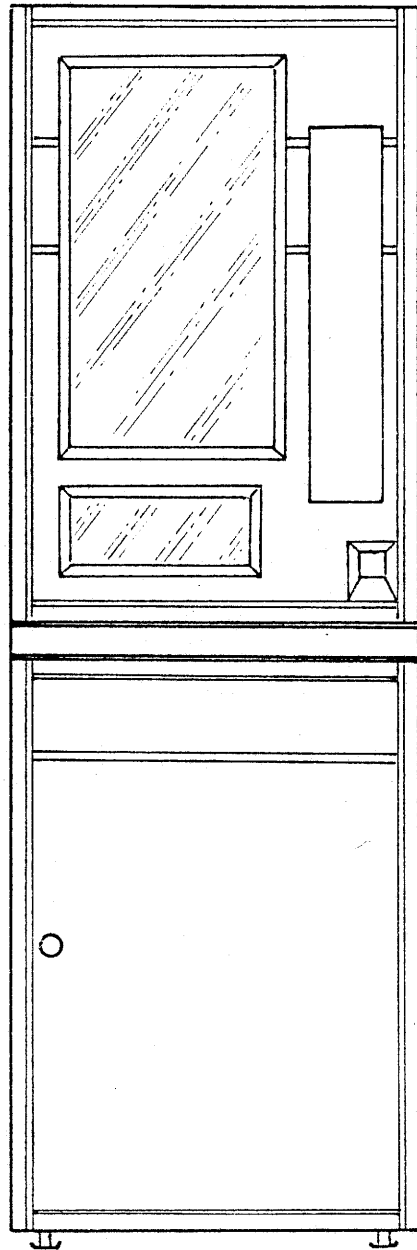




MINI-SNACK CENTER  
MODEL 3004  
SERVICE MANUAL



P/N 4201213  
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MINI-SNACK CENTER

MODEL 3004

INTRODUCTION:

This manual contains service and installation information on the Mini-Snack Center, Model 3004 and the various options and accessories offered within the product line. Standard configurations are available with a minimum of 9 selections to a maximum of 24 selections. Standard SC-15 will have 15 selections and a capacity of 174 items. All models have the "mix-and-match" design drawers that allow the capability of changing selection configuration by adding or reducing the number of motors, which allows the customer to change the vendable products on the spot to meet the specific needs of the location.

All models will include an Electronic Control System. The controller allows all selections to be priced separately at various amounts, ranging from 5¢ to \$12.75 in 5¢ increments. All programming of the vend functions and pricing is done at the Controller. Electrical malfunctions are recorded by the Controller and will be displayed to Service Personnel in the Digital Read-Out when the machine is placed in the Service Mode.

The Vending sequence of the Mini-Snack Center is a "first-in", "first-out" in each selection, eliminating the need for stock rotation to maintain fresh products in the vend area. The product drawers may be pulled forward for ease of loading and cleaning, and can be adjusted in height to compensate larger products. The drawers are equipped with individual motors and augers for each selection and functional selections will continue to operate if other items become non-functional.

This manual will define the basic vendor and various models as designated by the Model Number Code. Standard options and accessories will also be defined. Each machine will be identified by a Model Number and a Serial Number. You will find these numbers on the Serial Number Plate attached to the rear of the Vendor. All inquiries and correspondence pertaining to this Vendor should reference the Model Number and Serial Number.

Should you have any questions pertaining to this manual or the Vendor, please contact your Local Distributor or Selectivend Service, 165 North 10th Street, Waukee, Iowa 50263.

SPECIFICATIONS:

HEIGHT 72 1/2 Inches  
WIDTH 25 Inches  
DEPTH 33 3/4 Inches  
WEIGHT 350 Pounds

COIN MECHANISM:

Coinco - Model #9302L  
Mars - Model #TRC6010

OPTIONAL EQUIPMENT:

BILL VALIDATOR - Maka 110 Volt  
- Maka 24 Volt

FOUR (4) SHELF CONFIGURATION:

1ST Shelf - Snack Type - Three (3) Eight Item Augers  
2ND Shelf - Candy Type - Six (6) Fourteen Item Augers  
3RD Shelf - Candy Type - Six (6) Fourteen Item Augers  
4TH Shelf - Snack Type - Three (3) Eight Item Augers

ELECTRICAL:

POWER REQUIREMENTS:

115 Volts AC, 60 Cycle

TRANSFORMER:

117 Volts AC, Primary  
24 Volts AC, Secondary

OPERATING AMPS:

1.3 Amp

INSTALLATION INSTRUCTIONS:

This machine was thoroughly inspected before leaving the Factory, and the carrier has accepted this Vendor as their responsibility. Any damage or irregularities should be noted at the time of delivery and reported to the delivering carrier. Request a written Inspection Report from the Claims Inspector to file any claims for damage. File claim with CARRIER, (NOT THE MANUFACTURER) within 15 days after receipt of the machine.

Record the Model Number and Serial Number of the Vendor and refer to these numbers on all correspondence and inquiries pertaining to this Vendor.

UNPACKING:

Carefully remove the shipping carton in a manner not to damage the finish of the machine. Inspect the machine for concealed shipping damage. Report any damage hidden by the shipping carton directly to the delivering carrier on a "Hidden Damage" Report.

