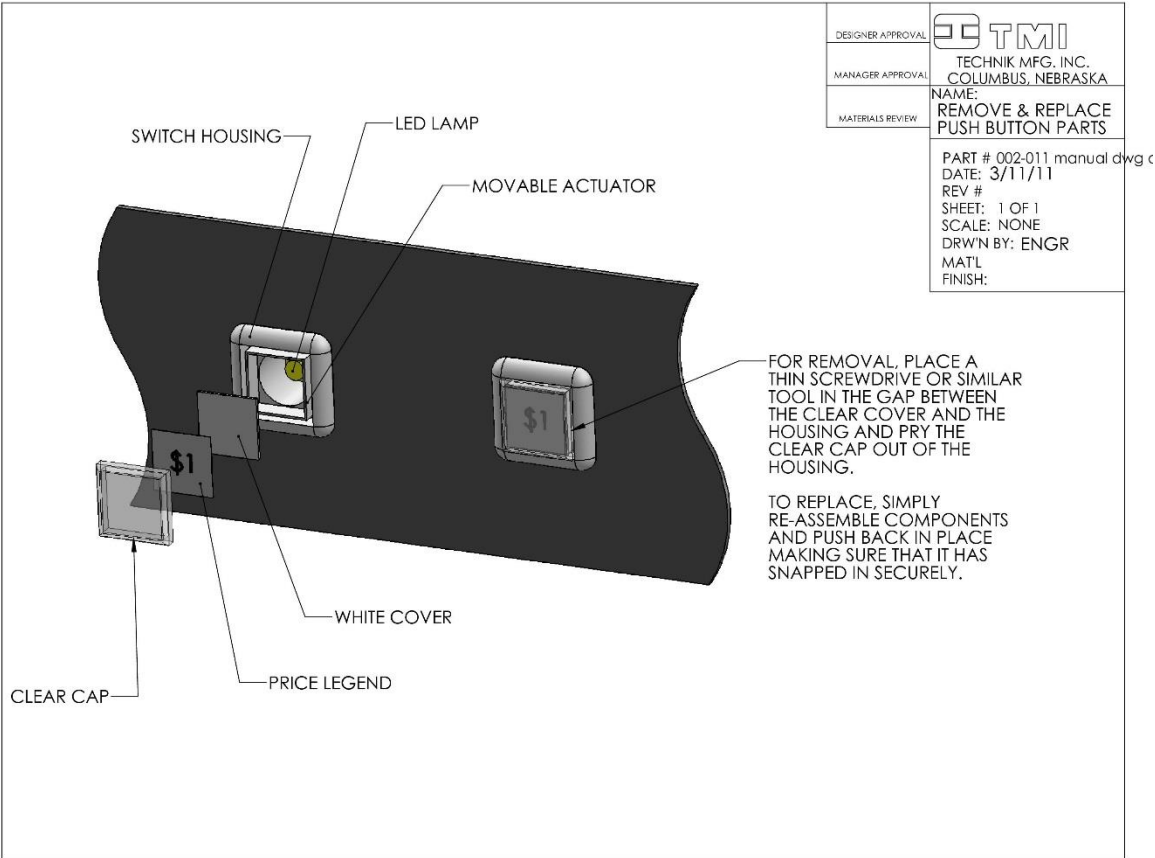
MOTOR MODE: This mode is used to count inventory, clear a jammed card, adjust card thickness, and troubleshooting.

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 service mode, the audible alarm will sound briefly every 15 seconds to serve as a reminder that you are in the service mode.

SERVICE NOTE: If your machine has a CSA (Canadian Standards Association) sticker on the side of the machine the machine meets CSA standards. It is equipped with a motor interlock switches (located inside the product and bill acceptor compartment). The motor interlock switch disables the motor anytime the product and bill acceptor door is opened. When servicing this product, you may have to bypass this switch – please be aware of moving parts as they may cause injury. Do not permanently bypass any safety switches.

INSTALLING PUSHBUTTONS

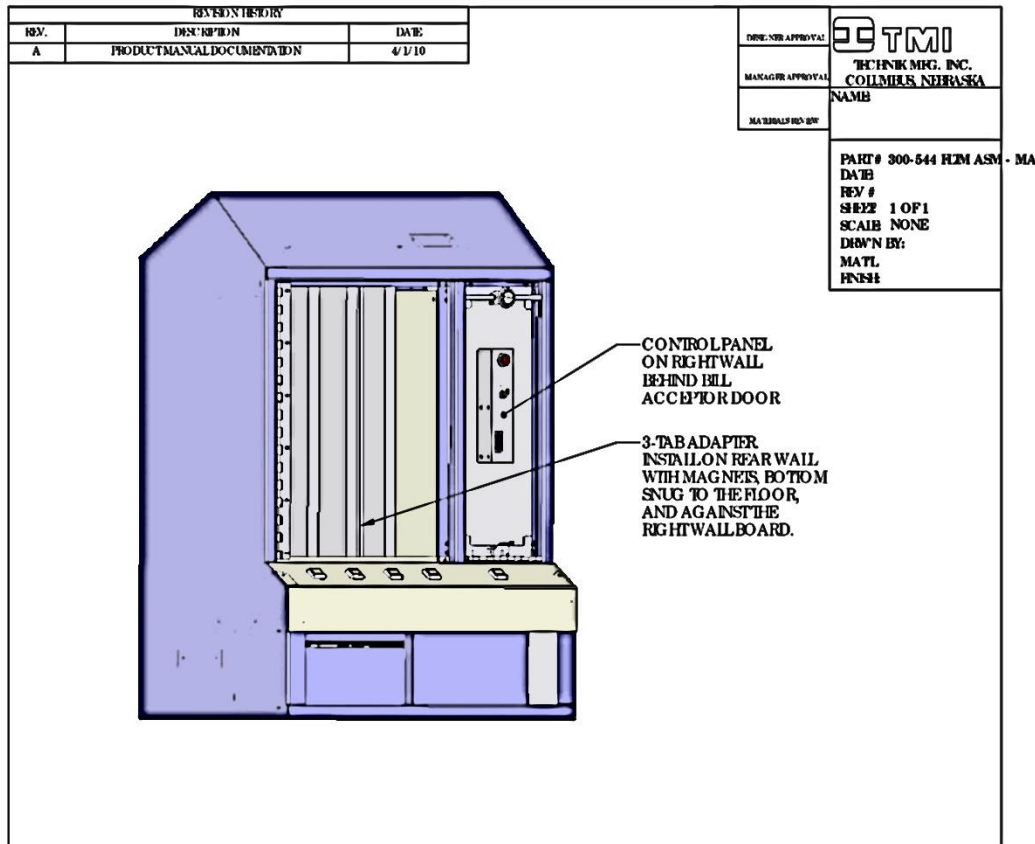
The pushbutton assembly includes the clear top cover, currency legend, the white plastic back, and the pushbutton itself. Place the white back on the machine pushbutton. Insert the currency legend into the clear cover. Push the clear cover onto the machine pushbutton and push until it snaps on, one edge at a time. To remove the cover, use a thin screwdriver to pry it loose between the clear cover and the outer shell. Note the following illustrations:



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

PRICING THE MACHINE

You are now ready to set the column's prices. The machine has a control panel mounted in the bill acceptor compartment. See illustration below. The control panel is mounted on the right side when the bill acceptor door is open. The selector switch is on this control panel. Move the selector switch to the "Price" position.



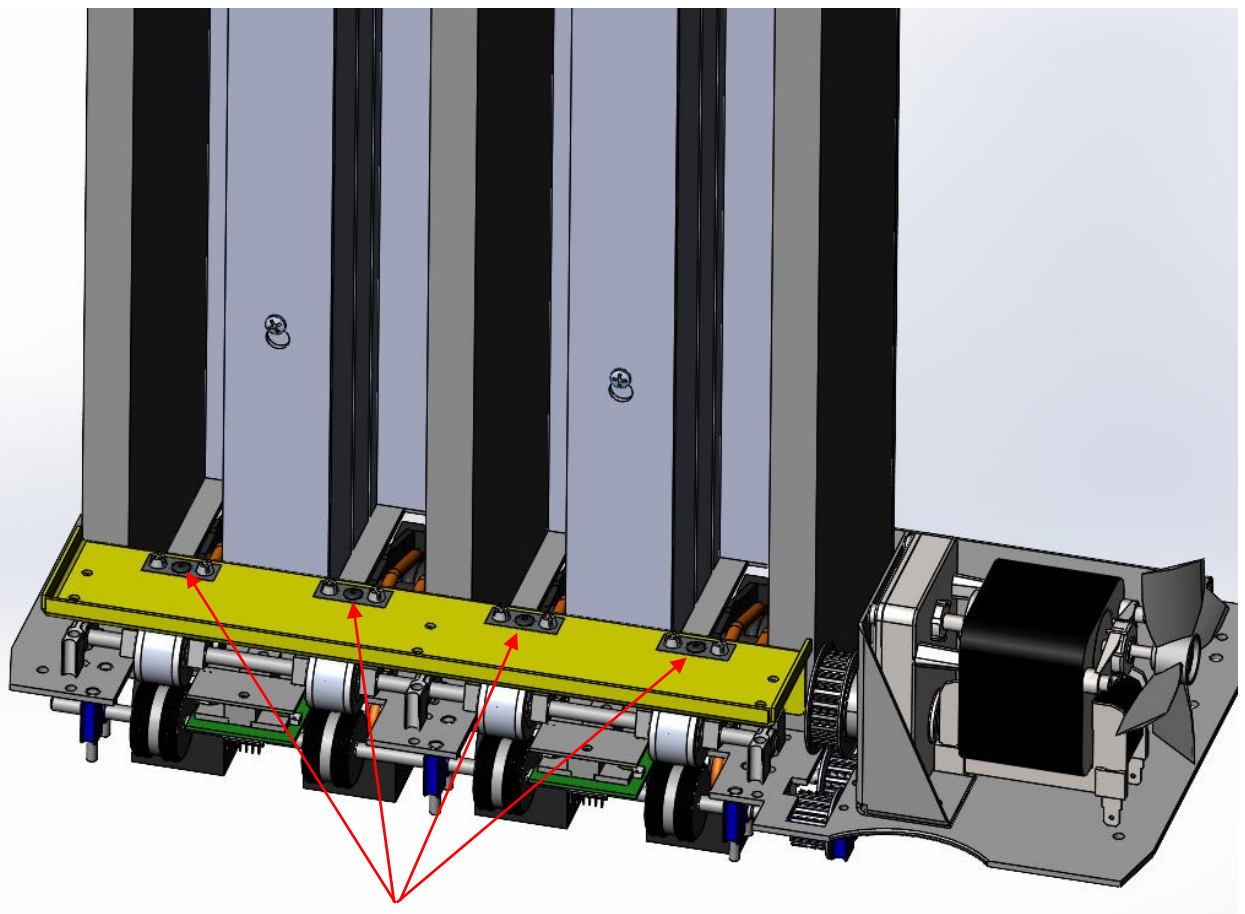
Notice the display on the front of the bill acceptor door should now read "**Price Column A.**" Also notice that column "**A**" pushbutton light is on. The second line of the credit display is indicating the current price of column "**A**". Press the column "**A**" pushbutton to change to your required price. Once the proper price is displayed, the row is programmed for that amount and pressing the "**ALL**" pushbutton will advance to column "**B**". The display will now read "**Price Column B.**" Press the column "**B**" pushbutton to set that row to the desired price. Repeat the above steps to price the remaining columns.

