

SERVICE MANUAL 30 SELECT MERCHANDISER

GENERAL

This merchandiser has been developed by Polyvend to offer large capacity and number of selections. A versatile combination is utilized - made up of wedge chain modules, candy cup dispensers and various sizes of helix trays. The number of selections (up to 30) and maximum capacity will vary, depending on the final configuration of modules, as determined by the type product to be vend. Some possible variations of module configurations and resultant capacities are shown on page 2.

SPECIFICATIONS

OVERALL DIMENSIONS:

Height	72"
Width	36"
Depth	31½"
Front Clearance (Door)	31"

WEIGHT:

Shipping	600 lbs.
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ELECTRICAL:

Primary	115 VAC 2 AMP/220-240 VAC
Secondary	24 VAC 3.2 AMP

NOTE: Polyvend, Inc. will not be responsible for faulty or overloaded circuits where Polyvend machines are installed. The exact load imposed on each machine is stated in the related service manual. The sum of all machines installed in any one location will determine the total line load.

30 SELECT MERCHANDISER CONFIGURATIONS AND CAPACITIES

Modular Configuration

Resultant Capacity

W	W	W	W	W
W	W	W	W	W
1 ⁵ / ₈	1 ⁵ / ₈	1 ⁵ / ₈	1 ⁵ / ₈	1 ⁵ / ₈
1 ⁵ / ₈	1 ⁵ / ₈	1 ⁵ / ₈	1 ⁵ / ₈	1 ⁵ / ₈
1 ³ / ₈	1 ³ / ₈	1 ³ / ₈	1 ³ / ₈	1 ³ / ₈
1 ³ / ₈	1 ³ / ₈	1 ³ / ₈	1 ³ / ₈	1 ³ / ₈

12	12	12	12	12
12	12	12	12	12
10	10	10	10	10
10	10	10	10	10
12	12	12	12	12
12	12	12	12	12

340

W	W	W	W	W
W	W	W	W	W
1 ³ / ₈	1 ³ / ₈	1 ⁵ / ₈	1 ³ / ₈	1 ³ / ₈
1 ³ / ₈	1 ³ / ₈	1 ⁵ / ₈	1 ³ / ₈	1 ³ / ₈
1 ¹ / ₈	1 ¹ / ₈	1 ⁵ / ₈	G/M	G/M
1 ¹ / ₈	1 ¹ / ₈	1 ⁵ / ₈	G/M	G/M

12	12	12	12	12
12	12	12	12	12
12	12	10	12	12
12	12	10	12	12
16	16	10	32	32
16	16	10	32	32

448

W	W	W	W	W
W	CM	W	CM	W
1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₈
1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₈
1 ³ / ₈	1 ³ / ₈	1 ³ / ₈	G/M	G/M
1 ³ / ₈	1 ³ / ₈	1 ³ / ₈	G/M	G/M

12	12	12	12	12
12	22	12	22	12
16	16	16	16	16
16	16	16	16	16
12	12	12	32	32
12	12	12	32	32

500

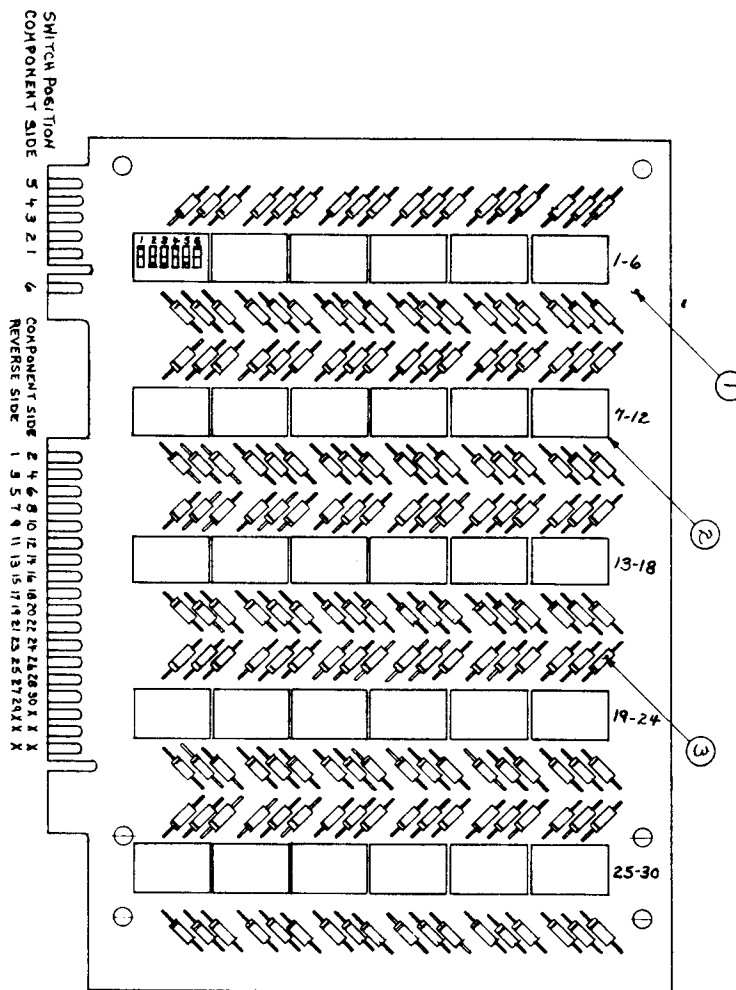
MODULE	CAPACITY
Wedge Module (W)	12
Candy Module (CM)	22
Gum & Mint (G/M)	32

MODULE	CAPACITY
1 ¹ / ₈ " Helix	16
1 ³ / ₈ " Helix	12
1 ⁵ / ₈ " Helix	10

INSTALLATION

- ❑ Remove outside shipping carton.
- ❑ Inspect for damage resulting from improper handling and, if evident, file claim immediately with the carrier.
- ❑ Place machine into position and adjust leveling legs so it is level and aligned with adjacent machines.
- ❑ Locate small envelope in delivery compartment inside "Push" door and remove keys.
- ❑ Open glass service door with supplied key and remove all internal packing. (There are different numbered keys in envelope - one for product door, one for the back door, and, if so ordered, one for coin bank lock.)
- ❑ Remove price stickers from envelope shipped in delivery compartment and select the appropriate ones to match desired pricing of products.
- ❑ Peel off the adhesive backing and place selected price stickers on their perspective modules:
- ❑ On wedge and candy cup modules with the plastic number tab, place the price sticker just above the number.
- ❑ On the helix tray, place the price sticker on the front of the tray, just to the right of the number.
- ❑ Set vend prices:
 - ❑ Multi-Price:
 - ❑ Locate the large price select board behind sliding door on right inside of cabinet.
 - ❑ Each blue block of 6 rocker switches controls the vend price of one selection. The top row of blocks left to right control selections 1 thru 6; second row down controls selections 7 thru 10, etc. through 5 rows for all 30 selections.
 - ❑ Number one rocker switch in each block represents the lowest coin denomination the coin changer will accept. Number two rocker switch represents two times this lowest amount; number three rocker switch represents two times the value of number two switch. Example: #1 = 5¢; #2 = 10¢; #3 = 20¢; #4 = 40¢; #5 = 80¢; and #6 = 160¢.
 - ❑ Placing the rocker switches in the up position, that is by pushing the number on the switch in, causes the coin changer to require that amount of money before the machine will vend.
 - ❑ All rocker switches in this "on" position are added to establish a vend price. Example: #1 = 5¢ and #3 = 20¢. With switches in "on" position, the vend price for that selection is 25¢. Example: #1 = 5¢; #2 = 10¢ and #3 = 20¢; with these switches in the "on" position, vend price for that selection is 35¢.
 - ❑ Set all selections at desired price level.
 - ❑ Four Price/Ten Price:
 - ❑ Locate the four price or ten price terminal board behind sliding door to changer and the black numbered wires connected to that board.
 - ❑ Noting the position numbers of all modules to have the same price setting, reconnect all like ones to one of the four terminal strips on the board.
 - ❑ The 1 to 4 numbered designation on the terminal board strips correspond to the 1 to 4 price channels of the changer.
 - ❑ In coin equipment, set desired prices in accordance with changer instructions to correspond to the connections made to the terminal board above.

Fig. 1
PRICE BOARD ASSEMBLY



ITEM	PART NUMBER	QTY.	DESCRIPTION
1	B-16186	1	P.C. Board
2	B-16239	30	Switch (EECO 24000 GGB)
3	CMI-2079-2	180	Diode (1N 4003)

- To insure proper operation of the coin mechanism, set a price on each of the 4 price levels even though one or more may not be used.
- Ten Price:
 - Set desired price levels on the ten price matrix.
 - Match the black selection numbered wires to these desired vend prices.
- Save extra fuses, etc. found in the envelopes.
- Plug the service cord into a proper electrical source using the grounded, three pronged connector provided. If a suitably grounded outlet is not available, use a proper external ground on **all** locations.
- Load the coin tubes in the coin changer. (See changer instructions.)
- Load the machine with product.
NOTE: SEE PRODUCT LOADING SECTION OF THIS MANUAL TO PREVENT DAMAGE TO MODULES.
- Test operation of each dispensing module with coins.



PRODUCT LOADING

All loading is accomplished from the front. Using one of the keys provided, open the glass product door. There are three types of dispensers.

WEDGE (BAG) DISPENSER:

WARNING: DO NOT ATTEMPT TO PULL PRODUCT FROM THE BAG DISPENSER AT ANY TIME. SUCH ACTION WILL EITHER JAM THE MECHANISM OR PULL THE ASSEMBLIES APART.

To load, release the latch on each dispenser as shown in FIGURE 3 and pull forward until the slide hits the stop. Each bag is now inserted into a wedge assembly. The best way is to insert the bag at an angle and slide it in wedge to center (FIGURE 4A & B). Repeat on each wedge until positions from front to back are loaded. (NOTE: DO NOT LOAD LAST POSITION.)

To remove bag product, press upward on white lifter directly behind top of bag (FIGURE 4C).

Fig. 3



Fig. 4 A

Fig. 4 B

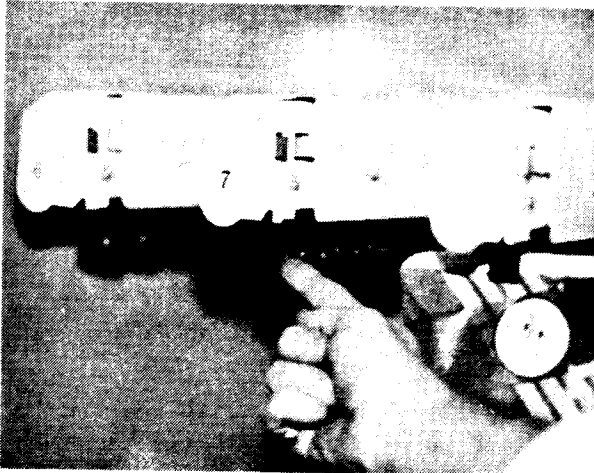
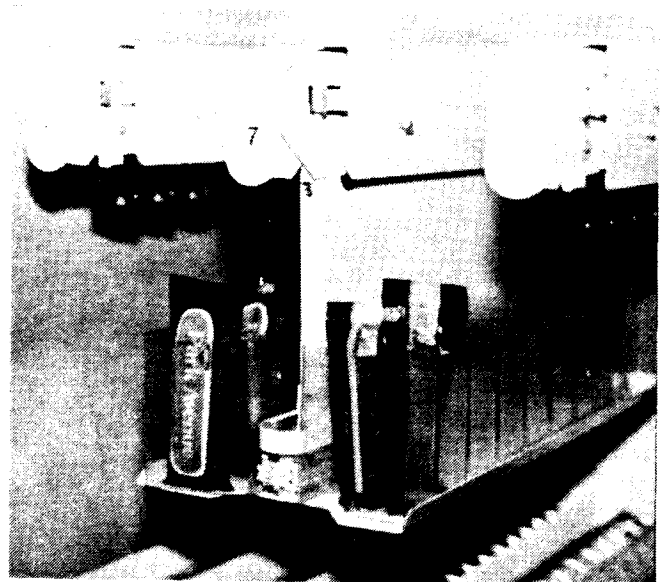


Fig. 4 C

CONFECTIONARY DISPENSER:

To load, release the latch and pull slide forward to stop. Place product into each dispensing cup starting with the left front cup and working backwards around to right back cup and then forward on the right side. Since the cups rotate left to right, the product on the left should face forward and those on the right should face backward to assure proper fronting (FIGURE 5). With all positions loaded, slide dispenser back into the machine until the latch snaps soundly into place.

Fig. 5



HELIX TRAY DISPENSERS:

NOTE: There are various types of trays as well as sizes of helix pitch. To assure proper operation and maximum capacity, the product size should closely match the opening between the winds of the helix. The product should fit between the winds of the helix so as NOT to be tight but should fill most of the opening.

Helix selections listed below may be utilized:

- 1 1/8" Helix (Thin Candy Bar)
- 1 3/8" Helix (Medium Candy Bar)
- 1 5/8" Helix (Large Candy Bar)
- 1 1/8" Split Helix (Gum and Mint)

To load, locate spring latch just under front edge of tray - push upward with finger while pulling forward on tray (FIGURE 6). Pull tray out until it hits stop.

At this point, check that each helix is in its detent position. FIGURE 7 shows the detent position of various type helixes as they appear when properly timed.

Starting at front of tray, insert product between each wind of the helix so that the name of product is displayed frontward. Be sure to place product all the way to the bottom of the tray and lean free end at top backwards. Fill from front to back and be sure not to miss any positions.

After filling, push tray back in all the way until the spring latch is engaged. Check that latch is fully engaged by pulling forward on tray.

