SNACKSHOP   LCM5
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instruction manual for

SNACKSHOP   LCM5

Automatic Products
international, ltd.

75 WEST PLATO BOULEVARD • ST. PAUL, MINNESOTA 55107-2095

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WARRANTY

Automatic Products international ltd. (APi) expressly warrants these automatic merchandisers (the "Unit"), manufactured by it, to be free under normal use and service from defects in material or workmanship for a period of two (2) years from the date of delivery of this Unit to the original purchaser. This warranty extends only to the original purchaser of the Unit.The exclusive remedy for this warranty is limited to the repair or replacement, at APi's sole option, of any part or parts of the Unit that are returned to APi or to the authorized dealer or distributor of APi from whom the unit was purchased with all transportation charges prepaid, and which, on APi's examination, shall, conclusively appear to have been defective. This warranty does not:

a. extend to any Unit, or part thereof, that was subjected to misuse, neglect, or accident by other than APi after its delivery to the original purchaser;

b. extend to any Unit, or part thereof, that was modified, altered, incorrectly wired or improperly installed by anyone other than APi or used in violation of the instructions provided by APi;

c. extend to a Unit which has been repaired or altered by anyone other than APi or authorized dealer/distributor;

d. extend to a Unit which has had the serial number removed, defaced or otherwise altered;

e. extend to plastic or glass windows, lamps, fluorescent tubes and water contact parts;

f. extend to any unit used outdoors;

g. extend to accessories used with the Unit that were manufactured by some person or entity other than APi.

APi DISCLAIMS ALL OTHER WARRANTIES OF ANY KIND AS TO THE UNIT AND ALL WARRANTIES OF ANY KIND AS TO ANY ACCESSORIES. THIS DISCLAIMER OF WARRANTIES INCLUDES ANY EXPRESS WARRANTIES OTHER THAN THE LIMITED WARANTY PROVIDED ABOVE AS TO THE UNIT AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AS TO THE UNIT AND ANY ACCESSORIES. UNDER NO CIRCUMSTANCES SHALL APi BE RESPONSIBLE FOR ANY INCIDENTAL,CONSEQUENTIAL OR SPECIAL DAMAGES, LOSSES OR EXPENSES ARISING FROM OR IN CONNECTION WITH THE USE OF, OR THE INABILITY TO USE, THE GOODS FOR ANY PURPOSE WHATSOEVER.
APi or any other person is authorized to assume for APi, or agree to on behalf of APi, any other liability or warranty in connection with the sale of this unit.

APi reserves the right to make any changes or improvements in its products without notice and without obligation, and without being required to make corresponding changes or improvements in Unit theretofore manufactured or sold.

Snackshop LCM has been designed from superior engineering and with quality throughout. It has been built of rugged construction for many years of reliable trouble-free operation. (Note: For indoor use only.) **CAUTION: THIS MACHINE IS DESIGNED FOR <u>INDOOR USAGE</u> ONLY. ANY OTHER USAGE MAY VOID THE MANUFACTURERS WARRANTY.**

To achieve the most economical trouble-free operation from your Snackshop LCM, it is recommended that this service manual be thoroughly read and instructions followed pertaining to all loading and servicing, etc., of the vendor.

Should you have any questions pertaining to this manual or the vendor, please contact your local Automatic Products Company distributor or write directly to:

Automatic Products *international, ltd.*

75 WEST PLATO BLVD. • ST. PAUL, MINNESOTA 55107-2095

CONTROL-SETUP AND OPERATION
PRESS MODE SWITCH ONCE TO ENTER SERVICE MODE.
THEN PRESS APPROPRIATE BUTTON ON
DOOR FRONT SELECTION PAD.

COIN DISPENSING
PRESS NO.1 -   PRESS [A] DISPENSES 25¢ COIN
              PRESS [B] DISPENSES 5¢ COIN
              PRESS [C] DISPENSES 10¢ COIN
              PRESS [D] DISPENSES $1.00 COIN

ACCOUNTABILITY
PRESS NO. 3 - PRESS [A] TOTAL VEND COUNT
              PRESS [B] TOTAL CASH
              PRESS [C] TOTAL CAN VENDS
              PRESS [D] TOTAL CASH CANS

PRICE SETTING
PRESS NO. 4 - (DISPLAY WILL SHOW "PRC")
              PRESS SELECTION TO BE PRICED
              PRESS ▲ BUTTON TO INCREASE PRICE
              PRESS ▼ BUTTON TO DECREASE PRICE
              THIS MUST BE DONE FOR EACH
              SELECTION TO BE PRICED.
              NOTE: PRICING "00" IS FREE VEND.

TEST VEND
PRESS NO. 5 - (DISPLAY WILL SHOW "SLCT")
              PRESS DESIRED SELECTION
              TO BE TEST VENDED.

VEND MODE
PRESS [E]   - (DISPLAY WILL SHOW "OPTN")
              PRESS [A] - FORCE VEND   YES OR NO
              PRESS [B] - BILL ESCROW   YES OR NO
              PRESS [C] - MULTI-VEND   YES OR NO
              PRESS [D] - CANNED DRINK YES OR NO
              PRESS [F] - FREE VEND   YES OR NO
              IF FREE VEND IS ON YES ENTIRE MACHINE
              WILL FREE VEND IF BUTTON NO. 5 IS
              PRESSED THEN ANY SELECTION MADE.

EXIT FROM SERVICE MODE
              PRESS MODE SWITCH OR MACHINE
              WILL EXIT AUTOMATICALLY AFTER
              30 SECONDS.

LCM capacities

Unless otherwise specified machine will be shipped with spiral assortment shown below.
Figures in circles represent capacities in each spiral.

MODEL LCM5 - 312
Spiral assortment:
- Row 1: (6) (8) (8) (8)
- Row 2: (8) (8) (8) (8)
- Row 3: (10) (10) (10) (10)

Capacity as shown: 102 units

MODEL LCM5 - 316
Spiral assortment:
- Row 1: (6) (6) (8) (8)
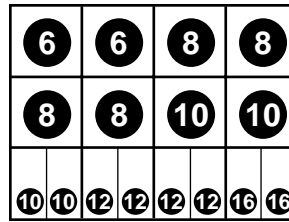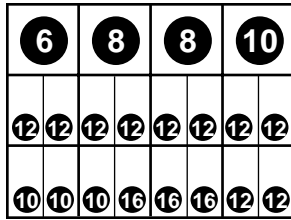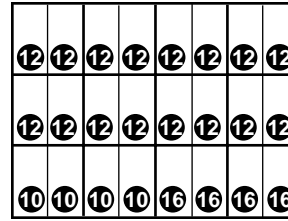- Row 2: (8) (8) (10) (10)
- Row 3: (10)(10)(12)(12)(12)(12)(16)(16)

Capacity as shown: 164 units

MODEL LCM5 - 320
Spiral assortment:
- Row 1: (6) (8) (8) (10)
- Row 2: (12)(12)(12)(12)(12)(12)(12)(12)
- Row 3: (10)(10)(10)(16)(16)(16)(12)(12)

Capacity as shown: 230 units

MODEL LCM5 - 324
Spiral assortment:
- Row 1: (12)(12)(12)(12)(12)(12)(12)(12)
- Row 2: (12)(12)(12)(12)(12)(12)(12)(12)
- Row 3: (10)(10)(10)(10)(16)(16)(16)(16)

Capacity as shown: 296 units

PRODUCT SIZE CAPABILITY

Shelves	Height	Width of Snack Shelves Only	Width of Candy Shelves Only	Depth of Snack Spirals Only Choice:	Depth of Candy Spirals Only Choice:
Top	7-3/4"	2-1/2" to 5-1/4"	1" to 2-14"	4-Item Spiral 3"	3-Item Spiral 3-15/16"
Second	7-1/4"	2-1/2" to 5-1/4"	1" to 2-14"	6-Item Spiral 2-3/32"	6-Item Spiral 1-15/16"
Third	6-3/8"	2-1/2" to 5-1/4"	1" to 2-14"	8-Item Spiral 1-9/16"	8-Item Spiral 1-1/2"
				10-Item Spiral 1-7/32"	10-Item Spiral 1-1/8"
					12-Item Spiral 15/16"
					16-Item Spiral 11/16"
					20-Item Spiral 1/2"

Eight selection shelves for candy and other narrow items fit on all three positions.

Spiral of one item capacity can be freely interchanged with any other of the same diameter.

Boxed items may need slightly larger clearances to vend properly.

Movable spacers available to adjust widths to ranges shown in each selection.

CAN COOL UNIT CAPACITIES

Using 330 ml Cans (European)	Using 375 Cans (Aust.)	Using 355 ml Cans (Domestic)
15 Cans in Long Track	15 Cans in Long Track	15 Cans in Long Track
9 Cans in Short Track	9 Cans in Short Track	8 Cans in Short Track
96 Cans Total (8 select)	72 Cans Total (6 select)	92 Cans Total (8 select)

88 cans vendable with one can in each column by sold out switch (8 select).

66 cans vendable with one can in each column by sold out switch (6 select).

INSTALLATION REQUIREMENTS:
- Back to wall gap 6 inches minimum
- Front (door swing clearance) 33-1/2 inches
- Floor level within 1 inch
- Machine to be leveled to within 1 degree front to back and side to side

The LCM5 will be capable of operating in a temperature range of 10° C to +50° C (50° F to 104° F) in still air (90% R.H. non-condensing). The unit will be capable of being stored in a temperature range -45° C to +80° C. The above spec assumes the machine is not in direct sunlight.

unpacking

The Snackshop LCM is assembled and packed so that a minimum amount of time is necessary for preparation to install it on location. The following steps are recommended to insure correct unpacking.

1. **Shipping Damage.** Thoroughly inspect the exterior of the carton for damage which may have occurred during shipment. Report any damage to delivering carrier and follow their instructions.

> **NOTE: Machines with refrigeration units delivered on their sides should be stood upright for 24 hours before the machine is plugged into an outlet.**

2. Remove staples from lower edge and those at top of carton, and slit carton vertically at the taped corner. Open and remove carton. Remove the remainder of the packing material. Machines shipped with a lock in place, the keys are located in the coin return cup.

3. **Removing Vendor with a Fork Lift Truck.** Remove the carton from the vendor. Open the door on the vendor and remove the hold down bracket at the front center of the cabinet base and close the vendor door. From the front of the vendor, tip the vendor backward and run forks under the cabinet.

4. On machines with lock in place, unlock, and turn handle to open door. When no lock is furnished, remove tape and turn handle. Swing door to its full open position.

5. Remove all packing tape and paper from various areas of machine and the shipping strap.

6. **Warranty.** The warranty card is attached to the cover of this manual. It must be filled out in full and mailed at once to insure coverage.

> **IMPORTANT: A set of anchoring brackets are sent with each machine. The kit is located in the bottom of the machine complete with instructions. It is recommended that this kit be installed to prevent shifting of the machine. Part # 660438**

> WATCH THROUGHOUT THE MANUAL FOR THIS SPECIAL ◆ DIAMOND MARK. THIS INDICATES A POINT OF SPECIAL INFORMATION OR A HINT THAT WILL ASSIST YOU IN SETTING UP, OPERATING OR TROUBLESHOOTING THE MACHINE.

> CAUTION: Certain procedures in both the operating section and the service section require that voltage be on in the machine. Only trained personnel should perform this function. Exercise extreme caution while performing these procedures. These procedures will be marked with the lightening bolt symbol as it appears at left.

> CAUTION: Certain procedures in both the operating section and the service section requires a qualified trained technician to perform the particular task at hand. These procedures will be marked with the exclamation symbol as it appears at left.

installation

1. **Leveling the Machine** on location is important for the proper function of the machine. The four leveling screws in the legs are the means of leveling the machine. After positioning the machine, level machine in front to rear and right to left directions. After leveling, turn front right (lock side) leveling screw in about one-half turn to drop this corner slightly to make the door easier to close and lock.

> *CAUTION:* **THIS MACHINE IS DESIGNED FOR INDOOR USAGE ONLY. ANY OTHER USAGE MAY VOID THE MANUFACTURERS WARRANTY.**

> *CAUTION:* **THE FOLLOWING PROCEDURE REQUIRES THAT THE MACHINE HAVE POWER APPLIED AND A POTENTIAL ELECTRICAL SHOCK HAZARD EXISTS.**

2. **Voltage and Polarity Check.** It is important that this machine is hooked up to the proper voltage and polarity. Using a voltmeter, perform the following checks from the illustration shown.

A. C. HOT   (B)

A. C. NEUT   (A)   (A)   (B)

EARTH   (C)   (C)
GROUND

(A) to (B) = 117 VAC (±10%)
(A) to (C) = less than 1 VAC
(B) to (C) = 117 VAC (±10%)

> **NOTE: Should the readings be different from above, have a certified electrician correct the problem.**

installation

3. **Loading Snack Shelves.** Open door to full open position, push down on white and gray plastic lock levers *(Figure 1.)* on right side panel by shelf to unlock shelf, holding lever down. Grasp the shelf slightly and pull forward until shelf reaches its stop. The shelves tilt down (do not drop) to make loading easier. **Only one product shelf should be In the loading position at a time.** When returning a shelf, be sure the shelf is in its full home or vend position. Begin loading with the top shelf. Move it to the loading position. The height spacing for items is greatest in this shelf and the tallest bagged items should be placed there. Soft items, such as pastry, pies, etc., should be placed in the lowest snack shelf, making the drop distance as short as possible.

IMPORTANT: Product must not be forced into the spiral spaces but should fit freely. If the product is too tight, use a larger pitch spiral. The bottom of the product should be placed on top of the spiral wire that rests on the shelf surface. *(Figure 2.)* The width of the product must be greater than the diameter of the snack spiral. If it is smaller, the product may fall through when it is in the front, ready to vend position.

4. **Removal of Spiral.** Grasp the front of the spiral and turn it clockwise. Lift the spiral up and off of the spiral lock and turn the spiral counterclockwise to lock it in place. Be sure the front end of the spiral is positioned properly (with the front end of the spiral pointing downward on the left side). *(Figure 3.)* The spiral lock is attached between the spiral retainer tabs. Give a light forward pull on front of the spiral to check if it is locked in place.

Figure 3.   Removing and installing spiral.
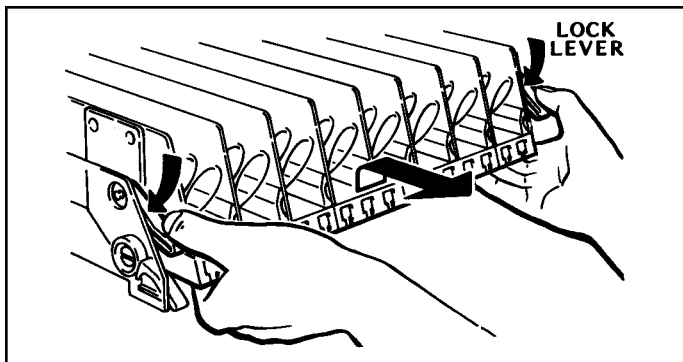
Figure 1.   Moving shelf into loading position.
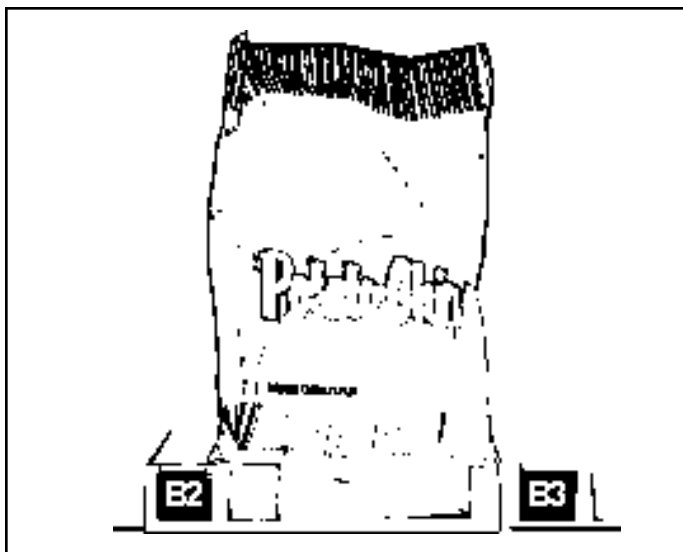
Figure 2.   Placement of product on main product snack shelves and front end position of spiral.
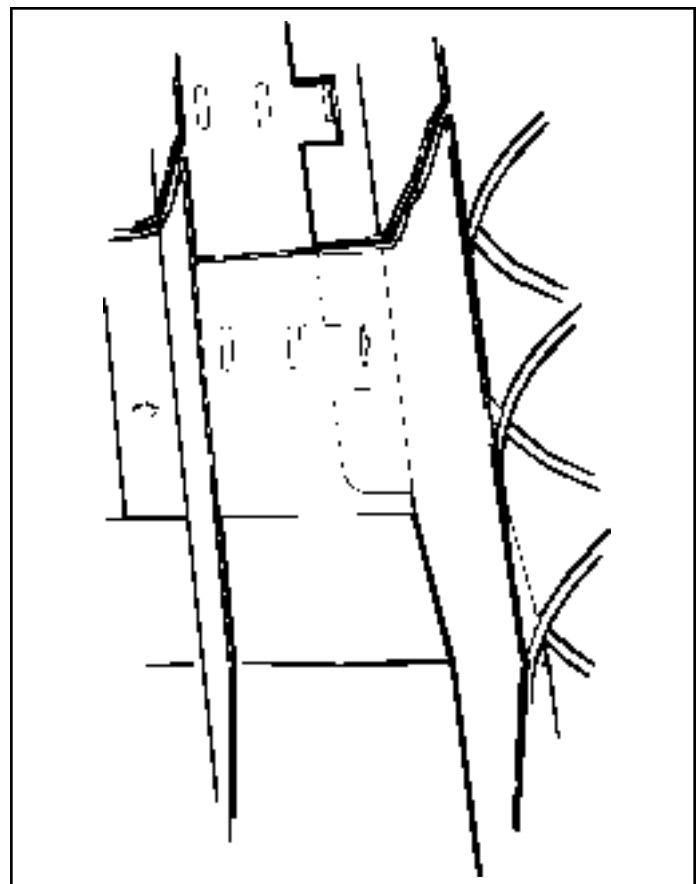
Figure 4.   Alignment of moveable product spacers.

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5. **Product Spacers, 4-Selection Shelf.** A product spacer is used to reduce the width of the product area and should be used on any 4-selection snack shelf where the product width is 4-1/2" or less. Spacers should fit within 1/8" of the product but should not fit tight against the product. There are three positions in each snack space where these spacers can be placed. To install the spacer, align the lock ears (on the lower edge of the spacer) with one of the three sets of slots (one front and one rear). *(Figure 4.)* Push the spacer to the rear to allow the ears to enter the slots, then allow the spacer to move forward. Be sure the ears are in the same set of slots, front and rear. *(Figure 4.)* Continue loading all spirals. Adjust with spacers where needed in the top shelf. Return the top shelf to the vend position and following this procedure, load the remainder of the large spiral shelves. The shelf divider separating the right (lock side) column from the next column is movable to allow vending of products wider than 5-1/2" in the second column. If this is used, the right column must be used to vend narrower products.

6. **Loading Main Product Candy Shelves.** The 8-selection (candy type) shelves are loaded similar to the 4-selection shelves, except that, the bottom of the product sits on the shelf in front of the spiral wire *(Figure 5.)* that rests on the shelf. These products must also fit properly in the spiral
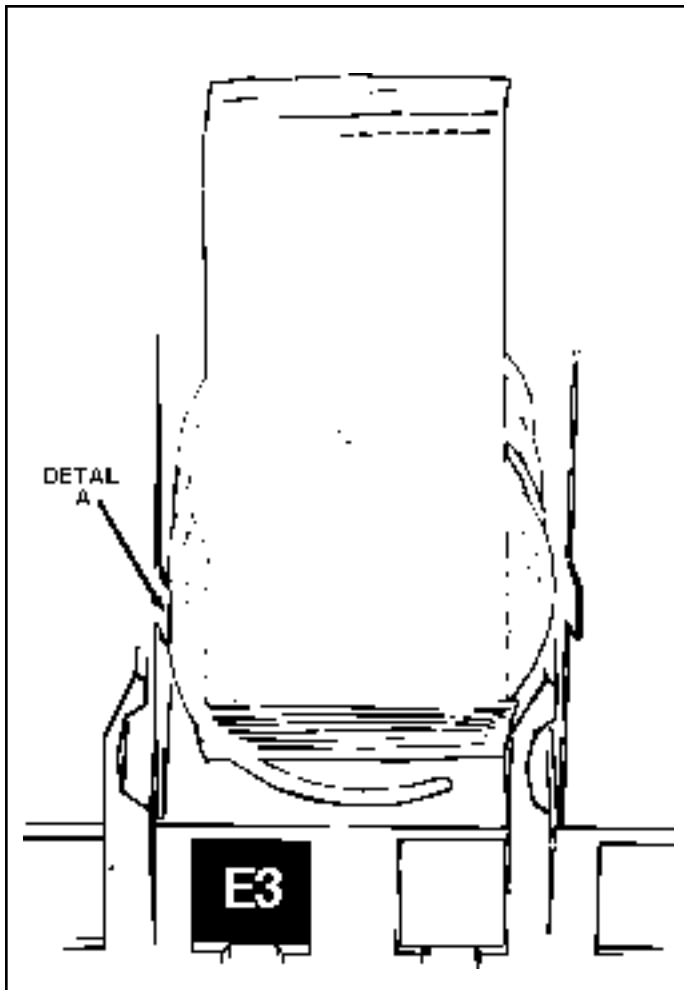
Figure 5. Placement of product on main product candy shelves and front end of spiral.

space. **Do not force product into spiral.** These spirals are removed and installed the same as the large spiral *(Figure 3.)*, except that, the front end position is different (approximately 5 o'clock) *(Figure 5.)* and the front left side of the spiral must be behind the small tab located on the left side of the product space side wall. *(Figure 5., Detail A)*

7. **Product Spacers, 8-selection shelf.** The 8-selection shelves are equipped with a product spacer (Figure 6.) that can be pivoted from the right side of each product space. These spacers should be pivoted out to hold the product upright, but not tight against the product. Leave about 1/8" clearance between the spacer and the product.
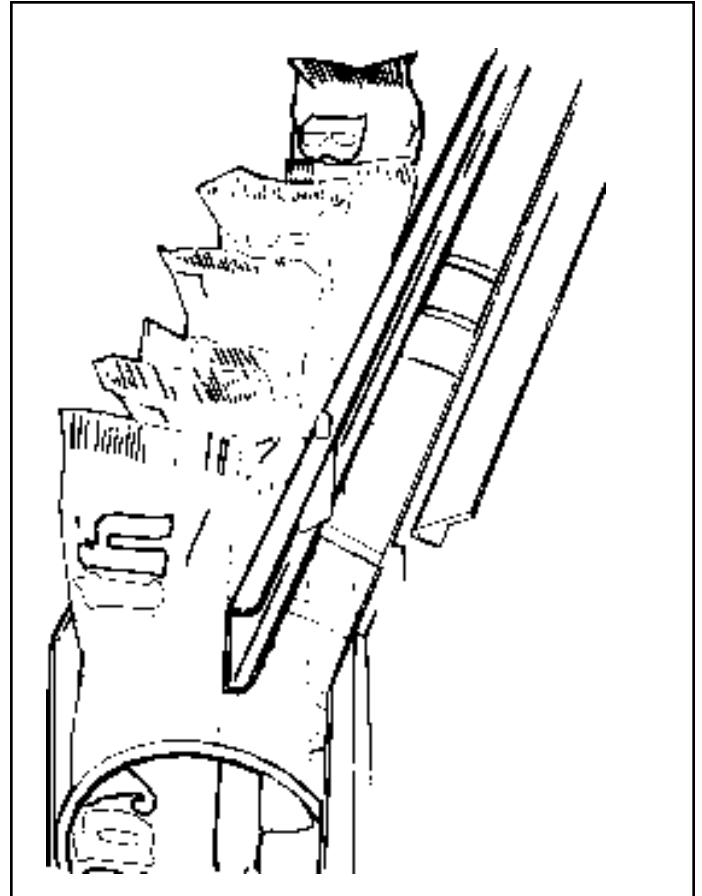

Figure 6. 8-selection shelf product spacer positioned to hold candy upright.