Once you have programmed all rows, return the selector switch on the control panel back to the "**VEND**" position.

TICKET THICKNESS ADJUSTMENT

FOR STANDARD 3 WINDOW AND 5 WINDOW TICKETS

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 TICKETS

You are now ready to start loading the tickets. Tickets can be loaded face up or down. If there is significant bow, the tickets are to be loaded “belly” down.

The ticket restraint for columns 1 and 2 must be removed first to load tickets into columns 1 and 2. Another ticket restraint is used for columns 3 and 4. See below illustration for ticket restraint location. Once tickets are loaded, reinstall the ticket restraints.

Please note: You must place a weight on each of the rows to ensure proper card dispensing of the entire row.

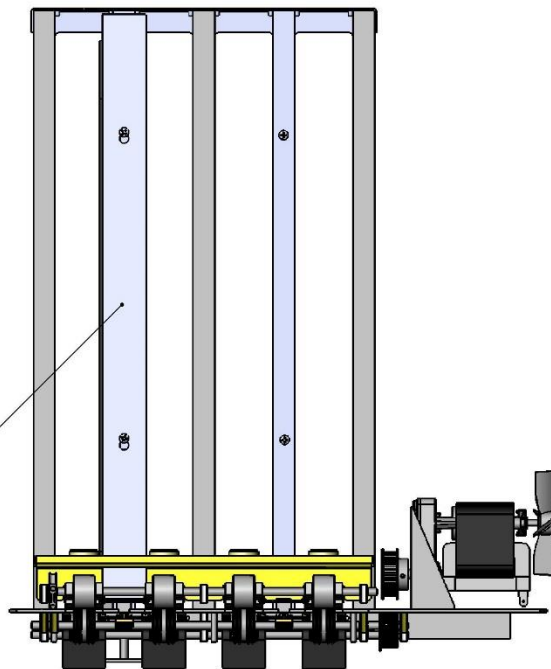
QUANTITY STRIP REMOVE AND REPLACE PROCEDURE

QUANTITY STRIP SERVES 2 PURPOSES: 1) IT HOLDS THE CARDS IN THE STACK AND 2) IT PROVIDES AN INDICATION OF THE QUANTITY OF CARDS REMAINING IN THE COLUMN.

THE SCREWS HOLDING THIS STRIP ARE TIGHTENED FOR SHIPPING BUT SHOULD BE UNSCREWED 1 TO 2 TURNS TO ALLOW THEIR REMOVAL WHEN LOADING CARDS.

THE KEYHOLE IN THE STRIPS ALLOWS FOR EASY REMOVAL AND REPLACEMENT ONCE THE SCREWS ALLOW THE STRIP TO BE FREE.

2 STRIPS ARE PROVIDED WITH EACH MACHINE.



FRONT VIEW OF CARD DISPENSING MECHANISM

LOADING TICKETS (continued)

If you are dispensing three-tab tickets, you need to use the 3-tab adapters. The 3-tab adapter is used to keep shorter tickets close to the front of the mechanism. This ensures your machine will operate reliably.

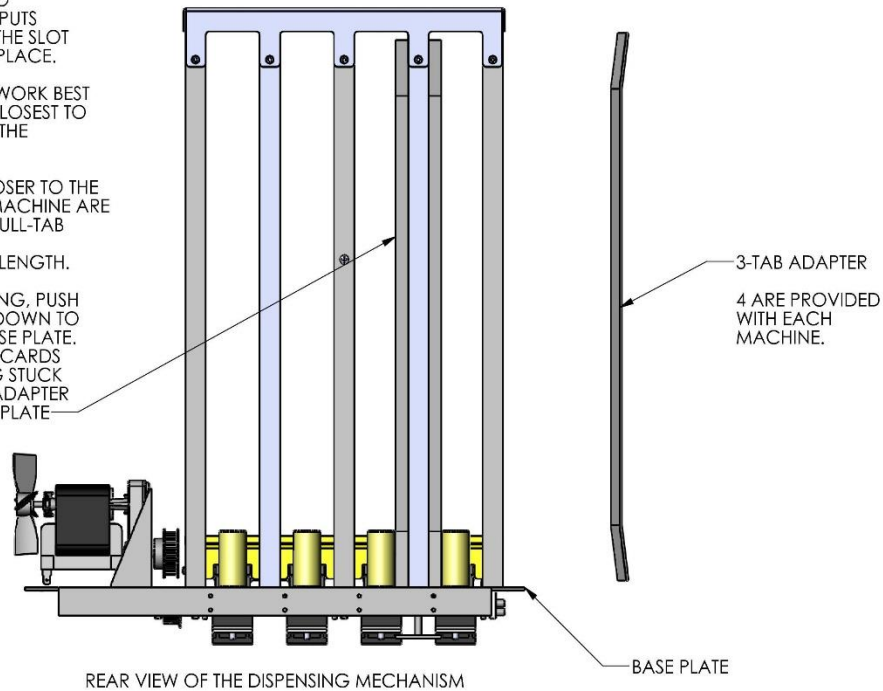
THE 3-TAB ADAPTER IS INSTALLED BY INSERTING THE BENT PLASTIC STRIP WHILE STRAIGHTENING IT TO FIT INTO THE SLOTS PROVIDED. THE SPRING FORCE USED TO STRAIGHTEN IT PUTS PRESSURE ON THE SLOT TO HOLD IT IN PLACE.

3-TAB TICKETS WORK BEST IN THE SLOTS CLOSEST TO THE FRONT OF THE MACHINE.

THE SLOTS CLOSER TO THE REAR OF THE MACHINE ARE FOR SPECIAL PULL-TAB CARDS OF AN INTERMEDIATE LENGTH.

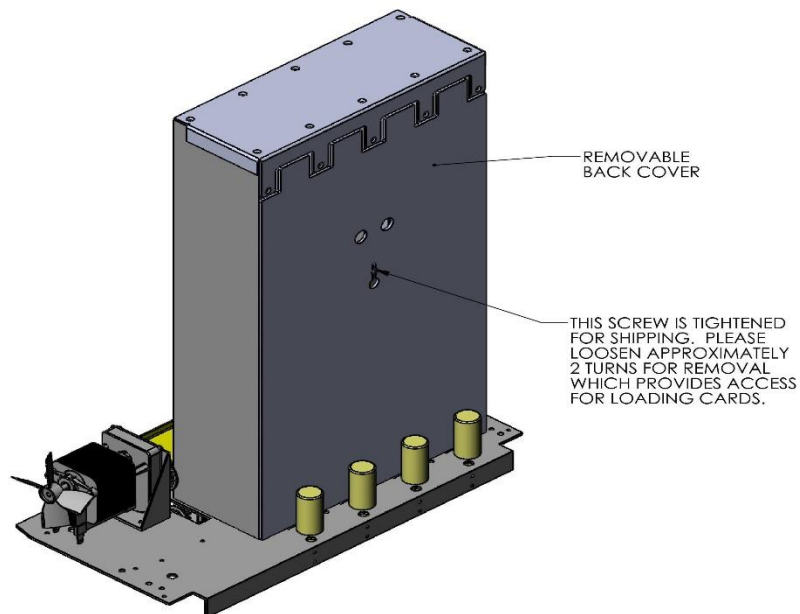
AFTER INSTALLING, PUSH THE ADAPTER DOWN TO TOUCH THE BASE PLATE. THIS PREVENTS CARDS FROM GETTING STUCK BETWEEN THE ADAPTER AND THE BASE PLATE

3-TAB ADAPTER INSTALLATION



LOADING TICKETS (continued)

An alternate way to load and unload tickets is from the rear of the machine. Open the back door of the machine to access the back panel of the ticket chute. See the illustration below.