Remove the "knock-away" shipping supports by inserting a screw-driver and splitting the knock-away in two. (See Illustration #1). Turn the leveling screws in as far as possible. Position the Vendor in it's place of operation. Leave at least six (6) inches of space between the back of the machine and any wall or obstruction for proper air circulation. Level the vendor, making sure all levelers are touching the floor. The Vendor MUST be level for proper operation and acceptance of coins through the Coin Mechanism.

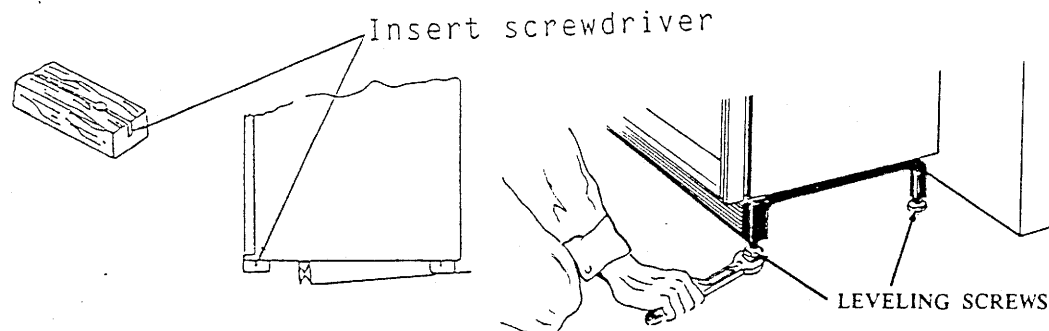
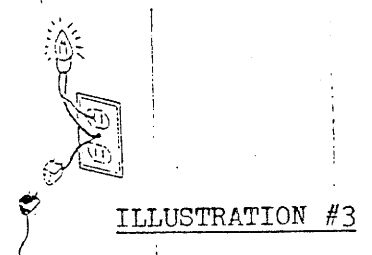
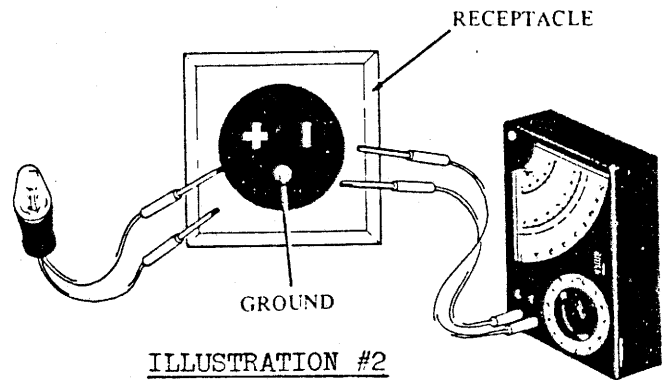


ILLUSTRATION #1

GROUNDING & ELECTRICAL:

For proper operation of an Electronic Controlled equipment it is recommended that the vendor be placed on an individual or isolated circuit, properly polarized and grounded, minimum 15 Amp circuit.

Shown in Illustrations 2 & 3 are two (2) properly grounded and polarized wall outlets. One is a three (3) wire grounding type wall outlet (Illustration #2) and one is a two (2) wire outlet (Illustration #3) with an adaptor in place. To make a polarity check, use a Volt-Ohm meter or a 115 Volt neon test light as shown. The "hot" side of the outlet should always be counter-clockwise from the grounded terminal with the terminal at the bottom. If the polarity at the wall outlet shows any other way than shown in the illustrations, the outlet needs to be rewired.



GROUNDING & ELECTRICAL: Continued

If you find that the receptacle is not grounded, or polarized, you should contact licensed electrician to correctly polarize and/or ground the receptacle to insure safe operation. Consult Local, State and Federal Codes and regulations before installation of the vendor.

The power cord is shipped inside the Vendor. Route the cord through the hole in the back of the cabinet and secure the power cord to the cabinet with the grommet provided.

LOADING:

All items must fit freely between the auger spaces. Do not try to force over-size items into the auger. The size of the item being vended MUST be larger than the diameter of the auger to vend properly. When loading, always load the spirals from front to rear. Do not skip a space when loading.

SNACK SELECTIONS:

Each Snack Selection will have an eight (8) item auger. The number of items per auger is determined by the number of spaces (loops) in the auger. Pull forward on the drawer until it contacts the drawer stop, the drawer will now tilt downward for ease of loading. In a Snack Drawer, the bottom of the product should be placed on the top of lower portion of the spiral. (See Illustrations #4 & #5)

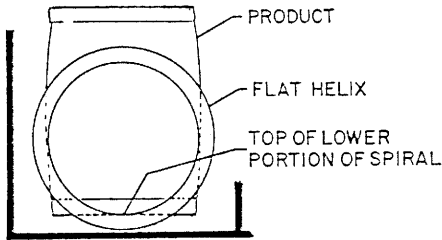


ILLUSTRATION #4

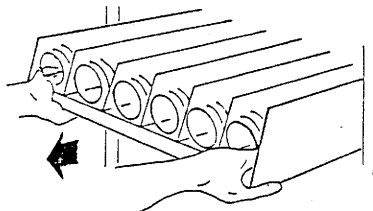


ILLUSTRATION #5

CANDY SELECTIONS:

Candy augers are available in either eleven (11) or fourteen (14) item spacing. The number of items per auger is determined by the number of spaces (loops) in the auger. Pull forward on the drawer until it contacts the drawer stop and tilt downward for ease of loading. (See Illustrations #4 & #5)

IMPORTANT: Products must not be forced into the spiral spaces. All items should fit freely. If the product is too tight a larger spaced or pitched auger should be used. The width of the item must be greater than the diameter of the spiral. If the product is smaller, it may fall from the spiral when in the "vend" position, or may not vend properly.