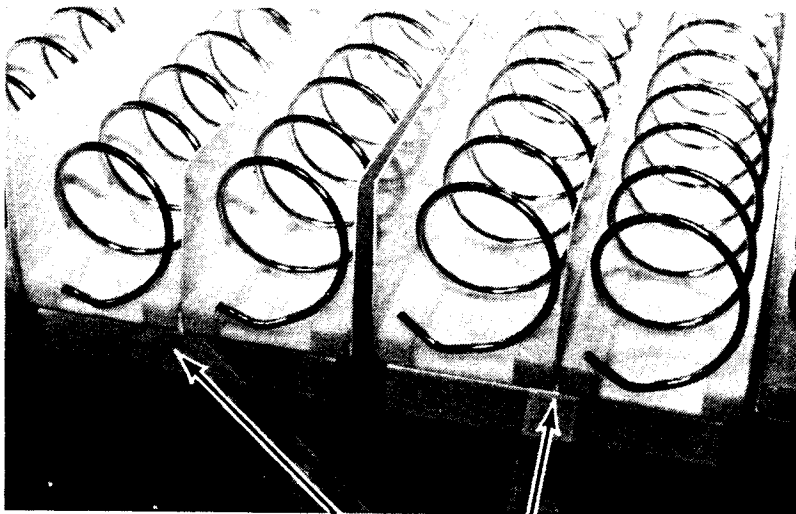


Fig. 6

Push up on spring latch and pull tray forward

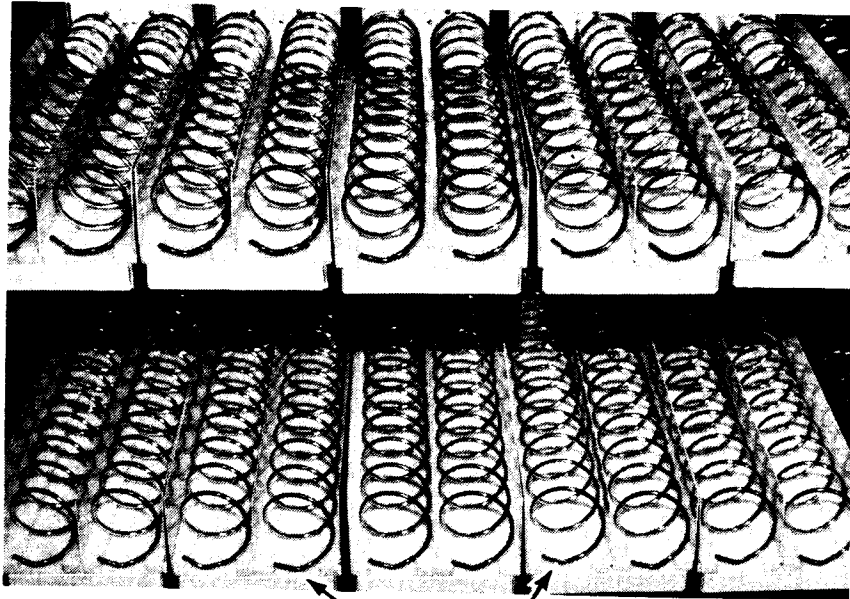
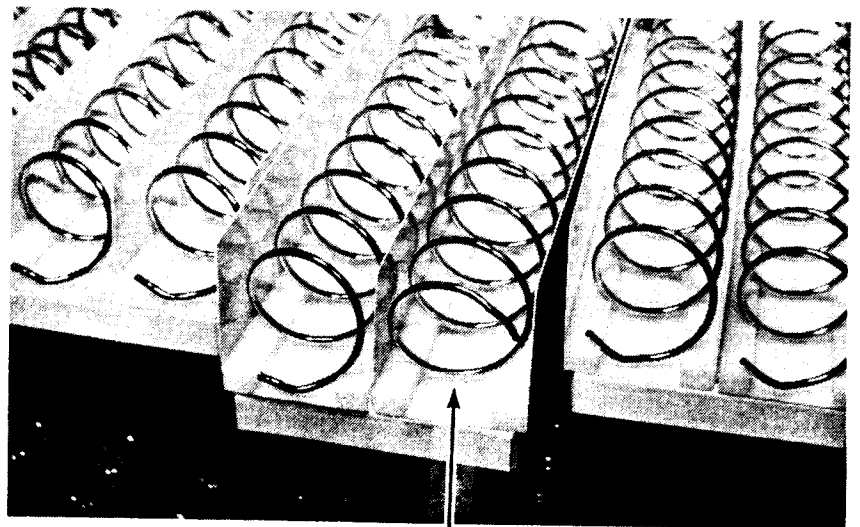


Fig. 7

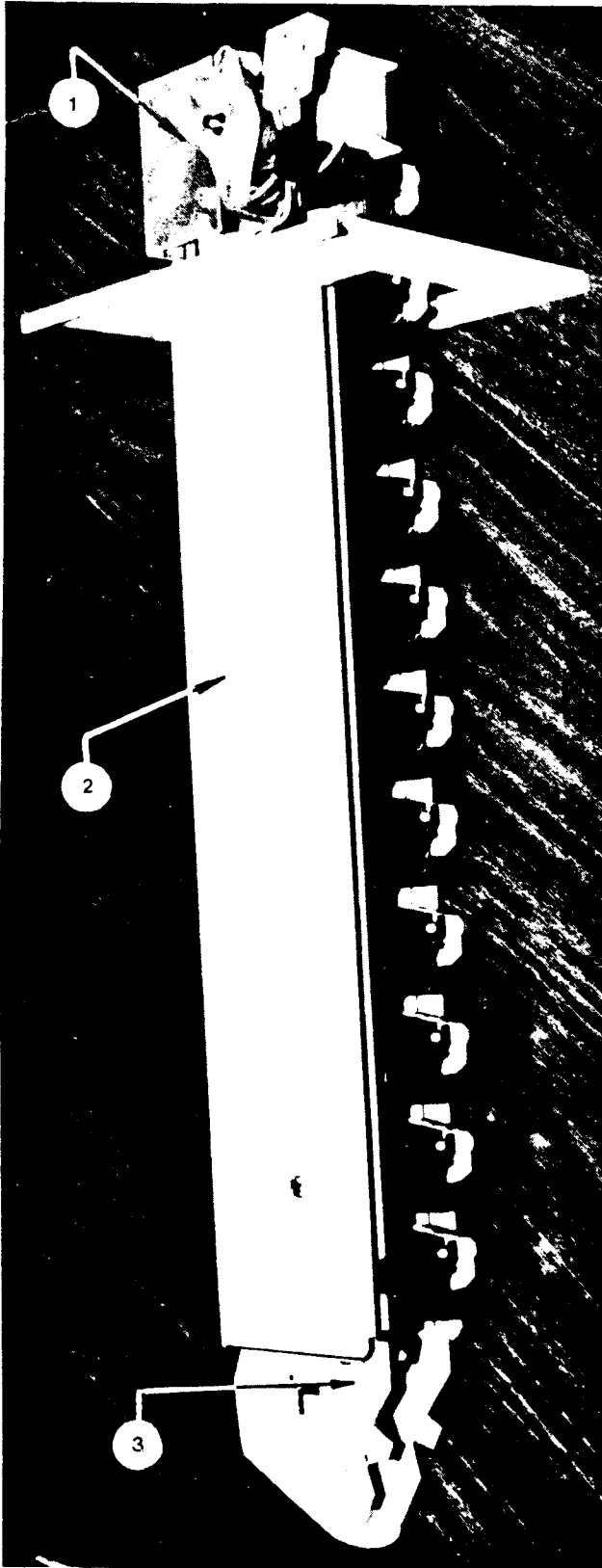
Helix in detent position

Place Product on tray bottom - tilt product toward back of machine.

Fig. 8



Helix out of detent position



WEDGE MODULE

FIGURE 12 illustrates the wedge chain dispenser used in the 30 Select Machine.

When a product selection is made, an electric signal from the selector switch starts the motor, and a carry over circuit through the switches of the motor completes the 180° rotation advancing the dispensing chain one step. As the leading chain segment moves around the front sprocket, the connector of the following segment acts as a lever to activate the white slide and lifter of the front segment, forcing the spring loaded cylinders upward. This upward movement releases the wedged grip maintained on the merchandise bag, and the bag drops to the delivery compartment, completing the vend.

In a previous section on loading, a warning was given about pulling products out of the dispenser. If a brute force pull in a downward direction is used, it will cause the metal cylinders to seat against the plastic dispenser chain segment. The product cannot be released and the module may hang in cycle which causes the machine to be inoperative. A good indication of someone pulling on the bags is chain parts found laying loose in the machine. Even if less force is used, tolerances will be changed, causing eventual failure of the dispensing chain.

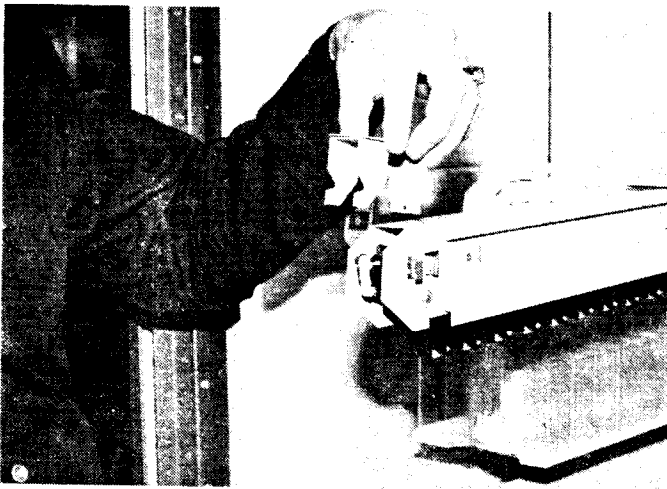
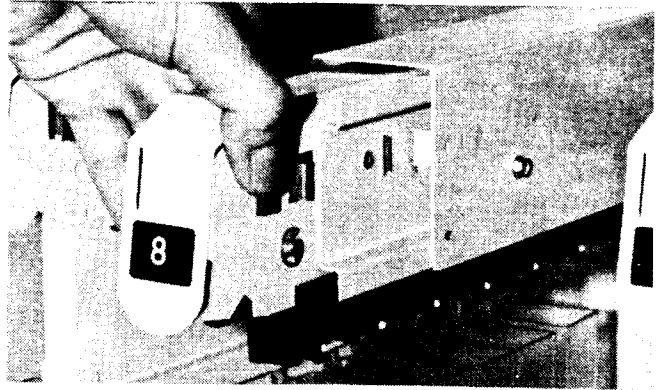
The correct way to remove product is actually easier, and consists of pushing up on the white-colored release lever immediately behind the product. This causes the product to fall into your hand without harming the dispenser.

There is a particular type of bag made of glassine material that cannot be vended with the Polyvend wedge chain. This is a coated material that covers the metal cylinders with wax causing the bags to fall out freely.

Fig. 12

Occasionally, dispensing chains must be replaced or repaired. The following illustrates the sequence of operations to accomplish this task.

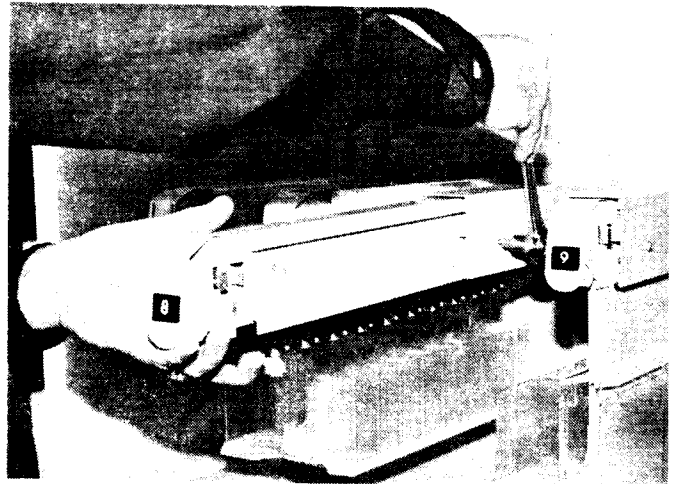
- Release the latch on the dispenser and pull slide out to its stop. (FIGURE 13)

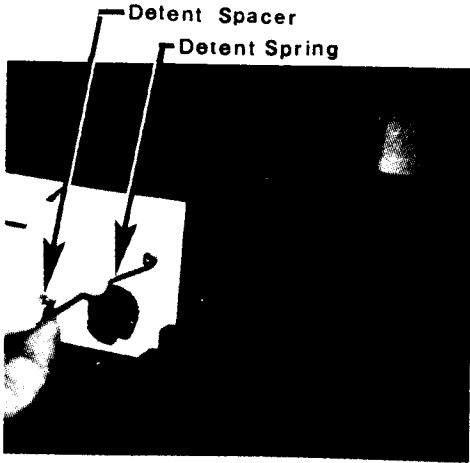


- Remove the dispenser number and price cover. (FIGURE 14)

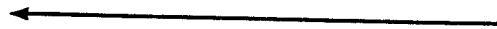


- Remove the screw from the side of the dispenser (FIGURE 15) which serves as the stop and pull slide from the machine.





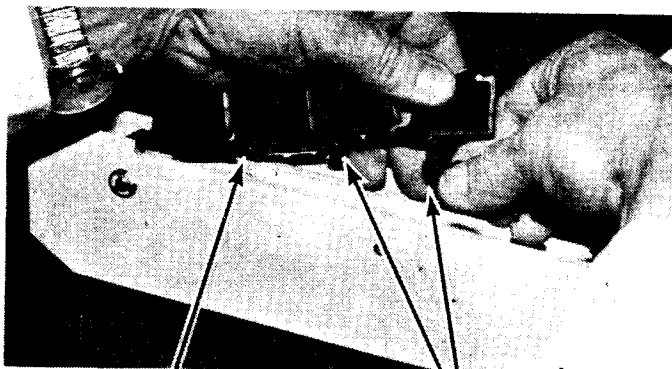
- Release the detent spring by pushing the flat end down and pulling it out from under the detent spacer. (FIGURE 16)



- Point front end of slide up and grasp the chin with thumb and fingers. Pull the chain support pin up and over the chain support slide while rotating the chain backward to normal rotation. Repeat until eight (8) pins are on top of the slide, which will allow enough slack to unhook the chain. (FIGURE 17)



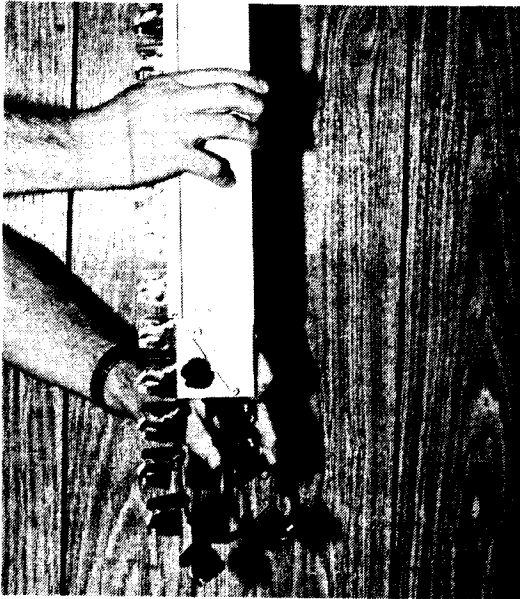
Support Pin
Chain Support



Support Pin
Snap Connector

- Unhook chain by grasping one link near the support pin and the next link near the snap connector - then gently twist the chain until it snaps loose. (FIGURE 18)

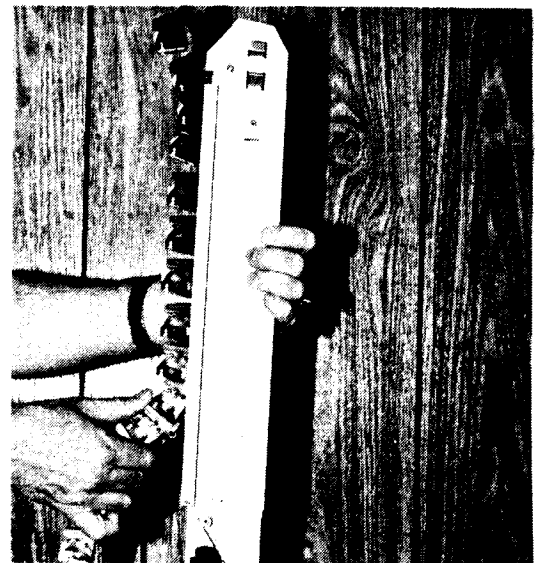




- Hold slide vertical with the front end up, and the chain will fall free of the inner portion of the slide. (FIGURE 19)



- Still holding slide vertical, lift bottom of chain outward and away from the slide. Push upward. The chain should easily slide free. (FIGURE 20)



WEDGE ASSEMBLY REPAIR (FIGURE 21)

To repair the assembly and replace damaged components, remove the chain and snap out the damaged link.