8. **Product Pusher.** The machine contains enough pushers for you to install a pusher on each candy spiral. This plastic part is designed to push the top of the product forward while it is vending, helping it to fall from the shelf. It can also be used with products that have the wrapper end flap on the outside of the package. In this case, the pusher prevents these products from hanging on the spiral by spreading the flap. The pusher is installed approximately 210 degrees from the front end of the spiral with the tab extending forward. *(Figure 7.)* Locate the pusher in its proper position, hold it against the spiral wire and push the semi-circular part around the spiral wire.

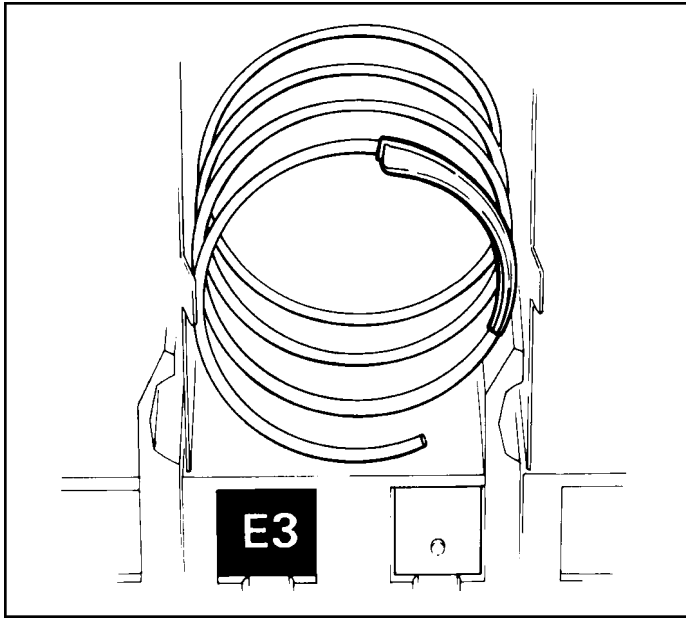**Note: Not every selection spiral will need a product pusher. (Example: box items)**

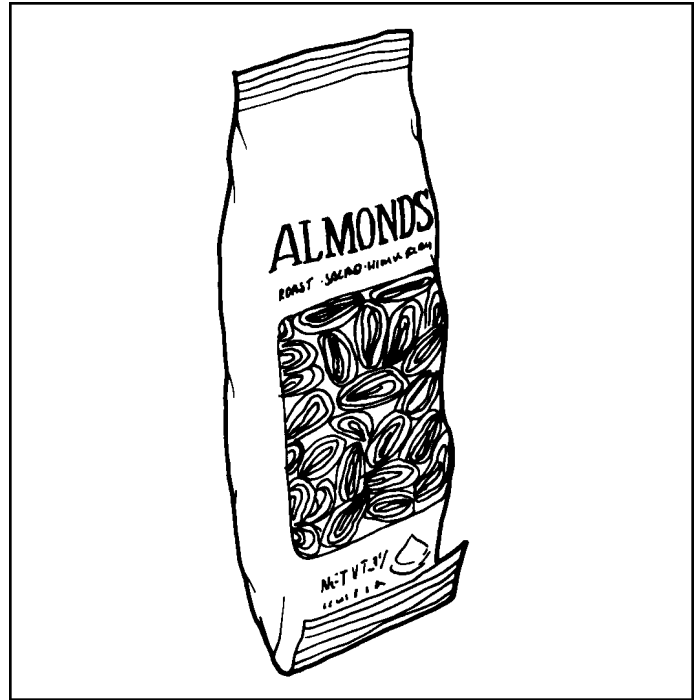*Figure 7.   Location of product pusher on spiral.*

9. **Bagged or Boxed Items** in the 8-selection shelves, if not loaded properly, could be a problem.The sealed edge of the bag may get under the spiral wire causing the product to hang up after it has been vended. It is recommended that the lower edge of these types of product be folded forward and up *(Figure 8.)* next to the product before inserting into the spiral space. It is also recommended to use an 18 count spiral for bagged items because of the product settling to the bottom of the package.

10. **Cigarette Vending from Snackshop LCM5.** Cigarettes can be vended from the candy shelves using the 10 capacity spiral for the soft pack regular, king, 100mm or 120mm packs. The 8 capacity spiral should be used for box packs.

11. **Lock Product Shelves.** After all the product has been loaded, be sure all shelves are returned to their vend position behind the front roller guide.

12. **Install Proper Price Tabs** into price tab holder for each selection in the main product area. *(Figure 9.)*

Figure 8.   Folded bagged items bottom edge forward and up.
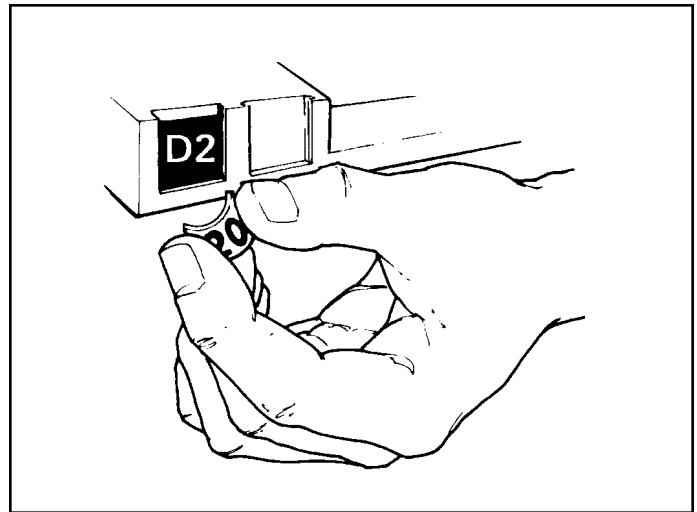
Figure 9.   Installing price tabs.

> **CAUTION: THE FOLLOWING PROCEDURE REQUIRES THAT THE MACHINE HAVE POWER APPLIED AND A POTENTIAL ELECTRICAL SHOCK HAZARD EXISTS.**

1. **Control-Service Mode.** The Service mode is entered by pressing and releasing the mode button located on the component side of the controller. A second depression of the mode button will exit the service mode and return the controller to the Sales mode. If a period of no keypad activity occurs for 25.5 seconds, the controller will automatically revert to the Sales mode.

Upon entering the Service mode, diagnositics will be diaplayed by the controller until an additional Service mode function has been selected. Diagnostics include the number of configured motors and defective or jammed motors.

Entrance to the Service mode clears the current credit and disables all credit acceptance (except for Protocol A devices, here the VMC is the slave and must not modify credit acceptance/accumulation). Selection motors are automatically configured upon power up, reset and exiting Service mode. The following list of functions are available while in the Service mode.

> **CAUTION: THE FOLLOWING PROCEDURE REQUIRES THAT THE MACHINE HAVE POWER APPLIED AND A POTENTIAL ELECTRICAL SHOCK HAZARD EXISTS.**

2. **PRESS #1 - Coin Dispense Mode.** Coins are dispensed from the inventory tubes by pressing key #1.The controller will display "coin" and wait for an additional key to be pressed as follows:

• Pressing [A] dispenses the left coin tube (25¢)
• Pressing [B] dispenses the middle coin tube (5¢)
• Pressing [C] dispenses the right coin tube (10¢)
• Pressing [D] dispenses the fourth coin tube ($1 coin)

To exit this mode, press another function key or leave the service mode pressing the mode switch.

> **CAUTION: THE FOLLOWING PROCEDURE REQUIRES THAT THE MACHINE HAVE POWER APPLIED AND A POTENTIAL ELECTRICAL SHOCK HAZARD EXISTS.**

3. **PRESS #3 - Accountability Mode.** Vend count and cash total accountability will be displayed by pressing key [3]. The controller will display "Acct" and wait for an additional key to be pressed as follows:

a. Press button [A] to display total vend count. The vend counter will be eight digit numbers displayed as the upper four for 2 seconds followed by the lower four for 2 seconds.

Example: Displays "0001" (1st upper four #'s)
Displays "0025" (2nd lower four #'s)
"0001" together with "0025" = 10,025 vends.

b. Press button [B] to display total cash sales. The cash counter works the same way as step "a" above, except the last two digits will have a decimal point in front indicating cents.

Example: Displays "0002" (1st upper four #'s)
Displays "01.20" (2nd lower four #'s)
"0002" together with "01.20" = $201.20 total cash sales.

> **NOTE: The digital vend counter will rollover after 99,999,999 and the cash counter will rollover after $999,999.95.**

c. Press button [C] to display total can vend counts. The display will show total cans vended the same way as step "A".

d Press button [D] to display total can cash sales. The cash counter works the same way as step "B" above.

e. To exit this mode, press another function key or leave the service mode by pressing the mode switch.

f. Press button [D] to display bill. Press [D] again. IMPORTANT!! Must be set on 20 for 5¢ increments.

> **CAUTION: THE FOLLOWING PROCEDURE REQUIRES THAT THE MACHINE HAVE POWER APPLIED AND A POTENTIAL ELECTRICAL SHOCK HAZARD EXISTS.**

4. **PRESS #4 - Price Set Mode.** To begin the price setting procedure, press key [4]. The controller will display "Prc" and wait for a selection to be entered. Once the selection is entered, the current price will be displayed. The price can now be increased with the scrolling up (▲) button or decreased with the scrolling down (▼) button. *(Figure 10.)* The maximum price can be set to $99.95. Setting a selection price to $00.00 will put it on free vend.

Step Procedure.

a. In the Service mode, press [4] (displays "Prc").
b. Press selection item to be priced (displays current price "xx.xx").
c. Using the up (▲) or down (▼) buttons will change to the price desired. *(Figure 10.)*
d. Repeat steps "b" and "c" to price another selection.
e. To exit this mode, press another function key or leave the Service mode by pressing the mode switch.

> **CAUTION: THE FOLLOWING PROCEDURE REQUIRES THAT THE MACHINE HAVE POWER APPLIED AND A POTENTIAL ELECTRICAL SHOCK HAZARD EXISTS.**

5. **PRESS #5 - Test Vend Mode.** To test vend a single selection, press key [5]. The controller will display "SLct" and wait for a selection to be entered. Once the selection is entered, a vend of the motor will be attempted. If the vend is successful, the controller will blank the display and exit the test vend mode. If the selected motor fails, the controller will display "FAiL" for 2 seconds and then exit.

Step Procedure.

a. In the Service mode, press [5] (displays "SLcT").
b. Press the motor selection to test vend (machine will display selection and cycle motor unless vend test fails, which would display "FAiL").

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program operation

c. To test vend other selections, press [5] and repeat steps "a" and "b".
d. To exit this mode, press another function key or leave Service mode by pressing the mode switch.

NOTE: Test vending a selection that had failed previously, will reset if the motor successfully completes a vend cycle.

PRESS #6 - Diagnostic Vend Test. This feature can be used to test vend all configured motors within the machine before installing on location. The controller will display each selection as a vend attempt is made. If the vend is successful, the controller will continue on with the next selection. If the selected motor fails the controller will display "FAiL" for 2 seconds and then continue. When a vend attempt on all motors has been completed, the controller will blank the display and exit the test vend mode. To exit this mode, press another function key and hold until the current vend is completed or exit the Service mode.

CAUTION: THE FOLLOWING PROCEDURE REQUIRES THAT THE MACHINE HAVE POWER APPLIED AND A POTENTIAL ELECTRICAL SHOCK HAZARD EXISTS.

6. Vend Option Mode. To enter the vend option mode, press key [E]. The controller will display "OPtn" and wait for additional key to be pressed for following features:
   a. Press key [A] - **Force Vend.**
   (displays "FrcY" or "Frcn")
   Press key [A] again to toggle between force vend enabled ("FcrY") and force vend disabled ("Frcn").

b. Press Key [B] - **Escrow Enable.**
(displays "EScY" or "EScn")
Press key [B] again to toggle between escrow enable ("EScY") or escrow disable ("EScn").

The escrow enable option allows the validator to return a bill inserted by a customer who changes their mind. The bill inserted will be held by the validator without being stacked. When the coin return button is pushed, the bill is returned.

c. Press key [C] - **Multi-Vend.**
(displays "MuLY" or "MuLn")

Press key [C] again to toggle between multi-vend enable ("MuLY") or multi-vend disable ("MuLn").

The multi-vend option allows the customer the option to vend multiple items without reentering credit. Change will not be returned immediately after a vend and credit will remain on the display for up to 20 seconds. Escrow attempts will be valid at any time or change will be returned after 20 seconds of no vend activity.

d. Press key [D] - Can Drink.
(displays "CAnY")
Press [D] again to toggle between "CAnY" and" CAnn".

e. Press key [F] - Free Vend.
(displays "FREY" or "FREN")
Press key [F] again to toggle between Free Vend Enable ("FREY") or Free Vend Disable ("FREN").

The Free Vend option allows the customer to test vend each selection motor for proper operation.

NOTE: The machine should be on "CAnY".

components

CAUTION: THE FOLLOWING PROCEDURE REQUIRES THAT THE MACHINE HAVE POWER APPLIED AND A POTENTIAL ELECTRICAL SHOCK HAZARD EXISTS.

1. **Power Supply**. The 115V AC power cord from the wall outlet comes into the machine and plugs into the back of the main junction box located on the bottom right side of the cabinet. The voltage output to the board is 24 volts and is plugged in the top right corner (P1 position).
2. **Changers.** The Snackshop LCM can use a variety of either Coinco or Mars changers. The machine is wired for only 24 volt models. The changers available are Coinco (9302L or 9302LF) and Mars (TRC-6010 or TRC-6010XV). In addition, control boards support MDB (Multi-Drop Bus) peripherals which include coin mechanisms, validators and card readers. MDB harness is P/N 680576.
3. **Controller Board.** This module is located on the inside door (above selector panel) of the vending machine. The controller will govern all vending activity within the machine. It has the capability of driving eighty/selections.
4. **Mode Switch.** The Snackshop LCM has only one mode switch that allows control of the machine functions. It is located on the control board. This switch will allow 6 modes of operation.

1. Operate (vending mode)
2. Change payout
3. Accountability
4. Price setting
5. Test vend
6. Vend option

5. **Operate Mode.** The operate mode is when the machine is in the normal customer vending mode. The following steps explain the operation and sequence of events when making a vend.
   a. Digital Display. During standby with no credit in machine, the digital display will show all zeros with a designated decimal point. When an alpha-numeric character is pressed, this selection will be displayed.

   b. Credit Operation. Credit may be accumulated through either a coin changer or bill validator mechanism. Credit acceptance will disable when the accumulated credit equals or exceeds the highest priced item. If using an executive or "Protocol A" type coin mechanism, credit acceptance is controlled by the changer. The bill validator will be enabled when a combination of nickels and dimes, or nickels and quarters are available in the changer.

   c. Vend Process. After a keypad entry is made, the controller will determine if sufficient credit is available and
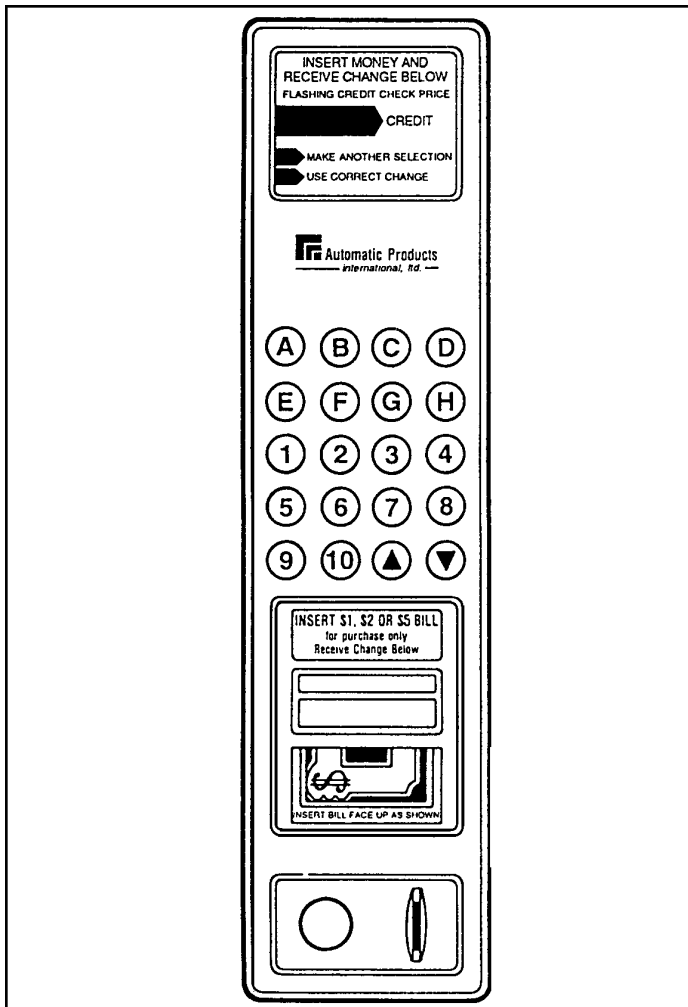
Figure 10.

the status of the selection. If the accumulated price and the motor is present, a vend attempt will be made for that selection. During this time, the selection will be shown on the display. If credit is less than the selection price, the price will be flashed for 3 seconds or until an alpha key is pressed.If the motor is flagged as bad, the selection and the "MAKE ALTERNATE SELECTION" LED will be flashed for 3 seconds or until an alpha key is pressed.

d. Change Payment. Following a successful vend, the amount of change to be returned will be displayed for 2 seconds or until all coinage is paid back. A least coin payout algorithm will be implemented.

e. Use Correct Change LED. If the changer's least value coin tube is empty, the "USE CORRECT CHANGE" LED will be illuminated continuously.

6. **Selection Panel.** The selection panel *(Figure 10.)* on the Snackshop LCM incorporates that use of a self enclosed membrane switch panel.This eliminates the need for individual switches and wiring.The membrane switch panel is housed in a panel with individual buttons protecting the switch face. The panel front also houses the display lens. The display lens gives instructions to the customer for 2 conditions which might occur (make another selection/use correct change).The display lens also contains 3 LED lights.

7. **Vend Motors.** The Snackshop LCM incorporates the use of a high RPM DC motor. Due to new design, the vend motor may no longer be homed by hand. **DO NOT TRY TO TURN THE SPIRALS BY HAND. DAMAGE TO THE MOTOR WILL RESULT.** It is also important to check polarity before applying current to the motor. 2 diodes and a capacitor are used to prevent circuit feedback and may have to be checked when trouble shooting motor problems.

> **NOTE: Use black color motor only.**

8. **Lighting System.** There is only 1 flourescent lamp in the Snackshop LCM.The lamp is located on the top, inside of the door which lights up the main product area.The starter is located on the hinge side of the lamp. The ballast and line filter is located on the top, front, left shelf support. *(Page 18, Item 16.)*

9. **Main Product Shelves.** There are three main product shelves per machine. Each containing either 4 or 8 selections. Each selection has its own motor mounted to the back of the shelf. Every shelf has its own harness and plug for connecting to the remainder of the circuit through the cabinet receptacle, located in the right, rear of the cabinet.The motors are the same on either type shelf. It is now possible in the Snackshop LCM to exchange a 4-selection shelf with a 8-selection shelf or vice versa. You also have the capability to gain 1/2" either up or down on any shelf. To do this, the shelf should be removed and the cabinet back harness receptacle lowered or raised with the right and left shelf tracks.

> **NOTE:When exchanging the shelves, you will not need any parts, but you will have to reprogram the machines for prices and selections**

Removing Product Shelf.
a. Lift up and push the lock levers toward the back of cabinet. *(Figure 1., Page 3.)*
b. Pull shelf to its loading position.
c. Grasp shelf in front and rear center. Lift front of shelf up above horizontal and pull shelf forward while lifting.
d. To install shelf, reverse above procedure.

10. **Delivery Bin.** This is located below the display window on the door and is mechanically operated.The linkage on the outside end of the delivery bin may require occasionally lubrication. Should the door become difficult to operate, place a small amount of grease on the arm tracks.