Soft items such as pastry, pies, etc., should be loaded in the lowest compartment possible, making the drop distance to the delivery area as short as possible.

SELECTION LABELS & PRICE LABELS:

Selection Number and Vend Price Labels must be positioned below each item to identify the Vend Price and Selection. These are "self" adhesive labels and should be positioned as shown in Illustration #6.

Be sure the selection number and vend price agree with the item and also with what is programed into the Controller.

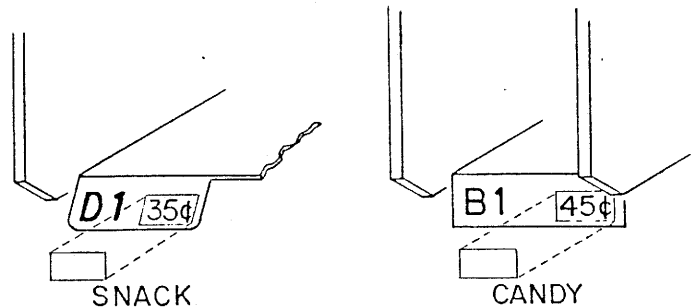
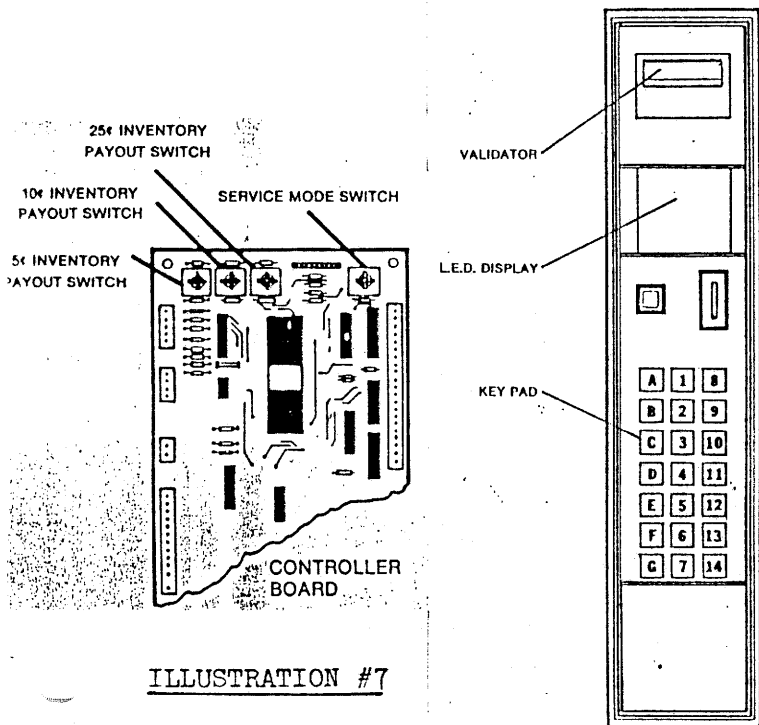


ILLUSTRATION #6

## PRICE SETTING INSTRUCTIONS:

Pricing is done through the Selection Panel in conjunction with the "Service Mode Switch" located on the Controller Board. Depress Service Mode Switch (See Illustration #7) to enter the Service Mode.



To establish prices, follow the steps and instructions outlined below:

STEP #1 - Operate the "Service Mode Switch" located on the Control Board - One "beep" will be heard. Scrolling Message will disappear from the Digital Display

NOTE: The Controller will display any faulty selections that have been recorded in the Digital Display. These faults should be noted immediately - Refer to Servicing and Trouble-Shooting section of this manual for further details.

STEP #2 - Depress Selection Button #1 - One "beep" will be heard and the Display will be blank.

STEP #3 - Depress Selection to be priced - One "beep" will be heard for each entry - Current Vend Price will be displayed.

STEP #4 - Depress Button #14 - Vend Price will advance in 5¢ increments - (One "beep" will be heard for each 5¢ increment)

STEP #5 - Depress Button #7 - Vend Price will decrease in 5¢ increments - (One "beep" will be heard for each 5¢ increment)

STEP #6 - When correct Vend Price appears in the Display, price is set selection. Go to the next selection and follow Steps 2 thru 6.

STEP #7 - When Price Setting is complete, Depress Button #13 - Scrolling Message will appear in the Display, Machine in stand-by position or "Sales Mode".

NOTE: Vend Prices can be verified by depressing the specific selections, the Vend Price will be displayed in the L.E.D. Display.