This link is made up of the basic chain housing segment (Black), a cylinder lifter (White), a slide (White), two cylindrical wedge components and a compression spring. (FIGURE 21)

To disassemble, hold the link between both hands and push the cylinder lifter stub shafts outward with both thumb nails. It will pop out (retain with fingers) and may be removed. Next, the slide may be removed. Take care the compression spring isn't lost as the slide is removed. Now, the spring will fall free and the cylindrical wedge components will follow when the link is inverted. When reassembling the lifter, be sure the "flat" edge is against the cylindrical wedge and **not** against the slide.

All that remains is to reassemble using replacement parts as necessary. When the link has been repaired, snap it back on the chain.

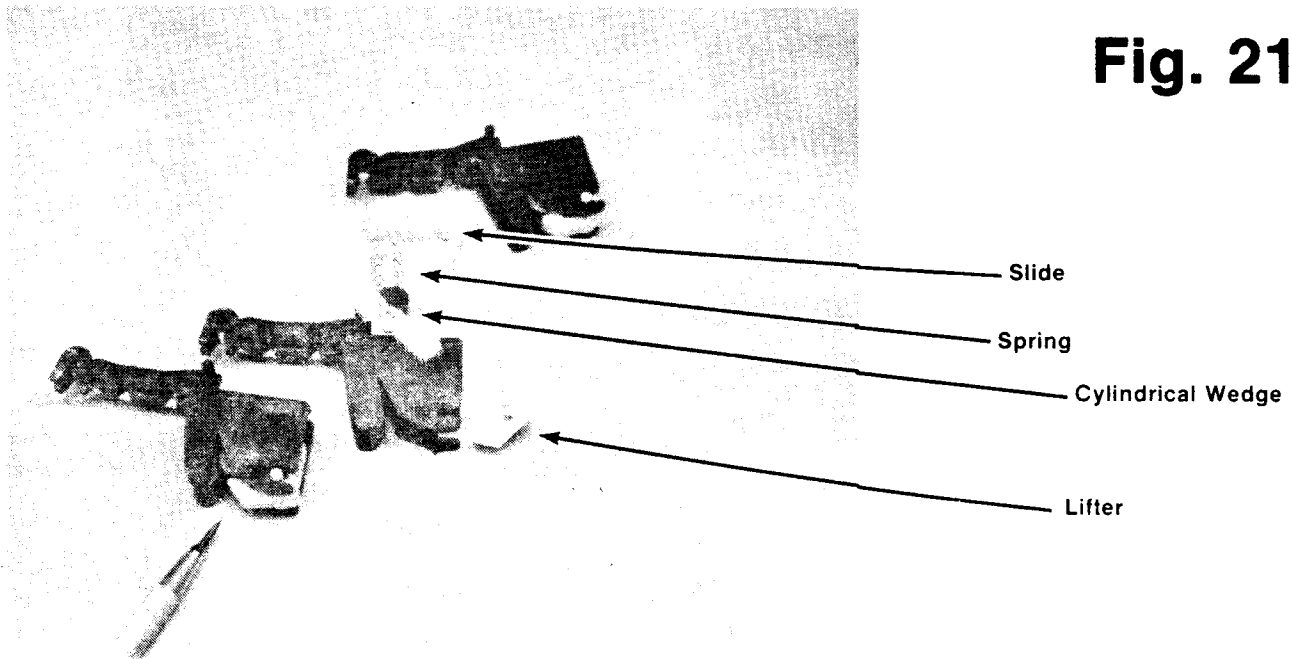
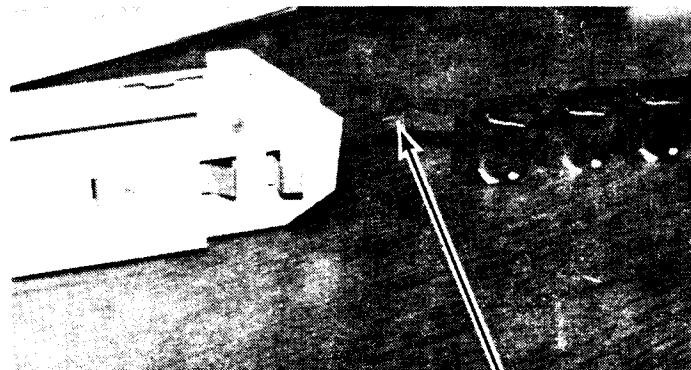
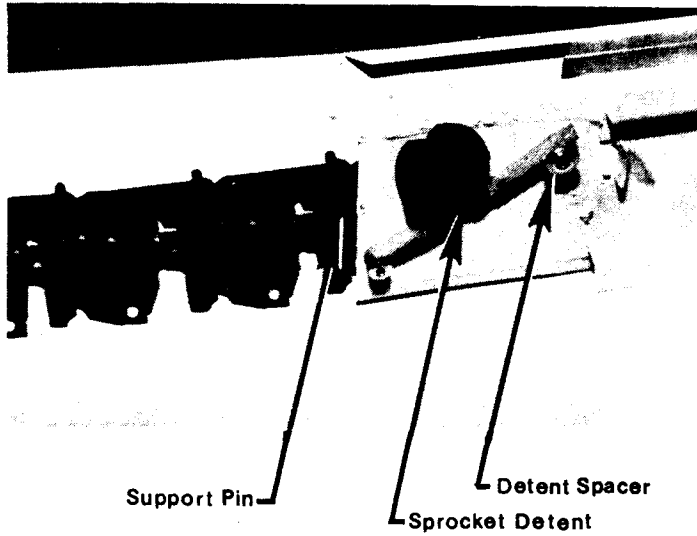


Fig. 21

- To replace chain, lay dispenser on it's top and insert the chain end through the front of the module. (The snap connector end must be inserted from the front as shown or chain rotation will be wrong.) Continue pushing the chain through the dispenser until equal lengths of chain are sticking out each end. (FIGURE 22)

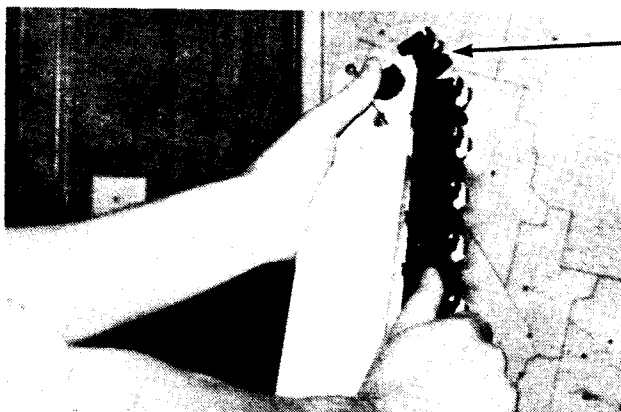
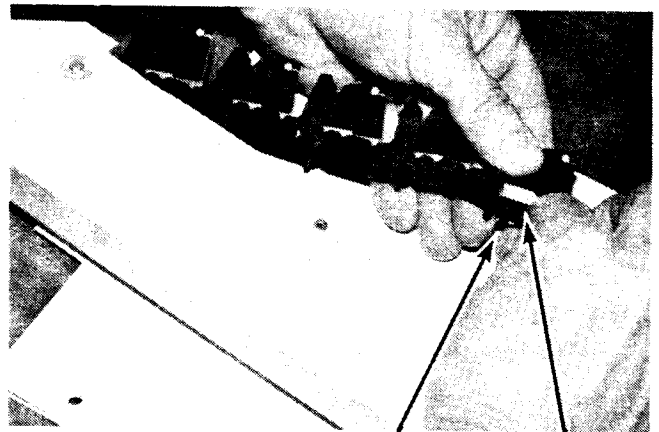


Snap Connector



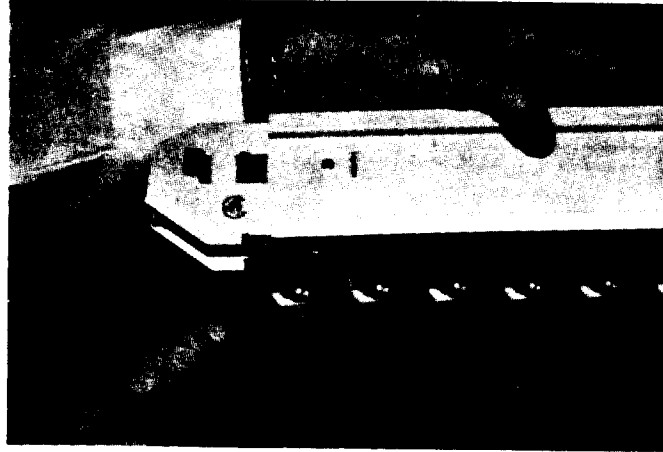
- To time the chain, re-engage the detent spring by turning the sprocket to the detent position and pushing the detent spring end under the detent spacer. Align a support pin with the **back** edge of the module. (During the next step, be careful **NOT** to move the chain forward or backward as this would misalign the support pin and therefore chain timing would be wrong). (FIGURE 23A)

- Grasp both ends of the chain and pull it over the bottom of the module. Push the white color slide out of the way and push the snap connector onto the support pin. (FIGURE 23B)



- To place the chain guide pins in the chain support slide, grasp the chain with one hand and rotate it in the direction of **normal** rotation, while holding the detent sprocket in with one thumb. (FIGURE 24)

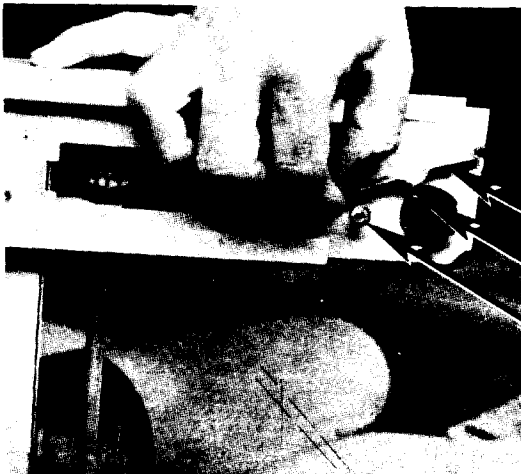
- Continue pulling the chain until 3 complete revolutions have been made. With the detent spring in the detent position, the leading chain segment will be in the position shown if the timing is correct. (FIGURE 25)



CANDY MODULE (CONFECTIONARY)

The candy dispenser slide assembly is removed from the machine in the same way that the chain slide assembly is removed. Just withdraw the stop screw and slide the assembly out of the machine.

CUP AND PLASTIC CHAIN REMOVAL



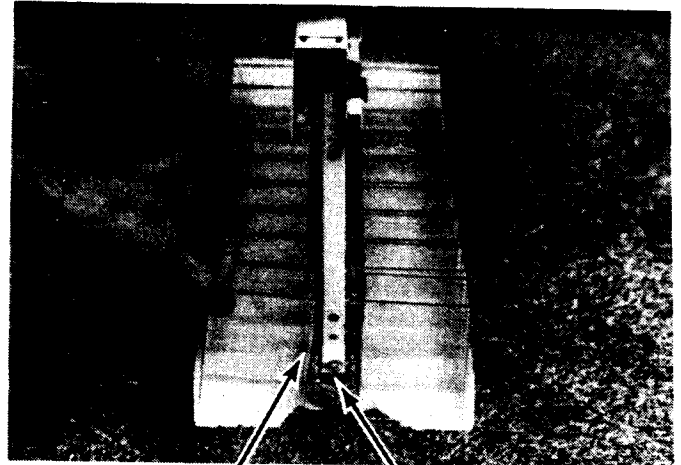
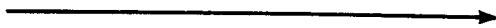
- Release the detent spring by pushing the flat end away from the detent spacer and pulling the spring out from under the spacer. (FIGURE 26)



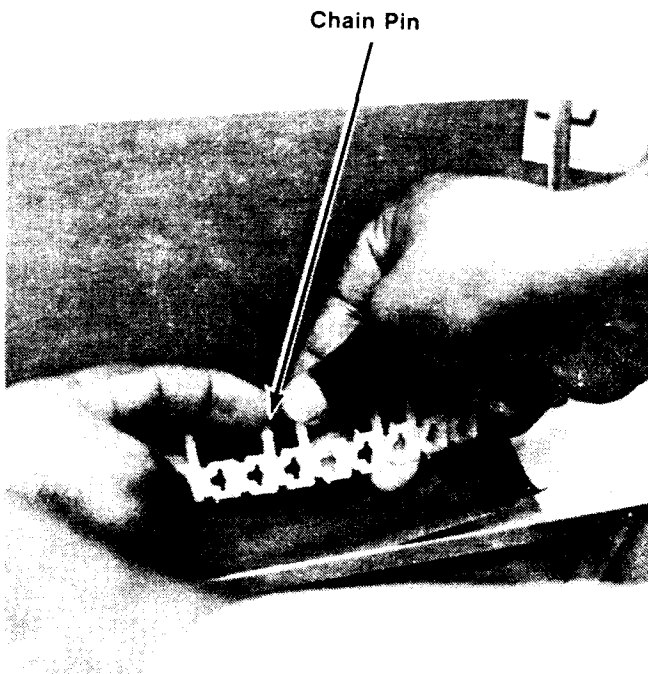
Detent Spring
Sprocket Detent
Detent Spacer



- Pull upward on the cups and they will snap loose. After all cups are removed, the chain can be removed by twisting the chain until it unsnaps. (FIGURE 27)

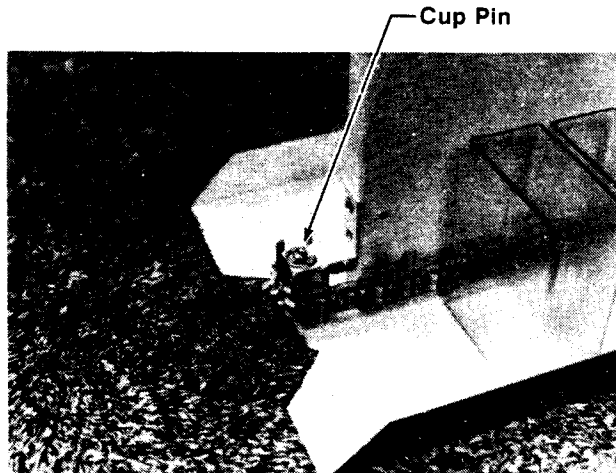


Cup Connector — Chain Pin



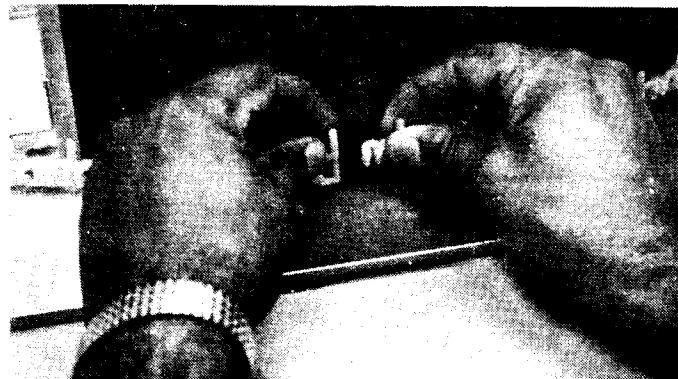
- After all cups are removed, the chain can be removed by placing a finger behind the top pin on one link while pushing the pin on another link with a thumb. The chain will snap apart. All damaged links can be replaced with new ones. (FIGURE 28)