Now that the tickets are loaded and the selector switch is in the **“VEND”** position, you may place money in the machine to check its operation. Try \$1.00, \$5.00, \$10.00, and \$20.00 bills to make sure the bill acceptor is giving proper credits; then begin to dispense cards row by row. As you begin to dispense tickets, make sure they are coming out of each row in the proper denominations and the row is functioning properly.

CHECKING THE COUNTS

The Master 4 Dual Load has “**re-settable**” and “**non re-settable**” accounting information. When the selector switch is on “**COUNT**”, this information can be viewed on the display on the front of the bill acceptor door.

The “**ALL**” button is used to view the counts for cash and cards. The “**ALL**” button will go through all the information of total and period counts. The cash and cards titled “**PERIOD**” are **re-settable counts**. 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 a lifetime total until the machine is re-initialized.

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

SPECIAL FEATURES

The Master 4 Dual Load has the following feature so that it may be easier to determine the remaining inventory cycle count.

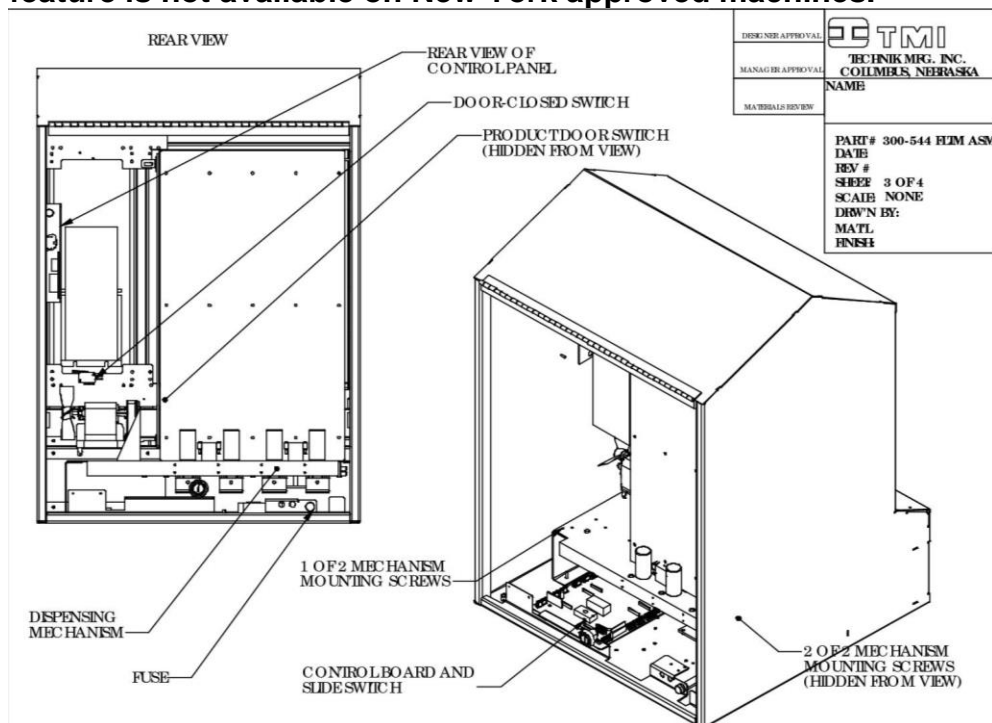
1) Inventory: The Master 4 will electronically count the remaining tickets in each column.

- Place the selector switch on the control panel in the **Motor** position. The motor will run constantly. Note: *that if your machine is equipped with 'motor kill switches', these switches need to be activated before the motor will run. See drawing on page 12 for switch locations.*
- To count the remaining tickets in a column, press the pushbutton for that column. The machine will then dispense the tickets from that column until it is empty. With each ticket dispensed, the machine will increment the count on the credit display on the front of the machine.
- To stop the column from dispensing before it is empty, press that push button for one second. Note that the tickets will stop dispensing and two counts will be on the display. The first number and the number in parenthesis will indicate the number of tickets dispensed. The first count will reset to zero when the pushbutton is pressed again. The count in parentheses will continue counting.

2) Credit-Erase: This feature will clear the display of any unused credits.

Players may mistakenly not use all their credits and this feature will clear those credits. The machine will return to its normal attract mode when the unused credits have cleared. This credit erase feature takes approximately 6 minutes. See **"Checking the Count"** to view this information.

***This feature is not available on New York approved machines.**



INITIALIZING PROCEDURE

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

This procedure is as follows:

1. Position the selector switch to the “**PRICE**” position.
2. Push and hold in the “**CLEAR**” button located on the control panel
3. Turn the machine off and back on.
4. Wait for the audible signals (beeps)
5. Release the “**CLEAR**” button

Once the automatic sequencing is completed, the rows will need to be programmed for the correct prices. After the programming is completed, return the selector switch to “**VEND.**”

RESETTING A COLUMN

Once a row malfunctions, it automatically shuts down and the light goes out. Once the ticket jam is cleared, the column must be reset. There is a switch concealed under the machine near where the cord enters the steel cabinet. Simply move this toggle switch to the off position and then back on. The machine's columns will reset. This will re-light the button on that row. The machine has a battery backup for the memory, so shutting the power off and on again does not cause the machine to lose its count or program.

TROUBLE SHOOTING

WARNING!!!! WARNING!!!! WARNING!!!! WARNING!!!! WARNING!!!!