Removing Delivery Bin.
a. Remove the screws from the underside of the delivery bin.These screws fasten into the lower door brace and remove the screws and brackets at the top of the delivery bin.
b. Grasp delivery bin on both sides, lift up and pull back. Should bin be tight, rock it by lifting on one end, then the other.

components

Replacing Delivery Bin.

    a. Locate lip on front edge of delivery bin, over lower edge of opening in door and behind trim. Press down along lip to make sure it is fully engaged between door and trim.

    b. Install the 4 screws and 2 brackets, to secure bin to door.

11. **Coin Return.** The coin return lever is located on the sliding panel and the coin return linkage is located above the changer, scavenges the slug rejector. Actuation of the coin return lever, will clear the rejector of any damaged coin and will also cancel all credit on the changer, returning that amount to the customer.

12. **Coin Acceptance.** A coin or coins (5¢, 10¢ or 25¢) being deposited, passes thru the rejecter and into their respective coin paths in the changer, establishing the credit. The coins then enter either the self-load change tubes on the changer or the cash box. Actuation of the coin return lever prior to making a selection will cancel all credit on the changer and will return the amount of deposit back to the customer.

cleaning

The Snackshop LCM will do the best merchandising job for you if it is kept clean. The display window can be cleaned with any good glass cleaner. The exterior and interior surfaces should be cleaned with warm water and mild detergent. Rinse thoroughly and dry all surfaces.

CAUTION:

Do not use any cleaners containing silicon, as this could cause electrical failures.

The main product shelves can be best cleaned with the spirals and product spacers removed. Refer to page 3 for removal of spirals and page 4 for removal of the product spacer.

Clean the acceptor on the changer frequently, accumulated dirt in this area can cause coins to hang or not be accepted. Follow recommended cleaning procedures as described by the manufacturer.

1. **Ventilating Fan:** (Part #660441 - 120 volts)
   The ventilating fan keeps a steady flow of air moving through the vendor cabinet. Installation of the fan takes only a few minutes. All the vendors are wired with a fan plug on the junction box for easy installation.

2. **Gum & Mint.** Gum & mint units are available as an option with Snackshop LCM vendors. For information pertaining to oading or servicing gum & mint unit, refer to this service manual for loading instructions and for service instructions.

> **CAUTION:**
>
> **Do not attempt to use the special candy spirals in a 10 selection shelf.**

3. **Soup Dispenser LCM5** (Kit 750083-1)
   A canned soup dispenser is available as an option for use in the 4-selection snack shelves. The dispenser is easy to install and holds up to seven cans in the unit.

4. **Dollar Bill Validators.** The validators take only a few minutes to install and my be purchased through the manufacturer of the unit. LCM machines will only use 24 volt validators.

5. **Dual Spiral Shelf.** Snack shelves can be set up to have dual spirals per selection on the shelf. The dual spirals will help vend specialty items better.

6. **Convertible Shelf.** The convertible shelf allows you to convert a snack shelf into a combination candy and snack shelf. The convertible shelf can be converted from 2 to 8 candy selections. (Example: 4 candy selections & 2 snack.)

7. **Can Storage Tray.** (660553-1). The storage tray is used to store spare cans inside the machine.

8. **Coin Mechs.** The API 120/320 Series machines support the following 24 volt Micromech and Multi Drop Bus Coin Mechs:

   <u>24 Volt Micromech Models - 15 pin plug only</u>

Coinco	9302 LF
Mars	TRC-6010XV
	VN-4010
Conlux	USLX-004-01F

   <u>Multi Drop Bus Models</u>

Mars	TRC-6510
	VN-4510
Coinco	9302-GX
Conlux	USLZ-004-01F

   The machine will automatically determine at power up which Coin Mech is connected and configure itself accordingly.

9. **Bill Validators.** The API 120/320 Series supports the following 24 volt MDB Bill Validators:
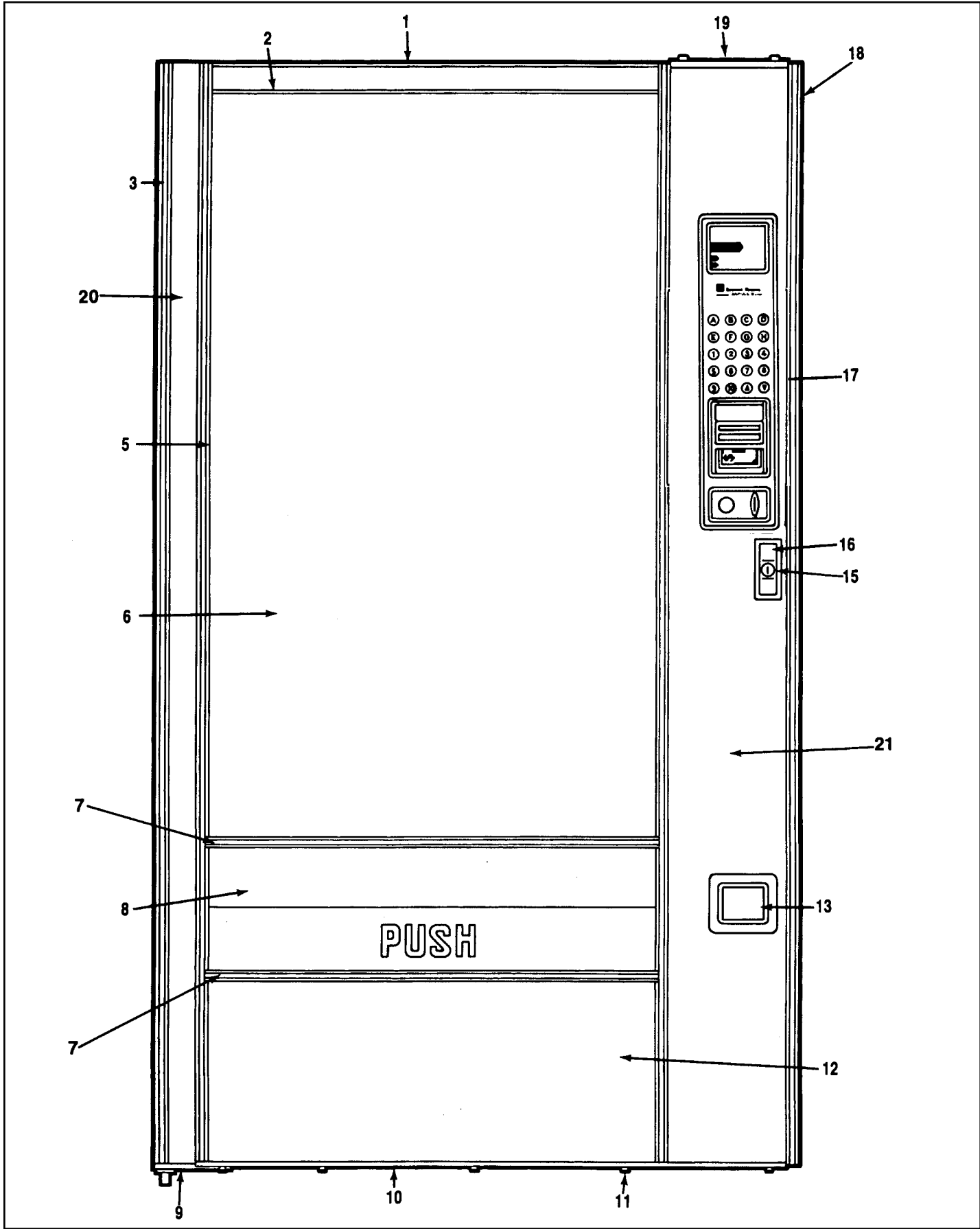
   <u>24 Volt Validators</u>

Coinco	BA32SA
	BA32R
Mars	VFM1-L2-U4C
	VFM3-L2-U4C
	VN-2502-U5E

   <u>Multi Drop Bus Validators</u>

Coinco	BA32SA
	BA32R
Mars	VN-2502-U5M

   The machine will automaticaly determine at power up which Validator is connected and configure itself accordingly.
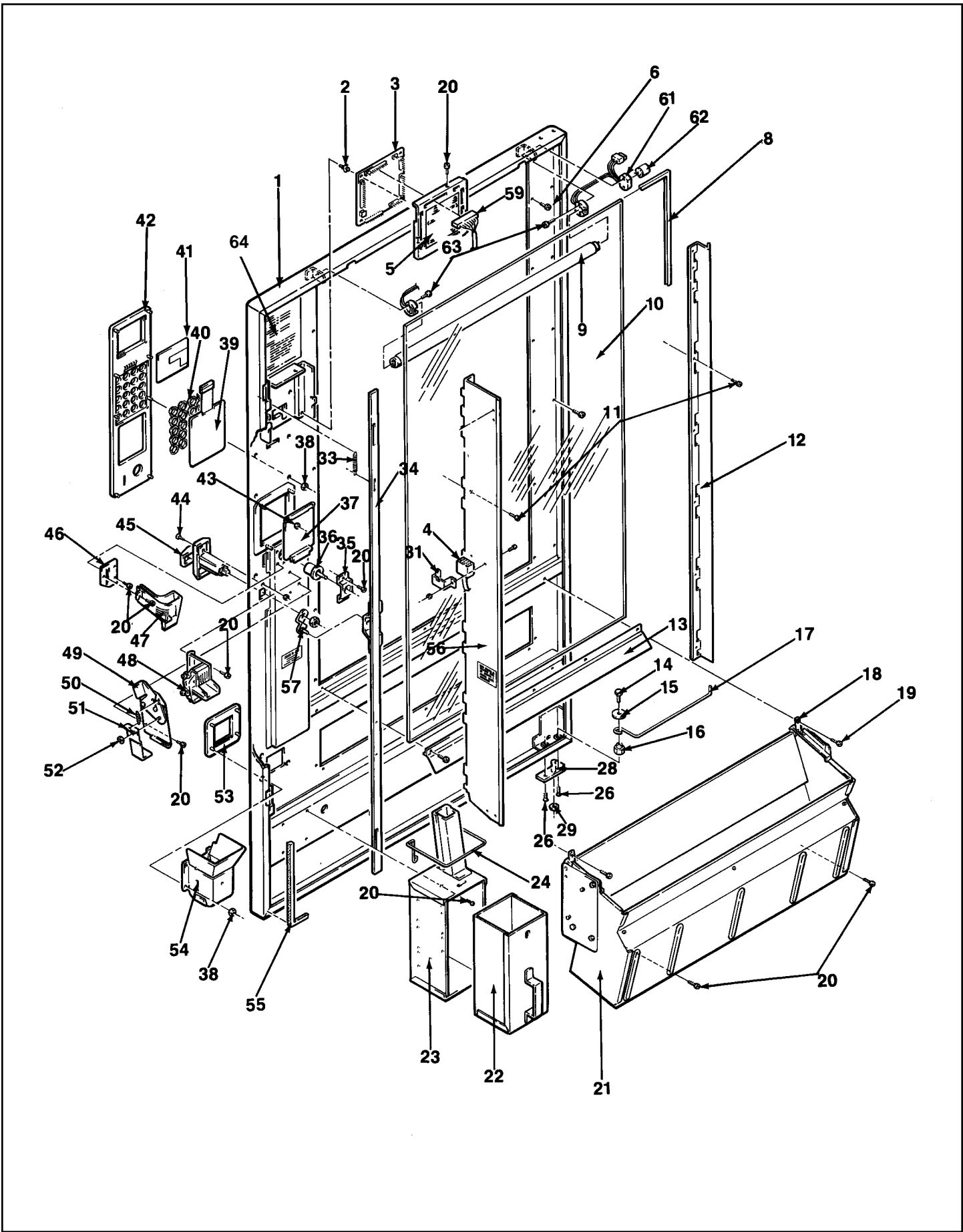
Item No.	Part No.	Description
1	340044-10	Top Trim Vantage
2	201690-3	Top Trim Insert.Hide Black.
	201690-14	Top Trim Insert. Dark Gray.
3	340057-2	Trim Outside Vertical.Black. Right & Left Side.
5	340058-46	Trim Vertical. window. Black, Right & Left Side.
6	750141-1	Front Window. (44 5/8 x21 9/16 x 1/8).
		NOTE: Replacement Glass Must Be HardTempered or Lexan Only.
7	340058-12	Trim Horizontal.Window. Black.
8	201356-2	DeliveryTray Panel.True Grit Black.
	201356-42	Delivery Tray Panel. Dark Gray.
9	640012	Assembly, Lower Door Hinge Plate.
10	201678-2	Bottom Door Edging.
11	420186	Screw Pan Hd.Drill Pt. (6-20 x 1/2) Qty.4.
12	201692-15	Lower Horizontal Panel. Black.
	201692-55	Lower Horizontal Panel.Dark Gray.
13	660581	Coin Cup Trim.
	660581-1	Coin Cup Trim.Medium Gray.
	440411	Coin Cup Trim. Black
	440411-1	Coin Cup Trim.Gray
	440412	Coin Cup Door

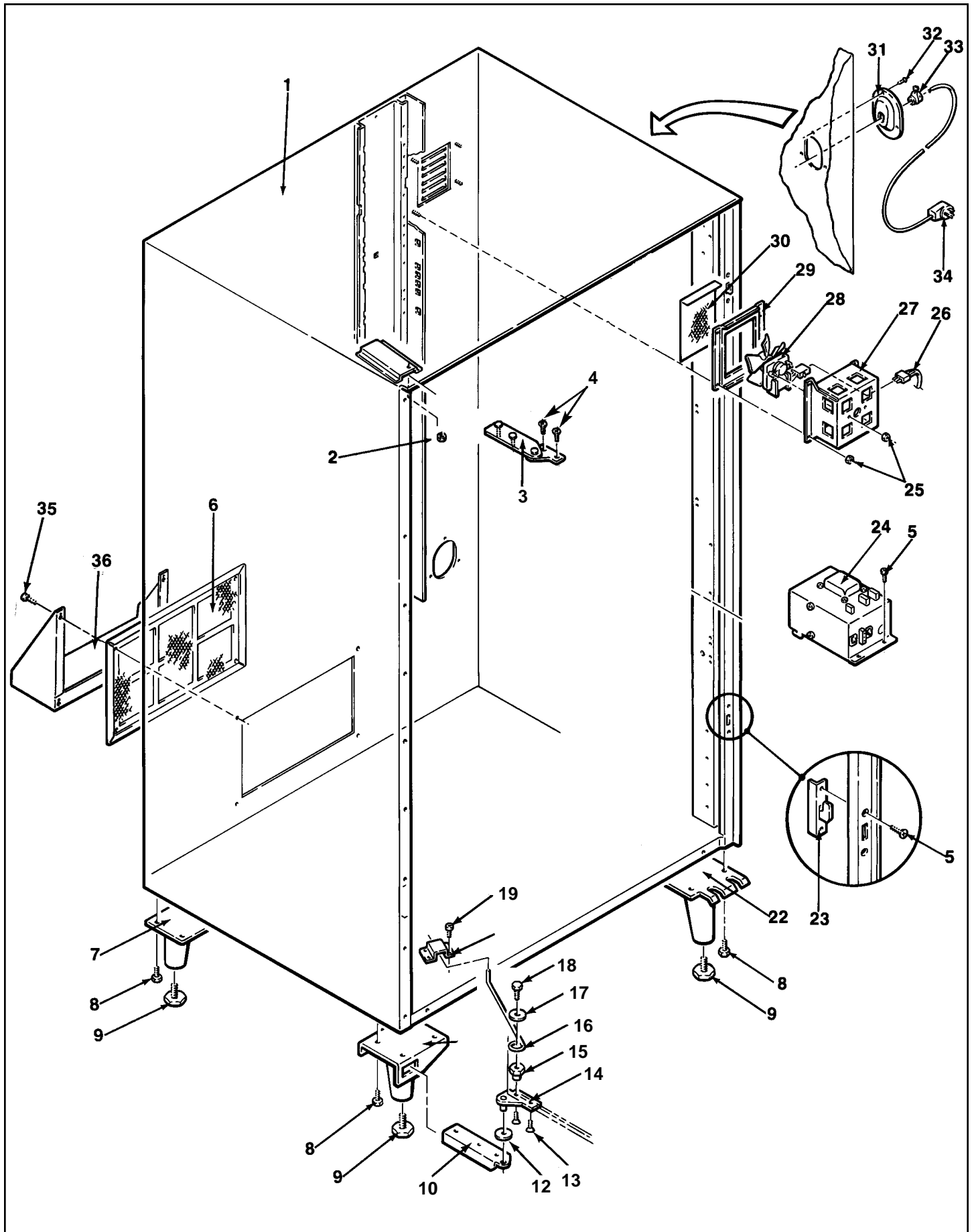| Item No.	Part No.	Description
15	420071	Ace Lock W/2 Keys.
16	660319	Assembly Lock Handle W/Lock Arm & Nut.
	420146	Lock Handle Only.
17	440444	Bezel Ring.
18	600807	Door Only. Square. Specify Color
	600807-1	Door Only. Square w/Van
	600822	Door Only. European. Specify Color.
	600822-2	Door Only. European Style. Specify Color. w/Door Guard
	600599-1	Door Only. With Validator Hole And Debit Card Use. Specify Color. European
19	201678-7	Top Lock Door Edging.
20	202059-28	Panel, Left Side Vertical. Painted. Specify Color.
	202059-49	Panel, Left Side Vertical.White.
	202059-51	Panel, Left Side Vertical.Dove Gray.
	202059-53	Panel, Left Side Vertical.Sterling Royce.
21	12000205-21	Panel, Right Side Vertical.Upper. Painted. Specify Color.
	202806-60	Panel, Right Side Vertical. Upper. White.
	12000205-14	Panel, Right Side Vertical. Upper. Dove Gray.
	12000205-15	Panel, Right Side Vertical. Upper. Sterling Royce.
	750202	Point of Sale Window Add On Kit (not shown)

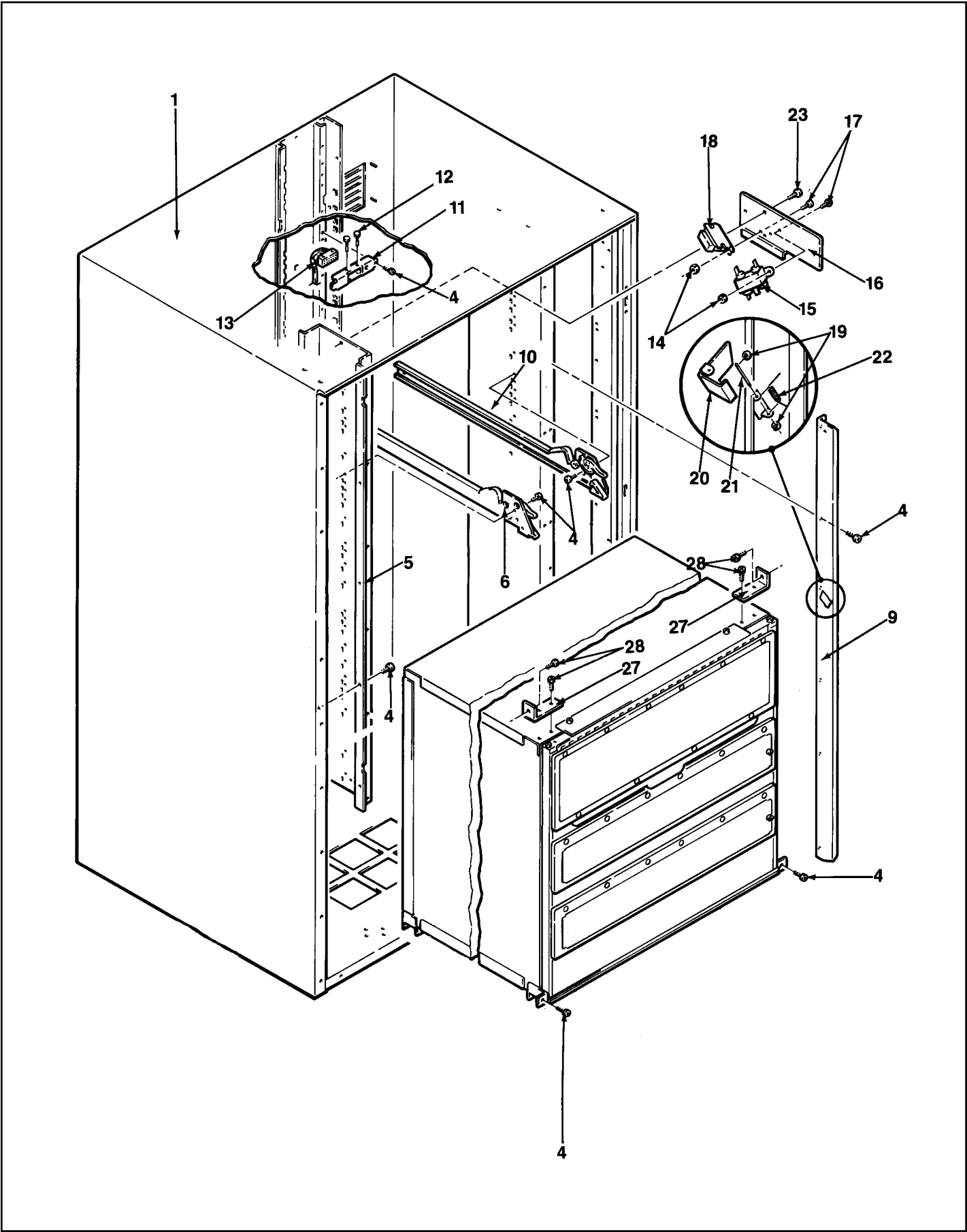| Item No.	Part No.	Description
1	600822	Door Only, Euro Style, Specify Color
	16000040	Door Only, Standard, Specify Color
2	420303	Control Board Stand-off
3	360206	Control Board w/MDB
		(Requires Cover 202325)
4	680547	Harness Changer Plug-In
	680567	**Harness Changer Plug-In, Executive Export**
	680576	Harness MDB
	420303	Control Board Stand - Off
5	202325	Control Board Cover Only
	660528	Control Board Cover w/Decal
	460628	Decal Only
	460671	**Decal, Dutch**
6	201-6R7	Screw, Round Head, Phillips, Type B (6-18 x 7/16), Quantity - 2
7	680512	Assembly Complete, Lamp Harness
8	460436	Insulation, Rubber, 143" (Order length needed)
9	380022-5	Lamp, Fluorescent (F18T8 CW-24)
10	750141-1	Window, Front (44-5/8 x 21-9/16 x 1/8)
		NOTE: Replacement Glass Must Be Hard Tempered or Lexan Only.
	460570	Decal, "Cool-Cool" (not shown)
11	201-6R11	Screw, Round Head, Phillips, Type B (6-20 x 11/16)
12	201381 -3	Shield & Window Clamp
13	201385	Window Clamp, Bottom
14	114-41-8	Screw, Hex Head, Machine (1/4-20 x 1/2)
15	420010-10	Washer
16	300156	Nut, Special, Door Stop Anchor
17	400090	Door Stop
18	200906	Delivery Bin Anchor Strap
19	217-8R10	Screw, Pan Head, Phillips, Type A (8 x 5/8)
20	210-8R6	Screw, (8-32 x 3/8)
21		Assembly Complete, Delivery Bin (See page 25 for itemized parts)
22	600179-1	Cash Box
23	600714	Cash Box Mounting Bracket
24	400180	Cash Box Retainer
25	420003-1	Screw, Flat Head (1/4-20 x 1/2)
26	420003	Screw, Flat Head (1/4-20 x 3/4)
27	420040-9	Hole Plug
28	640157	Lower Hinge Plate
29	420010-18	Washer
31	202024	Changer Socket Bracket
	202775	Loading Barricade Closer (Not Shown)
32	380023	Starter (FS-25)
33	400112	Spring Locking Bar
34	600432-3	Locking Bar Only
35	201660	Coin Return Bracket
36	440289	Coin Return Button, Gray
	440289-3	Coin Return Button, Black
37	660370	Assembly, Validator Filler, Black
	660370-3	Assembly, Validator Filler, Gray
38	18443	Nut, Hex Head, 1/4 Self Threading
39	660519	Assembly, Selector Switch Panel
40	440304	Selector Buttons, Quantity - 20