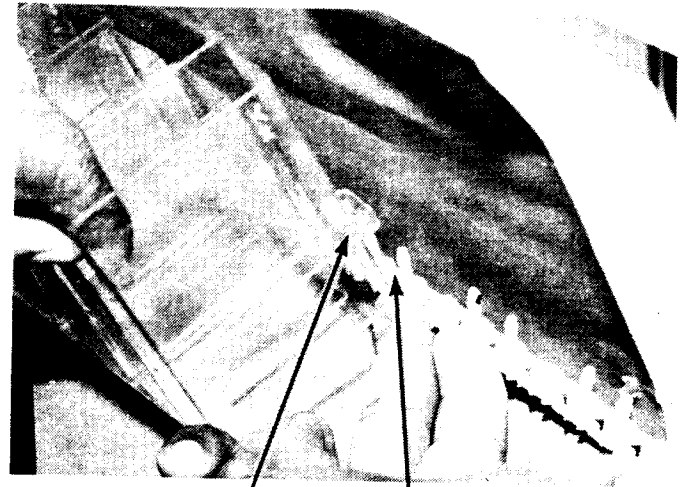


- After repairing the chain, reassemble all components, making sure there are 44 cup retainer links and 22 plain links. Place the chain around the front sprocket and align a pair of cup pins opposite each other, as shown. (This will assure proper timing of the cups when the chain is snapped together.) Without moving the front sprocket, pull the chain tight and wrap it around the back sprocket. (FIGURE 29)

- With the detent spring engaged, and the cup pins aligned opposite each other, snap the chain together. (FIGURE 30)

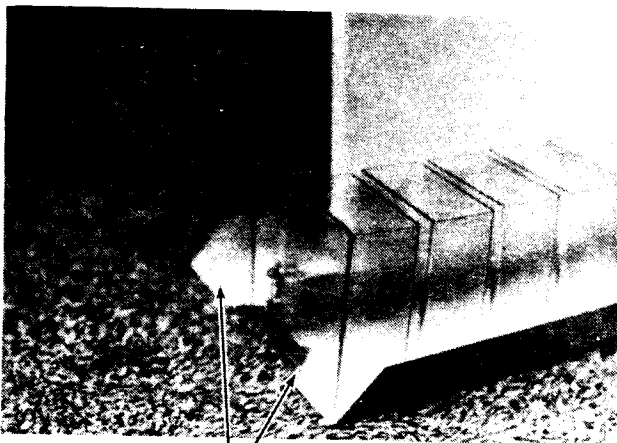


- To replace dispensing cups, snap the cups back on the chain pins. For easier installation, place two fingers under the chain while pushing the cups on with the other hand. Be sure the cups are pushed all the way down on the chain. (FIGURE 31)



Cup Mounting Tab

Chain Pin



Correct Timing

- After all cups are replaced, check for proper timing. (The module is timed correctly when the detent spring is engaged and the front cups are parallel to each other. (FIGURE 32))

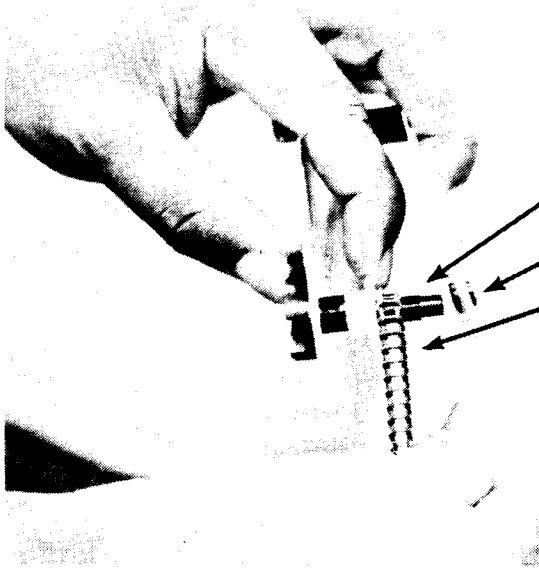
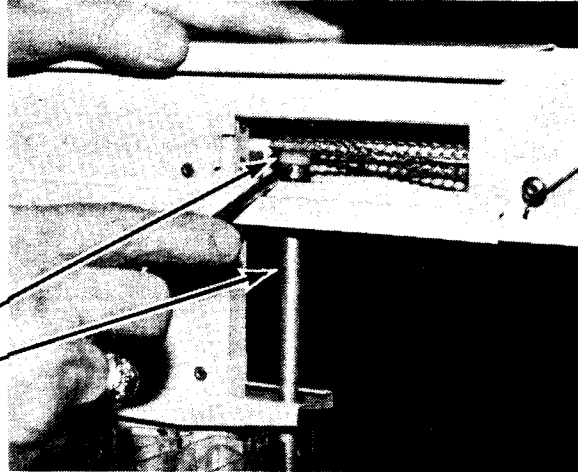
Re-install the candy module in the machine and tighten the stop screw on the module arm.

LADDER CHAIN REMOVAL AND REPLACEMENT

- To replace the metal ladder chain, pry the drive sprocket off the vertical shaft. The chain will hang free from the back drive sprocket. (FIGURE 33)



Drive Sprocket
Vertical Shaft



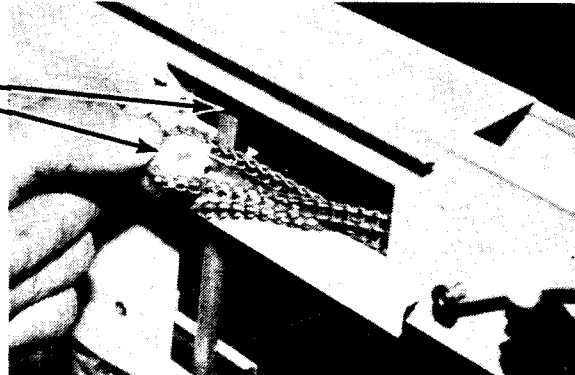
Shaft
Bushing
Chain

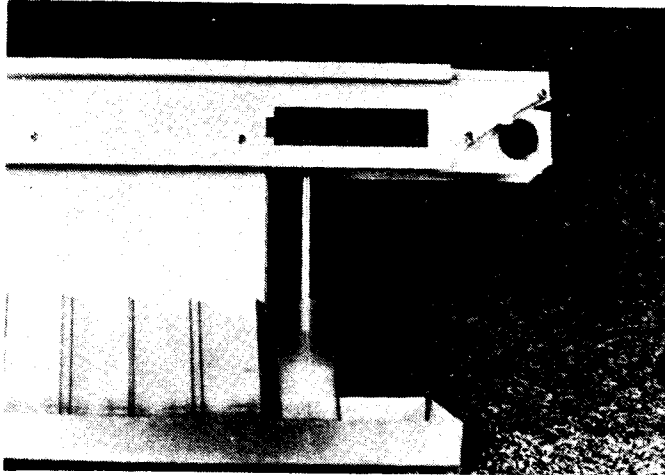
- To remove the chain from the sprocket shaft, pull the back sides of the slide module apart, allowing the sprocket shaft to slide out of the bushing. The chain will drop off the shaft. Place the new chain on the back drive sprocket and push the sprocket shaft through its bushing. (FIGURE 34)



Flat side

- To re-install the drive sprocket on the vertical shaft, hold the sprocket so the **flat** side of the sprocket shaft hole is facing the **flat** side of the shaft. Pull the chain through the slide access hole and "twist" the chain $\frac{1}{4}$ turn and place it on the sprocket. (The chain must be "twisted" as shown or the cups will rotate backward. (FIGURE 35)





Detent Spring

- With the chain around the sprocket, place the sprocket on the vertical shaft. Be sure the sprocket is pushed down all the way on the shaft. (FIGURE 36)

HELIX MODULE

The helix sliding tray has detent springs on the back of each tray. (FIGURE 37) The function of these springs is to hold the helix in position when the tray is released and pulled forward for product loading. After the tray is pulled forward, each helix should be checked to see if the detent spring is engaged. This is done by trying to rotate each helix, if it does not turn easily, the spring is engaged.

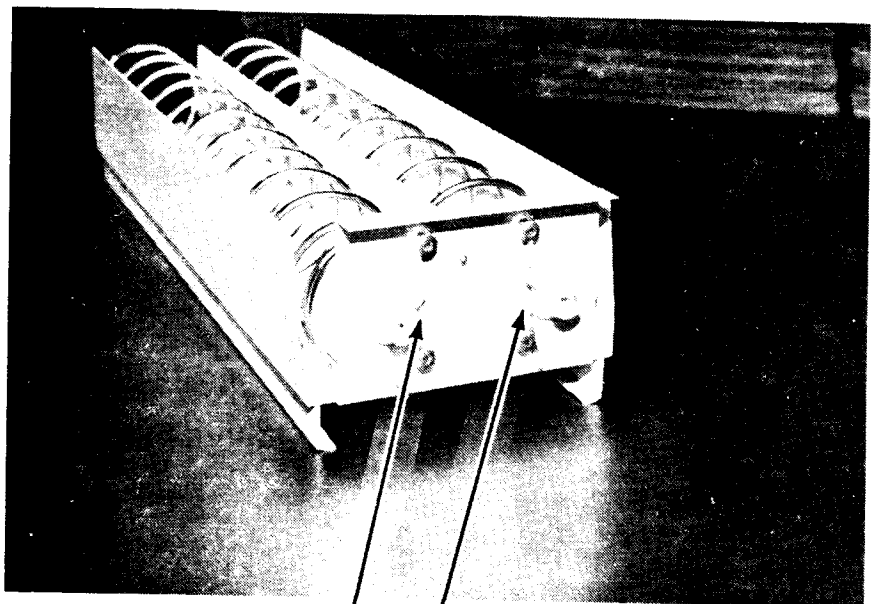


Fig. 37

Detent Spring

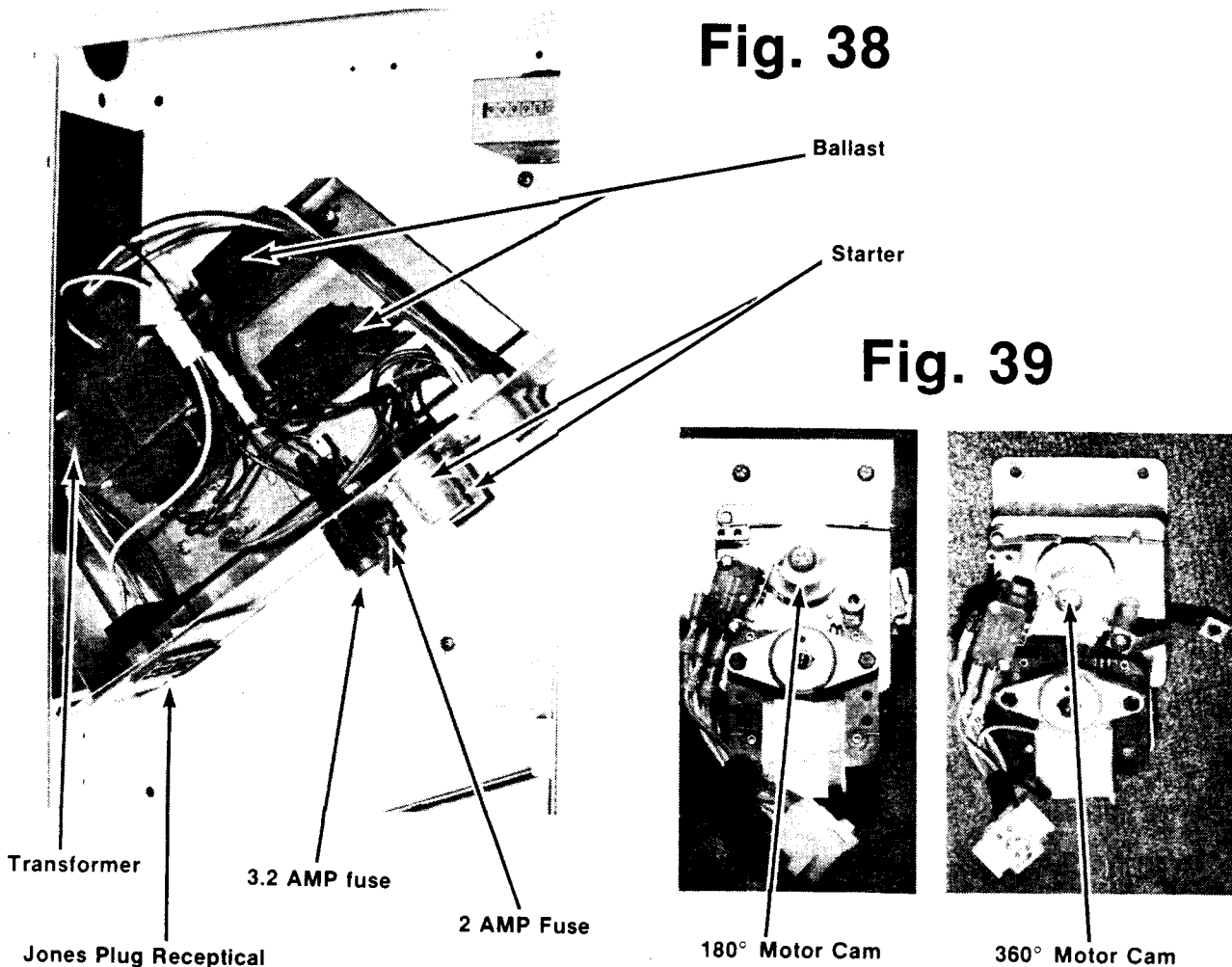
ELECTRICAL

The 30-select merchadiser operates from a primary power source of 115 volts, 60 cycle A.C. reduced through a transformer to a secondary source of 24 volts A.C. which supplies power to the machine circuits with the exception of the fluorescent lighting. The electrical schematic shows the entire system.

When the service cord is connected to 115 VAC, the current is first routed through a 2 AMP fuse located on the tilt-out power panel (FIGURE 38). This 115 VAC then powers the ballasts and starters to operate the 15 watt top and side fluorescent lamps. These lamps stay on continuously unless the machine service cord is disconnected or the 2 AMP fuse is blown. To replace fuse, rotate cap counter-clockwise and pull out.

The other electrical components operate on the 24 VAC secondary supply through a 3.2 AMP fuse and from the transformer mounted inside the control panel.

Two types of motors are used on the thirty select merchadiser (FIGURE 39). The 180° rotating motor and one 360° rotating motor. Refer to helix and wedge module diagrams for reference to different types of motors and their uses.