When there is more than one selection to be priced at the same Vend Price, the "COPY PRICE MODE" can be used. (See Copy Price Mode section of this manual)

### COPY PRICE MODE:

When there is more than one selection to be vended at the same vend price, the "Copy Price Mode" can be used when establishing vend prices. Follow the steps and instructions outlined below:

#### SEQUENCE FOR USING "COPY PRICE MODE"

1. While in the "Service Mode, depress the No. 1 button on the selector panel.
2. Depress the selection for the price to be copied. A single "beep" will sound to acknowledge the selection and the Selection Number and Vend Price will be displayed in the L.E.D. Display.
5. Depress the No. 5 button on the keypad. A continuous "beep" will sound.
4. Enter the desired selection numbers that are to be copied. Any numbers selected will have this price.

EXAMPLE: When entering the selections you must enter as "A1", "C4", "C7", "D5", etc.

5. To continue to copy a different price setting, depress No. 1 Button on the keypad and repeat steps 2 thru 4.

IMPORTANT: When completed with "Price Setting", depress No. 13 Button on the keypad. The Machine will be placed in the "Sales Mode" and the Scrolling Message will appear in the L.E.D. Display.

#### COIN MECHANISM:

Load change in the payout tubes of the Coin Mechanism. When adequate nickels have been added to cover the "low level" sensor, the "USE EXACT CHANGE" message should go out and the normal scrolling message should appear in the L.E.D. Display.

The following changers will be used in the Mini-Snack Center:

MARS - Model #TRC6010  
COINCO - Model #9302L

The Coin Mechs are "controller controlled" or "control board directed" changers and all price setting and vend functions are established through the Control Board, not the changer.

#### INSTALLATION CHECK LIST:

1. All shipping brackets, packing material and tape have been removed.
2. Vendor is properly located for access to power source outlet and Vendor is level.
3. All components are installed on the Vendor and are in good condition.
4. Service cord plug-in receptacle is grounded or ground adaptor has been installed.
5. Coin Mechanism adjustments have been made, if necessary, and change tubes filled.
6. All vend prices set correctly.
7. All Selection have been properly loaded and all items in each selection correspond to Vend Price and selection labels.
8. Test vend for proper operation.

#### ELECTRONIC COMPONENTS & FUNCTIONS:

##### ELECTRONIC CONTROLLER:

The Electronic Controller (Circuit Board) located behind the Selector Panel is the "brain" or central control of the entire vending circuit of the machine. It audits inputs from the Coin Mech and Validator (if used) and directs functions to the Changer, Validator, L.E.D. Display, Vend Motors, etc., during the entire vend cycle. The Controller will record failures of electrical components and prohibit the use of a faulty component once a malfunction has been recorded. Any electrical malfunction recorded on a specific selection will be displayed in the L.E.D. Display when the machine is first placed in the "Service Mode". This is to assist service personnel in correcting or isolating the cause or source of the malfunction. It is **IMPORTANT** that any failures be recorded immediately if they appear. Failures that appear will not be displayed again until that specific failure has been repeated during a normal vend cycle.

All vend prices are controlled by the Controller, which allows any selection to be assigned an individual vend price from 5¢ to \$12.75 in 5¢ increments. The State-of-the-Art components within the Controller retains all programming inputted into the memory section and does not require the need of a battery back-up.

##### SELECTOR PANEL (KEY-PAD):

The Selector Panel (Key-Pad) located on the front of the machine is used by the customer to obtain their desired item during the vend. The items are identified in the machine by a specific Row Number and also by an individual Compartment Number. The "rows" have an alpha identification and the "compartments" are identified numerically. To obtain an item, the customer must select an Alpha (Row) followed by a Number (Compartment).

EXAMPLE: Depressing "C" followed by a "3" would indicate that the customer had selected the 3rd (C) Row and the 3rd (3) Compartment.

The Key-Pad is also used by Service Personnel to program vend prices and functions and to perform various test functions. The Price Setting and other functions will be outlined through-out this manual.

### DIGITAL DISPLAY OR READ-OUT:

The Read-Out or Digital Display is located on the outer door above the selection buttons or keypad. All monies or credits deposited for each vend will be displayed to the customer. Selection Numbers will be displayed as selected. When a Vend is initiated, the credit amount will disappear and any refund entitled will be displayed. This specific function will only happen during a normal vend sequence. If insufficient credit has been established and a vend is attempted, the display will indicate the Vend Price required for the item selected.

When the machine is first placed in the "Service Mode", Service Messages or electrical failures recorded by the Controller will also be displayed in the Read-Out. It is IMPORTANT that these messages be recorded immediately if they appear. Failures that appear will not be displayed again until that specific failure has been repeated during a normal vend cycle. The information being displayed will be defined in more detail under the Service Messages and Trouble-Shooting sections.

During the normal vending operation or "Sales Mode", without any credit, the Read-Out will display the standard scrolling message, when sufficient change is in the Coin Mech. When change in the Coin Mech falls below the "low level" sensors, the Read-Out will display the "USE EXACT CHANGE" message.