Item No.	Part No.	Description
41	440390	Instruction Glass
	440401	**Instruction Glass, French**
	440400	**Instruction Glass, Mexico**
	440402	**Instruction Glass, Dutch**
	440403	**Instruction Glass, German**
	440440	**Instruction Glass, Italian**
	17400005	**Instruction Glass, Russian**
	17400007	**Instruction Glass, Hungary**
42	660517	Assembly Complete, Selector Bezel, Gray
	660517-1	Assembly Complete, Selector Bezel, Black
	440389-1	Selector Bezel Only, Gray
	440389	Selector Bezel Only, Black
43	404-8	Nut, Hex Head (8-32)
44	118-10-8	Bolt, Carriage (10-24 x 1/2)
45	660319-1	Assembly Complete, Lock Handle w/Lock Arm & Nut
46	201712	Coin Chute Bracket
47	440311	Coin Chute, Plastic
48	660488	Assembly, Coin Chute, Plastic
49	660367	Assembly Complete, Coin Return
	640152	Assembly, Coin Return Bracket
50	400007	Spring
51	201703	Coin Return Link
52	751-25	Retaining Ring (1/4)
53	660581	Coin Cup Front Assembly, Black
	660581-1	Coin Cup Front Assembly, Gray
	440411	Trim, Coin Cup, Black
	440411-1	Trim, Coin Cup, Gray
	440412	Coin Cup Door (not shown)
54	440413	Coin Cup, Plastic
	440414	Coin Cup, Chute
	660618	**Assembly Coin Cup w/Striker Export**
	440413	**Coin Cup Only Export**
	202432	**Striker Door Switch Export**
	300184	**Shoulder Bushing (2) Export**
	276-8R6	**Screw Pan Hd Self Tap (8-32x3/8)(2)**
	400188	**Spring Striker Door Switch Export**
55	460041	Insulation, Foam (Order length needed)
56	12000010	Window, Side Shield, Lock Side
57	640131	Lock Arm Only
58	404-10	Nut, Hex Head (10-24)
59	680548	Harness, Bill Validator Hook-Up
	680641	Harness Mars MDB 24 Volt
61	680512	Harness, Lamp
	680456-1	Harness, Lamp (not shown)
62	380023	Starter, FS-25
	380023-4	**Starter, FS-11, 240V**
63	750097	Lock and Cam for Cash Box. w/2 keys. Specify Number.
	420020	Lock w/1 key. Specify Number.
	420069	Cam Cash Box Locking only.
64	460629	Decal Mode Instructions, English
	460672	**Decal Mode Instructions, Dutch**
	460679	**Decal Mode Instructions, Italian**
	460680	**Decal Mode Instructions, Spain**

Item No.	Part No.	Description
1	600830	Cabinet Assembly Complete w/legs, Specify Color, Chill
	600830-1	Cabinet Assembly Complete, w/Legs, Specify Color, Amb.
2	438-41	Nut, Kep (1/4" x 20)
3	640150	Assembly, Upper Hinge, Specify Color
4	420003-1	Screw, Flat Head (1/4-20 x 1/2)
5	276-8R6	Screw, Pan Head, Self Tap (8-32 x 3/8)
6	16600047	Assembly, Back Screen
7	600195	Leg Assembly, Rear, Specify Color
8	420187	Screw, Hex Head, Machine (5/16-18 x 3/4)
9	300103	Leg Leveler
	660599	**Leg Leveler Bolt "Multisnack"**
10	201773	Lower Hinge Support, Specify Color
11	600195	Leg Assembly, Front, Pivot Side, Specify Color
12	420010-22	Washer
13	420003	Screw, Flat Head (1/4-20 x 3/4)
14	640157	Assembly, Lower Door Plate, Specify Color
15	300151	Nut, Special. Door Stop Anchor
16	400090	Door Stop
17	420010-10	Washer
18	114-41 -8	Screw, Hex Head, Machine (1 /4-20 x 1/2)
19	200940	Door Stop Bracket
22	600197	Assembly, Leg, Front Lock Side, Specify Color
23	600433	Assembly, Door Lock Catch
24	660529	Assembly, Junction Box (see page 39-40 for itemized parts)

Item No.	Part No.	Description
25	404-4	Hex Nut (8-32)
26	680456-1	Harness Fan
27	202072	Fan Housing
28	360122-2	Fan Motor, 115 Volt
	360122-3	**Fan Motor, 230 Volt**
	660441	Kit, Fan Add-On, 115 Volt
	660441-1	**Kit, Fan Add-On, 230 Volt**
	360122-3	Fan Motor, 230 Volt
29	202070	Screen Bracket
	202235	Cover Plate, Use w/o Fan
30	202071	Screen
31	202270	Power Inlet Cord Plate
32	420078-1	Pop Rivet
33	380052-3	Strain Relief Bushing w/Screw
34	16600098	Assembly Power Inlet Cord Ambient, 1.5 Volt
	16600099	**Assembly, Power Inlet Cord, Complete, AP/UK, Export**
	16600099-01	**Assembly, Power Inlet Cord, Complete, Australia, Export**
	16600099-02	**Assembly, Power Inlet Cord, Complete, Israel, Export**
	16600099-03	**Assembly, Power Inlet Cord, Complete, Multisnack**
35	276-8R8	Screw Pan HD Phillips (8-32 x 1/2)
36	202690	Deflector

Item No.	Part No.	Description
1	600830-1	Cabinet Assembly Complete, w/Legs, Specify Color.
4	276-8R6	Screw, Pan Head, Self Tap (8-32 x 3/8)
5	12000008	Shelf Support, Left Front
6	640177-2	Assembly, Cabinet Shelf Track, Left.
	660712	Assembly, Complete, Filler Plate
9	12000009-01	Filler Plate, Right Front
	16600003	Assembly, Complete, Filler Plate
10	640177-1	Assembly, Cabinet Shelf Track, Right.
11	202177	Cabinet Receptacle, Mounting Bracket Only
12	420142-2	Drive Pin
13	660516-2	Assembly Complete, Cabinet Back Harness,
14	404-6	Nut, Hex Head (6-32)
15	380303	Assembly, Line Filter
16	16600092	Assembly Complete, Light Ballast & Filter, 115 Volt
	16600092-03	**Assembly Complete, Light Ballast & Filter, 230 Volt, All LCM**
	202251	Cover Mounting Plate Only
17	210-8R6	Screw, Pan Head (6-32 x 3/8)
18	680514	Ballast Only, 115 Volt
	680513-2	**Ballast Only, 230 Volt, All LCM**
19	751-9	Retaining Ring

Item No.	Part No.	Description
20	202376	Latch
21	300211	Latch Pivot Pin
22	400182	Spring
23	216-41 R8	Screw
27	202400	Mounting Bracket
28	210-8R6	Screw
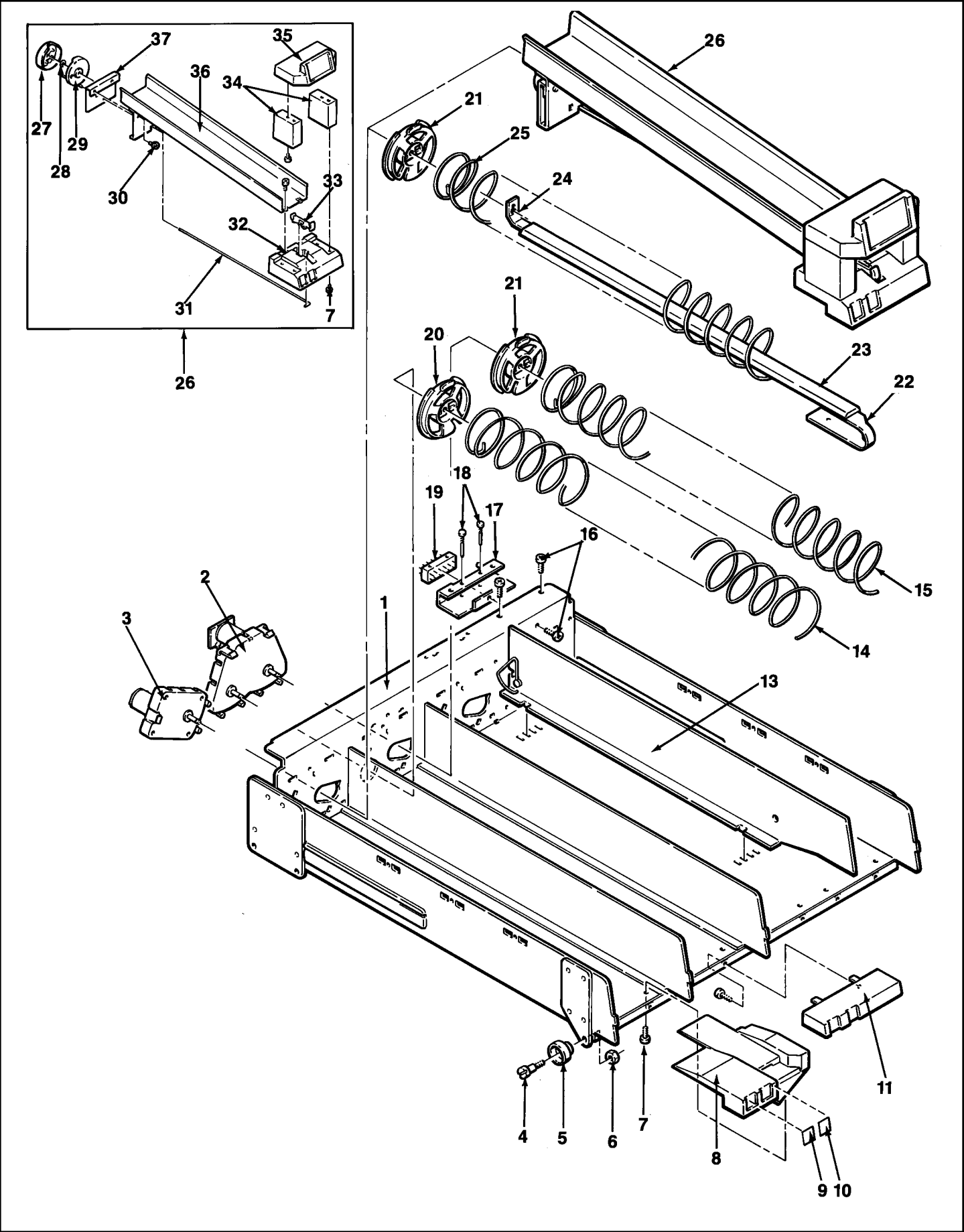
Item No.	Part No.	Description
1	750121-8	Assembly Complete, Snack Shelf w/o Spirals
	660687	Assembly Complete, Snack Shelf w/o Spirals, Chill
	750162-7	Assembly Complete, Dual Snack Shelf
	600819	Snack Shelf Only, Chill
	600267-5	Snack Shelf Only, AMB
2	750159-1	Kit, Dual Spiral Add-On
	360169-1	Dual Spiral Motor Only, Black & White
3	360138-1	Vend Motor Complete Gray & White
4	300203	Screw, Shelf Roller
5	440362	Shelf Roller
6	437-41	Nut, Keps (28 x 1/4)
7	305-8R6	Screw, Pan Head, Phillips, Plastite (8-16 x 318)
8	440285	Tab Holder, Price & Selection
9	460346	Tab, Item
10	460347	Tab, Price, Assorted, 25¢ - $1.50
	460602	Tab, Price, Assorted, $3.10 - $4.05
	14600010	Tab, Price, Assorted ($3.75 - $5.50)
11	440367	Dual Spiral Pastry Shelf, Front Only
13	202770-1	Snack Shelf Extra Extension (Not Shown)
	640101-1	Spacer, Snack Shelf
14	400184-1	Short Spiral, Left Hand, 4 Space, Chrome
	400186-1	Short Spiral, Left Hand, 3 Space, Chrome
	400174-1	Dual Spiral Only, Left Hand, 6 Space, Chrome
	400175-1	Dual Spiral Only, Left Hand, 8 Space, Chrome
	400176-1	Dual Spiral Only, Left Hand, 10 Space, Chrome
15	400183-1	Short Spiral, Right Hand, 4 Space, Chrome
	400185-1	Short Spiral, Right Hand, 3 Space, Chrome
	400173-1	Dual Spiral Only, Right Hand, 6 Space, Chrome
	400116-1	Dual Spiral Only, Right Hand, 8 Space, Chrome
	400117-1	Dual Spiral Only, Right Hand, 10 Space, Chrome
16	276-8R6	Screw, Pan Head, Self Tap (8-32 x 3/8)
17	600601	Shelf Plug, Bracket Only

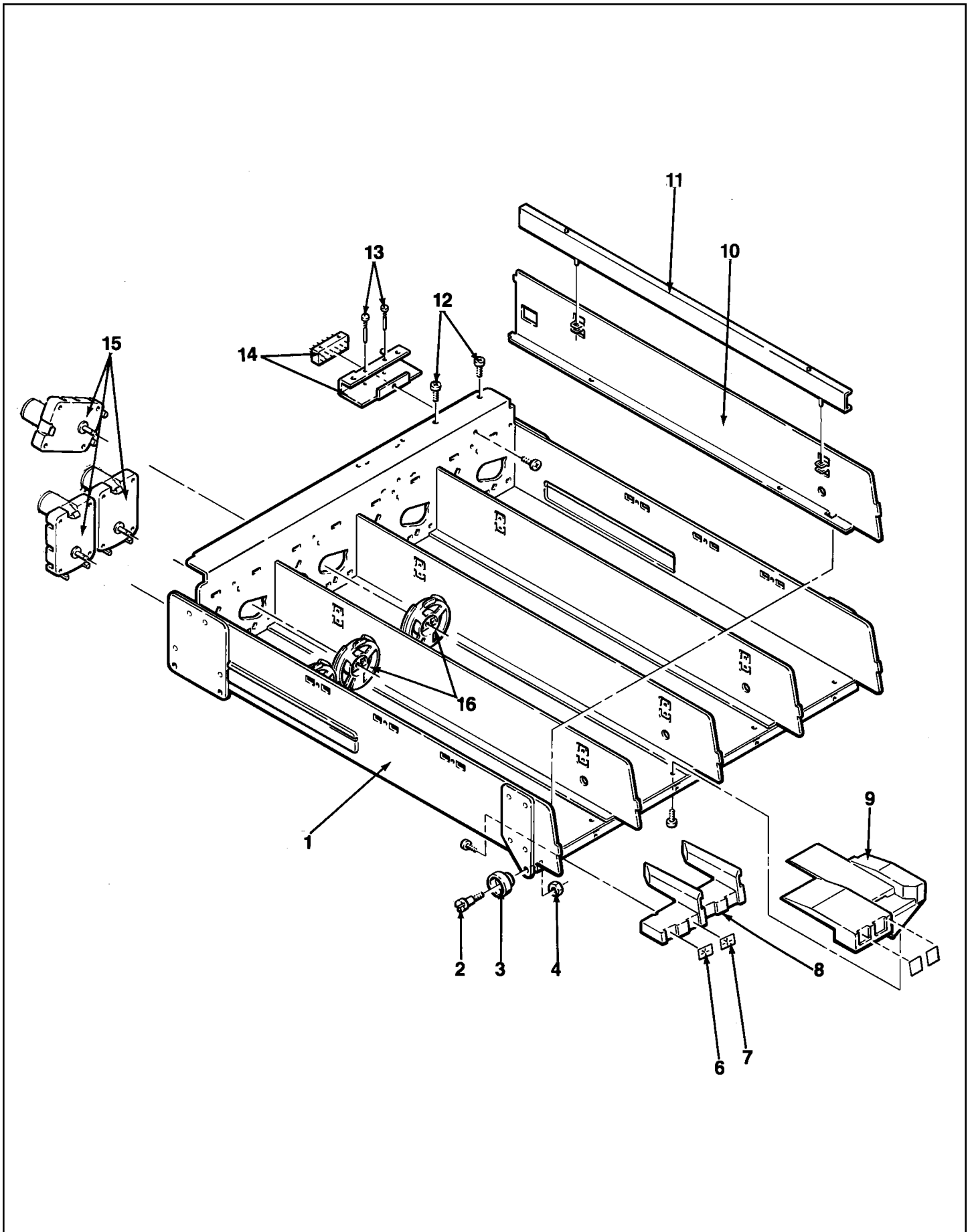| Item No.	Part No.	Description
18	420142-2	Pin Drive
19	660435-5	Assembly Complete, Harness and Plug Bracket
	680446	Harness, Pastry Shelf Only
20	440366	Spiral Retainer, Left Hand, Gray
21	440287	Spiral Retainer, White
22	201534	Front Support Only
23	660330-3	Assembly, Product Rail, Pastry
	440148-2	Plastic Product Rail Only
24	200913	Rear Support Bracket Only, Pastry Spiral
25	400124-1	Snack Spiral, 6 Space, Chrome
	400125-1	Snack Spiral, 8 Space, Chrome
	400126-1	Snack Spiral, 10 Space, Chrome
	400165-1	Snack Spiral, 4 Space, Chrome
26	750083-1	Kit, Can Dispenser
27	440201	Drive Cam, Rear
28	751-31	Retaining Ring (31)
29	440200	Drive Cam, Front
30	300184	Bushing, Shoulder
	277-1OR8	Screw, Type 23 (10-32 x 1/2)
31	400094-1	Wire, Actuator
32	440196	Trim, Price & Selection
33	440199	Lever, Stop
34	440198	Leg, Top Can Guide & Sign Trim
35	440197	Top, Can Guide & Sign Trim
36	600308-1	Dispenser, Can, Trough Only
37	640109	Cam, Mounting Bracket & Spring Assembly
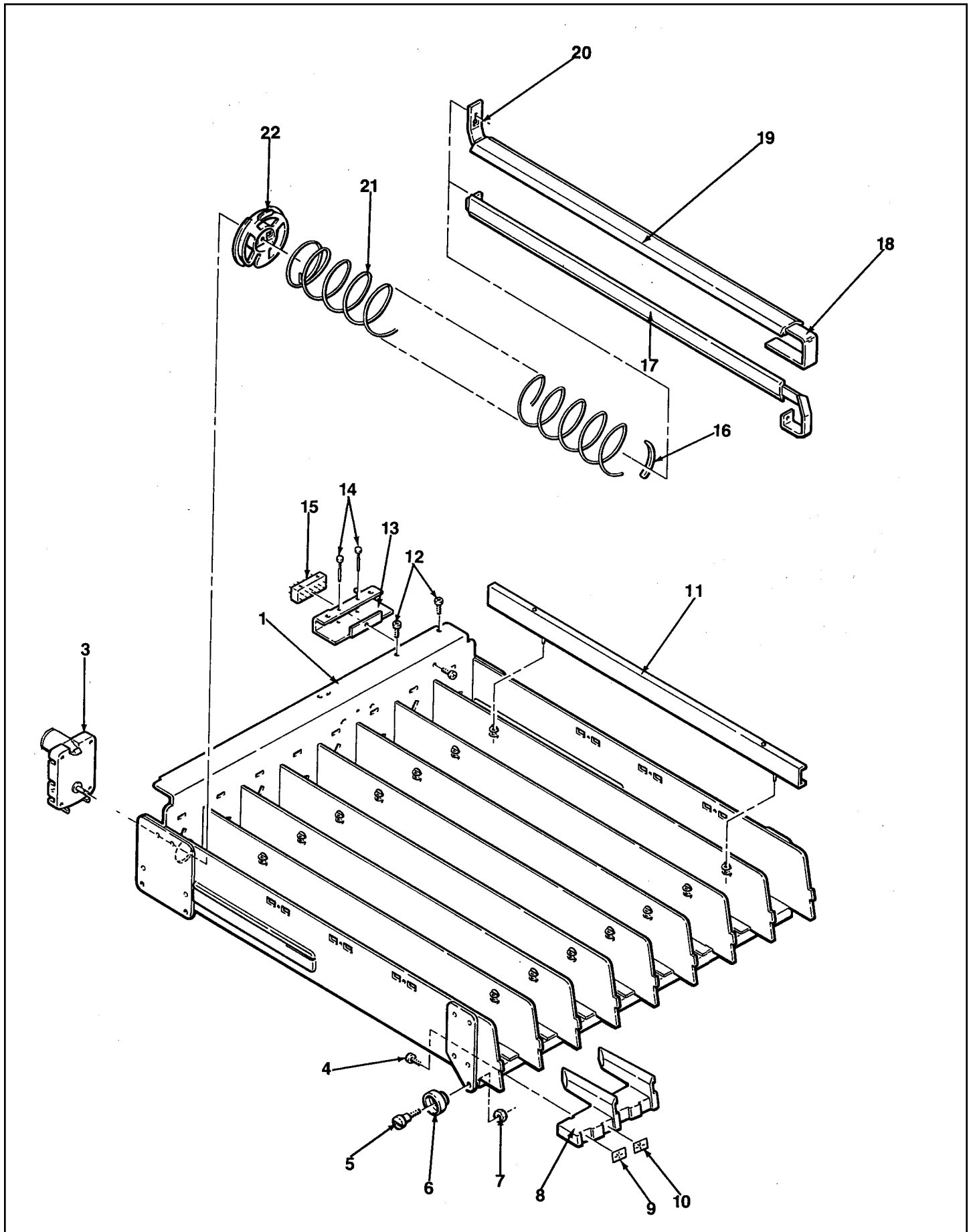
Item No.	Part No.	Description
1	750122-9	Assembly Complete, Candy Shelf w/o Coils.
	660688	Assembly Complete, Candy Shelf w/o Spirals, Chill
	600268-3	Candy Shelf Only.
	600820	Candy Shelf Only, Chill
3	360138-1	Vend Motor Complete, Gray & White
	360155-1	Vend Motor Complete, Half-cycle, Brown & Black
	750137	Kit, Half-cycle Add-on
4	305-8R6	Screw, Pan Head, Plastite (8 x3/8)
5	300203	Screw, Shelf Roller
6	440362	Roller, Shelf
7	437-41	Nut, Keps (28 x 1/4)
8	440262	Tab Holder, Price & Selection, Off-set
9	460346	Tabs, Item
10	460347	Tabs, Price, Assorted 25¢ - $1.50
	460602	Tabs, Price, Assorted $3.10 - $4.05
	460740	Tabs, Price, Assorted 75¢ - $1.25
	460347-1	Tabs, Price, All 30¢ - 35¢
	460347-2	Tabs, Price, All 40¢ - 45¢
	460347-3	Tabs, Price, All 50¢ - 55¢
	460347-4	Tabs, Price, All 60¢ - 65¢
	460347-5	Tabs, Price, All 70¢ - 75¢
	460347-6	Tabs, Price, All 80¢ - 85¢
	460347-7	Tabs, Price, All 90¢ - 95¢
	460347-8	Tabs, Price, All $1.00 - $1.05
	460347-9	Tabs, Price, All $1.10 - $1.15
	460347-10	Tabs, Price, All $1.20 - $1.25
	460347-11	Tabs, Price, All $1.30 - $1.35
	460347-12	Tabs, Price, All $1.40 - $1.45
	460347-13	Tabs, Price, All $1.50 - $1.55
	460347-14	Tabs, Price, All $1.60 - $1.65
	460347-15	Tabs, Price, All $1.70 - $1.75
	460347-16	Tabs, Price, All $1.80 - $1.85
	460347-17	Tabs, Price, All $1.90 - $1.95
	460347-18	Tabs, Price, All $2.00 - $2.05
	460347-19	Tabs, Price, All $2.10 - $2.15
	460347-20	Tabs, Price, All $2.20 - $2.25
	460347-21	Tabs, Price, All $2.30 - $2.35
	460347-22	Tabs, Price, All $2.40 - $2.45
	460347-23	Tabs, Price, All $2.50 - $2.55
	460347-24	Tabs, Price, All $2.60 - $2.65
	460347-25	Tabs, Price, All $2.70 - $2.75
	460347-26	Tabs, Price, All $2.80 - $2.85