TROUBLE SHOOTING

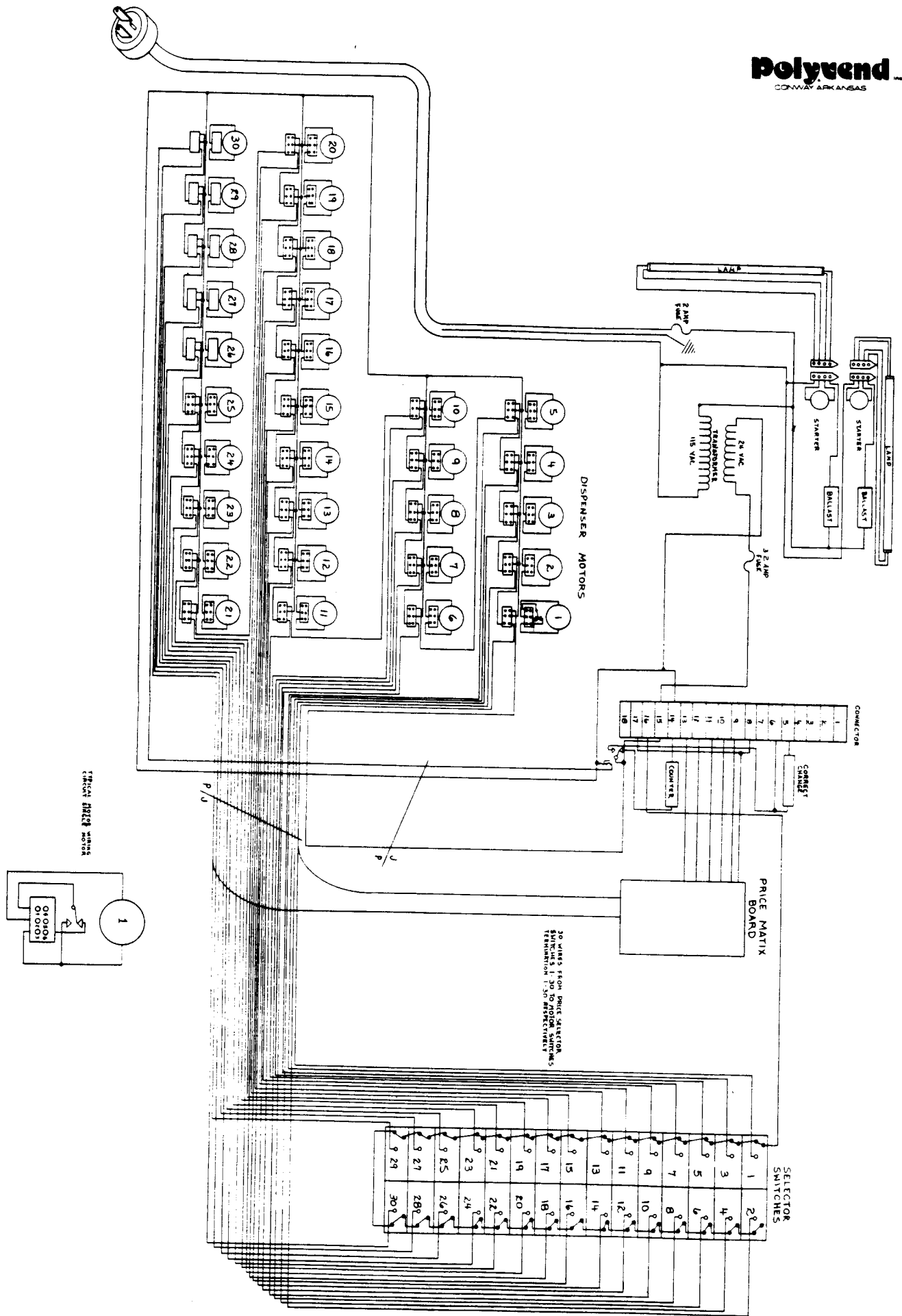
- **MACHINE WILL NOT ACCEPT COINS:** Remove/rejector to visually inspect 5¢/10¢ blocking fingers in coin changer.
 - 5¢/10¢ blocking fingers **are** magnetically retracted:
 - Be sure the machine is level.
 - Be sure the changer is properly installed.
 - Be sure blocking fingers are adjusted properly - not protruding into the acceptor/rejector.
 - Acceptor/rejector needs cleaning or adjustment, clean, repair, or replace.
 - 5¢/10¢ or 25¢ blocking fingers **are not** magnetically retracted:
 - Make sure machine is plugged into proper electrical outlet. (Are fluorescent lamps on - check 2 amp fuse)
 - Make sure changer Jones Plug is securely connected.
 - Be sure each motor plug is securely connected.
 - Check wires connected to the motor switches.
 - Main motor harness must be securely connected.
 - Check manual payout on changer. If it does not operate, check red cap fuse. If blown, check for short or ground on 24 volt circuit. Transformer may be defective.
- **MACHINE WILL ACCEPT COINS BUT.**
 - No selection can be made.
 - Check connector engagement from selector switch assembly to harness.
 - Check brown or red wire between harness and selector switch.
 - Check plug to price setting board.
 - Only some selections can be made.

NOTE: Identify all non-operable selections by number and their relation by price setting, position in machine or position on selector switch.

 - Check for proper price settings.
 - Check for defective selector switch assembly. The selector switch is wired in series starting at position #1 and running down the left side through the odd numbers. A jumper then connects to position #2 and the series circuit runs down the right side through the even numbers. A defective selector switch is indicated when a sequence of selections in the series does not operate. EXAMPLE: Selections #1, #3, #5, and #7 can be made but the remaining selections cannot. The selector switch is defective between positions #7 and #9.
 - Substitute a coin mechanism and see if the problem is corrected, if so, one of the price levels in the changer is defective.
 - Check for defective dispensing motor(s).

- COMMON FAULTS

- An empty wedge, cup or helix position. Reported as "machine did not work".
- Not clicking the module back firmly. In this case the motor will turn without moving the dispenser.
- Displacement of back wedge on chain. The last position on the chain (the 13th) is not intended as a loading point and will force its load into the back of the cabinet when the module is pushed back.
- Pulling down too hard when loading the wedge. The wedge may jam or perhaps have its components displaced when vend occurs.
- Fluctuating voltage can cause the 3.2A 24V fuse to blow.



SELECTOR SWITCH

The 30 button selector switch is mounted inside the right front of the product compartment behind the sliding electrical compartment door. It may be removed by backing out four screws and disconnecting the wiring harness.

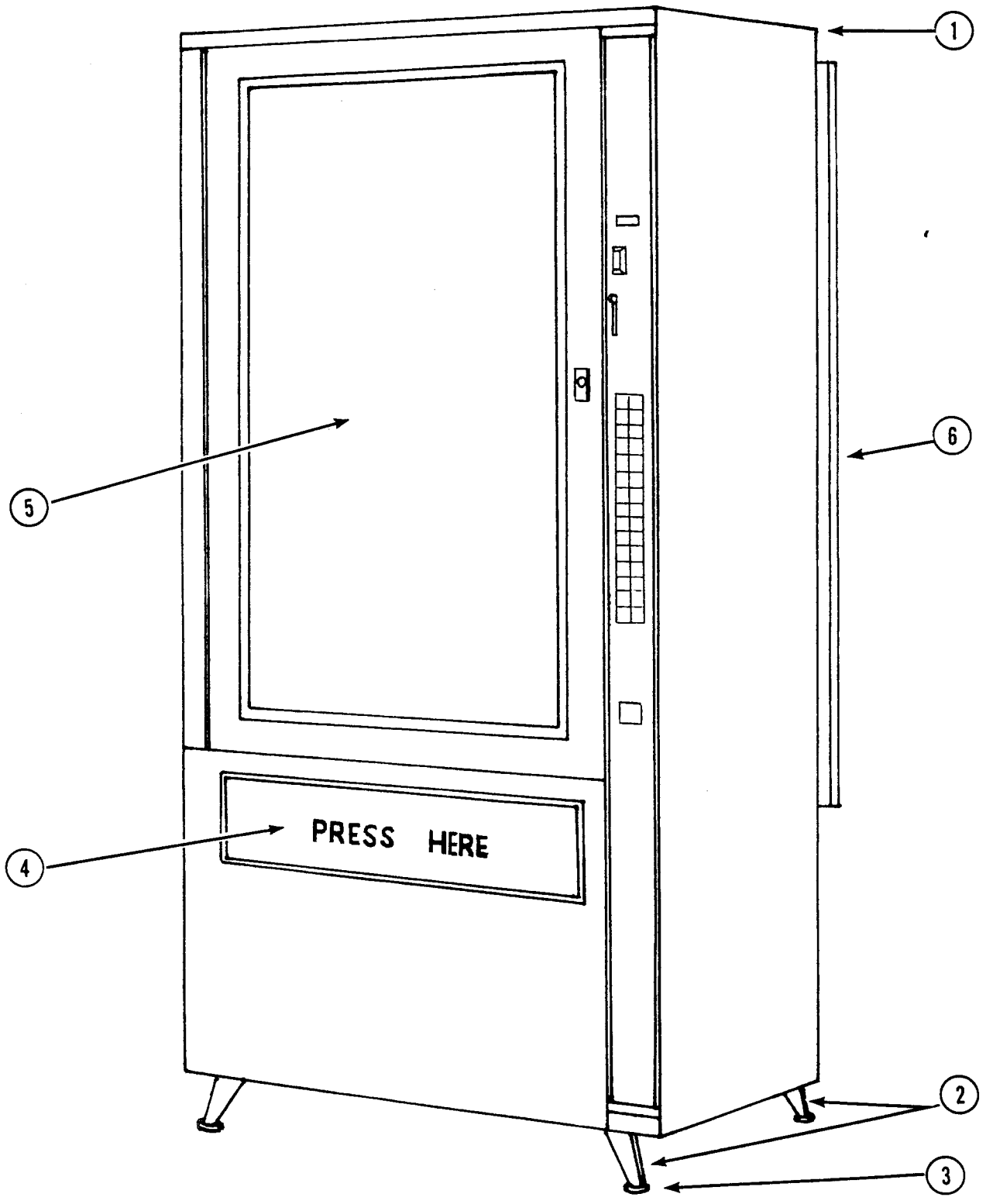
PRODUCT DELIVERY COMPARTMENT

This sub-assembly, including the "push" plastic door, may be removed from the front of the machine thru the product compartment. This may be accomplished as follows:

- Remove product compartment bottom. (5 screws)
- Remove left panel over delivery compartment. (4 screws)
- Remove the right side deflector. (2 screws)
- Remove 4 screws on the front inside edge of the delivery compartment. NOTE: Support the compartment while removing the last screw to prevent dropping.
- Lift compartment up and turn slightly to remove through the product compartment door.
- Reverse procedure to replace.

REAR ACCESS COVER (DOOR)

A large access cover is provided on the rear of the machine. Its major purpose is to permit access to the wiring harness in the rear of the machine. To remove it use one of the keys provided. Unlock it and lift off. (While pulling outward with key.) CAUTION: Do not allow door to fall freely as this could result in damage to the rear door.



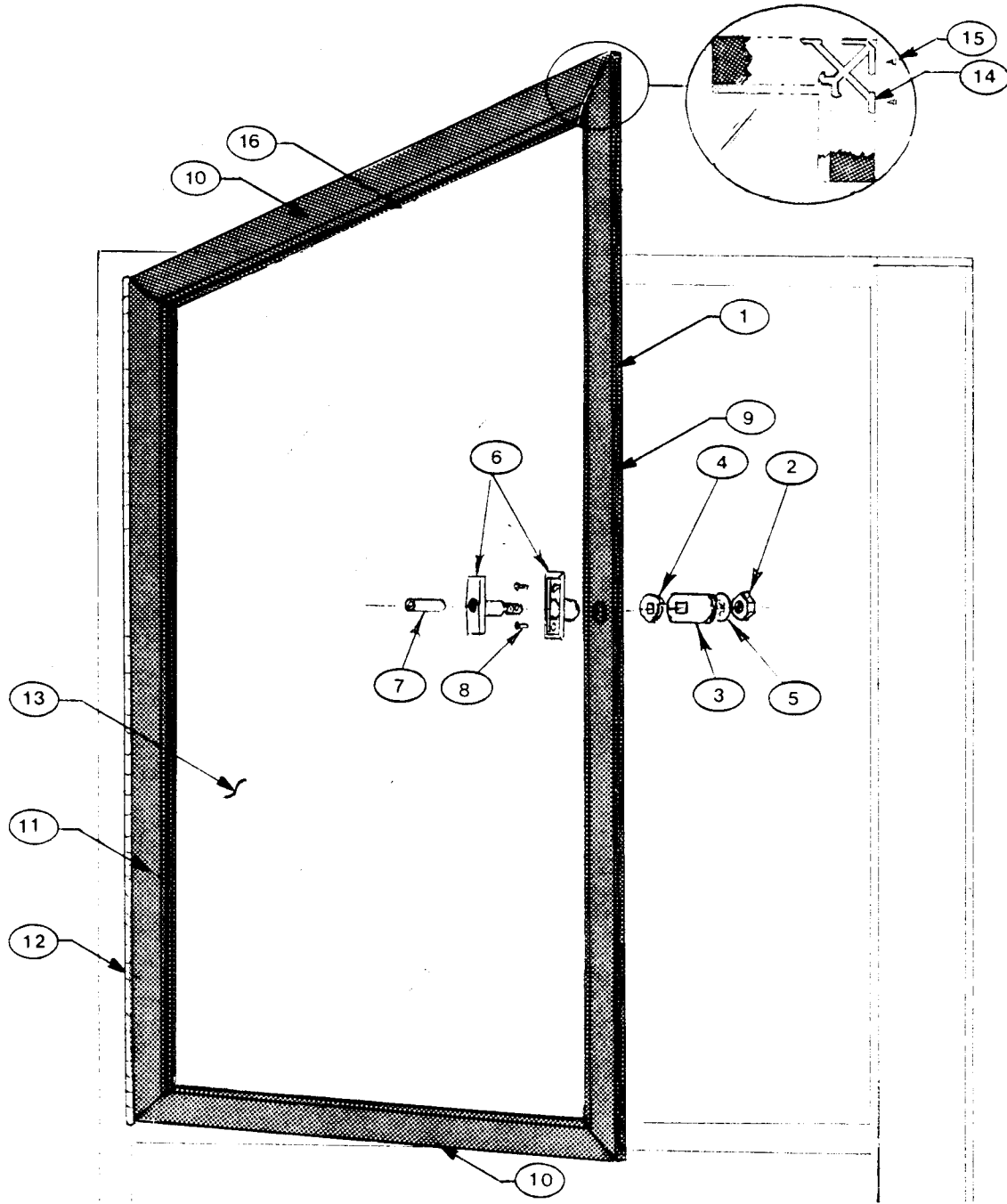
CABINET

ITEM	PART NUMBER	DESCRIPTION
1	Specify Color	Shell-Outer includes B-10338
2	10338-*	Leg & Plate Assembly (Specify Color)
	-01	Black Legs
	-02	Brown Legs
3	12766	Equalizer - Leg
4	See Assy. Drawing	Compartment Assembly - Delivery
5	3887	Service Door
6	10356	Door - Rear Assembly (Specify Color)