### COIN MECHANISM:

The coin mechanisms used in the Mini-Snack Center are "control board directed" or "dumb" changers and all functions are controlled by the Controller. In electronic terms, the "units" converse or "talk" to each other. Inputs or signals from the changer are directed to the Controller when coins are inserted and are accumulated or totalized in the Controller. The Controller will direct functions to the changer such as refunding change on over-deposit, paying out change when the payout switches are activated, etc.

The changers have "self-replenishing" coin tubes and all coins deposited will be routed to their respective tubes. When tubes become full (above the "high-level" sensors) the coins will be routed to the Cash Box. For additional information refer to the Changer Trouble-Shooting section of this manual.

### DOLLAR BILL VALIDATOR:

The addition of a Dollar Bill Validator is offered as an option and not furnished on the basic machine. When a bill validator is added the Controller will prohibit the acceptance of bills if there is not an adequate supply of change in the Coin Mech change tubes. The Controller can be programed to allow the customer to receive change for the Dollar Bill without making a purchase when the "Coin Return" command is initiated, or programed in a manner that will "force" the customer to make a purchase when bills are inserted, over-riding the "Coin Return" command. This is further explained in "Force Vend-On" and "Force Vend-Off" topics of this manual.

### COMPONENTS: FUNCTIONS & FEATURES:

#### PRODUCT SHELVES:

The Basic Model, SC-15 will include three (3) product shelves that will have a total of 15 selections and an item capacity of 174. The shelves will be arranged as follows:

- TOP - 6 Candy Augers with 14 count spirals - capacity 84 items
- MIDDLE - 6 Candy Augers with 11 count spirals - capacity 66 items
- BOTTOM - 3 Snack Augers with 8 count spirals - capacity 24 items

Each selection has it's own vend motor and switch and is controlled through the Controller on an individual circuit which will allow functional selections to continue to operate with non-functional selections evident. All shelves will include electrical connections and logic for a maximum of six (6) selections, making it possible to change shelf configuration by adding or deleting motors and augers. Refer to "Auger Conversion" section for more details.



### REMOVAL OF PRODUCT SHELVES:

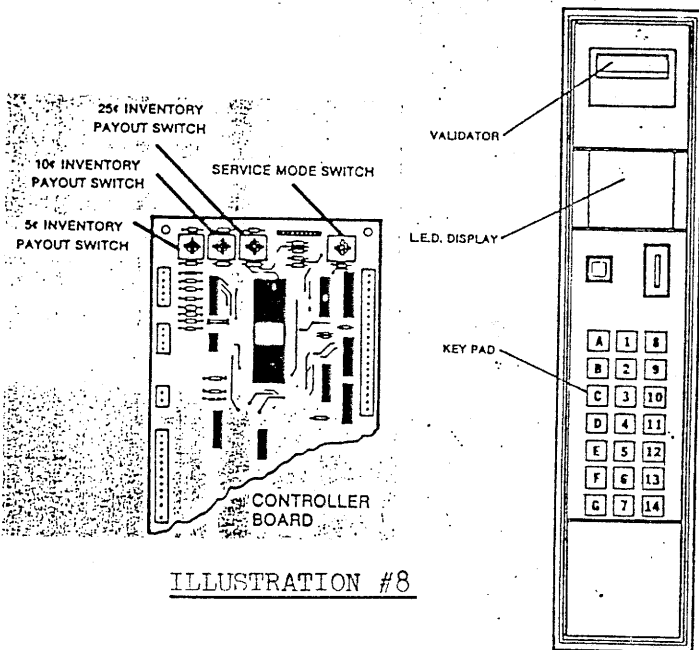
1. Disconnect the Shelf Harness from the Main Cabinet Harness.
2. Lift up and pull outward on drawer until it is in the loading position.
3. Grasp drawer on sides at center, lift up and pull drawer forward and out of cabinet.

### INSTALLATION OF PRODUCT DRAWERS:

1. Place the drawer rollers into the roller guides.
2. Lift up to clear stops, push the drawer into the cabinet.
3. When the front rollers contact the drawer stops, lift upward and continue to push toward the rear of the cabinet to the Vend position.
4. Plug drawer harness into Main Cabinet Harness.

### CONTROL BOARD/SERVICE FUNCTIONS:

The Control Board is located behind the Selector Panel. Located on the control board are the nickel, dime and quarter inventory (manual pay-out) switches along with the "SERVICE MODE" Switch. (See Illustration #8)



### SERVICE MODE:

The "Service Mode" must be entered to change programs, pricing and obtain diagnostics relating to electrical malfunctions recorded by the Controller. To enter the "Service Mode", depress the Service Mode Switch located on the control board. Upon actuating or depressing the Service Switch, any faulty or electrical malfunctions will be displayed in the L.E.D. Display. It is IMPORTANT that these messages be recorded immediately if they appear.

When in the "Service Mode", the number buttons on the Selector Panel will have a different function. These functions are outlined under "SERVICE MODE KEY FUNCTIONS" (Refer to the Trouble-Shooting section for additional information relating to the Service Mode).

### SERVICE MODE KEY FUNCTIONS:

Operate "Service Mode" Switch located on the Control Board. Record any messages displayed in the L.E.D. Display. Failures displayed will not be shown again until each specific failure is repeated during a normal vend.