Item No.	Part No.	Description
	460347-27	Tabs, Price, All $2.90 - $2.95
	460347-28	Tabs, Price, All $3.00 - $3.05
	460529	**Tabs, Price, French**
	460540	**Tabs, Price, Mexico**
	460644	**Tabs, Price, English**
	460727	**Tabs, Price, Italian**
11	660178-2	Assembly, Candy Spacer
	660178-3	Assembly, Candy Spacer, Use w/Half-cycle Motor
12	276-8R6	Screw, Pan Head, Self Tap (8-32 x 3/8)
13	600601	Plug, Shelf, Bracket Only
14	420142-2	Pin, Drive
15	660435-4	Harness & Bracket Complete
	680447-1	Harness, Candy Shelf Only
16	440141-1	Product Pusher, Candy
17	660296-1	Guide, Small Product
	660296	**Guide, Small Product**
	660503-1	Assembly, Product Rail, Half-cycle Motor
18	201258	Front Support Only
19	660191-2	Assembly, Product Rail, Candy Spiral
	440148-2	Plastic Product Rail Only
20	200913	Rear Support Only
21	400116-1	Spiral, Candy, 18 Space
	400117-1	Spiral, Candy, 10 Space
	400118-1	Spiral, Candy, 12 Space
	400119-1	Spiral, Candy, 16 Space
	400134-1	Spiral, Candy, 20 Space
	400173-1	Spiral, Candy, 6 Space
22	440287	Spiral, Retainer, White

Item No.	Part No.	Description
1	750148-10	Assembly Complete, Convertible Shelf (4 Snack Selections) w/o Spirals
	750148-11	Assembly Complete, Convertible Shelf (3 Snack Selections, 2 candy) w/o Spirals
	750148-12	Assembly Complete, Convertible Shelf (2 Snack Selections, 4 Candy) w/o Spirals
	750148-13	Assembly Complete, Convertible Shelf (1 Snack Selection, 6 Candy) w/o Spirals
	750148-14	Assembly Complete, Convertible Shelf (8 Candy Selections) w/o Spirals
	750159-1	Kit, Dual Spiral Add-on w/o Spirals (Use per selection)
	600819	Convertible Shelf Only
2	300203	Screw, Shelf Roller
3	440362	Roller, Shelf
4	437-41	Nut, Keps (28 x 1/4)
5	305-8R6	Screw, Pan Head, Phillips, Plastite (8-16 x3/8)
6	460346	Tabs, Item
7	460347	Tabs, Price, Assorted 25¢ - $1.50
	460740	Tabs, Price, Assorted 75¢ - $1.25
	14600010	Tabs, Price, Assorted $3.25 - $5.50
	460347-1	Tabs, Price, All 30¢ - 35¢
	460347-2	Tabs, Price, All 40¢ - 45¢
	460347-3	Tabs, Price, All 50¢ - 55¢
	460347-4	Tabs, Price, All 60¢ - 65¢
	460347-5	Tabs, Price, All 70¢ - 75¢
	460347-6	Tabs, Price, All 80¢ - 85¢
	460347-7	Tabs, Price, All 90¢ - 95¢
	460347-8	Tabs, Price, All $1.00 - $1.05
	460347-9	Tabs, Price, All $1.10 - $1.15
	460347-10	Tabs, Price, All $1.20 - $1.25
	460347-11	Tabs, Price, All $1.30 - $1.35
	460347-12	Tabs, Price, All $1.40 - $1.45
	460347-13	Tabs, Price, All $1.50 - $1.55
	460347-14	Tabs, Price, All $1.60 - $1.65
	460347-15	Tabs, Price, All $1.70 - $1.75
	460347-16	Tabs, Price, All $1.80 - $1.85
	460347-17	Tabs, Price, All $1.90 - $1.95

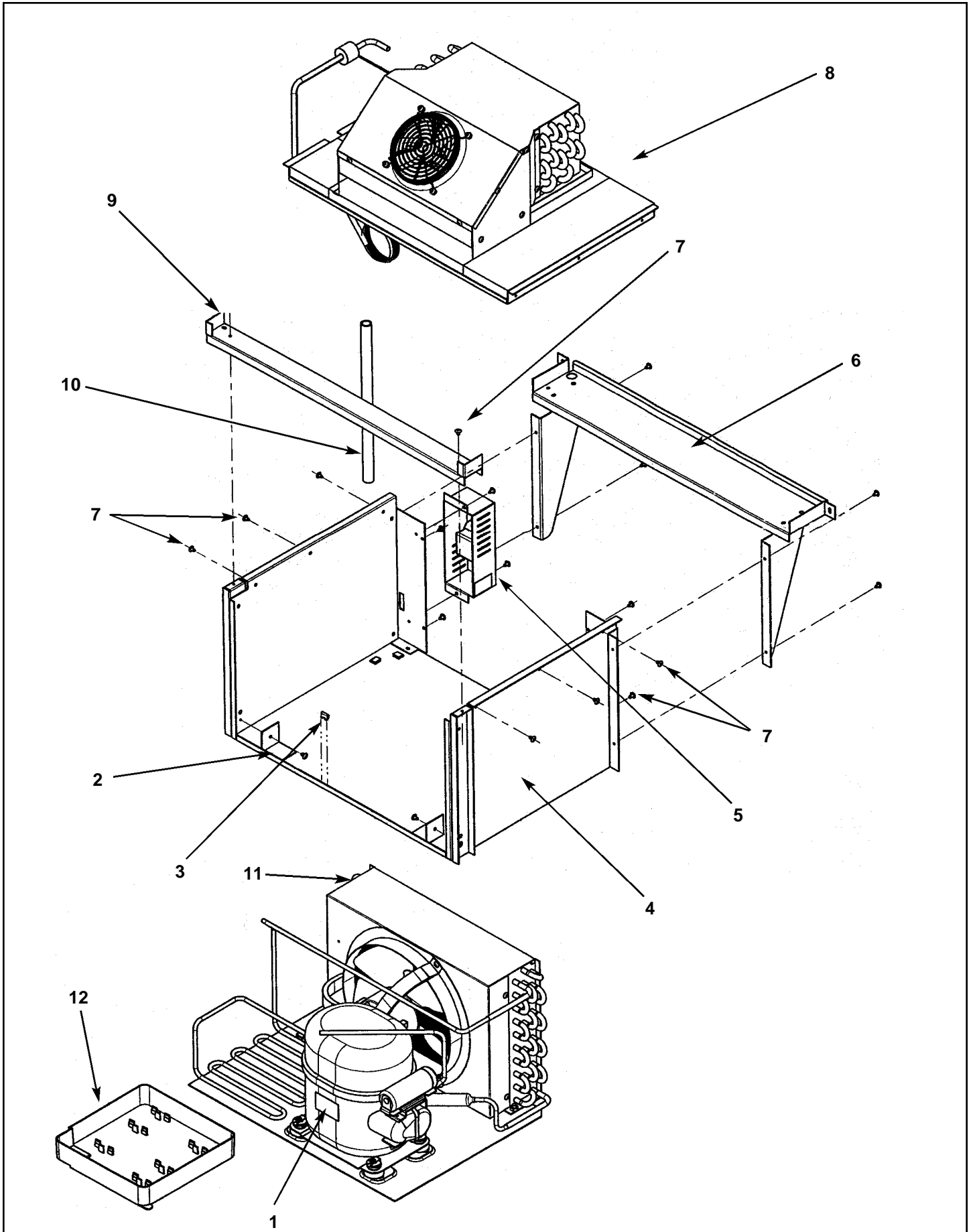| Item No.	Part No.	Description
	460347-18	Tabs, Price, All $2.00 - $2.05
	460347-19	Tabs, Price, All $2.10 - $2.15
	460347-20	Tabs, Price, All $2.20 - $2.25
	460347-21	Tabs, Price, All $2.30 - $2.35
	460347-22	Tabs, Price, All $2.40 - $2.45
	460347-23	Tabs, Price, All $2.50 - $2.55
	460347-24	Tabs, Price, All $2.60 - $2.65
	460347-25	Tabs, Price, All $2.70 - $2.75
	460347-26	Tabs, Price, All $2.80 - $2.85
	460347-27	Tabs, Price, All $2.90 - $2.95
	460347-28	Tabs, Price, All $3.00 - $3.05
	460529	**Tabs, Price, French**
	460540	**Tabs, Price, Mexico**
	460561	**Tabs, Price, Spanish**
	460644	**Tabs, Price, English**
	460727	**Tabs, Price, Italian**
8	440262	Tab Holder, Price/Selection, Offset Candy (See page 21, item 8 for Candy Spirals)
9	440285	Tab Holder, Price/Selection, Snack (See page 19, item 8 for Snack Spirals)
10	200753-6	Divider, Shelf, Candy
11	660178-2	Assembly, Candy Spacer
12	276-8R6	Screw, Pan Head, Self Tap (8-32 x 3/8)
13	420142-2	Pin, Drive
14	660435-3	Harness, Candy Shelf with Plug Bracket
15	360138-1	Vend Motor Complete, Gray & White
	750150-3	Kit, Convertible Shelf, 2 Selection Add-On
16	440287	Lock, Spiral, White
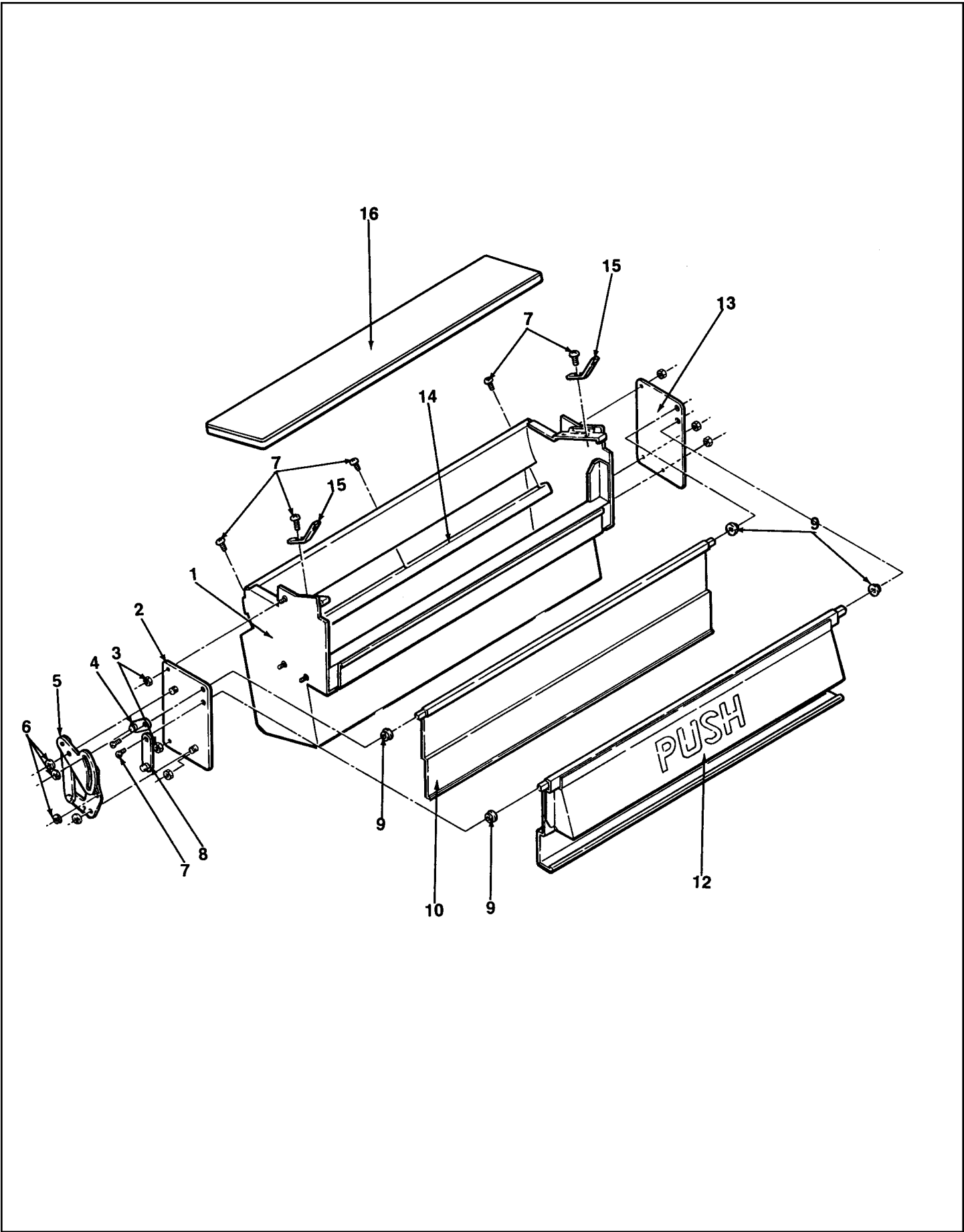
Item No.	Part No.	Description
1	660558-3	Delivery Bin Assembly, Complete, Gray
	660558-1	Delivery Bin Assembly, Complete, Black
	600704-1	Delivery Bin Only
2	640187-1	Arm Mounting Bracket
3	438-8	Nut, Keps (8-32)
4	640098	Inner Door Bin Arm
5	640100-1	Bin Door Drive Assembly
6	751-37	Retaining Ring (37)
7	276-8R6	Screw, Pan Head, Self Tap, Phillips (8-32 x 3/8)
8	640097	Door Drive Arm
9	440129	Door Bearing
	420282	Bin Door Washer (not shown)
10	200763-1	Inner Door
	200763-4	Inner Door, Steel
12	440373-3	Door, Delivery Bin, Gray
	440373-1	Door, Delivery Bin, Black
13	202285	Arm Mounting Bracket
14	200902-1	Baffle, Rear Delivery Bin
15	200906	Delivery Bin Anchor Strap
16	420315-1	Delivery Bin Pad Assembly, Can Dispenser

Item No.	Part No.	Description

Item No.	Part No.	Description
1	16600030	Compressor Unit, Assembly Complete, 115 Volt
	660711	Compressor Unit, Assembly Complete, Chill 115 Volt
	16600030-01	**Compressor Unit, Assembly Complete, 230 Volt**
	660711-1	**Compressor Unit, Assembly Complete, 230 Volt Chill**
	360269	Condensing Fan Only, 115 Volt
	16700006	**Condensing Fan Only, 230 Volt**
2	202882	Mounting Plate Bracket
3	460768	Clip-Spring
4	600832	Chassis Only, LCM5
5	16600031	Assembly Timer & Snack Control AMB, 115 Volt
	16600031-01	**Assembly Timer & Snack Control AMB, 230 Volt**
6	600833	Front Cooler Support Only
7	210-8R6	Screw, Phillips #8 x 3/8
8	16600029	Assembly Evaporator AMB, 115 Volt
	16600029-01	**Assembly Evaporator AMB, 230 Volt**
9	420318	Bushing
10	440318	Drain Tube
11	660704-2	Assembly Condensing Unit, 115 Volt
	660704-3	**Assembly Condensing Unit, 230 Volt**
12	440459	Evaporating Pan
	660692	Vent Screen (Not Shown)

Item No.	Part No.	Description
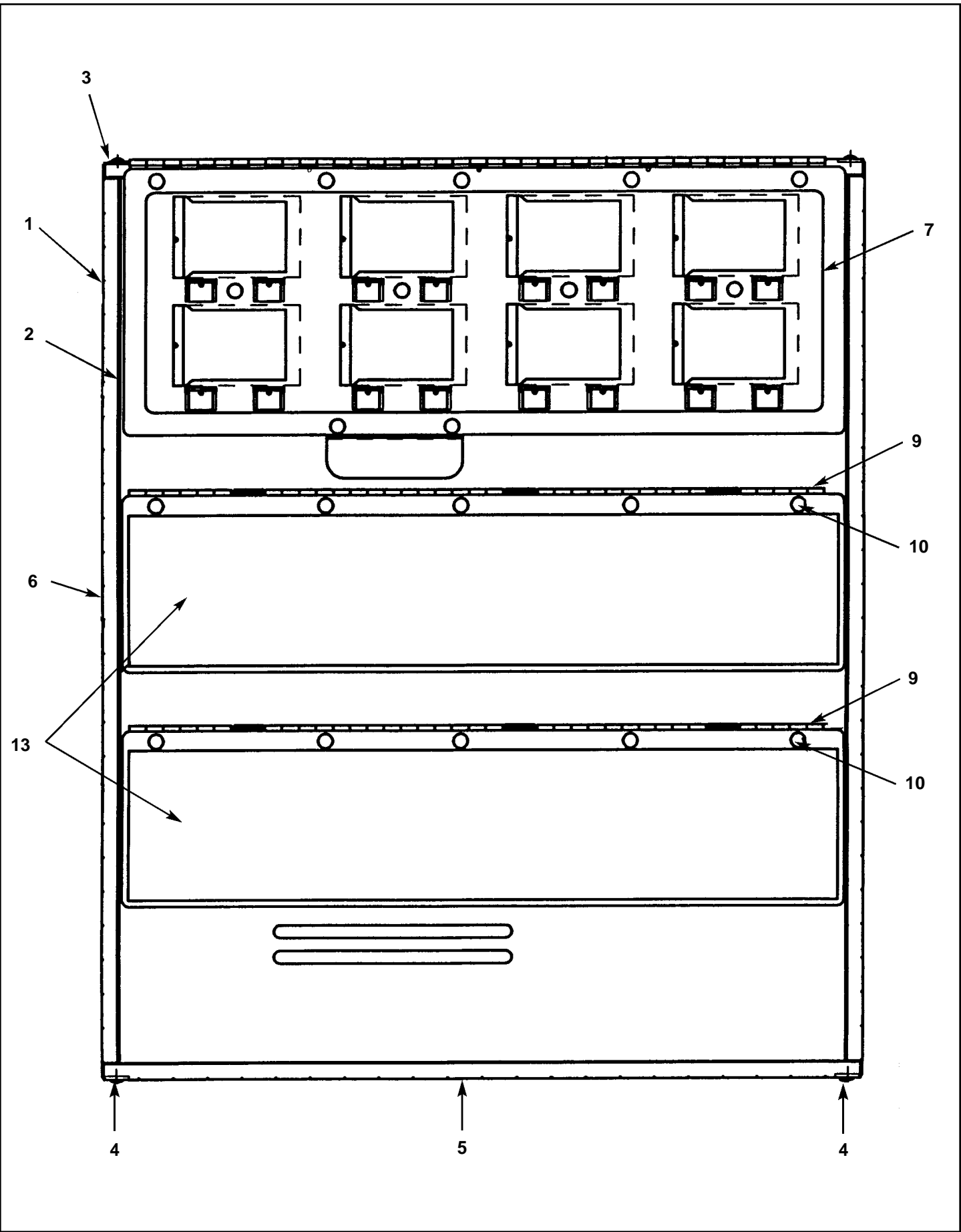
Item No.	Part No.	Description
	660710	Front Panel Cooler Assembly, Chilled & not Chilled, (includes items 1-15)
1	440457	Frame, Front Panel, Chilled
2	420431	Gasket
3	600831	Top Support Weldment, Cooler Front
4	210-8R6	Screw, Truss Head, Type A (8 x 3/8)
5	202871-1	Bottom Support, Cooler Front
6	202394	Side Support, Cooler Front
7	660707	Service Door Assembly (see page 35)
8	210-8R6	Screw, Truss Head, Type A (#8 x 3/8)
9	460770	Hinge Assembly, Vend Door, Complete
10	217H6R8	Screw (6 x 1/2)
	217H6R5	Screw (6 x 5/16)
12	440398	Shoulder Nut, Plastic 31/32 (Not Shown)
	440398-1	Shoulder Nut, Plastic 11/32 (not Shown)
13	660706	Vend Door Assembly (see page 35)
	440456	Vend Door Only
	420429	Vend Door Gasket