TRIM DETAILS

ITEM	PART NUMBER	DESCRIPTION
1	14271-01	Escutcheon End Cap
2	13063	Escutcheon Plate
3	1414	Plate - Reject Lever Cover
4	10432	Cup - Coin Return Assembly
5	12009 16170	Switch Assembly - Selector
6	4949	Casting Coin Insert
7	13134-01	Lever Assembly - Reject
8	1470-01	Trim - Delivery Compartment, Top or Bottom
9	1470-00	Trim - Delivery Compartment, Side
10	1298	Screw - TP "AB" Pan #8 × 3/8
11	11894	Screw - TP "23" Pan #8 - 32 × 3/8
12	1616	Lamp - Indicator, "USE CORRECT CHANGE"
13	89	Spring - Reject Lever

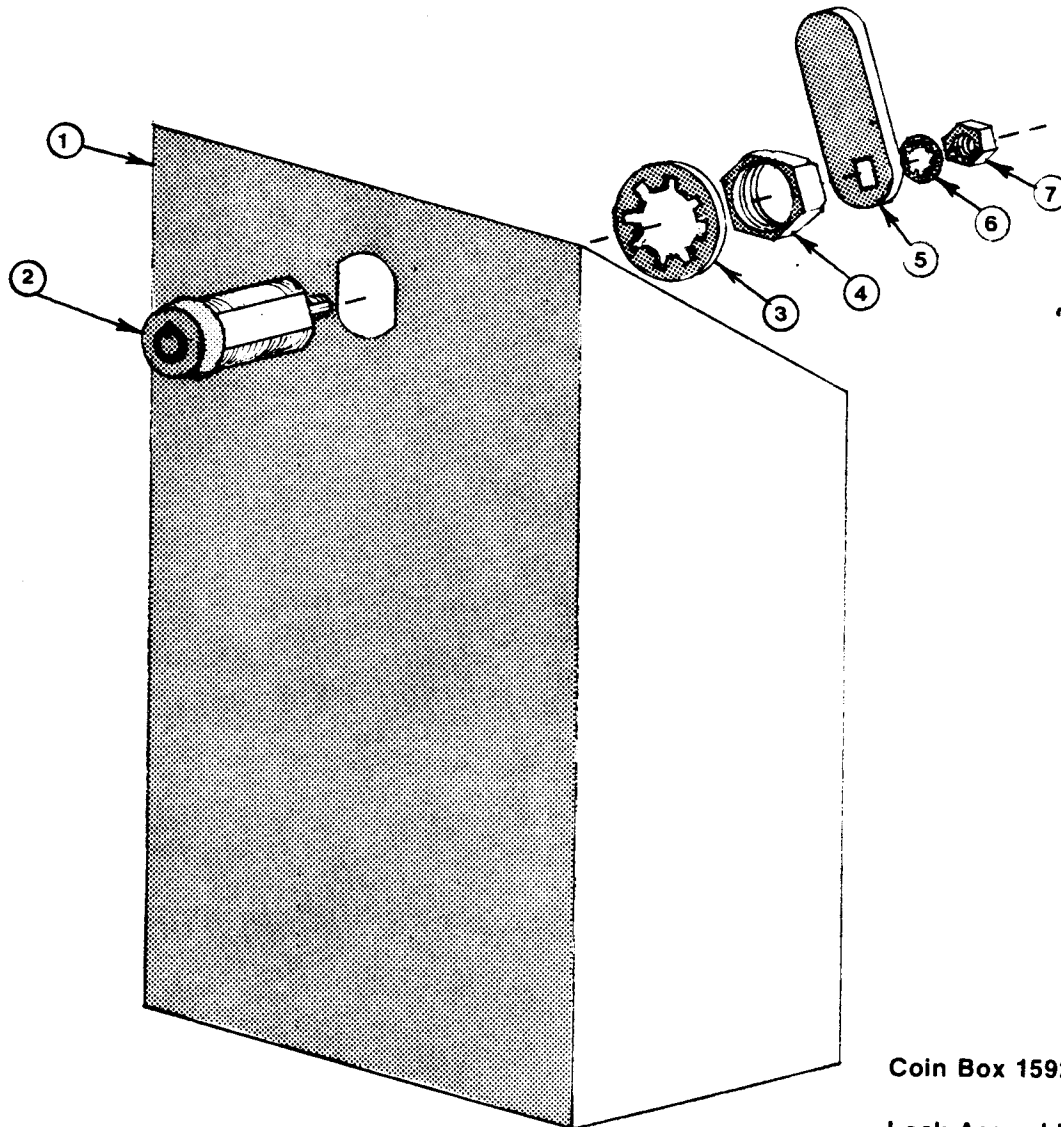
NOTES



PRODUCT LOADING DOOR

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	3887	Door - Product Loading	9	11594	Door Frame, Lockside
2	11538	Nut - Hex Jam	10	11595	Door Frame, Top & Bottom
3	1483	Cam	11	11596	Door Frame, Hinge Side
4	11539	Stop Cam	12	11597	Hinge, Product Door
5	1680	Lockwasher	13	1924	Glass, Tempered 3/16" Door
6	11537	Handle Assembly	14	11598	Angle, Corner Frame
7	1809*	Cylinder - Inner	15	11599	Screws, #10 x .500 Flat
8	746	Screw	16	11600	Gasket, Vinyl - Glass
			2 thru 8	1490*	Lock Assembly Complete

*NOTE: Please specify key number.

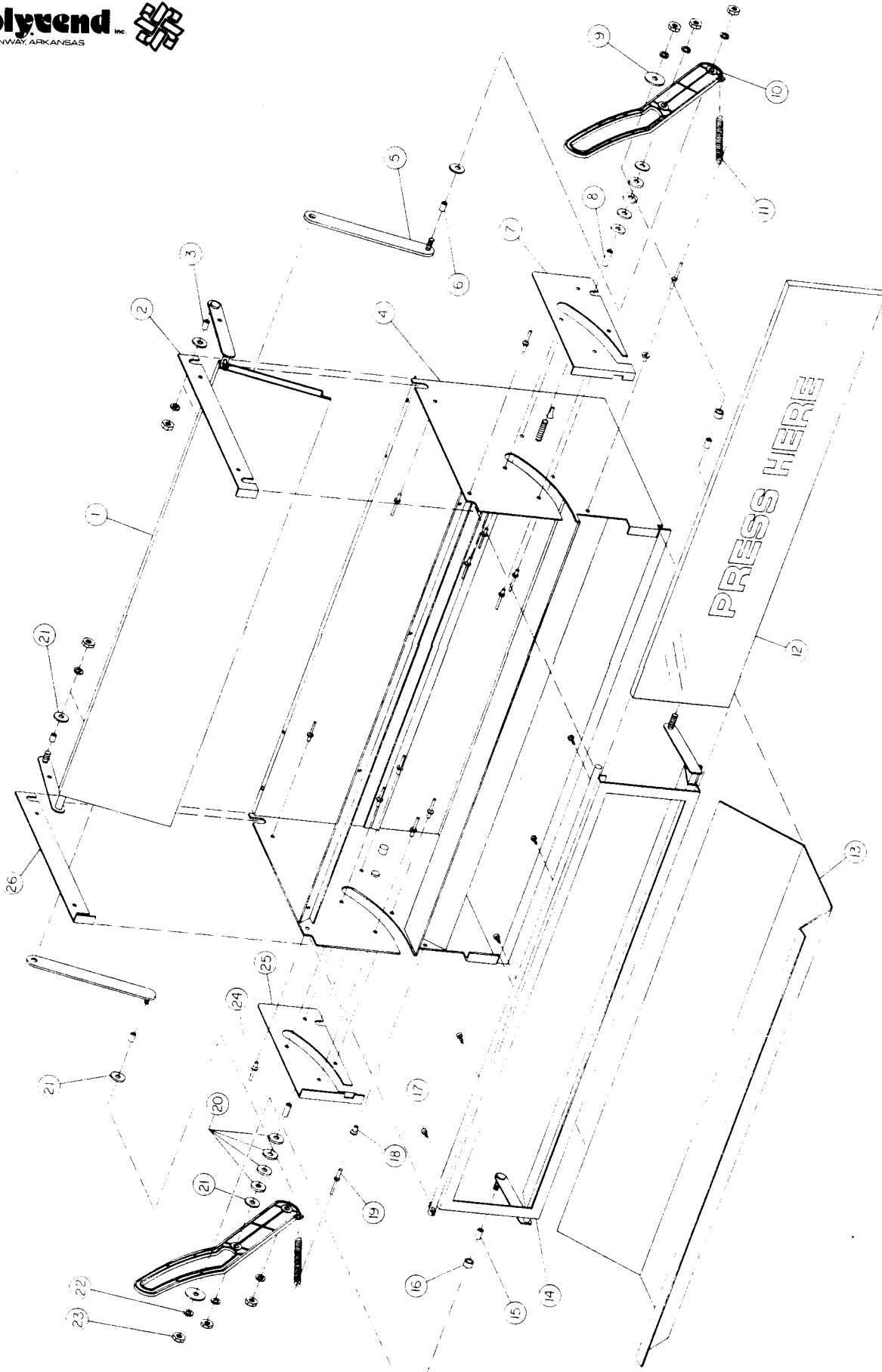


Coin Box 15922-01

Lock Assembly 11186

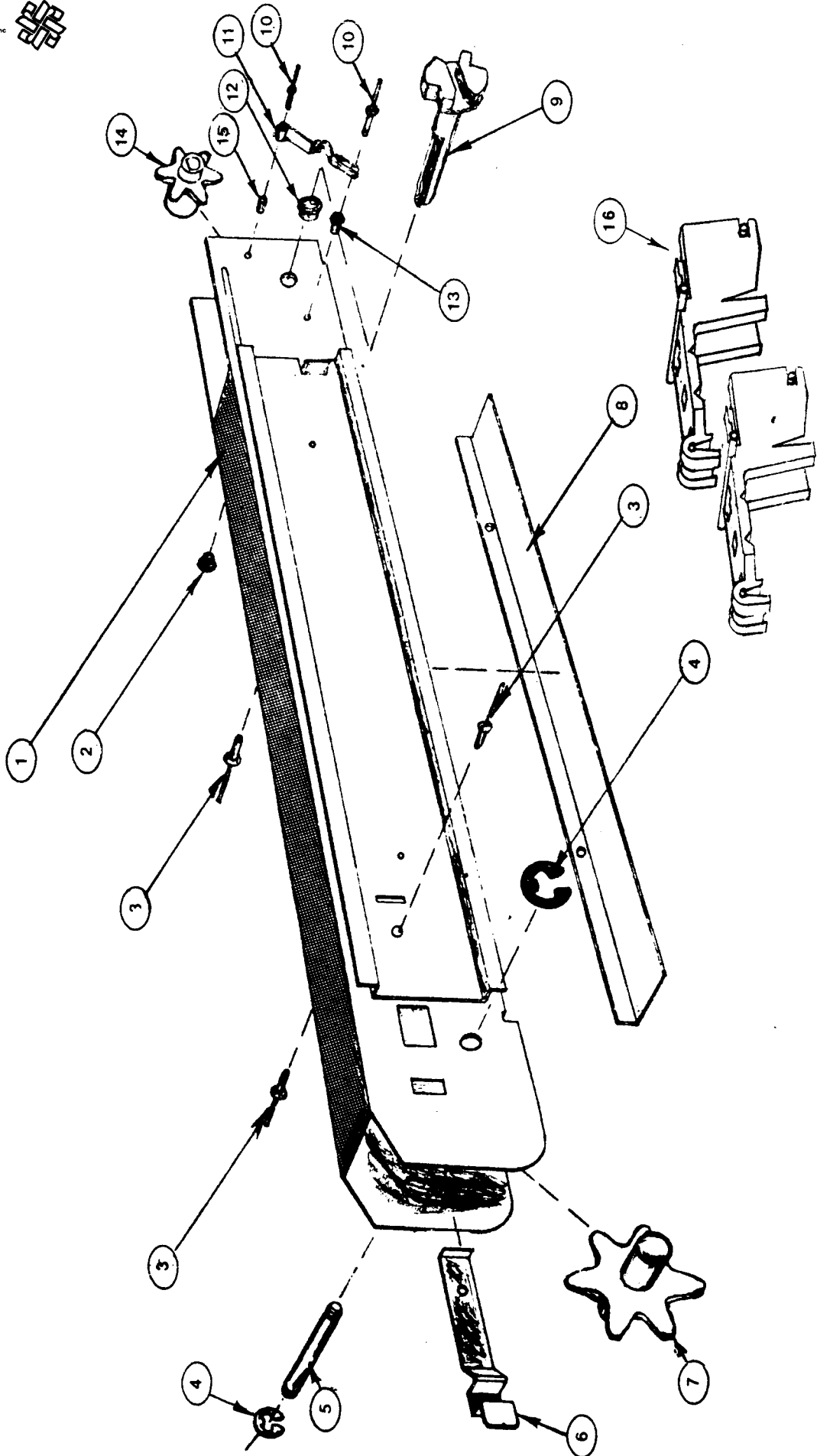
ITEM	PART NO.	DESCRIPTION
1	15922-01	Coin Box
2	351*	Tumbler
3	366	Lockwasher Int. Tooth 3/4"
4	1788	Hex Nut, 9/32" thick × 3/4" - 27
5	5404	Straight Cam
6	357	Lockwasher, Shakeproof 9/32"
7	358	Hex Nut 5/32" thick × 9/32" - 28

* Please specify key number when ordering. Lock is keyed -02 unless otherwise specified on order. Other keys available are -27 thru -48.