BUTTON #1 - "Controller Clear" command - Display will be blank. This is a "clearing" or "waiting" command for additional input from the operator.

BUTTON #2 - "Functional Motor Check" - When operated, the number of functional motors will be displayed in the L.E.D. Display - The number shown should agree with the total selections in the machine.

BUTTON #3 - "Force Vend On" - When operated the Controller is placed in "force vend" - When Dollar Bills are inserted, a purchase must be made, "Coin Return" of Dollar Bill is prohibited. When in "force vend", coin return of 5¢, 10¢ and 25¢ coins is not affected.

BUTTON #4 - "Force Vend Off" - When operated, allows the customer to obtain "coin return" (change) from dollar bill insertion. A purchase does not have to be made.

BUTTON #5 - "Price Copy" - Allows copying vend prices when in the Price Setting Mode - Refer to Price Setting Instructions for additional information.

BUTTON #6 - This button does not have a separate function when in the Service Mode.

BUTTON #7 - "Vend Price Decrease" - When setting vend prices and #7 is operated, the vend price will decrease in 5¢ increments - Refer to Price Setting Instructions for more details.

BUTTON #8 - "Test Vend Single Selection" - When operated, allows test vending one (1) selection - The corresponding item selection (alpha/number) must also be operated.

BUTTON #9 - "Test Vend Complete Row" - When operated, allows test vending a complete row - The corresponding "alpha" identifying the specific row must also be operated. The "testing" can be halted at any time by "pressing & holding" Button #1 depressed.

BUTTON #10 - "Test Vend All Selections" - When operated, all selections in the entire vending machine will be test vended, starting with the last selection. The "testing" can be halted at any time by "pressing & holding" Button #1 depressed.

BUTTON #11 - This button does not have a separate function when in the Service Mode.

BUTTON #12 - This button does not have a separate function when in the Service Mode.

BUTTON #13 - "Enter Sales Mode" - When in the Service Mode and Button #13 is operated, the Controller will exit the Service Mode and enter the "Sales Mode", Scrolling Message will appear in the L.E.D. Display, machine is in the stand-by position.

BUTTON #14 - "Vend Price Increase" - When setting vend prices and Button #14 is operated, the Vend Price will increase in 5¢ increments. Refer to Price Setting Instructions for more details.

#### COPY PRICE MODE:

When there is more than one selection to be vended at the same vend price the "Copy Price Mode" can be used when establishing vend prices.

#### SEQUENCE FOR USING "COPY PRICE MODE":

1. While in the "Service Mode", depress Button #1 on keypad.
2. Depress the selection for the price that is to be copied. A single "beep" will sound to acknowledge the selection and vend price will be displayed in the L.E.D. Display.
3. Depress Button #5 on the keypad. A continuous "beep" will sound.
4. Enter the desired selections to receive the copied price.

EXAMPLE: When entering the selections you must enter as "A1", "C4", "D5", etc.

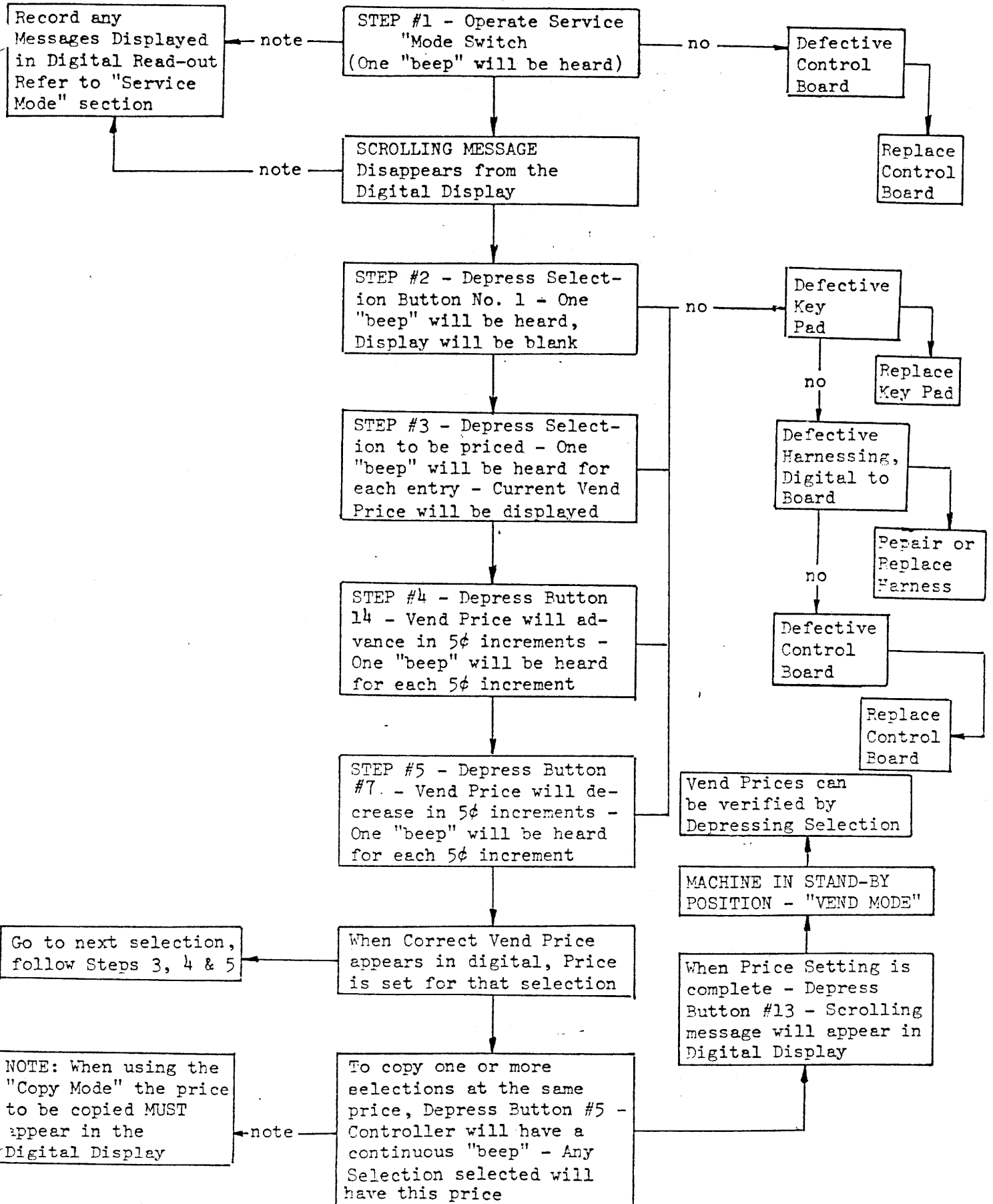
5. To continue to copy a different price, depress Button #1 on keypad and repeat steps 2 thru 4.
6. When "price setting" is complete, depress Button #13 on the keypad. Controller will enter the "Sales Mode" and the scrolling message will appear in the L.E.D. Display.