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

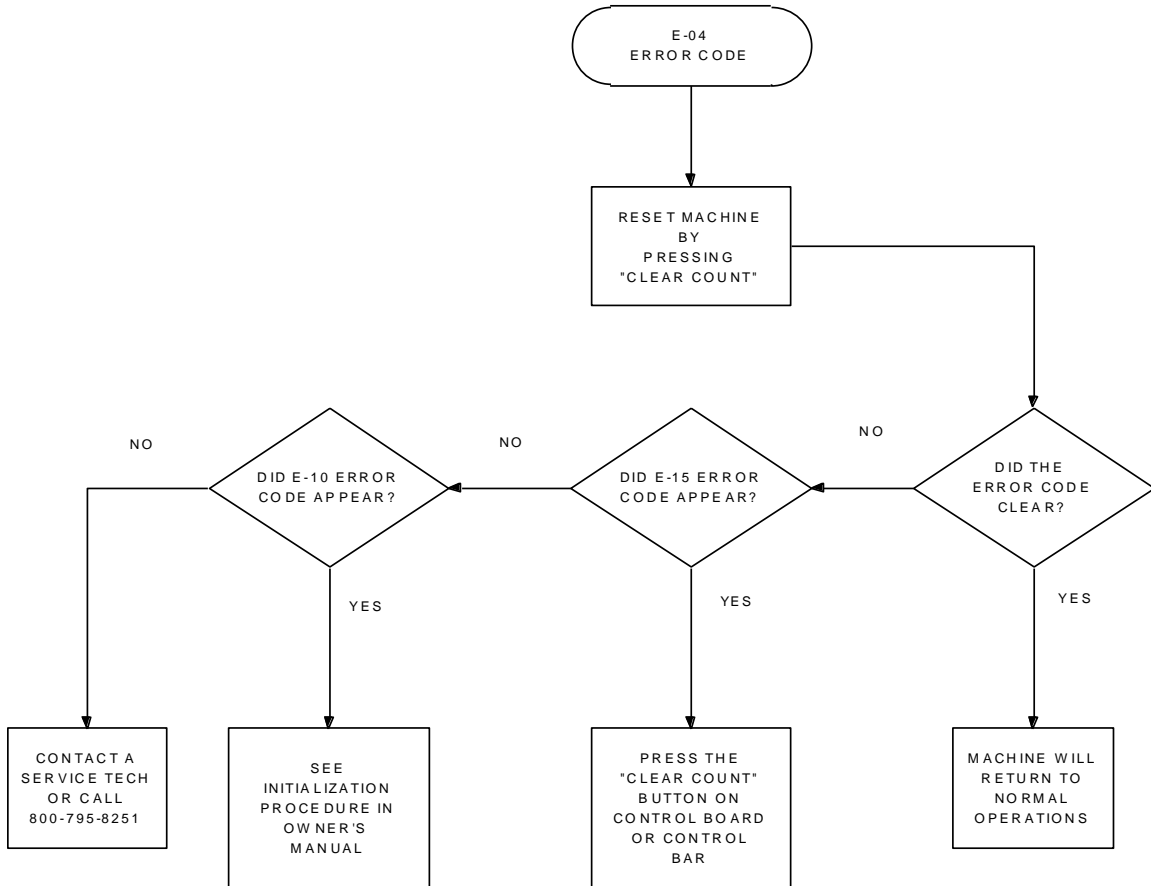
ERROR CODES

Diagnostic flow charts follow for each error code

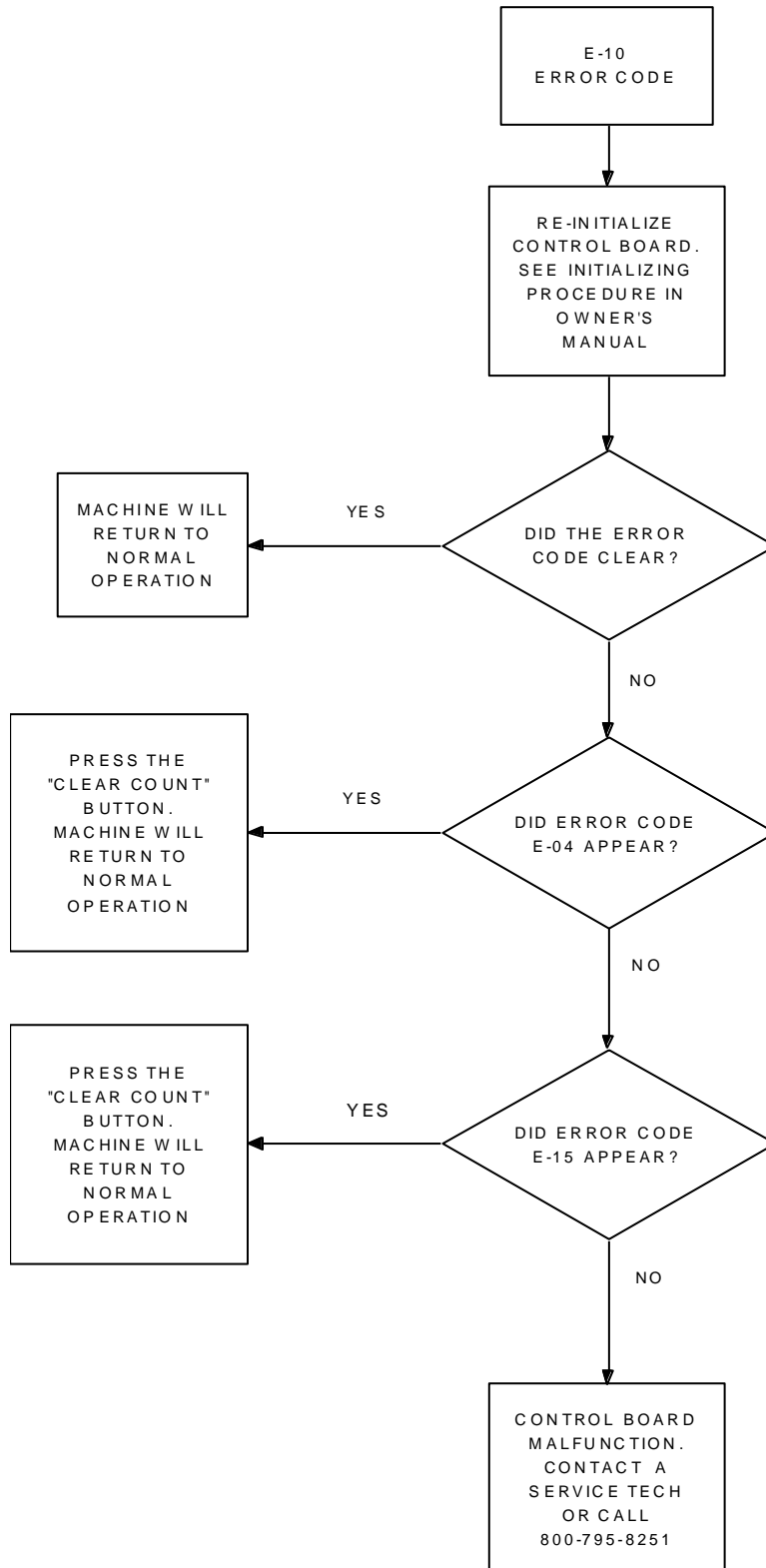
- E-04** This means that a power interruption occurred while the machine was dispensing a ticket. A ticket will be dispensed as the machine is turned off, then back on. To reset, push the “**CLEAR**” button on the control board.
- E-10** This means that the machine has lost its memory, and the row denominations will default to the default pricing and counts will be cleared. The control board needs to be re-initialized. See the “**Initializing Procedure**” section of this manual.
- E-11** 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-12** This means the bill acceptor pulse was too short 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** An unexpected ticket or foreign object has been detected. (Sensor blocked). The row in error, and the corresponding light on the button panel will turn off. All other rows will still function as normal. You will need to access the control bar to clear the blocked row and the error code. Turn the rotary switch to service mode. Now only the row in error will be lit. Push the clear button to clear the row and unblock the sensor. Push clear again to clear the error code. Verify the ticket exit slot is not blocked. Return rotary switch to vend mode. If the problem continues, **contact a service technician**.
- E-15** This means that the non-re-settable counters have been corrupted due to loss of memory. It is possible to view the corrupted counters by using the procedure under E-10. While E-15 is displayed and in the “**PRICE**” mode, press the “**CLEAR**” button to clear the error code and the machine will reset itself. Please note that the counts on the non-re-settable counters will be zero after the clearing procedure.