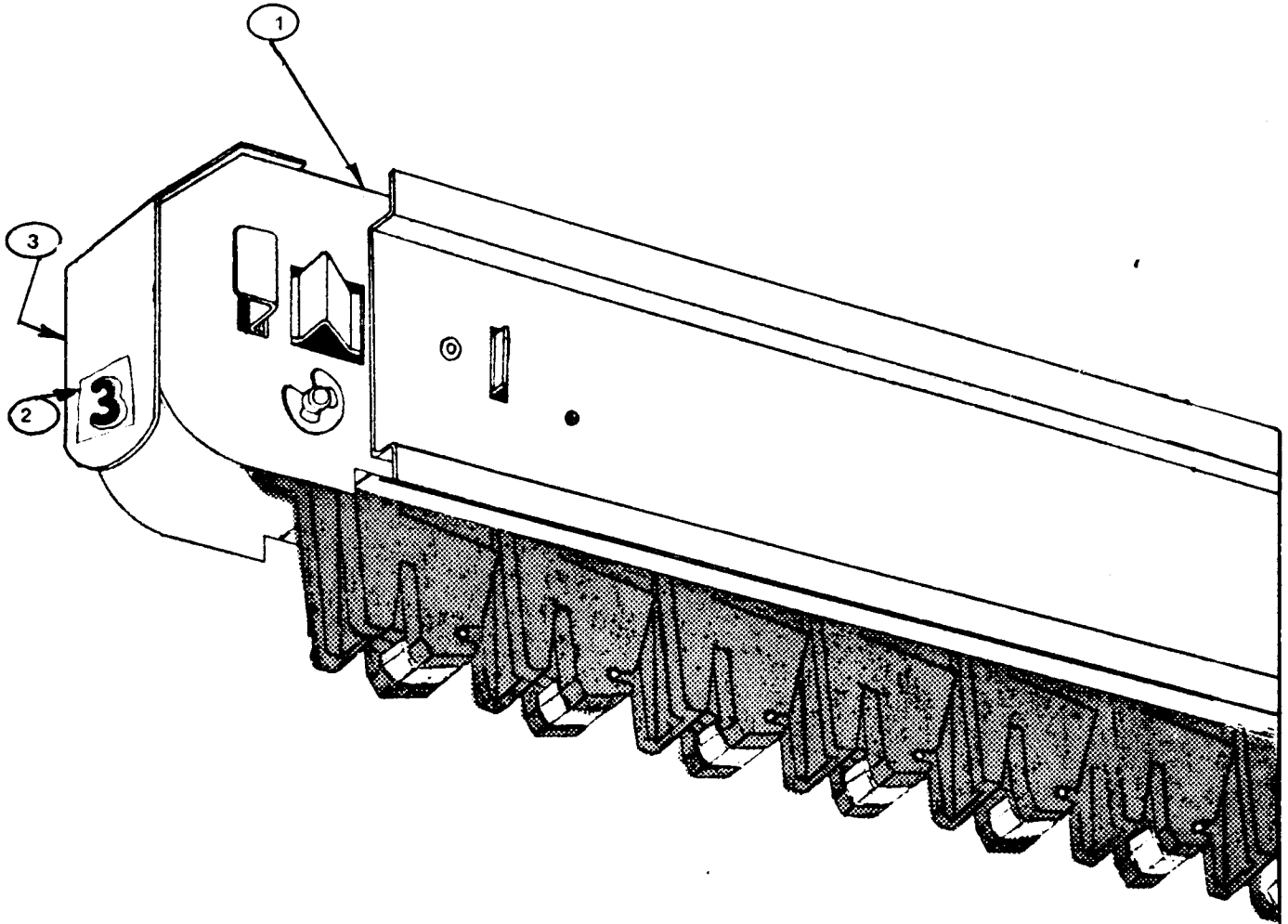
DELIVERY COMPARTMENT ASSEMBLY 16160

ITEM	PART NO.	QTY.	DESCRIPTION
1	16129-01	1	Door WA - Anti-Theft
2	16141-02	1	Retainer - Door Rod (Right)
3	16152-01	2	Bushing - Arm
4	16136-01	1	Compt. WA - Delivery
5	16139-01	2	Arm WA - Connecting
6	16152-02	2	Bushing - Arm
7	16142-02	1	Retainer Pivot Arm (Right)
8	16152-03	2	Bushing - Arm
9	16154	2	Washer - Flat
10	16143	2	Arm - Plastic, Del. Compt.
11	611	2	Spring -
12	16138-01	1	Door - Del.
13	16137	1	Bottom - False
14	16151-04	1	Door WA - Push
15	16153	2	Bushing - Bushing
16	14055	2	Bushing - Bronze
17	1298	5	Screw - TP AB Pan #2
18	1745	2	Spacer - Detent Spring
19	1642	2	Rivet - Pop
20	13398	8	Washer - 5/16 I.D. 3/4 O.D.
21	13412	6	Washer - 5/16 I.D. 3/4 O.D.
22	2386	8	Lock Washer - Split
23	2385	8	Nut - Hex
24	729	12	Rivet - Pop
25	16142-01	1	Retainer - Pivot Arm (Left)
26	16141-01	1	Retainer - Door Rod (Left)



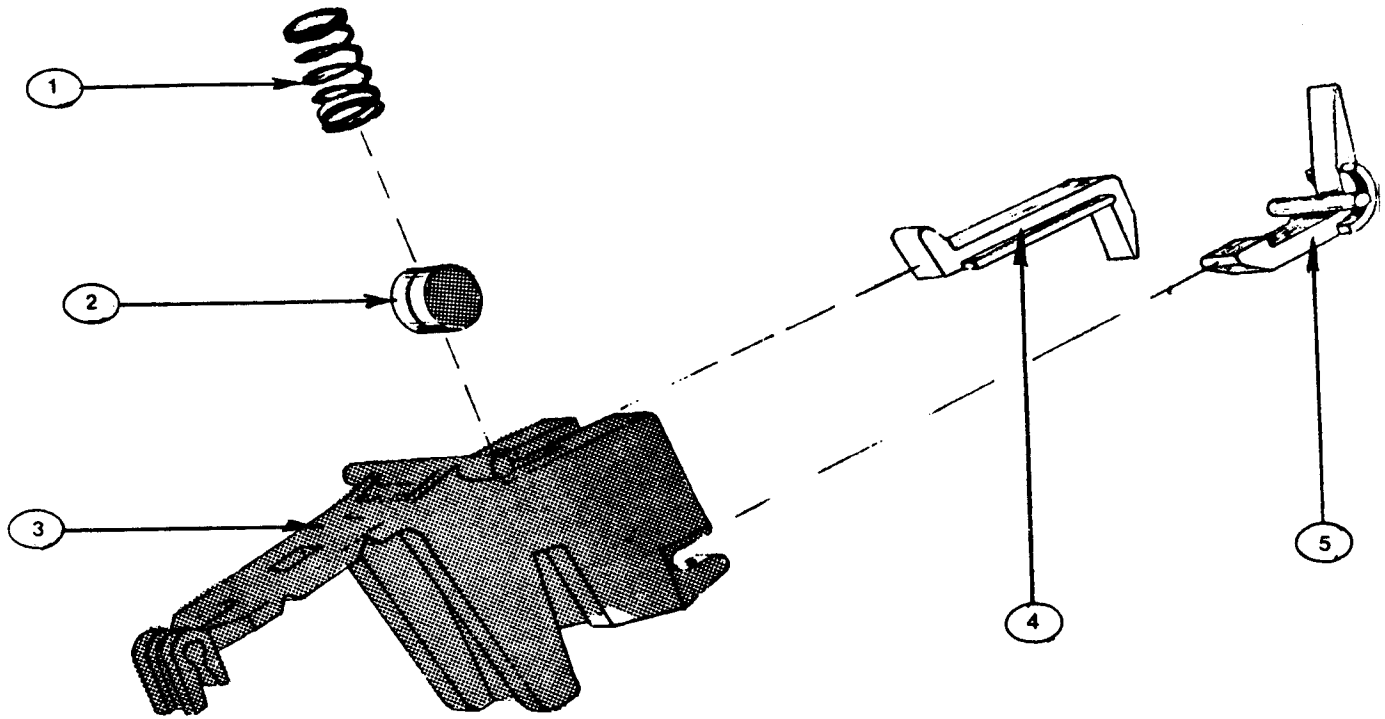
RACK MODULE — 10484

ITEM	PART NO.	DESCRIPTION
1	10495-01	Slide & Module Assembly
2	730	Bushing
3	729	"Pop" Rivet SD-42-BS
4	2559	"E" Ring, Tru Arc
5	2558	Front Sprocket Shaft
6	1744	Spring Lock
7	2565	Sprocket - Front
8	1774	Chain Guide
9	1741	Sprocket Shaft - Rear
10	1642	"Pop" Rivet SD-45-BS
11	1743	Spring, Rear Sprocket, Detent
12	1178	Bearing Bushing
13	1745	Spacer - Detent, Spring "T"
14	2563	Sprocket - Rear
15	1869	Spacer - Detent, Spring "Plain"
16	10487	Chain Asy., Complete - Wedge



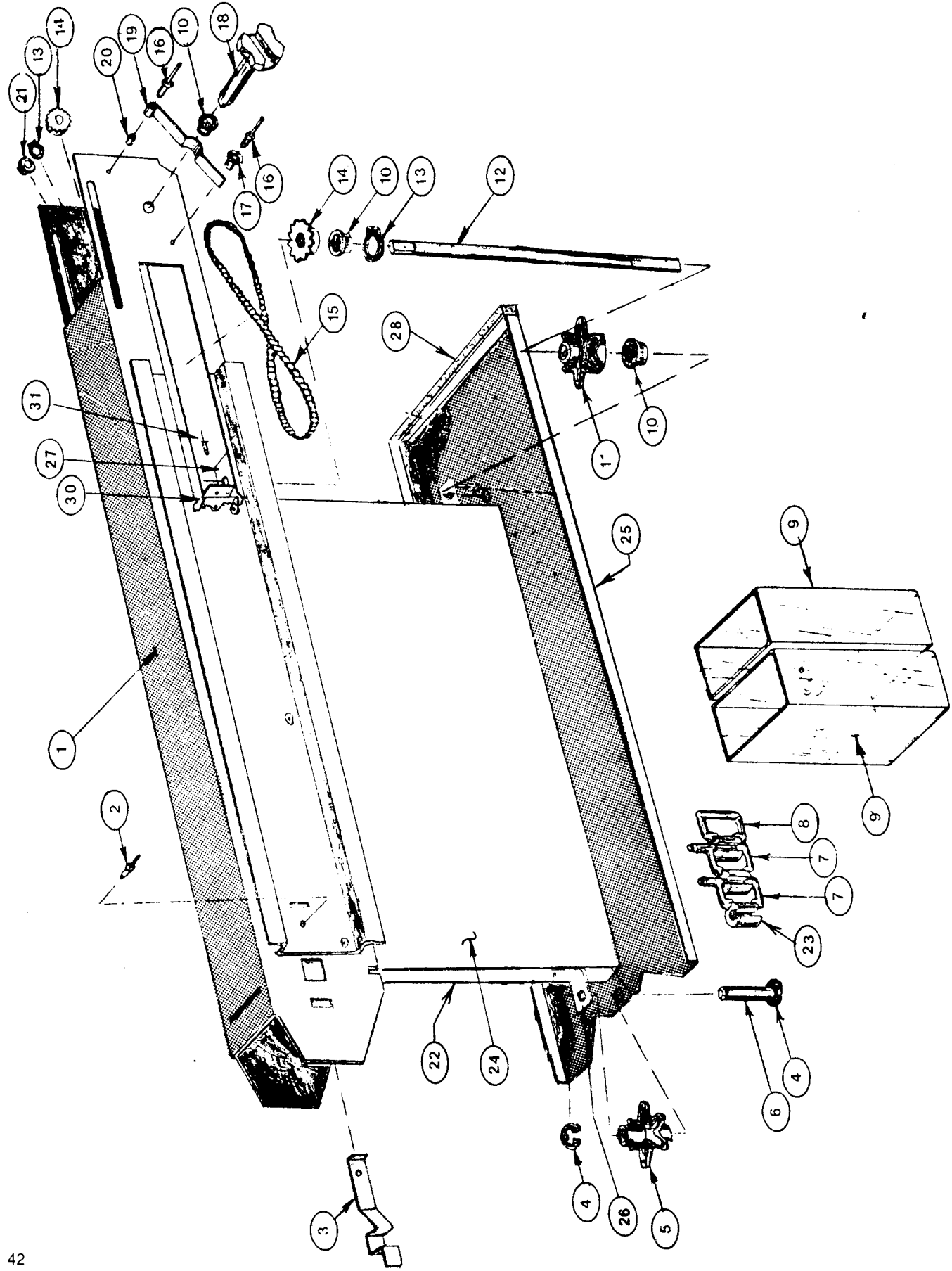
RACK MODULE ASSEMBLY

ITEM	PART NUMBER	DESCRIPTION
1	10484	Rack Module Assembly
2	1790	Decals - Selection Number (Complete set numbers 1 thru 20)
3	12287-01	Tab and Stripper Assembly - Plastic (Old Style)
	13597-01	Tab and Stripper Assembly - Plastic (New Style)



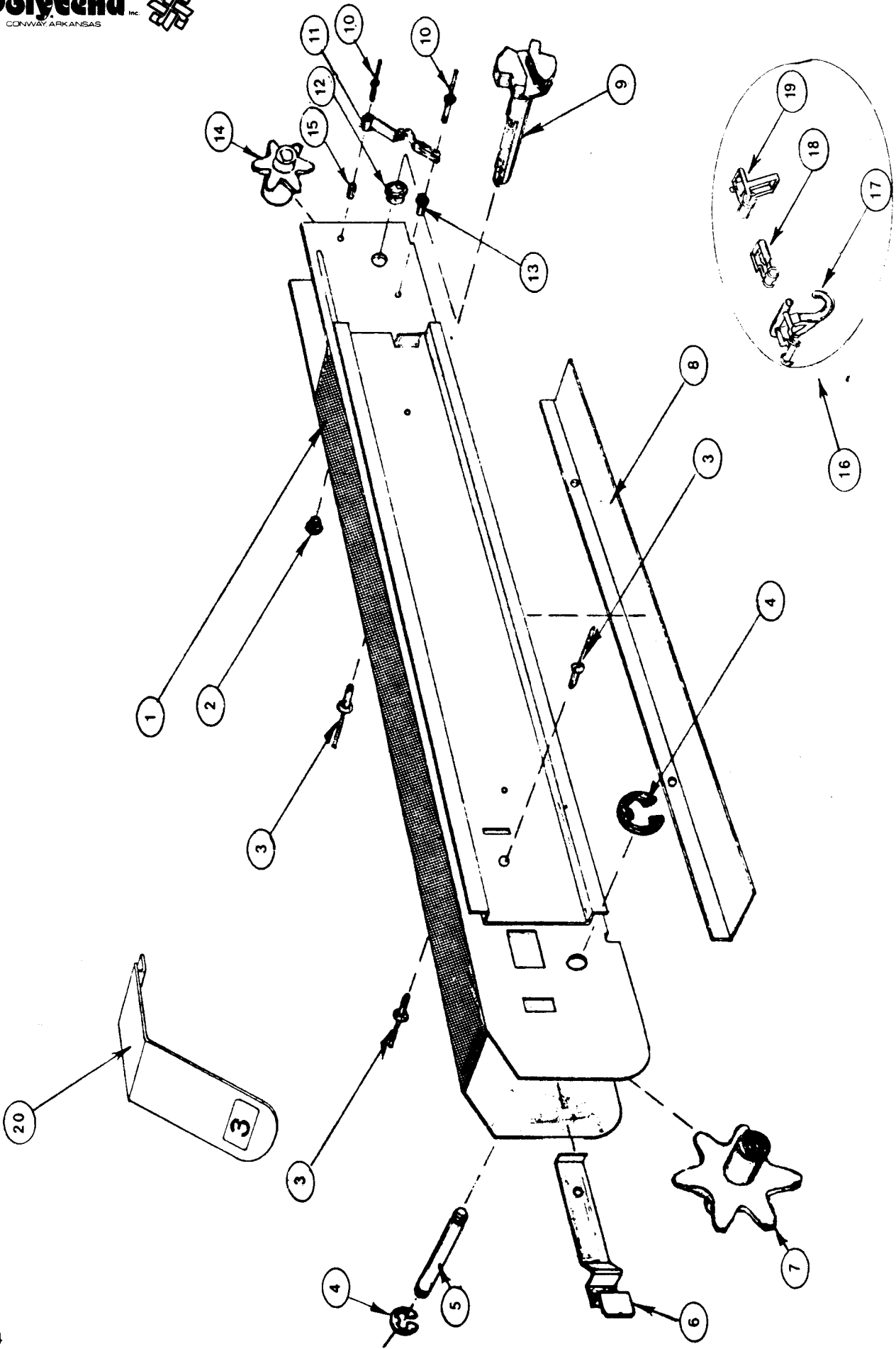
CHAIN SEGMENT ASSEMBLY -10416

ITEM	PART NUMBER	DESCRIPTION
1	-1720	Spring, Compression
2	-1754	Wedge, Cylindrical (2 req)
3	-1723	Chain Housing Segment
4	-1717	Slide
5	-1719	Lifter, Cylinder