#### NOTE:

While in the Service Mode, the Controller will automatically return to the "Sales Mode" in approximately 25 seconds, if no input or depression of the keypad is made during that time.

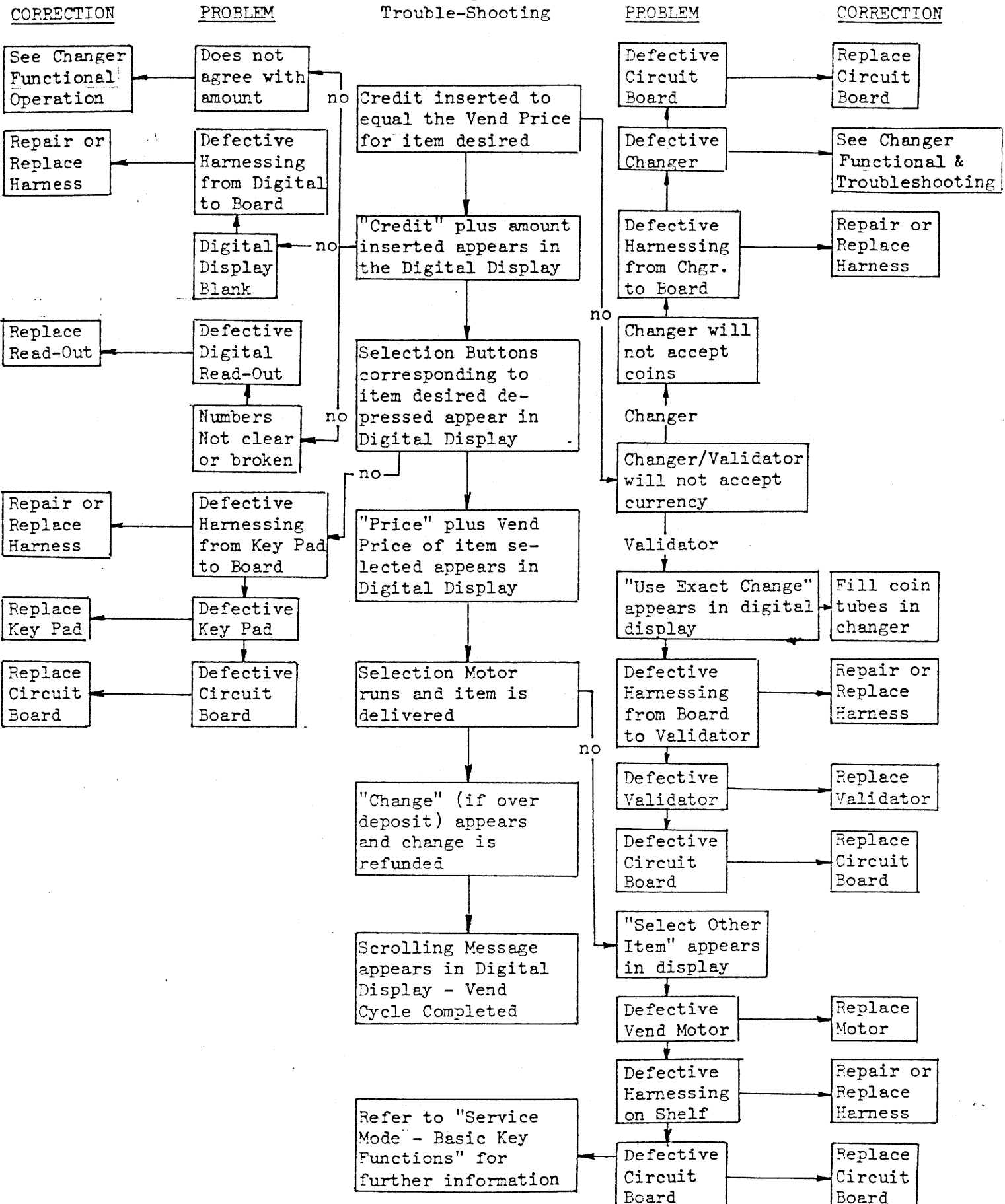


**MINI-SNACK CENTER**  
**Price Setting Procedure/**  
**Trouble-Shooting**