ERROR CODES FLOW CHARTS

ERROR CODE E-04

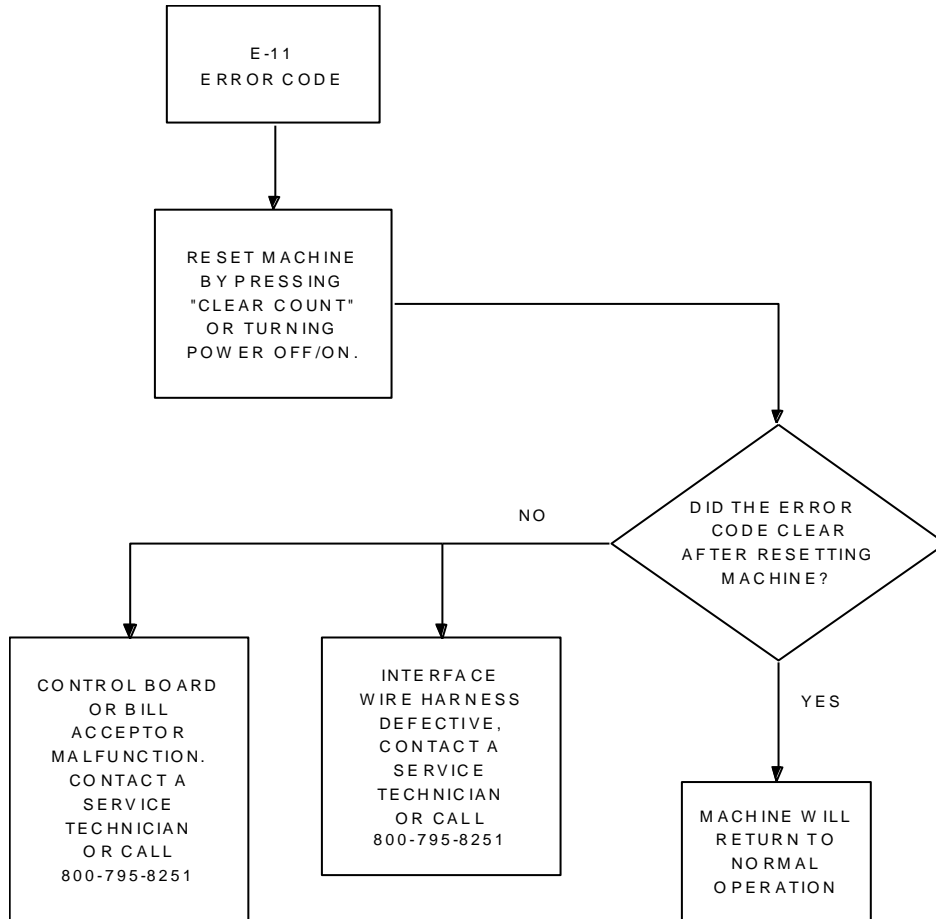


ERROR CODE E-10



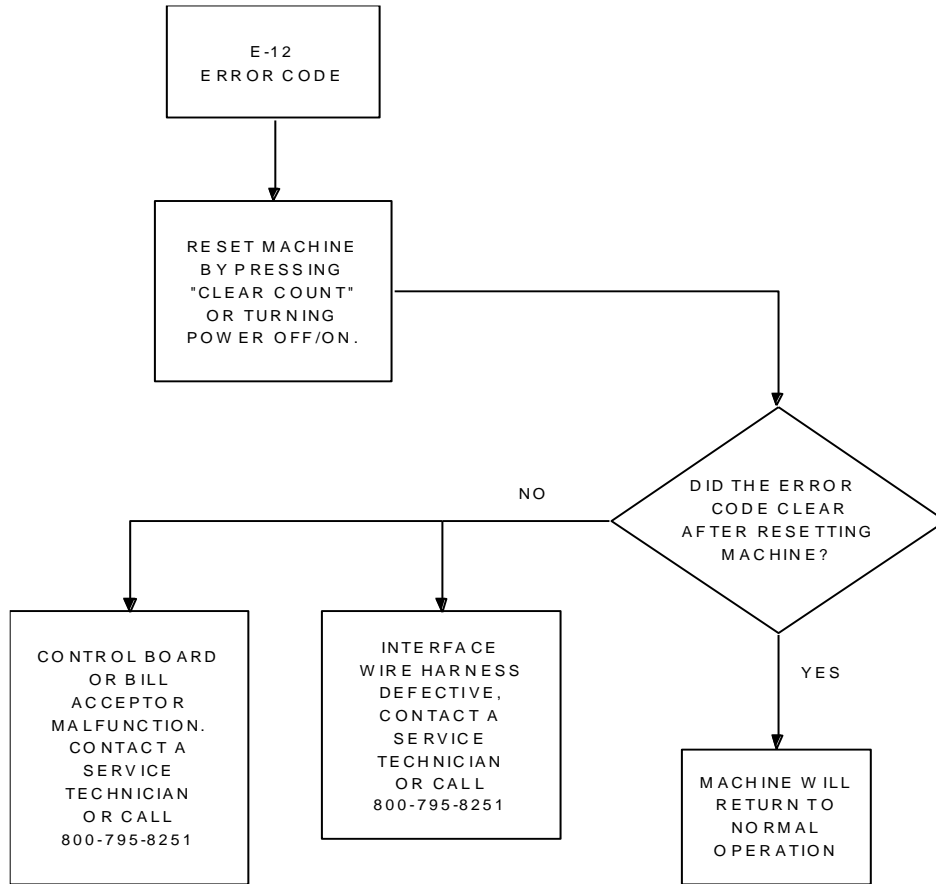
ERROR CODE E-11

ERROR CODE FLOW CHART FOR PYRAMID BILL ACCEPTOR

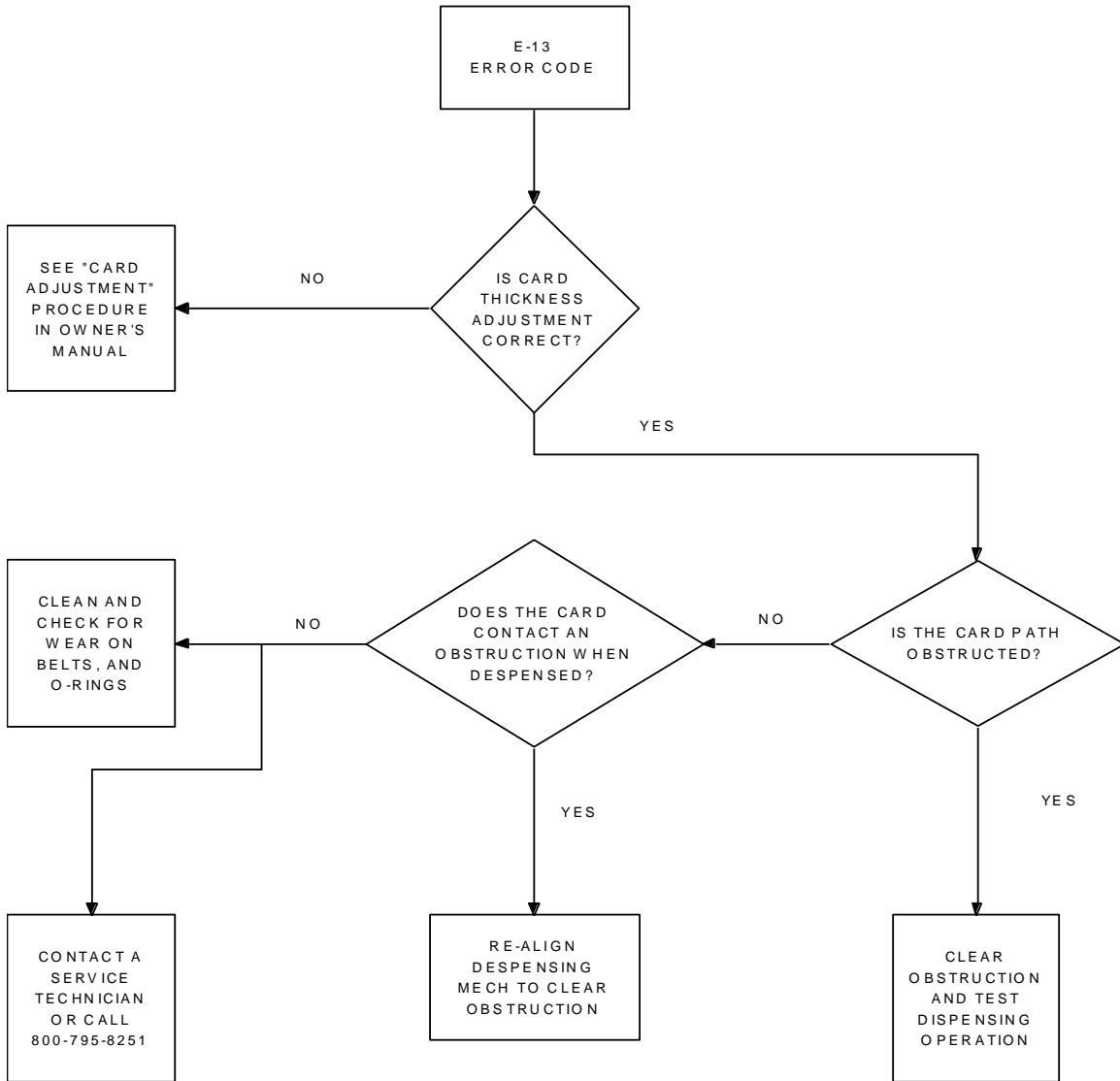


ERROR CODE E-12

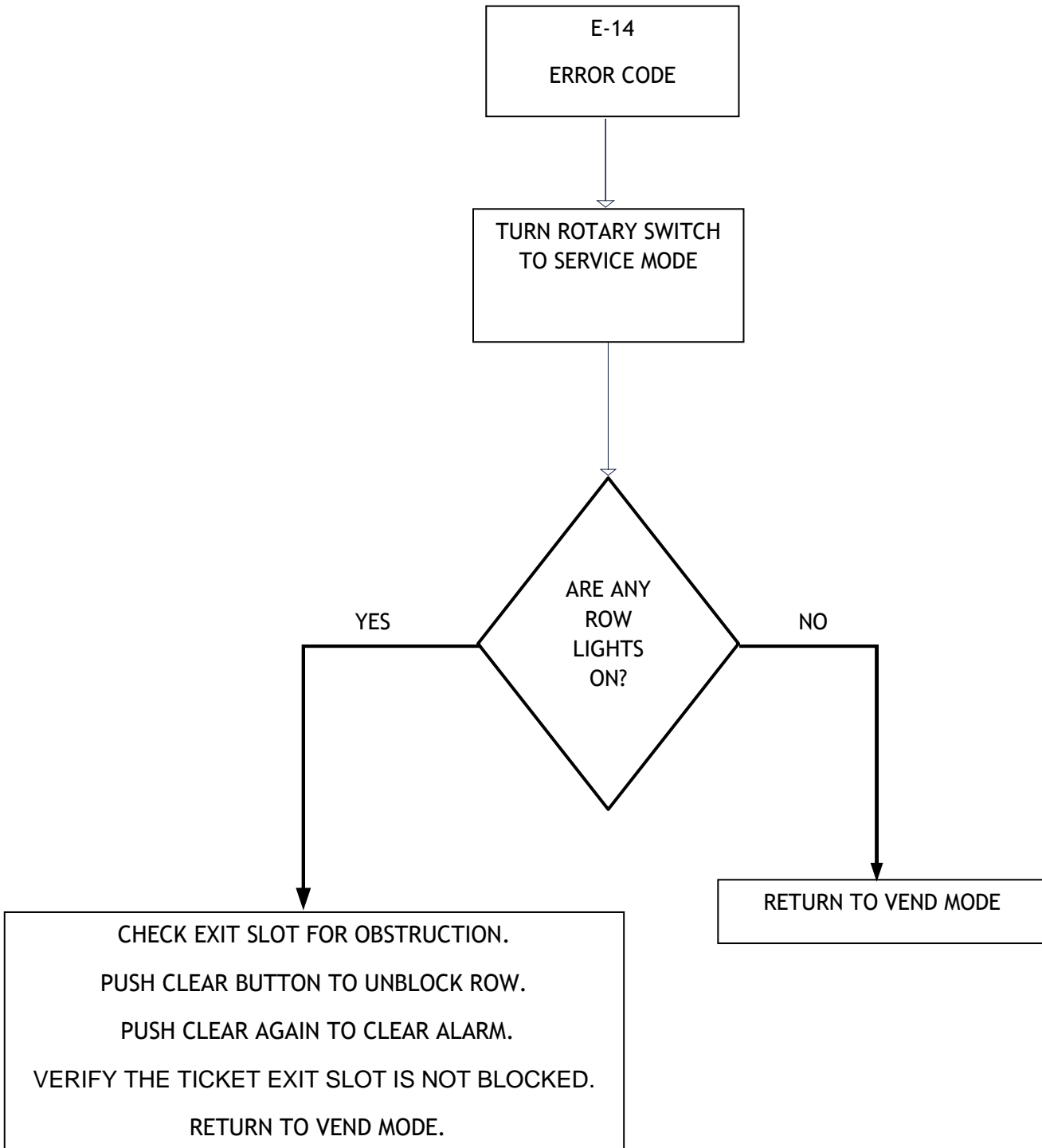
ERROR CODE FLOW CHART FOR PYRAMID BILL ACCEPTOR