Item No.	Part No.	Description
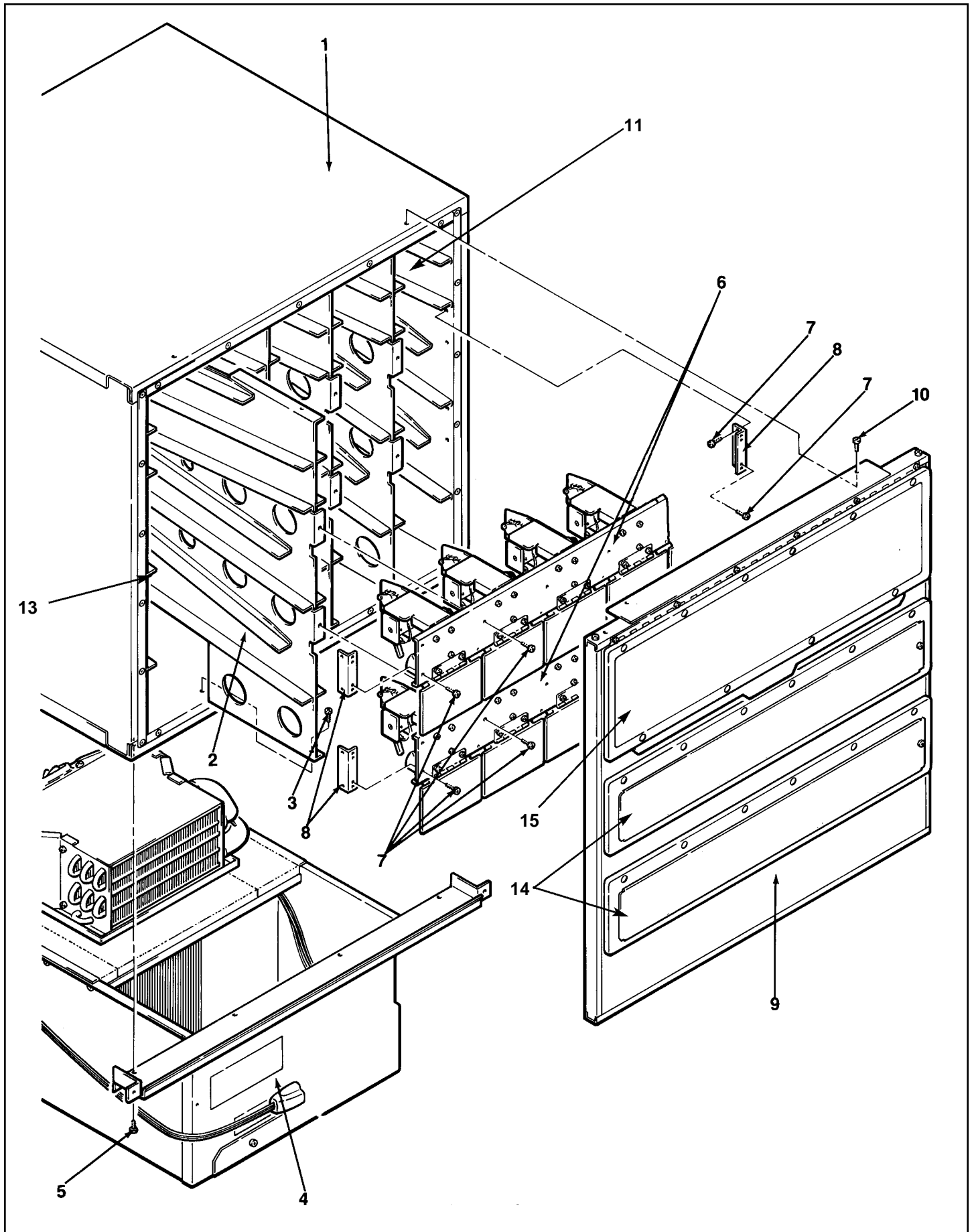
Item No.	Part No.	Description		Item No.	Part No.	Description
1	660700	Cooler Assembly, US Chill (355 ML)				
	660700-1	Cooler Assembly, US AMB (355 ML)				
	660703-1	**Cooler Assembly, UK/Juice AMB**				
	660703	**Cooler Assembly, UK/Juice Chill**				
	660702	**Cooler Assembly, Aust. (375 ML) Chill, LCM5**				
	660702-1	**Cooler Assembly, Aust. (355 ML) AMB**				
	660701	**Cooler Assembly, UK (330 ML) Chill, LCM5**				
	660701-1	**Cooler Assembly, UK/Juice, LCM5, (330)**				
	600643	Assembly Cross Flow Blower & Bracket, Chill (Not Shown)				
	360235	Cross Flow Blower Only. (Not Shown)				
2	640233	Divider Panel Assembly				
		Assy Divider Panel Guides Both Sides				
	640199	**Assy Divider Panel Guides Both Sides**				
	640200	**Assy Divider Panel Guides Both Sides**				
3	276-6R4	Screw, Pan Head, Type 23 (6-32 x 1/4)				
4		Compressor Unit, Assembly Complete (see page 27)				
5	210-8R6	Screw, Pan Head, Type A (#8 x 3/8) Qty. 21				
6	660694	Vend Motor Rack Assembly (see page 37)				
7	276-8R6	Screw, Pan Head, Type 23 (8-32 x 3/8) Qty. 8				
8	202398	Motor Rack Mounting Bracket				
9	660710	Front Panel, Cooler Assembly (see page 29)				
10	217-8R10	Screw, Pan Head, Type B (#8 x 5/8)				
11	202441	Filler Plate (Not Shown)				
	202441-1	**Filler Plate European**				
	202441-2	**Filler Plate Australian**				
	640235	**Divider Panel Assembly LCM5 Right Side. UK & Aust.**				
13	640234	Divider Panel Assembly LCM5 Left Side. UK & Aust.				
14	660706	Assembly, Vend Door LCM5 Chilled				
15	660707	Assembly, Service Door LCM5				

cold control / timer assembly
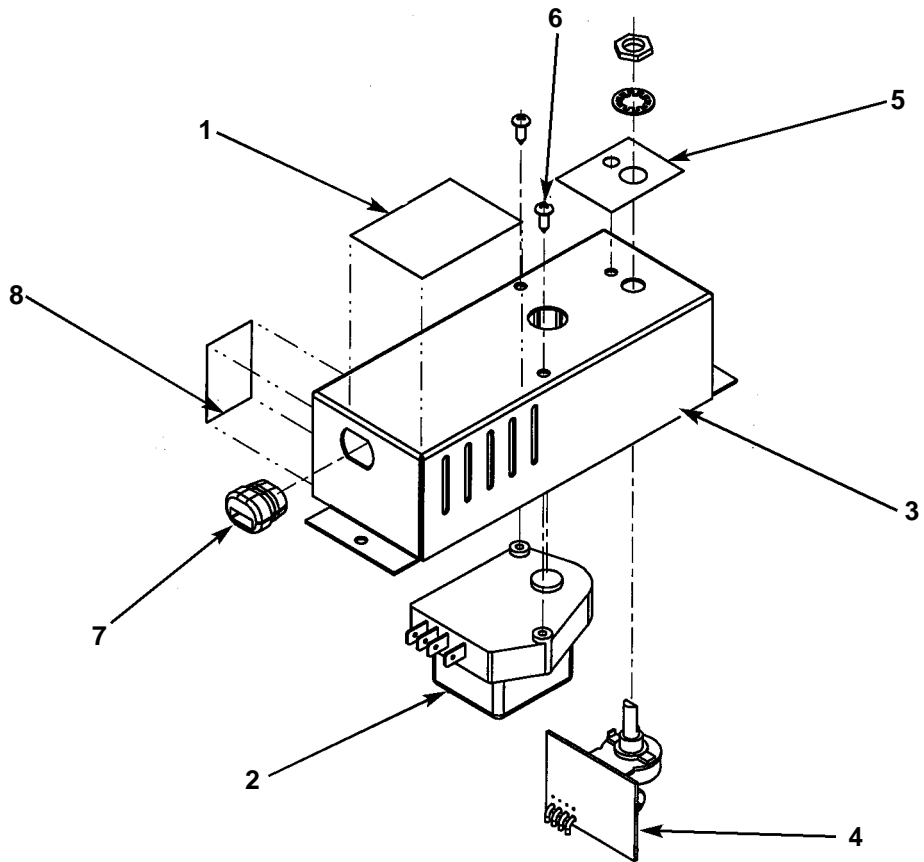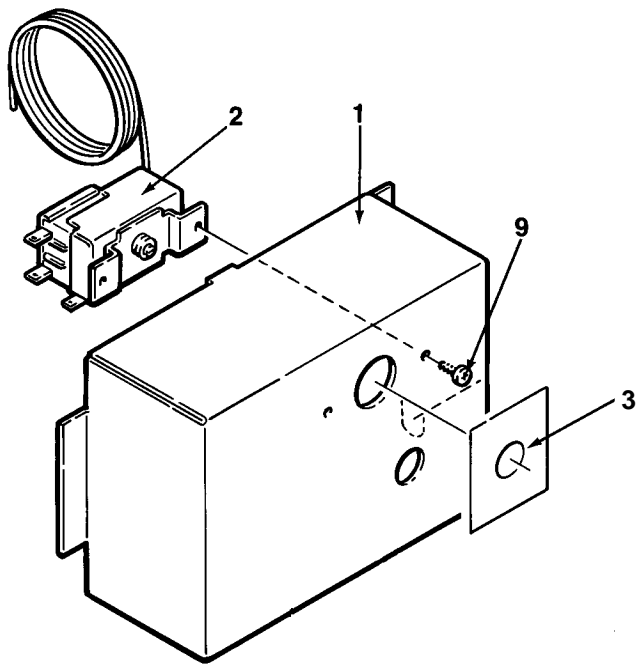
Item No.	Part No.	Description
1	660693	Control Assembly, 115V (includes items 1-7)
	202849	Cold Control Housing Only, 115V
	202366	**Cold Control Housing Only, 220/240V**
	460642	Decal, Voltage Disconnect (Not Shown)
2	360204	Cold Control Switch
	680648	Cold Control Harness (Not Shown)
3	460571	Label, Cold Control
4	276-8R6	Screw, Pan Head (8-32 x 7/16)

Item No.	Part No.	Description

Item No.	Part No.	Description
	16600031	Assembly Complete. Timer/Snack Control. 115V
	16600031-02	**Assembly Complete. Timer/Snack Control. 220V**
1	**660690-2**	**Assembly Complete. Timer/Snack Control. 220V. Chill**
	16600031-01	**Assembly Comlete. Timer/Snack Control. 208/240V - 50 HZ**
	460642	Decal, Voltage Disconnect
2	380320	Defrost Timer 115V
	380320-01	**Defrost Timer. 208/240V**
	380320-02	**Defrost Timer 220V**
3	202844	Defrost Timer Box Only
	680650	Defrost Timer Harness LCM5 Chill (Not Shown)

Item No.	Part No.	Description
4	360248	Assembly Fan Control PC Board LCM4/5 Chill
5	460709	Label, Snack Section Cold Control
	380293	Molex Plug. 4 Pin (Not Shown)
6	201-6R7	Screw, Right Hand, Type B #6 x 7/16
7	380052-5	Strain Relief Bushing
8	**460458-03**	**Voltage Decal 208/220/240**

can door assembly
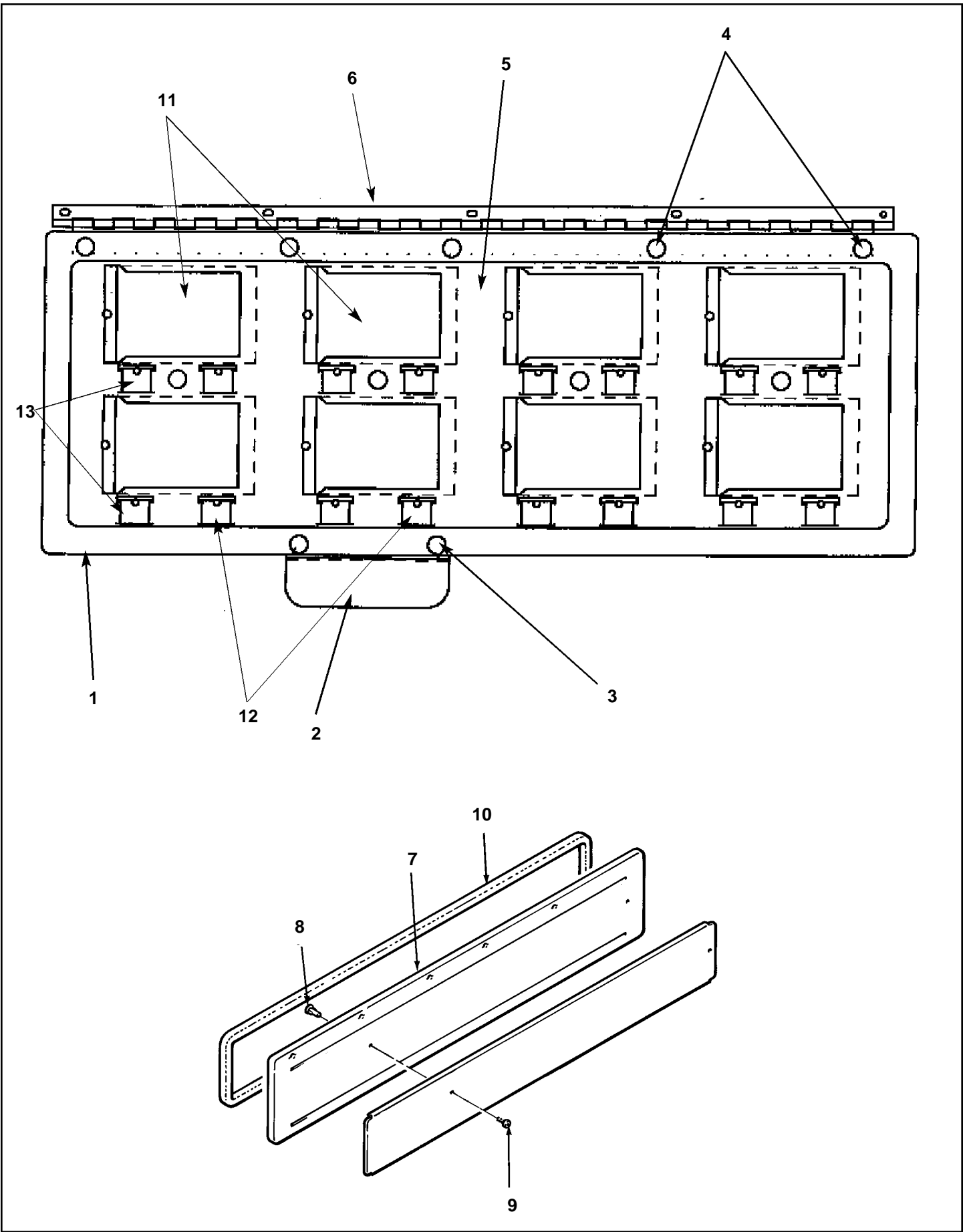
Item No.	Part No.	Description
1	660707	Service Door Assembly (includes items 1-8)
	440454	Service Door Only, LCM5
	440458-1	Trim Frame
	420430	Gasket 63" (Not Shown)
2	202848	Handle Service Door
3	440398-1	Shoulder Nut, Plastic (21/32)
4	217H6R5	Screw, Pan Head, Type B (#6 x 5/16)
5	460765	Decal, "Product Loading Diagram" (not Shown)
6	460769	Hinge
7	660706	Vend Door Assembly
	440456	Vend Door With Decal
8	440398	Shoulder Nut, Plastic (3/4)
9	217H6R8	Screw, Pan Head, Type B (#6 x 1/2)
10	420429	Gasket
11	660551	Labels
12	460347	Tabs, Price, Assorted 25¢ - $1.50
	460602	Tabs, Price, Assorted $3.10 - $4.05
	460347-1	Tabs, Price, All 30¢ - 35¢
	460347-2	Tabs, Price, All 40¢ - 45¢
	460347-3	Tabs, Price, All 50¢ - 55¢
	460347-4	Tabs, Price, All 60¢ - 65¢
	460347-5	Tabs, Price, All 70¢ - 75¢
	460347-6	Tabs, Price, All 80¢ - 85¢
	460347-7	Tabs, Price, All 90¢ - 95¢
	460347-8	Tabs, Price, All $1.00 - $1.05
	460347-9	Tabs, Price, All $1.10 - $1.15
	460347-10	Tabs, Price, All $1.20 - $1.25
	460347-11	Tabs, Price, All $1.30 - $1.35
	460347-12	Tabs, Price, All $1.40 - $1.45
	460347-13	Tabs, Price, All $1.50 - $1.55
	460347-14	Tabs, Price, All $1.60 - $1.65
	460347-15	Tabs, Price, All $1.70 - $1.75
	460347-16	Tabs, Price, All $1.80 - $1.85
	460347-17	Tabs, Price, All $1.90 - $1.95
	460347-18	Tabs, Price, All $2.00 - $2.05
	460347-19	Tabs, Price, All $2.10 - $2.15
	460347-20	Tabs, Price, All $2.20 - $2.25
	460347-21	Tabs, Price, All $2.30 - $2.35
	460347-22	Tabs, Price, All $2.40 - $2.45
	460347-23	Tabs, Price, All $2.50 - $2.55
	460347-24	Tabs, Price, All $2.60 - $2.65
	460347-25	Tabs, Price, All $2.70 - $2.75
	460347-26	Tabs, Price, All $2.80 - $2.85
	460347-27	Tabs, Price, All $2.90 - $2.95
	460347-28	Tabs, Price, All $3.00 - $3.05
	460529	**Tabs, Price, French**
	460540	**Tabs, Price, Mexico**
13	460346	Item Tabs
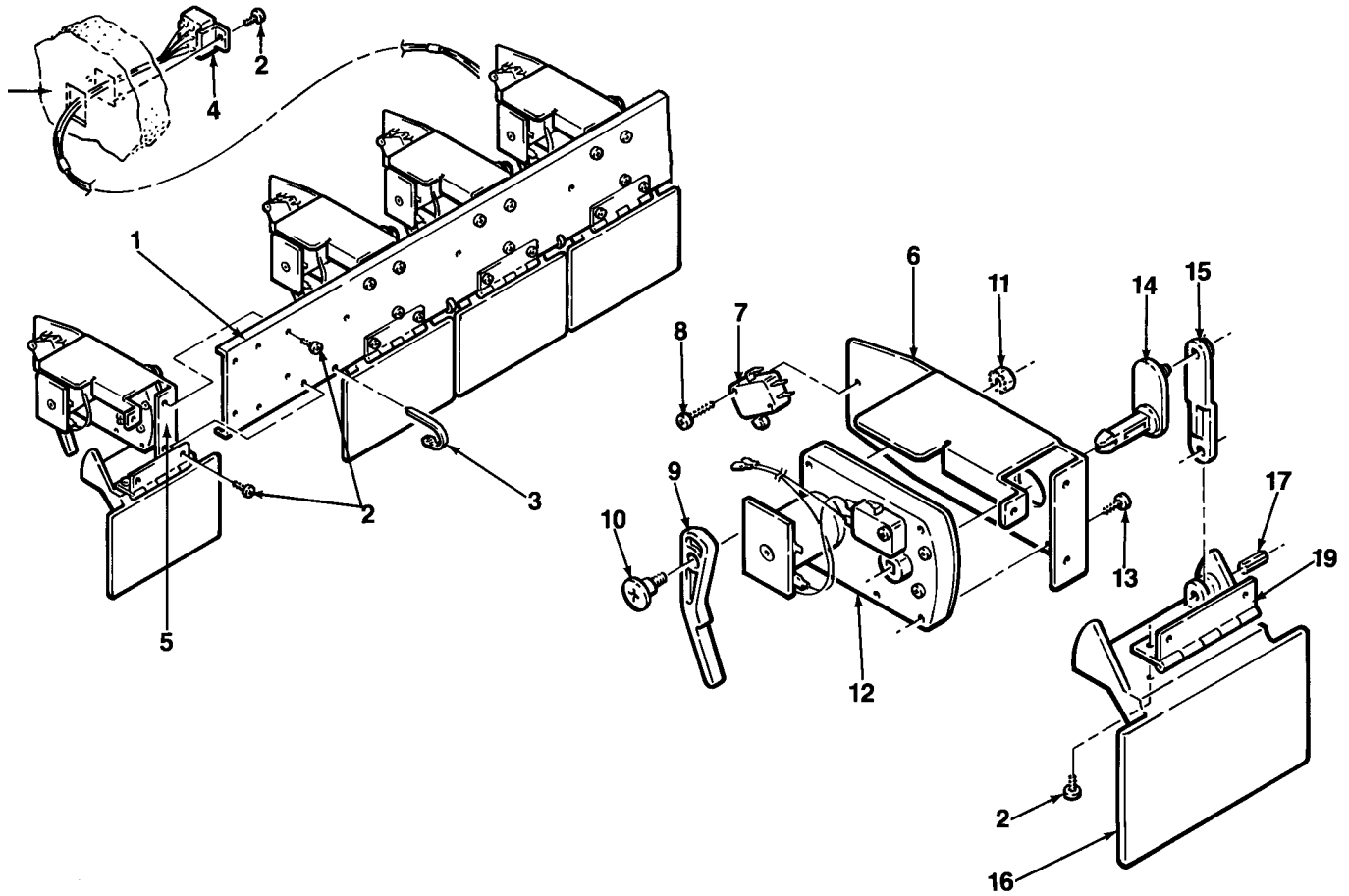
Item No.	Part No.	Description
	660694	Vend Motor Rack Assembly (includes items 1-5)
	660695	**Vend Motor Rack Assembly (includes items 1-5) UK (330ml)**
	660696	**Vend Motor Rack Assembly (includes items 1-5) 5 3/8 spc, Australia**
1	202851	Motor Assembly Mounting Bracket, Bare 5 1/16 special
	202852	**Motor Assembly Mounting Bracket, UK**
	202850	Motor Assembly Mounting Bracket, Bare, Aust
2	276-8R6	Screw, Pan Head (8-32 x 3/8)
3	380307	Cable Tie
4	680649	Can Rack Harness, LCM5
5	660537	Vend Motor Assembly (includes items 6-19)
6	202391	Motor Mounting Bracket
7	380306	Empty Switch
8	100-4-9	Screw, Round Head (4-40 x 9/16)
9	440394	Empty Switch Lever
10	300203	Shelf Roller Screw
11	437-41	Nut, Keps (1/4 - 28)
12	360199	Vend Motor, 24VDC
13	305-7R8	Screw, Pan Head, Plastite (7 x 1/2)
14	440392	Motor Pivot Arm
15	440393	Link Arm
16	440391	Can Dispenser Only
	660554	Assembly, Can Dispenser Linkage
17	300210	Link Pin
18	276-8R6	Screw, Pan Head, (8-32 x 3/8)
19	460630	Can Dispenser Hinge
20	276-8R6	Screw, Pan Head, Sems (8-32 x 3/8)