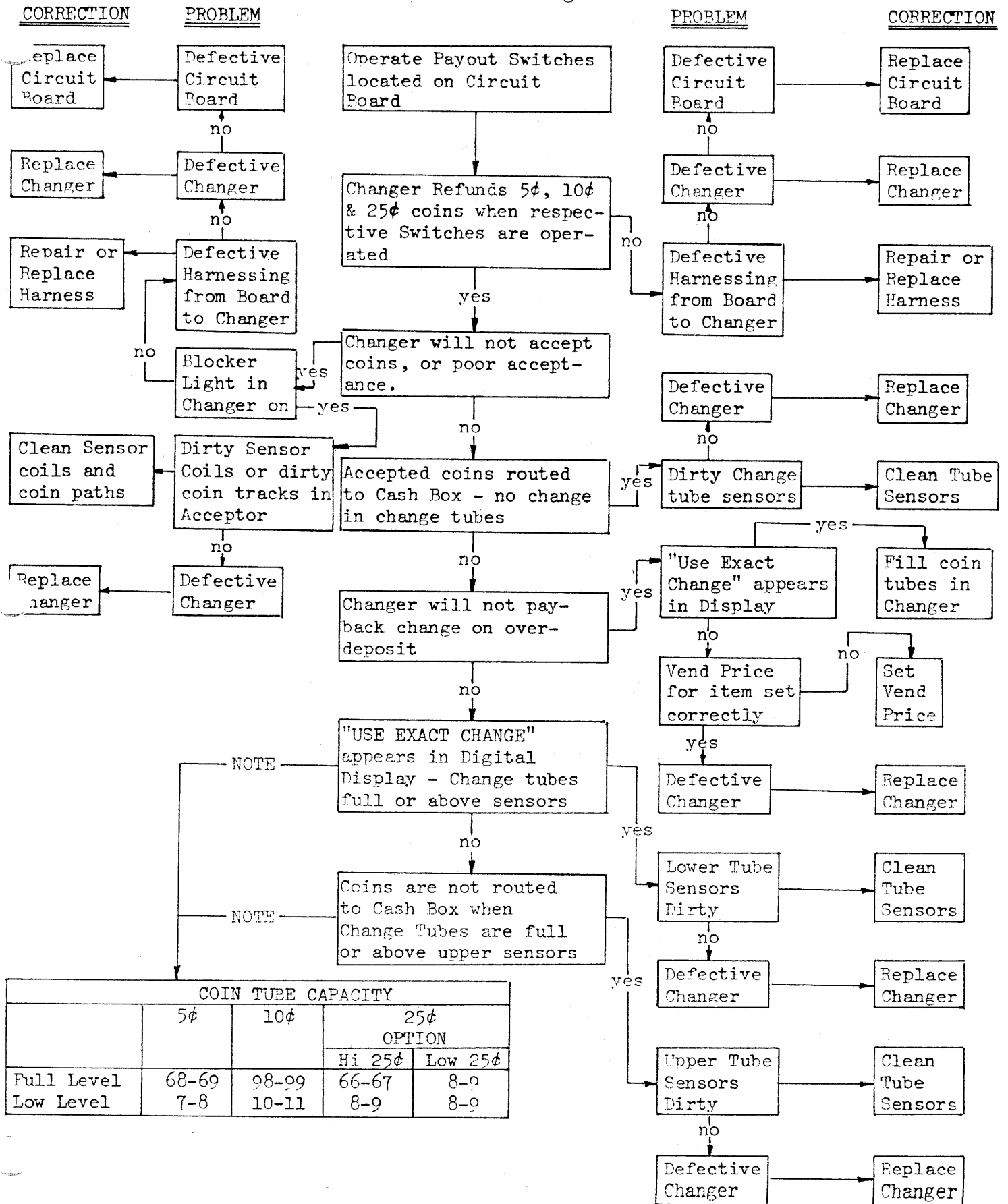


MINI-SNACK CENTER

Vend Sequence -  
Trouble-Shooting



MINI-SNACK CENTER  
 Changer Functional  
 Operation and  
 Trouble-Shooting



COIN TUBE CAPACITY				
	5¢	10¢	25¢ OPTION	
			Hi 25¢	Low 25¢
Full Level	68-69	98-99	66-67	8-9
Low Level	7-8	10-11	8-9	8-9