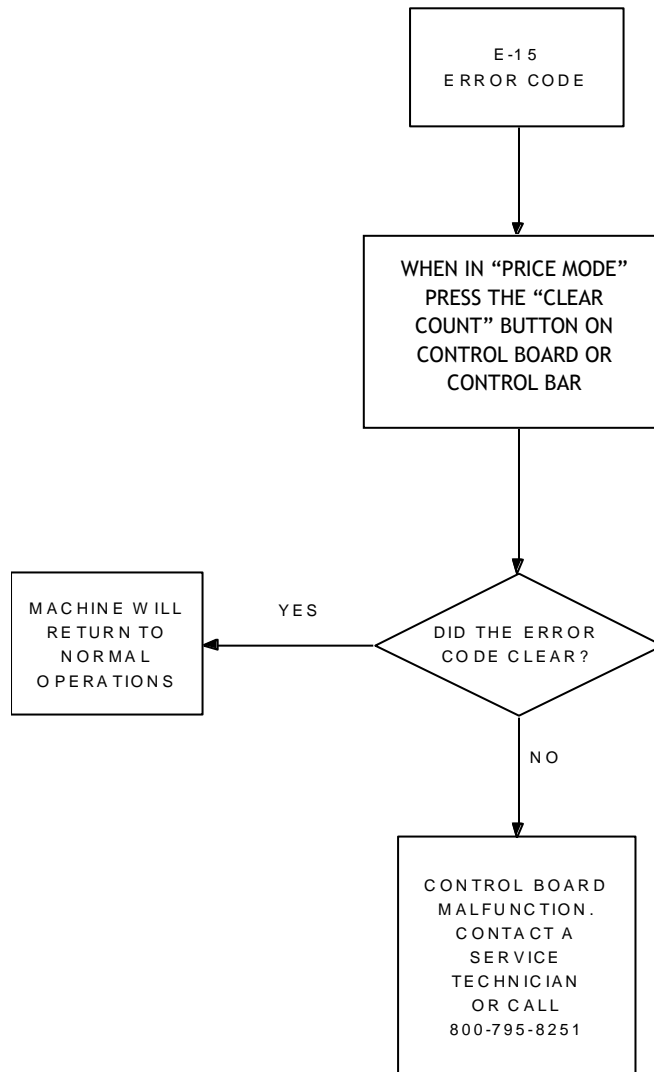
ERROR CODE E-13



ERROR CODE E-14



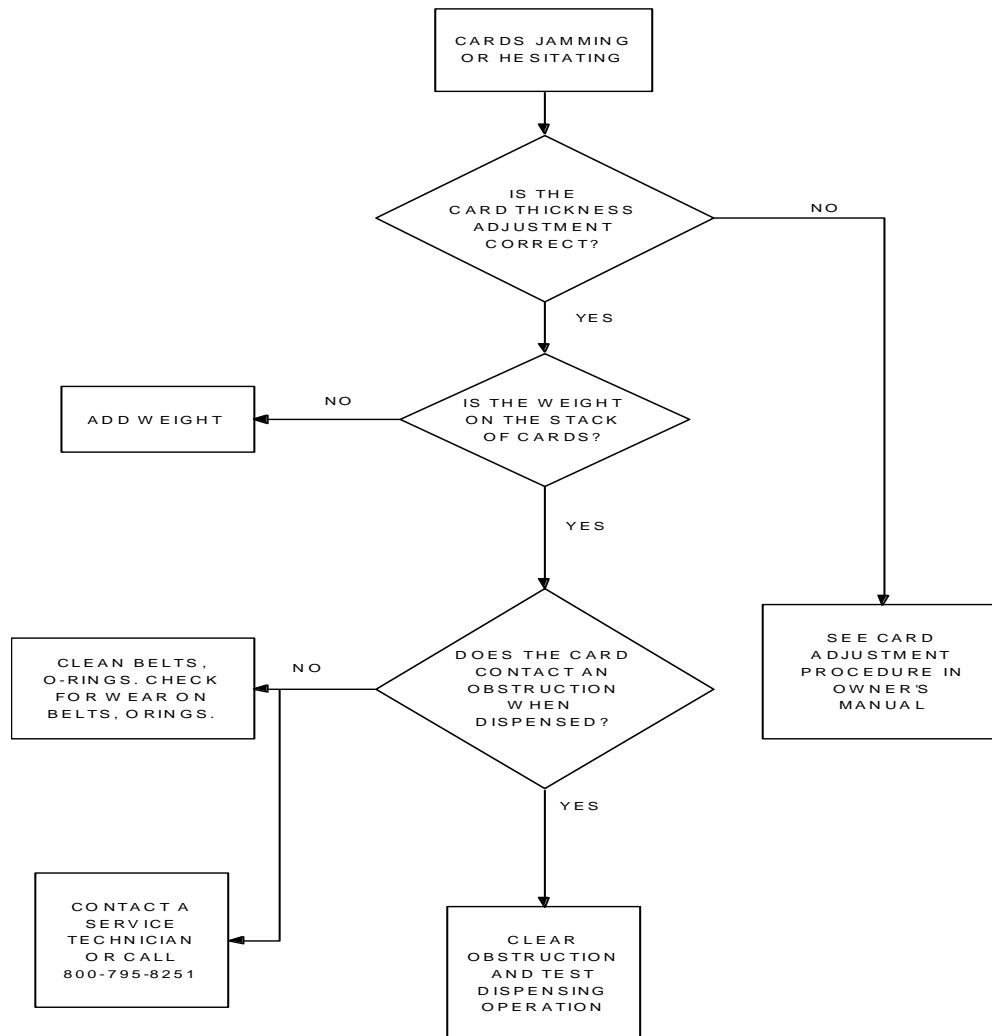
ERROR CODE E-15



TICKETS JAM OR HESITATE

- 1) Tickets may be too thick or thin. Or the ticket gap may need to be adjusted. See “**Ticket Thickness Adjustment**”.
- 2) Tickets may be excessively warped or bowed. Call your supplier.
- 3) Tickets may be glued together. The machine is designed not to accept 2 tickets at once. Again, call your supplier. Also, fanning the tickets prior to loading may solve this problem.
- 4) Tickets may be damaged. Remove damaged tickets and try again.
- 5) A loose roller may cause this problem. A loose set screw that is intended to lock the rollers to the shaft can cause this.

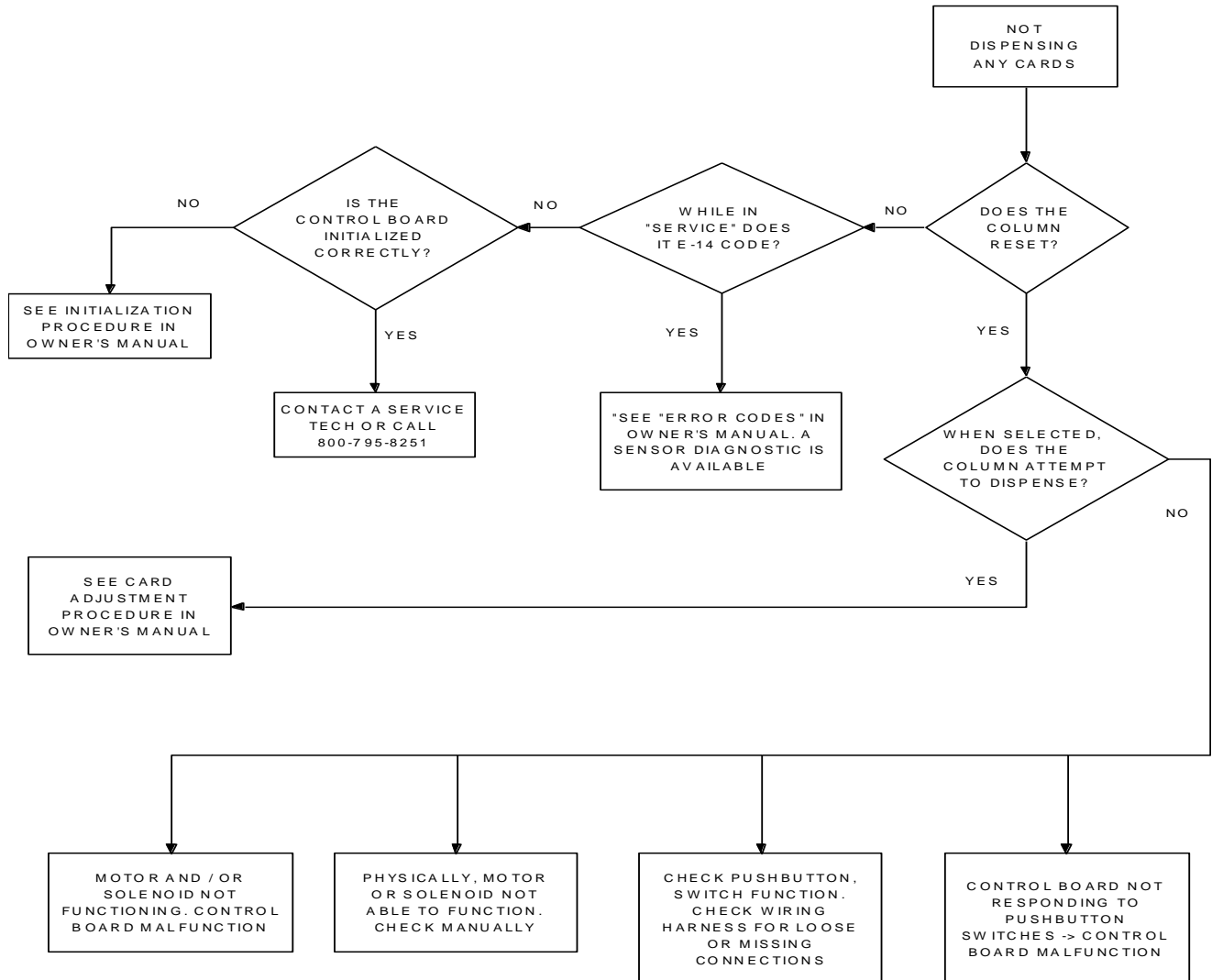
TICKETS JAMMING OR HESITATING FLOW CHART



ODD COUNTS AND DISPENSING

- 1) Static electricity is a major contributor to this and all other electronic equipment. You **MUST** use a 3-prong grounded receptacle.
- 2) At times (mostly in the winter), strange static problems can occur. It may be necessary to spray the carpet area around the machine with a diluted mixture (10:1) of Downy fabric softener and water once every two weeks. **DO NOT SPRAY MACHINE.**
- 3) 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.
- 4) 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.
- 5) The sensor may be dirty. One sensor is built into each track just beyond the drive rollers. Should the lower sensor get filled with ticket dust, it may not be able to sense. Simply blow air or use a cotton swab to clean this area.