Item No.	Part No.	Description

main junction box
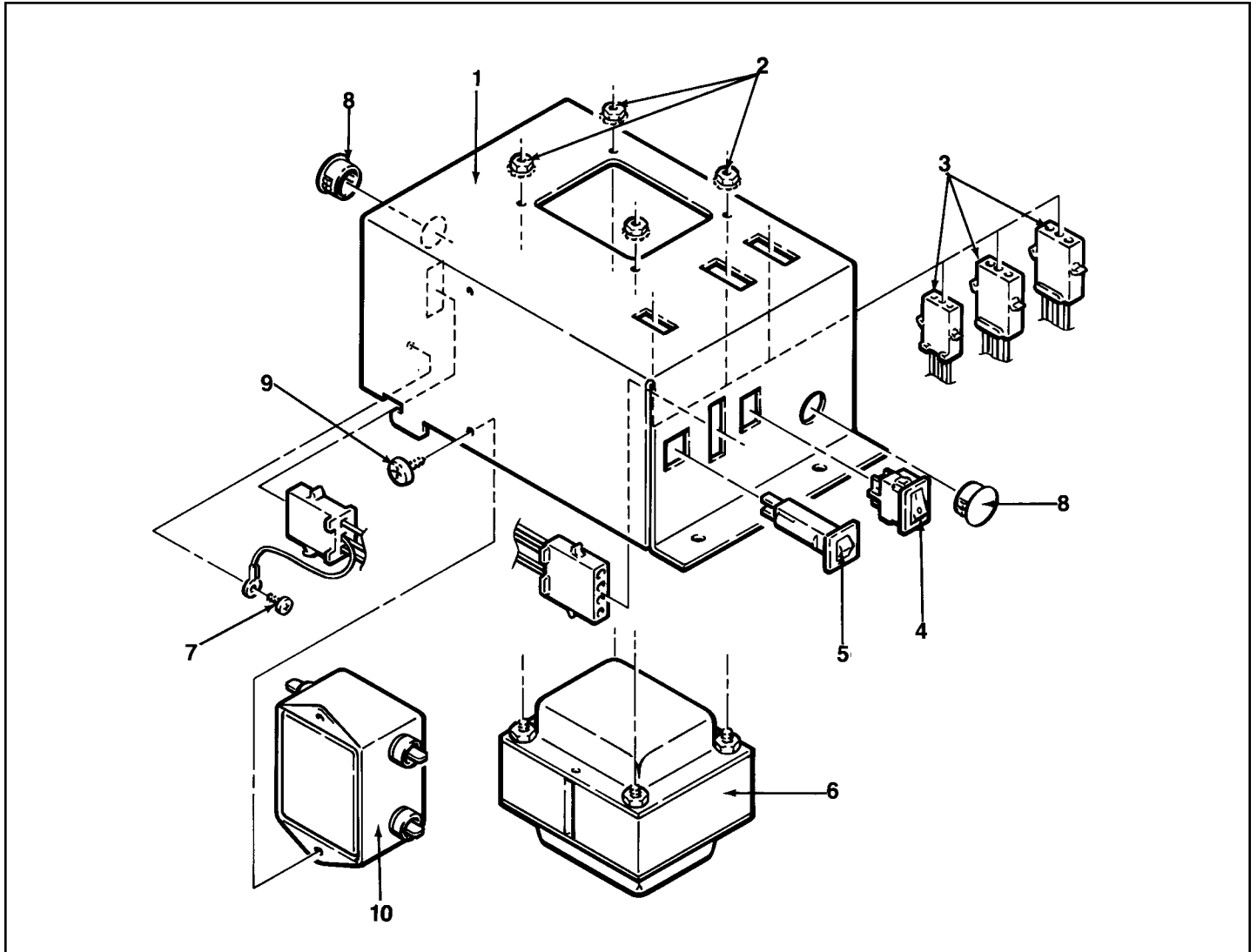
Item No.	Part No.	Description
1	660529	Main Junction Box Assembly, Complete, LCM 5 & Chilled
	202355	Main Junction Box Only
2	437-8	Nut, Keps (8-32)
3	680559	Harness, Junction Box
4	380243	Switch, Rocker, On/Off
5	380241	Circuit Breaker, 3 Amp.
6	360194	Transformer
7	276-8R4	Screw, Pan Head, Self Tap (8-32 x 1/4)
8	420040-1	Snap Hole Plug
9	216-41R8	Screw, Pan Head, Type B (1/4 x 1/2)

Item No.	Part No.	Description
10	380304	Filter, Line
	420040-2	Snap Bushing (1/2) Not Shown
	460642	Decal Voltage, Not Shown
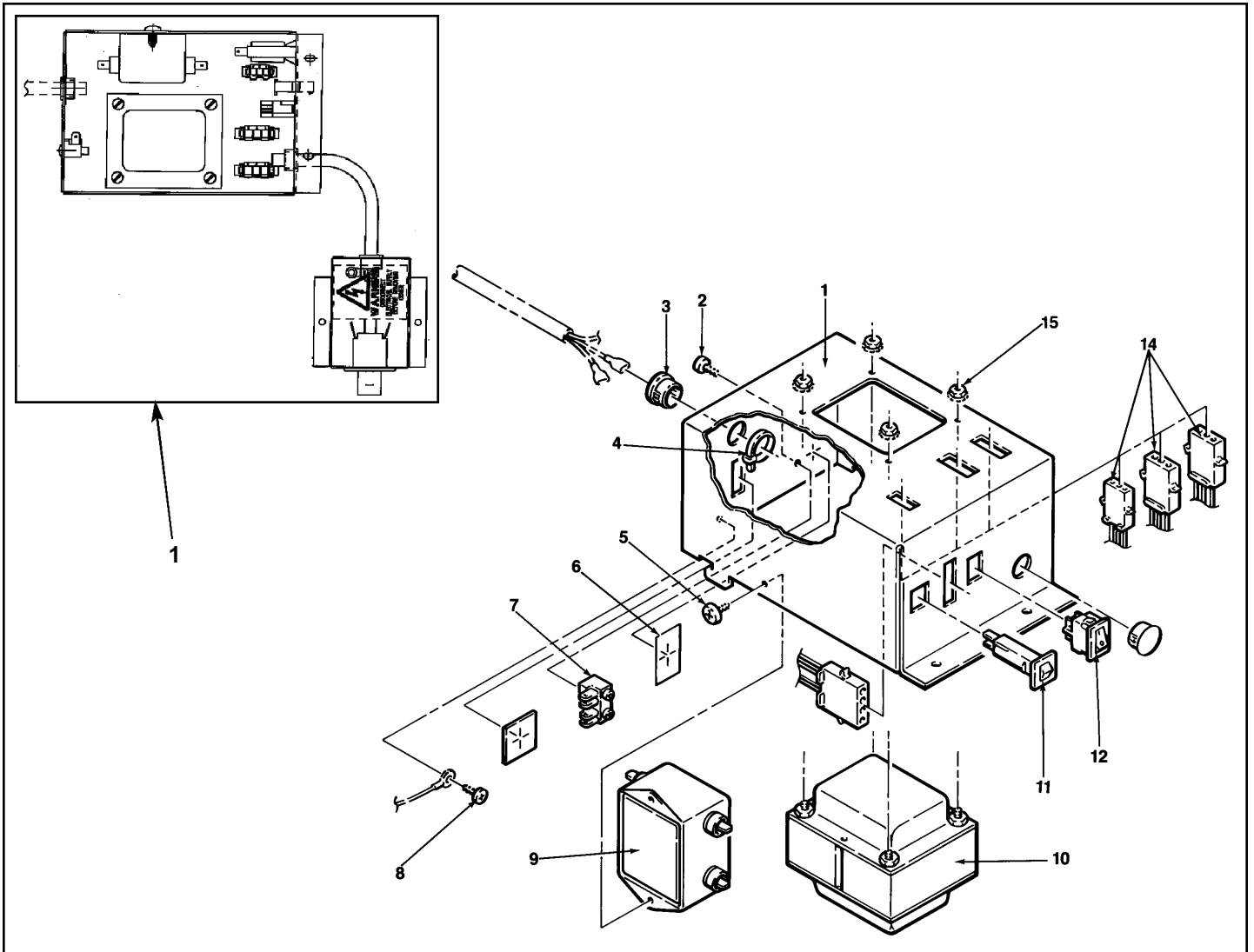
Item No.	Part No.	Description
1	**660689**	Main Junction Box Assembly, Complete, LCM, 230 Volt
	202355	Main Junction Box Only
	202843	Door Switch Box Only
	380262	Door Switch Export
	460642	Decal, Voltage Disconnect
2	210-8R6	Screw, Pan Head, Self Tap (8 x 3/8)
3	420040-2	Snap Bushing (5/8)
4	380078	Cable Tie
5	216-41R8	Screw, Pan Head, Type AB (1/4 - 1/2)
6	440065	Mylar Insulation

Item No.	Part No.	Description
7	380285	Terminal Block
8	276-8R4	Screw, Pan Head, Self Tap (8-32 x 1/4)
9	380304	RFI Filter
10	360203	Transformer, 230 Volt
	460458-3	Voltage Label 230V (Not Shown)
11	380241	Circuit Breaker, 3 Amp
12	380243	Rocker Switch
13	420040-2	Snap Plug (5/8)
14	680570-3	Harness, Junction Box, 230 Volt
15	437-10	Nut, Keps (10-32)

AP II style

Item No.	Part No.	Description
1	340044-15	Trim, Top, For use w/Vinyl Insert
2	440258-9	Insert Top Trim "Snacks"
	201690-13	Top Insert Black Hide
3	340057	Trim, Outside Vertical (right or left)
4	340058-2	Trim, Inside Vertical (right or left)
5		PANEL, LEFT SIDE, VERTICAL
	202059-19	Presidential Walnut, Vinyl
	202059-43	Black Hide
	202059-20	Painted, Specify Color
6		PANEL, RIGHT SIDE VERTICAL
	12000205	Presidential Walnut
	12000205-22	Painted, Specify Color
	12000205-24	Black
7	340058-1	Trim, Inside Horizontal
8		PANEL, DELIVERY TRAY
	201356-8	Presidential Walnut, Vinyl
	201356-14	Painted, Specify Color
9	340055-29	Trim, Inside Horizontal
	201356-2	Black Hide
10		PANEL, LOWER HORIZONTAL
	200296-11	Presidential Walnut, Vinyl
	200296-15	Painted, Specify Color
	202296-54	Sterling Royce
11	16000040	Door Only, Specify Color

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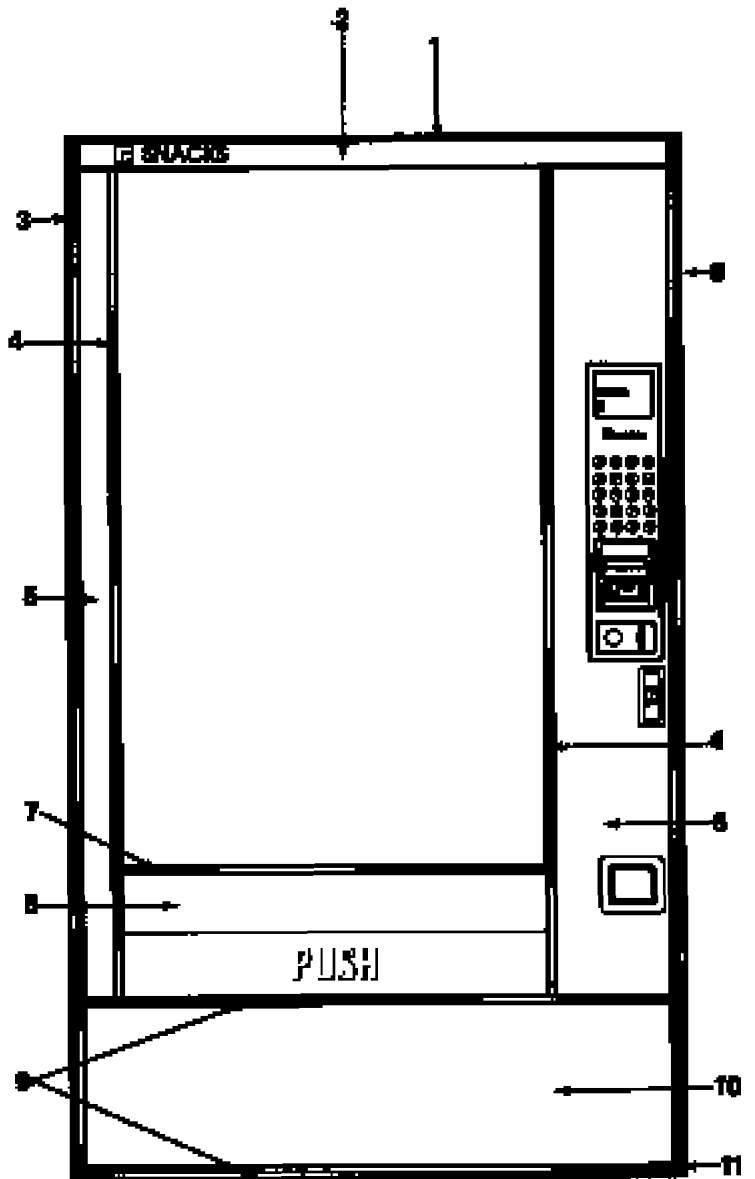
Item No.	Part No.	Description
1	660231-24	Trim, Horizontal w/Black Stripe
2		PANEL, COVERPLATE 3'
	201417-12	Presidential Walnut, Vinyl
	201417-16	Regency Walnut, Vinyl
	201690-22	Black Hide, Vinyl
	201417-13	Painted, Specify Color
	201417-20	Dove Gray
	201417-14	Teak
3	340057	Trim, Outside Vertical (right or left)
4	340058-4	Trim, Inside Vertical (right or left)
5		PANEL, LEFT SIDE VERTICAL
	202059-23	Presidential Walnut, Vinyl
	202059-32	Regency Walnut, Vinyl
	202059-43	Black Hide, Vinyl
	202059-26	Painted, Specify Color
	202059-25	Port Au Prince, Vinyl
	202059-55	Sterling Royce
	202059-36	Dove Gray
	202059-24	Teak
6		PANEL, RIGHT SIDE VERTICAL
	12000205-01	Presidential Walnut, Vinyl
	12000205-11	Black Hide, Vinyl
	12000205-23	Painted, Specify Color
	12000205-17	Sterling Royce
	12000205-18	Port Au Prince
	12000205-13	Dove Gray
	12000205-03	Teak
7	340058-1	Trim Inside Horizontal
8		PANEL, DELIVERY TRAY
	201356-8	Presidential Walnut, Vinyl
	201356-30	Regency Walnut, Vinyl
	201356-2	Black Hide, Vinyl
	201356-14	Painted, Specify Color
	201356-37	Dove Gray
	201356-11	Teak
9		PANEL, LOWER HORIZONTAL
	200296-11	Presidential Walnut, Vinyl
	200296-12	Regency Walnut, Vinyl
	200296-59	Black Hide, Vinyl
	200296-15	Painted, Specify Color
	200296-10	Dove Gray
	200296-13	Sterling Royce
	200296-14	Teak
10	16000040	Door Only, Specify Color
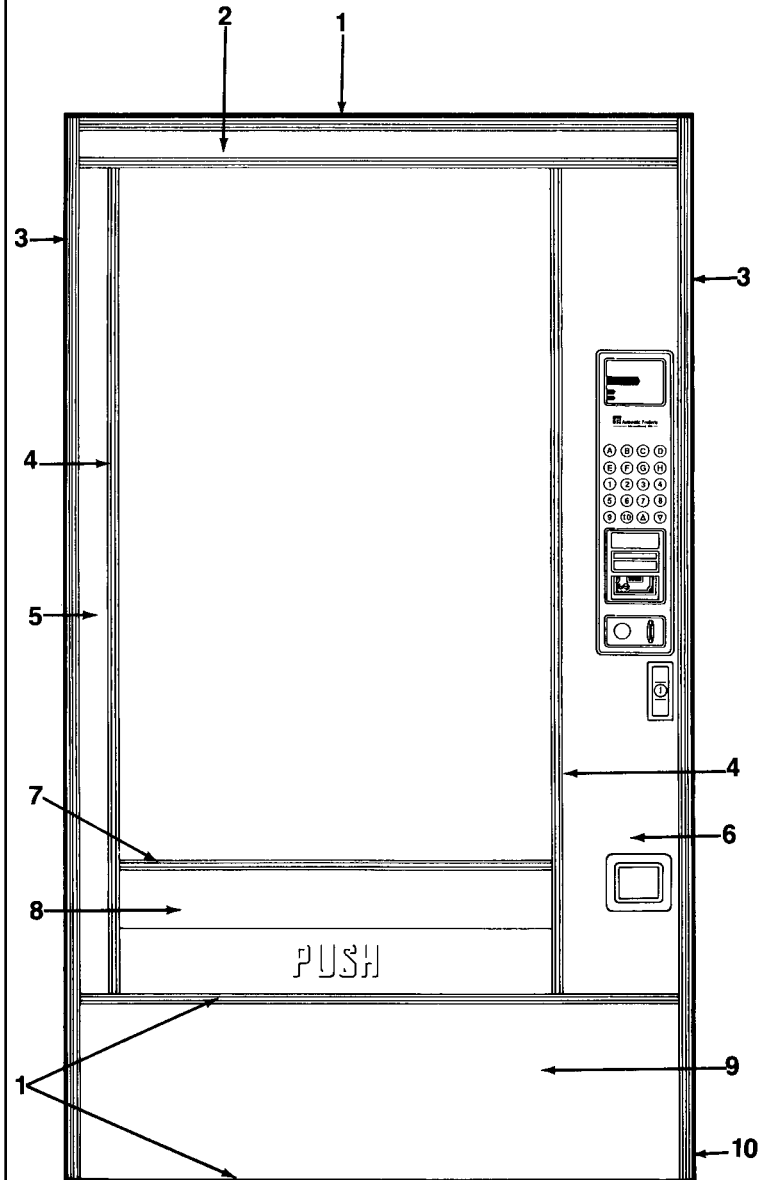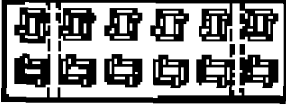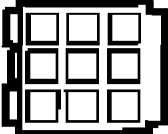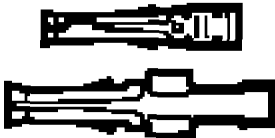
tron II style

Item No.	Part No.	Description
1	340055-27	Trim, Horizontal
2	201417-17	Cover Up Plate, Galvanized
	440312-2	Top Insert, Black
3	660231-24	Trim Horizontal, Top & Bottom, w/Black Stripe
4	340057-2	Trim, Outside Vertical, Left or Right, Black
5	340058-8	Trim, Inside Vertical, Left or Right
6	202059-36	L S V P Dove Gray Tron
	202059-55	Sterling Royce
7	340058-1	Trim, Horizontal, Window
8	201356-35	Delivery Tray Panel, Sterling Royce
9	200296-10	Panel, Lower Horizontal, Dove Gray, Tron
	200296-55	Sterling Royce
10	12000205-13	R S V P Dove Gray, Tron
	12000205-17	Sterling Royce
11	202806-22	Panel, Right Side Vertical-Upper. Dove Gray
	202806-44	Sterling Royce
12	16000040	Door Only. Specify Color
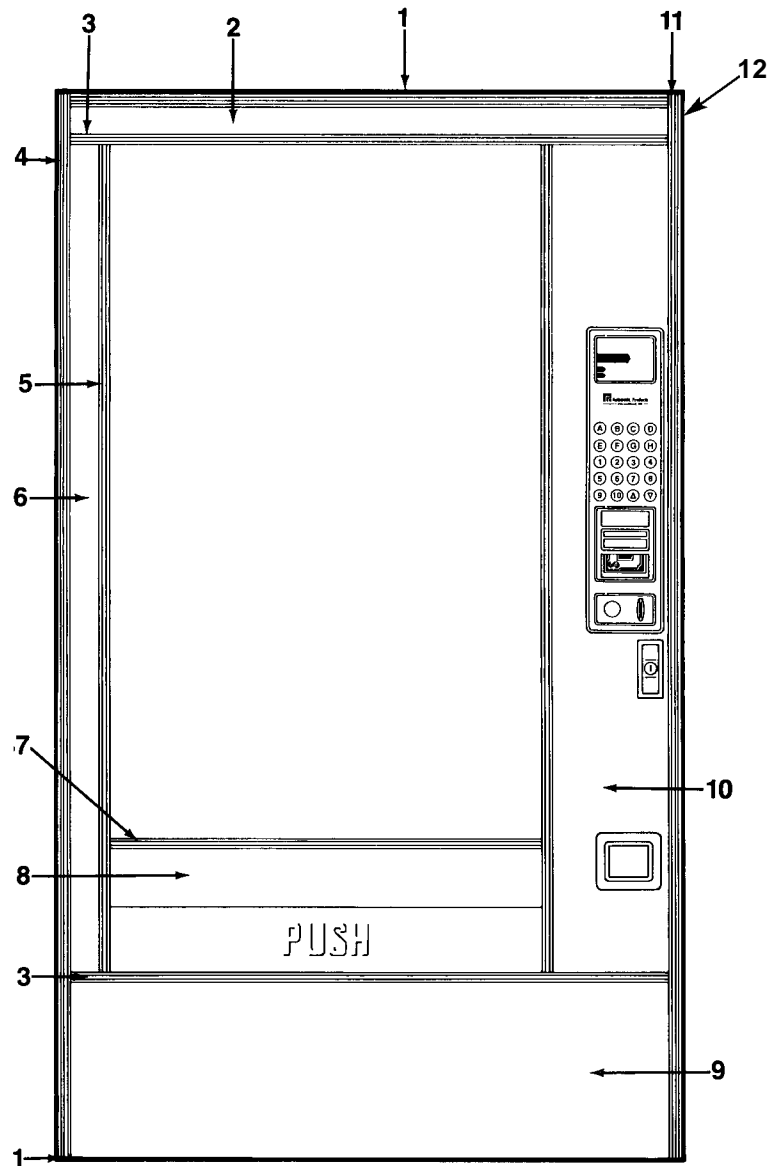
Item No.	Part No.	Description
1	340042-13	Top, Trim
2	200526-29	Panel, Top Trim
3	340057	Trim, Outside Vertical, Silver
4	340058-6	Trim, Window. Black
5	202059-43	Panel, Left Side Vertical.Black Hide
6	340058-12	Trim, Window. Black
7	201356-35	Panel, Delivery Tray. Sterling Royce
8	340055-27	Trim, Horizontal.Black
9	201692-47	Panel, Lower Horizontal.Black Hyde w/Stripes
	201692-54	Panel, Lower Horizontal.Black Hyde w/o Stripes
	201678-2	Bottom, Vinyl Door Edging
	420186	Screw, HWH, Drill Point, Black (6-20 x 1/2) Qty. 4
10	12000205-11	Panel, Right Side Vertical. Lower, Black Hyde
11	16000040	Door Only. Specify Color.