TICKETS NOT DISPENSING



POWER ISSUES

FUSE BLOWN

If the machine shuts down and nothing works, check the fuse. The machine uses a 3 AMP fuse, AGC fuse.

NO POWER

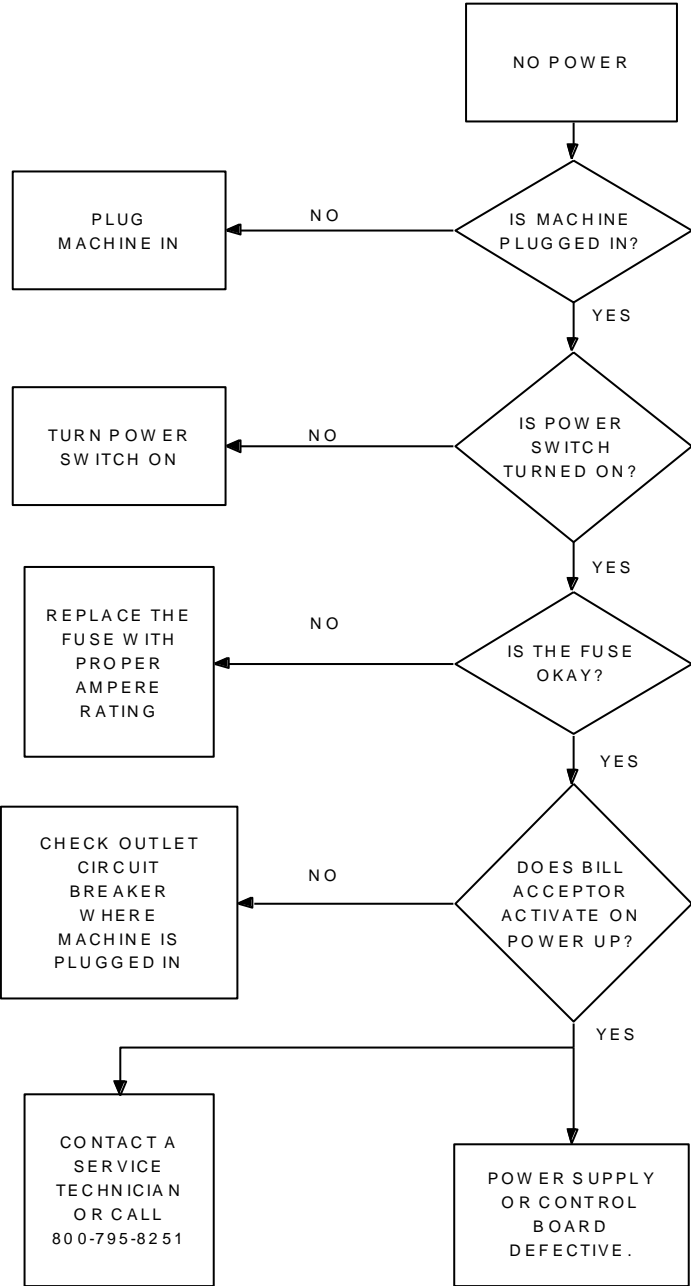
A toggle switch which turns the machine power on and off is located on the underside of the machine, close to the power cord. This switch can be used as a means of resetting the machine without opening the cabinet.

POWER INTERRUPTION

It is possible that if power dies exactly at the moment a card is being delivered, the card will stop and not be delivered until power is returned and the motor is run. The machine recognizes this situation by displaying an **E-04** error code. The machine will not operate until reset. This single ticket that was dispensed will not have been counted, nor will it have been deducted from the credit. Two possibilities then exist:

- 1)** The customer removes and plays the ticket after power has been restored. This is not a problem since the ticket has been paid for. The person at the location realizes this is due to the E-04 error code and dispenses one additional ticket from that column and returns it to the stack. This procedure corrects the ticket count and the dollar count.
- 2)** The person at the location can simply return the ticket to the stack after it has been dispensed and allow the customer to play. This procedure also corrects the ticket and dollar counts.

NO POWER FLOW CHART



DOORS DO NOT CLOSE PROPERLY

The machine is adjusted to work on a level surface. It may require adjustment of one or more of the four adjustable feet under the machine.

REGULAR MAINTENANCE

- 1) Clean the feed belts as needed with water.
- 2) Clean window as desired. Cleaning of windows should be performed with care. The front window is bulletproof but it will still scratch very easily. Use a soft cloth with plastic cleaner. **DO NOT use a dry towel of any type.**
- 3) Clean the bill acceptor as needed.
- 4) Lubrication should **NOT** be necessary.

SERIAL NUMBER LOCATIONS

There are three serial number locations on your machine. One of the serial number labels is visible through the front door window. It is located on the inside left side of the cabinet, up near the peak of the roof. The second location is in the lower left side when the rear door is open. The third location is on the front of this manual.

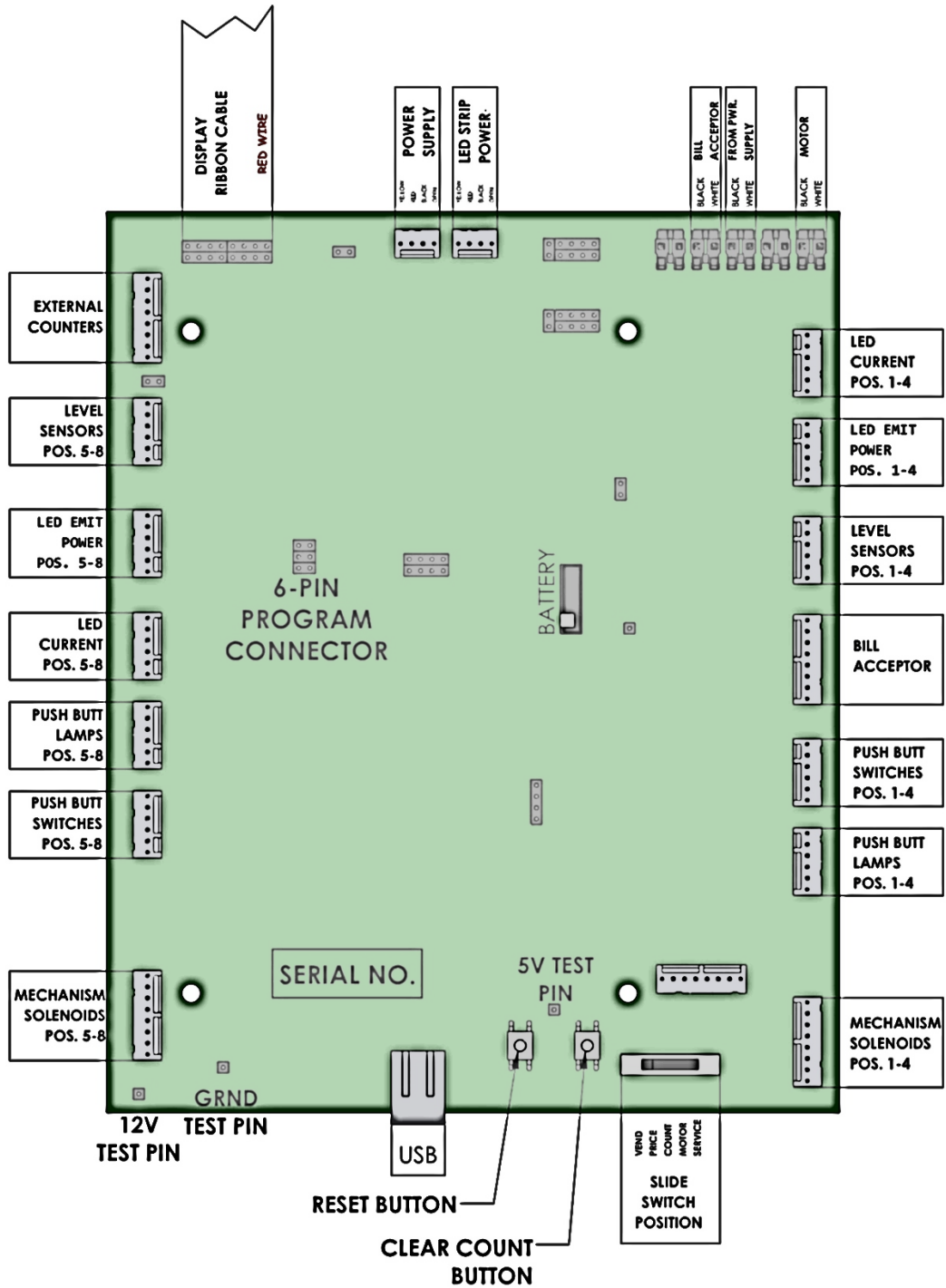
FACTORY SERVICE

Service is available at your fingertips. Simply call the number shown on the front of this book or on the label placed inside your machine.

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

CONTROL BOARD

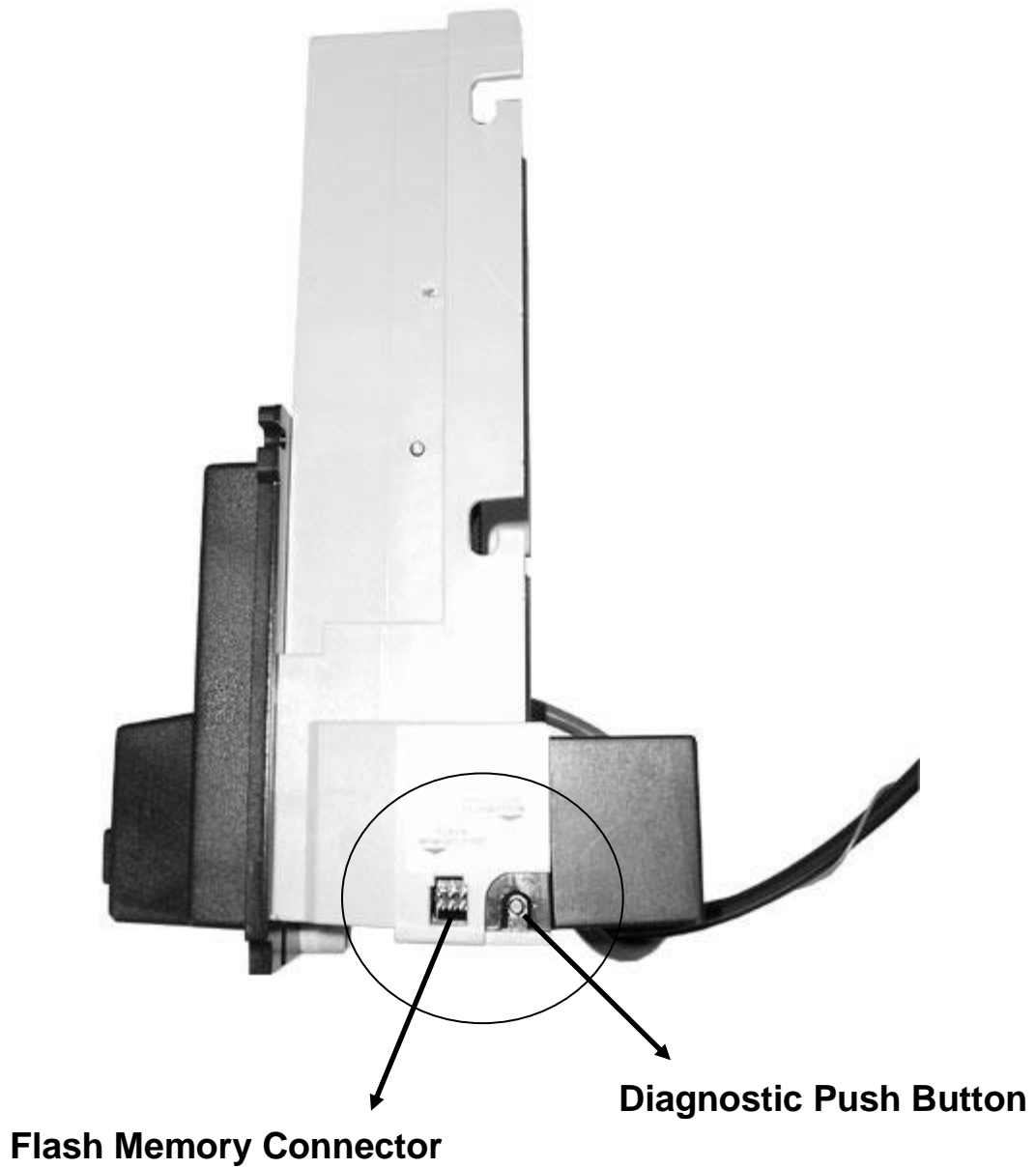
TECHNIK MFG, INC.
CONTROL BOARD P/N 110-090



PYRAMID BILL ACCEPTOR

Acceptor Diagnostics

Use the Diagnostic Pushbutton on the side of the acceptor (toward the rear) as shown.



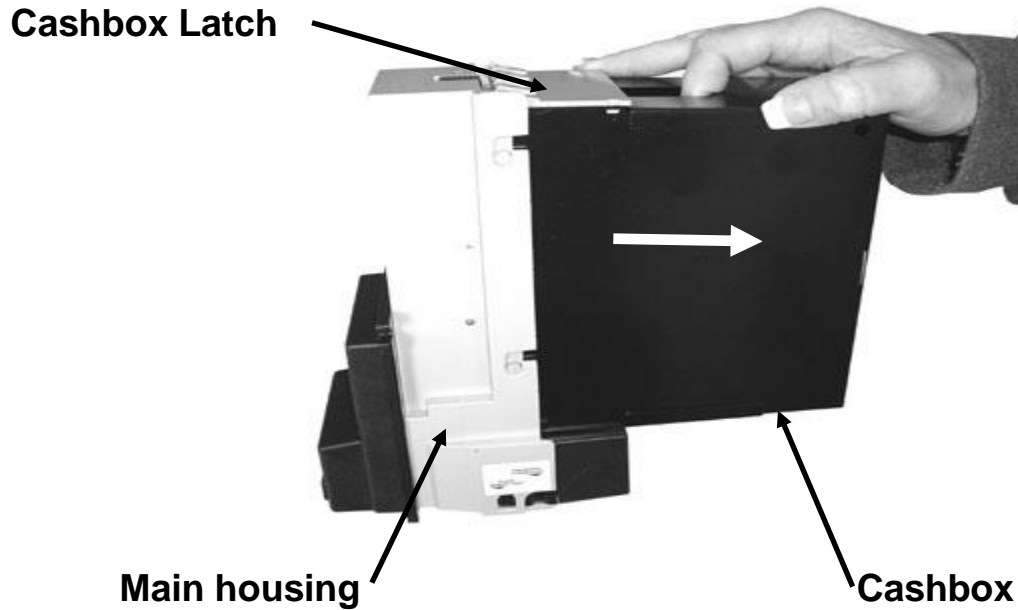
Front Bezel Lighting Flash Codes

The flash codes shown correspond to the Apex bill acceptor error. The acceptor will flash the error code, then wait 3 seconds and flash it again.

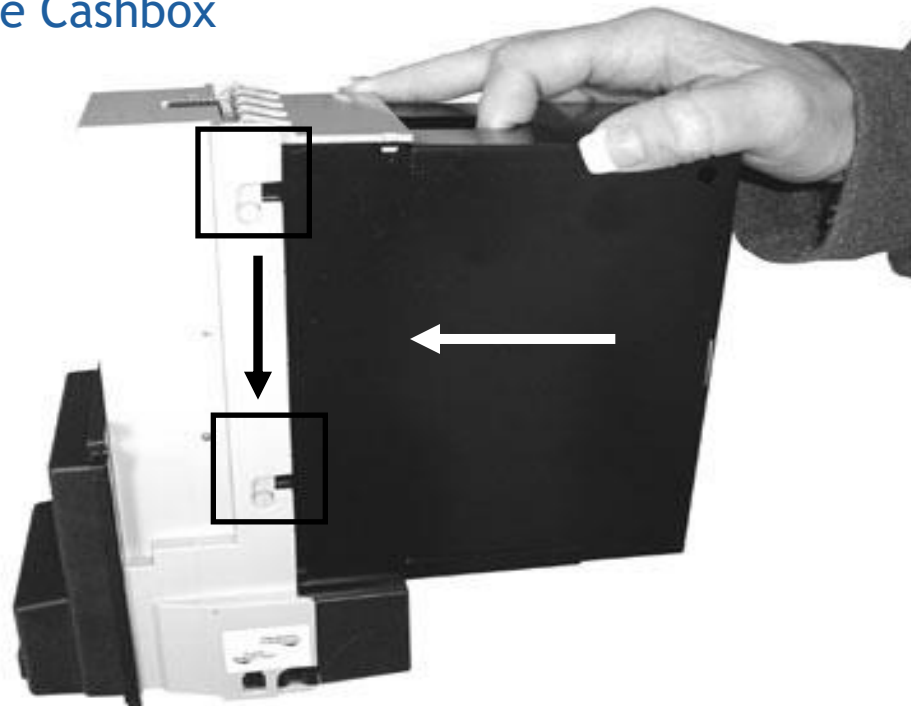
FLASHING CODE	MEANING OF FLASHING CODE	CORRECTIVE ACTION
LED's always OFF	The acceptor has no power.	Check that power has been applied.
LED's always ON	No error exists - acceptor is OK.	None.
1 Flash	Something is in the bill path	Remove the cassette and Lower Sensor Plate to inspect for foreign objects. Clean if necessary.
2 Flashes	Something is obstructing the stacker.	Remove the cassette and Lower Sensor Plate to inspect for foreign objects. Clean if necessary.
3 Flashes	The cassette is full of currency.	Remove the cassette and empty it.
4 Flashes	The cassette has been removed	Replace the cassette.
5 Flashes	The acceptor is defective	Replace the acceptor.
6 Flashes	The acceptor is not enabled	Verify that the host has enabled the acceptor.
10 Flashes	Configuration Mode has been entered.	Configuration Card must be inserted into the acceptor or cycle power to the acceptor to exit this mode. See Configuration Section for details.

Removing the Cashbox

To remove the stacker, push back the Cashbox Latch toward the front of the acceptor. Then pull the Cashbox upward, and then pull back to remove.



Installing the Cashbox



Note: When installing the cashbox make sure the tabs are pushed forward into the slots on the main housing. Then push down, making sure they click into place. If the cashbox is not properly installed the bill acceptor will not function.

Removal of the Lower Sensor Plate

Removal of the Lower Sensor Plate is done by pressing the locking tab in and pulling the plate back. **NOTE:** Before removing the Lower Sensor Plate, make sure you unplug the 18-pin connector from the other side of the bill acceptor. It is not shown in the picture.