PUSH MOUNT CABLE TIE 380281	**CABLE CLAMP ADHESIVE** 3/4 - 420096 1/2 - 420096-1	**WIRE CLAMP** 420081
PLUG - 12 PIN 380283	**SOCKET - 12 PIN** 380280	**MOLEX CRIMP TERMINAL** 380234
SOCKET 15 CIRCUIT 380276	**MOUNTING TYPE CABLE TIE** 380076	**2 PIN INTERNATIONAL MOLEX** 380281
2 PIN INTERNATIONAL MOLEX RECEPTACLE 380290	**4 PIN INTERNATIONAL MOLEX PLUG** 380296 **3 PIN INTERNATIONAL MOLEX PLUG** FREE HANGING - 380295 PANEL MOUNT - 380295-1	**4 PIN INTERNATIONAL MOLEX RECEP** 380293 **3 PIN INTERNATIONAL MOLEX RECEPTACLE** 380286
9 PIN INTERNATIONAL MOLEX PLUG 380282	**MALE MOLEX TERMINAL** SMALL .093 - 380095 LARGE .062 - 380136	**FEMALE MOLEX TERMINAL** SMALL .093 - 380004 LARGE .062 - 380128

COINCO LCM CONTROLLER

P1 POWER IN

1	24 VAC HOT
2	GROUND
3	24 VAC NEUTRAL

P2 SELECTION SWITCHES

KEY	PIN #1	PIN #2
A	1	9
B	1	8
C	1	7
D	3	7
E	4	7
F	4	8
G	3	4
H	8	9
1	2	12
2	3	12
3	2	3
4	3	11
5	3	5
6	5	11
7	5	6
8	6	11
9	6	7
10	7	11
	7	8
	8	11

P3 COIN MECH.

1	TX +
2	TX –
3	RX –
4	GND –
5	RX +
6	24 VAC HOT
7	KEY
8	24 VAC RET
9	ME9100 DETECT

P4 BILL VALIDATOR

1	RENA1
2	KEY
3	KEY
4	RENA2
5	KEY
6	GND
7	$\overline{INT}$
8	$PAR/\overline{SER}$
9	$\overline{SEND/ESC}$
10	DATA
11	$1 CREDIT
12	$5 CREDIT
13	+5 VDC
14	$ESC/\overline{NOESC}$
15	$1 & $5 ENABLE
16	HOT
17	RET

P5 US COIN MECH. AND L+

1	GND
2	KEY
3	24 VDC HOT NF
4	KEY
5	DATA
6	$\overline{INT}$
7	$\overline{ACCEPT}$
8	MECH RESET
9	$\overline{SEND}$
10	+5 VDC
11	GND
12	$\overline{MIDDLETUBE}$
13	$\overline{RIGHTTUBE}$
14	$\overline{LEFTTUBE}$
15	$\overline{FOURTHTUBE}$

P6 MOTOR DRIVE

1	ROW A
2	ROW B
3	ROW C
4	ROW D
5	ROW E
6	ROW F
7	ROW G
8	ROW H
9	KEY
10	COL 1
11	COL 2
12	COL 3
13	COL 4
14	COL 5
15	COL 6
16	COL 7
17	COL 8
18	COL 9
19	COL 10

P8 MULTI-DROP BUS (MDB)

|	
1	24 VUN
2	KEY
3	GND
4	RXD
5	TXD
6	GND
7	NC

trouble shooting chart ——————————

> ⚡ **CAUTION:** Certain procedures in the troubleshooting section require that voltage be on in the machine. Exercise extreme caution while performing these procedures to prevent injury.

| Problem	Cause	Remedy
No power	No lights	Check wall outlet for correct wiring, and line cord. See page 2.
	Lights work - no power to board	Check transformer outputs & circuit breakers
	No power to the board	Check wiring connections
	Defective power board	Replace power board
	Display blank	*LCM machines-24VAC at white wires at P1*
Won't take coins	No power to machine	Check wall outlet, line cord & voltage
	Defective changer	Replace changer
	Machine only accepts one coin	Machine lost its vend prices - reprice and test
	Defective circuit breaker	Replace circuit breaker
	No power to coin payouts	Replace power board *or logic board on LCM machines*
Won't payout coins/incorrect change returned	No voltage	Check voltages
	Defective power board	Replace power board
	Defective coin mechanism.	Replace coin mechanism.
	Jammed coins in tube	Remove coins with power off
Won't take bills	No coins in coin tubes	Fill coin tubes
	Belts or stacker doesn't run on power-up	Check for 24 VAC at PI
	Belts run-bill goes half way but won't accept	Replace validator

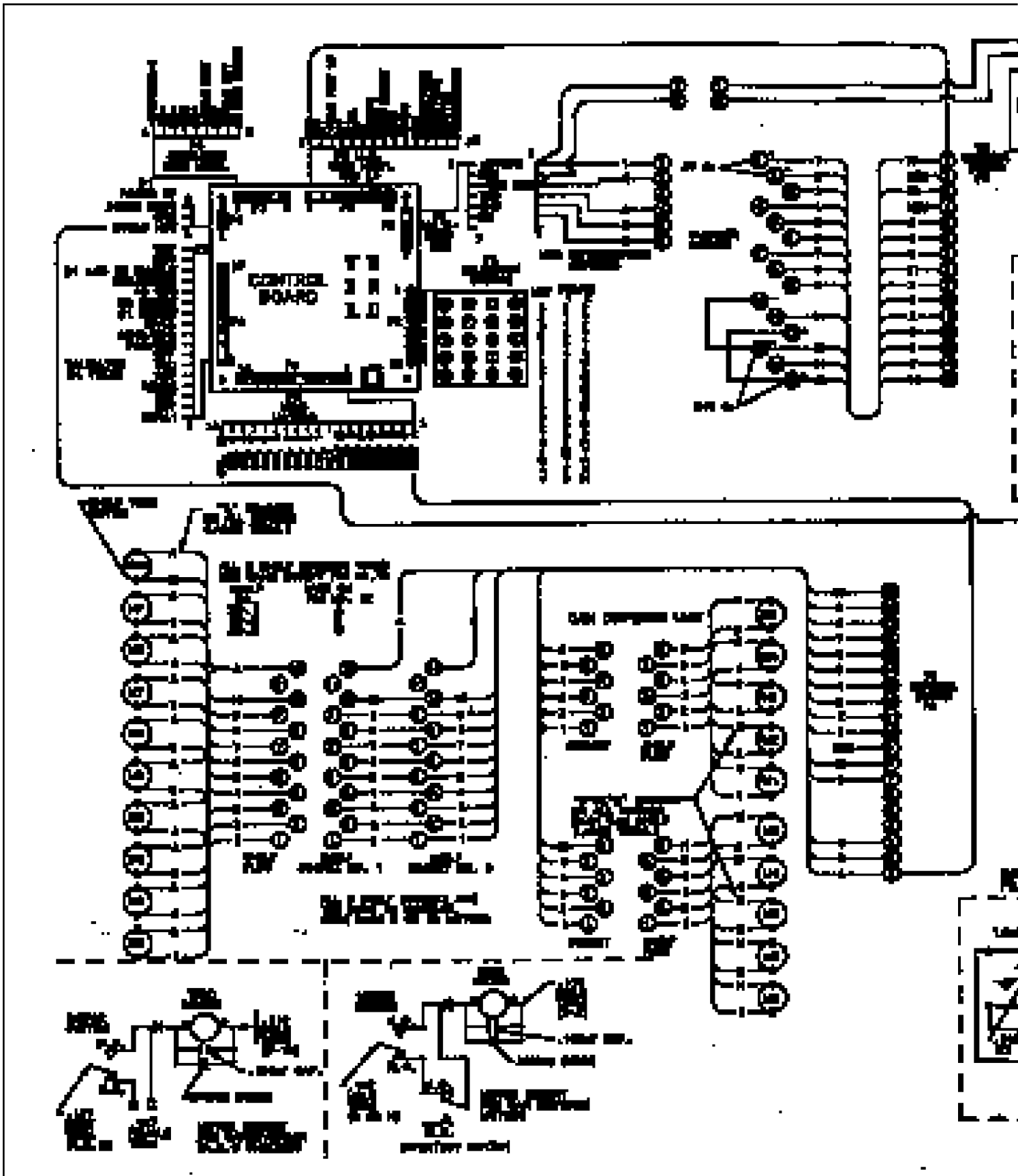| Problem	Cause	Remedy
Says make another selection	Motor ½ cycled	Home motor and retry */LCM do mode 5 test vend*
	Selection lost its price	Reset prices
	Motor won't turn	Swap shelves with another shelf and retry
		Check shelf harness connection to board
		Check 24VAC to logic board at PI
Use correct change	Coin tubes empty	Re-fill coin tubes
	Says use correct change with coin tubes full	Replace coin mechanism
Spirals turn more than one turn	Capacitor discharging current	Re-solder capacitor or replace motor
	Loose wire on motor	Repair wire
	Defective motor switch	Replace switch
	Defective control board	Replace control board
More than one motor turns together	One of the motor wires is shorting out	Check each individual motor for loose or pinched wire
	Defective control board	Replace control board
	Incorrect vend motors installed	*Black bodied motors for LCM*
		Ivory bodied motors for 110 series
Unable to enter service mode	Check plugs on control board	Power down and remove and install connectors
	Defective changer	Replace changer
	Defective main board	Replace board
Coin mechanism jackpots	Incorrect voltage	Check voltages± 10%
	Defective coin mechanism	Replace coin mechanism
	Defective board	Replace control board
Motor doesn't home on door close	No voltage	Check for correct voltages
	Defective board	Replace board

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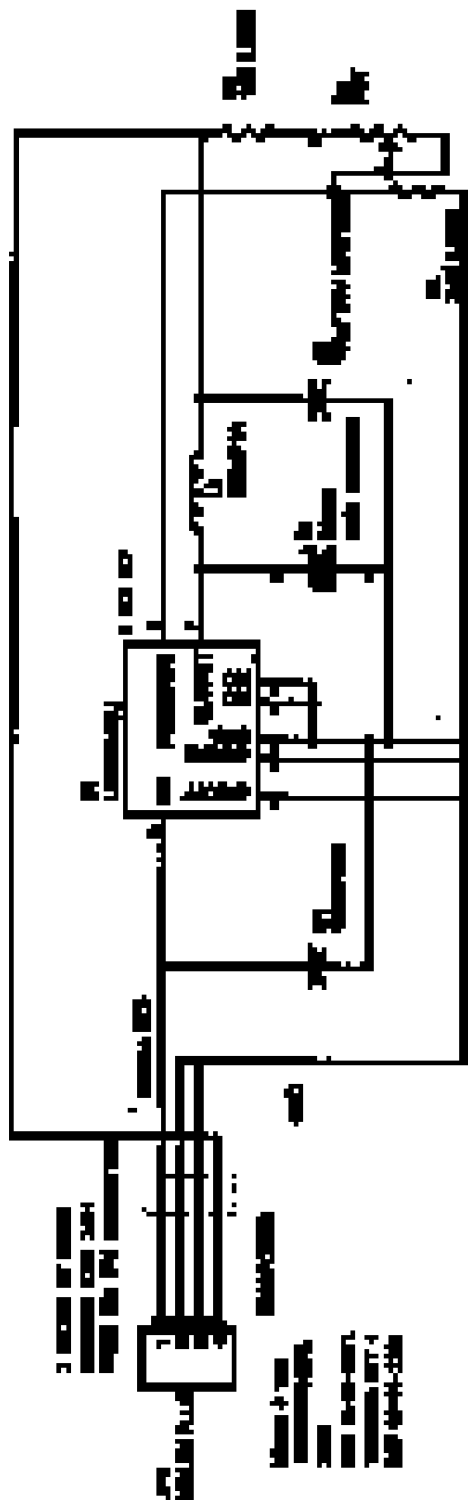
DOTTED LINE
INDICATES
CONTROL BOX
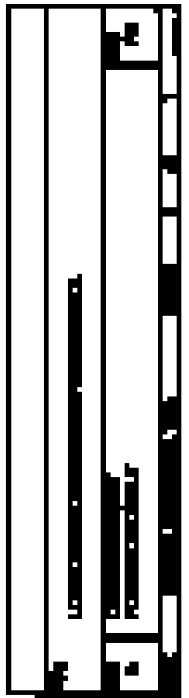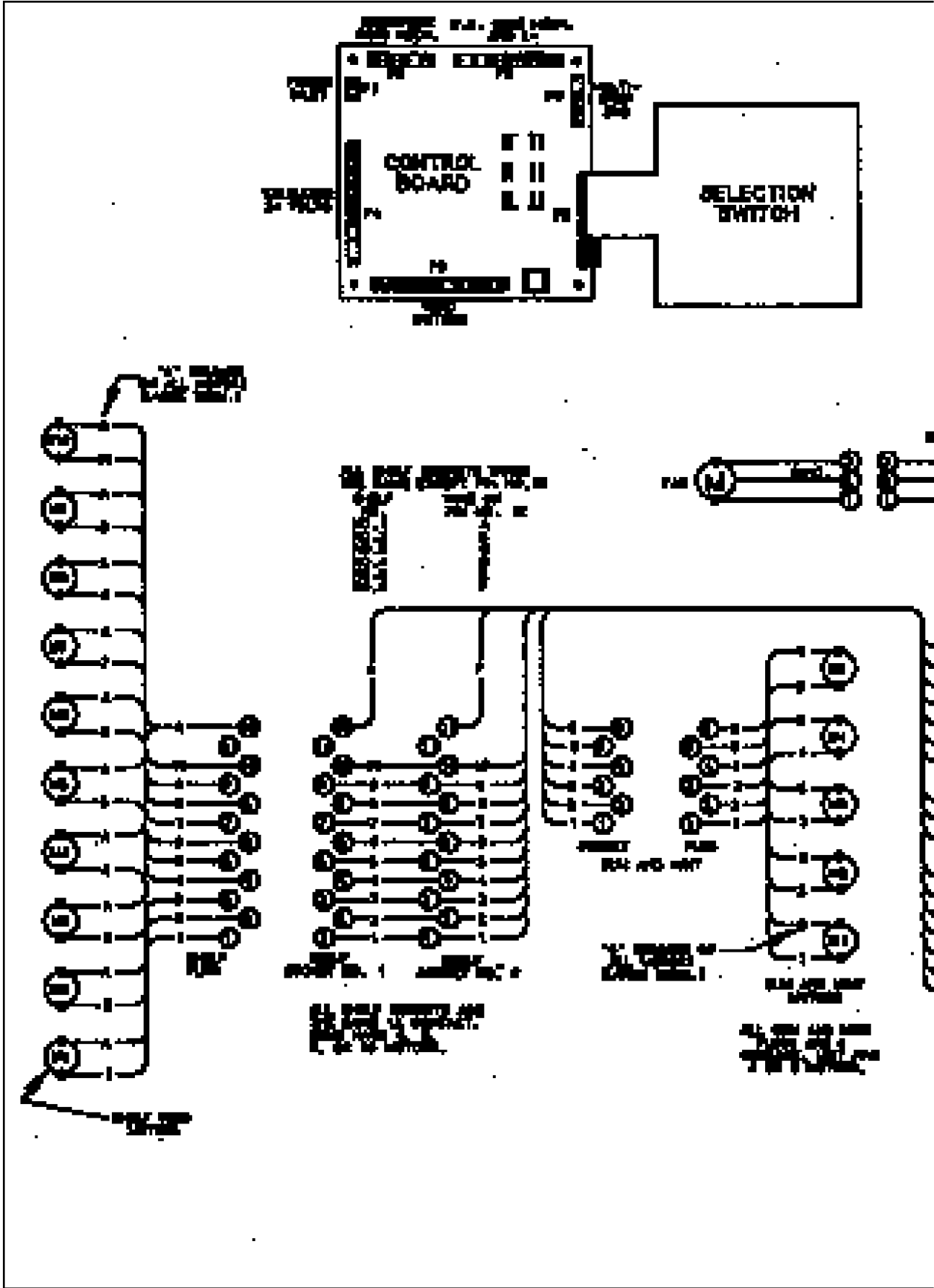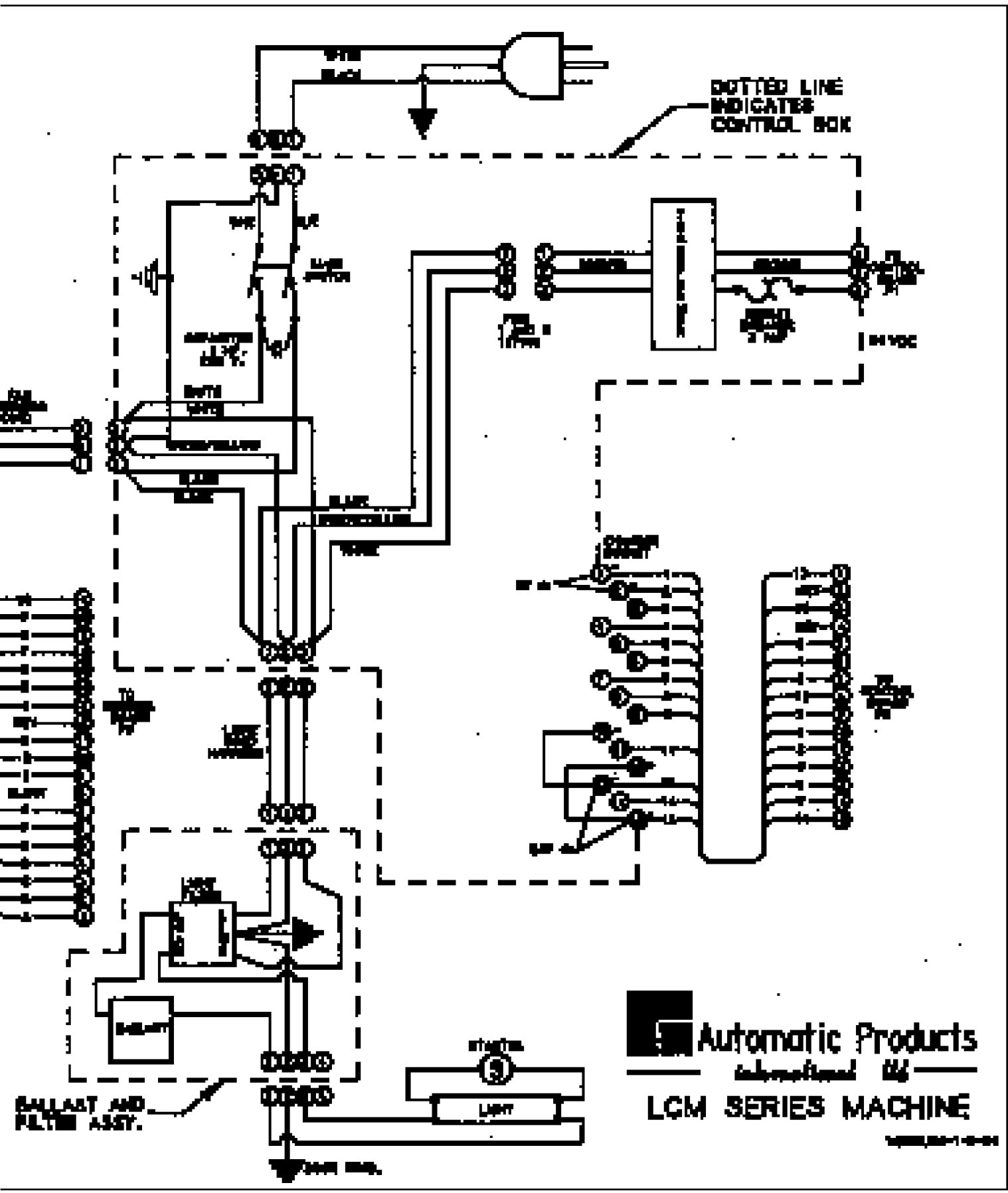
Automatic Products
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LCM SERIES MACHINE

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