CANDY MODULE — 10935

ITEM	PART NUMBER	DESCRIPTION
1	10478-01	Candy Slide and Module
2	729	"Pop" Rivet SD-42-BS
3	1744	Spring Lock
4	2559	"E" Ring, Tru Arc
5	2565	Front Sprocket
6	2558	Front Sprocket Shaft
7	1945	Cup Retainer Link
8	1946	Plain Link
9	4886	Dispensing Cup
10	1178	Bearing Bushing
11	2563	Rear Sprocket
12	1939	Vertical Shaft
13	2225	Gripring
14	1927	Drive Sprocket
15	1928-01	Ladder Chain
16	1642	"Pop" Rivet SD-45-BS
17	1745	Spacer - Detent Spring "(T)"
18	1741	Rear Sprocket Shaft
19	1743	Rear Sprocket Detent Spring
20	1869	Spacer - Detent Spring (Plain)
21	730	Bushing
22	2321-01	Divider Left Side
23	10526	Chain Assembly - Complete
24	2320-01	Divider - Right Side
25	4893	Bottom - Candy Module
26	1935-01	Retainer - Front Shaft
27	1936-01	Retainer - Rear Shaft
28	810-01	Stripping - Neoprene
30	4846	Plate - Rivet Reinforcement
31	4948	Rivet - Pop. 125D x .294
32	1298	Screw - TP "AB" #8

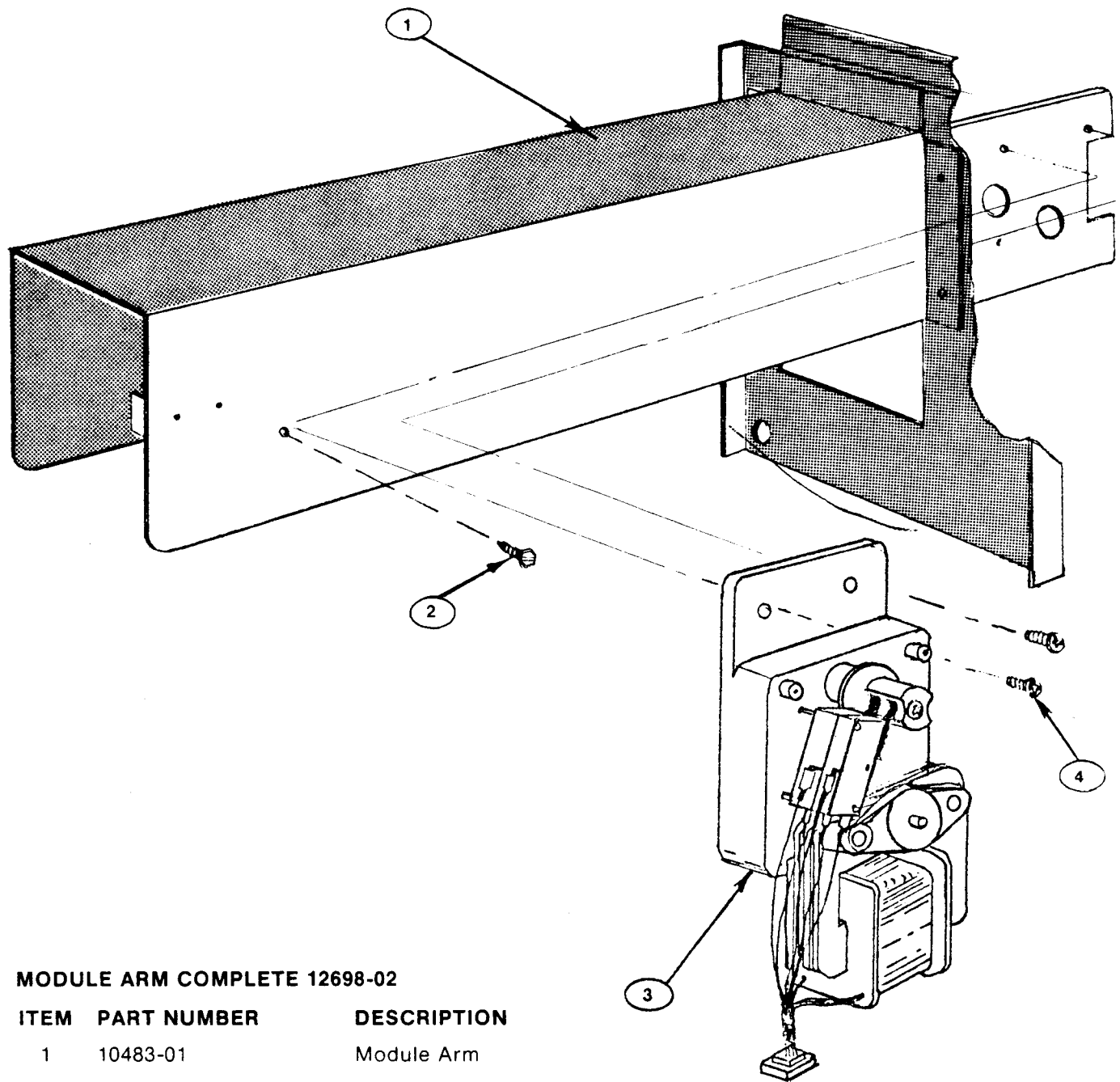


RACK MODULE — 10438

ITEM	PART NUMBER	DESCRIPTION
1	10495-01	Slide & Module Assembly
2	730	Bushing
3	729	"Pop" Rivet SD-42-BS
4	2559	"E" Ring, Tru Arc
5	2558	Front Sprocket Shaft
6	1744	Spring Lock
7	2565	Sprocket - Front
8	4963	Chain Guide
9	1741	Sprocket Shaft - Rear
10	1642	"Pop" Rivet SD-45-BS
11	1743	Spring, Rear Sprocket, Detent
12	1178	Bearing Bushing
13	1745	Spacer - Detent, Spring - "T"
14	2563	Sprocket - Rear
15	1869	Spacer, Detent Spring "Plain"
16	10348	Hook Chain Assembly:
17	1498	Chain Hook Link — 28 required
18	1500	Chain Plain Link — 28 required
19	1499	Chain Retainer Link — 28 required

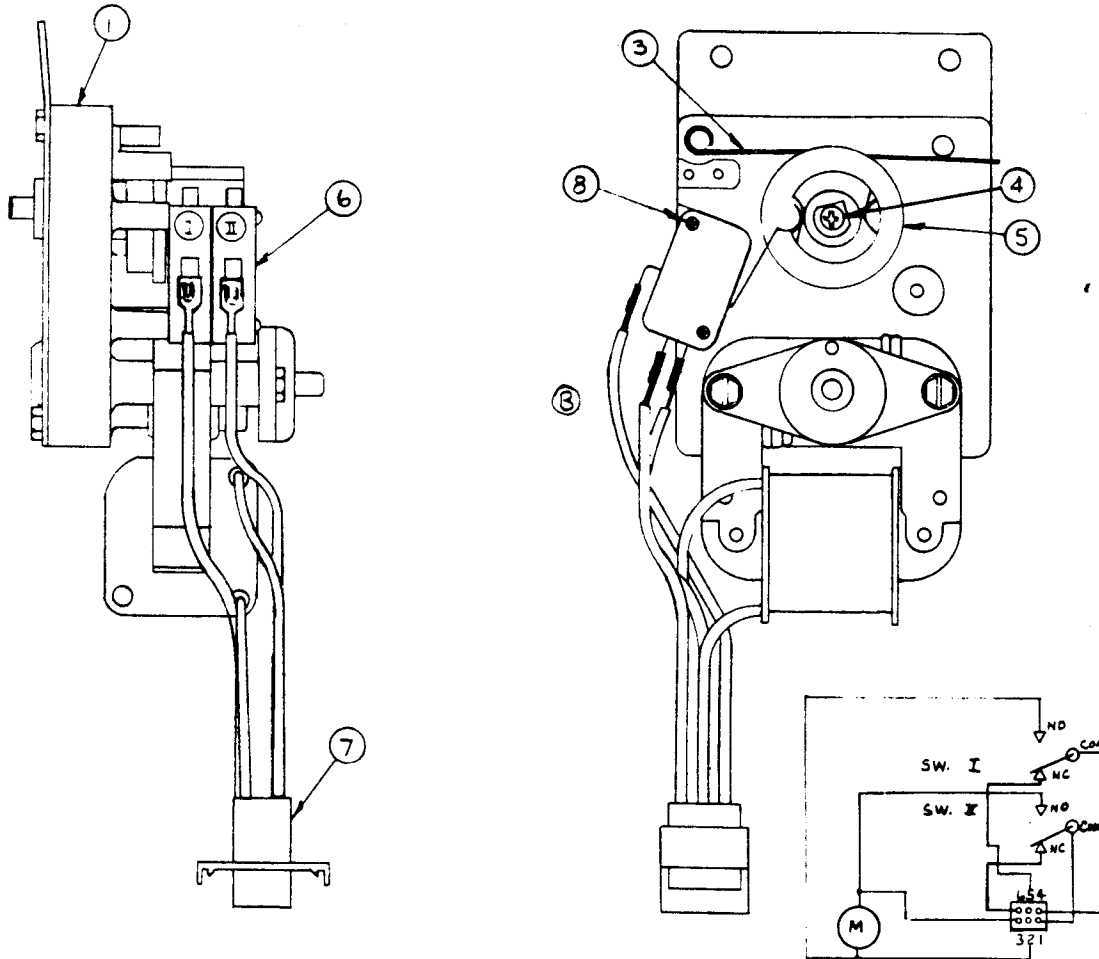
NOTE: Item 20 is not included in 10438

20	12287-01	Number Tap - Plastic (Old Style)
	13597-01	Number Tab - Plastic (New Style)



MODULE ARM COMPLETE 12698-02

ITEM	PART NUMBER	DESCRIPTION
1	10483-01	Module Arm
2	689	Screw 8 × 3/8" "Hex"
3	12569-02	Motor Assembly - Complete
4	1868	Screw - #8-32 × 1/4 Type B Pan Hd Ph Recess ZPYD

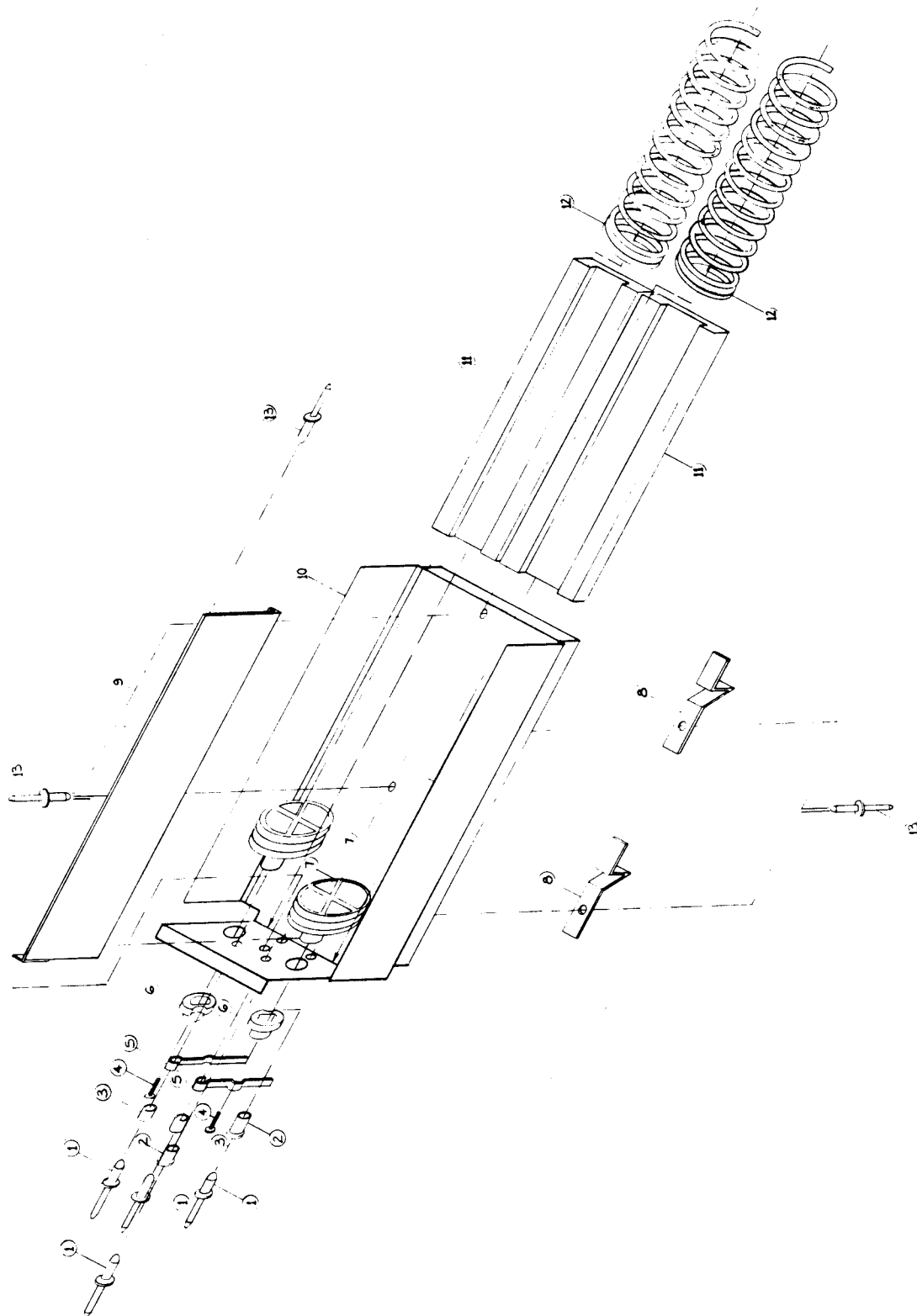


Wiring Diagram

MOTOR ASSEMBLY COMPLETE 12569-02

ITEM	PART NO.	QTY.	DESCRIPTION
1	1789	1	Motor - Gear Assembly
2	*	*	(Included with Item 7) Connectors
3	1743	1	Spring - Detent
4	12662	1	Screw
5	12537	1	Cam - 180°
6	12660	2	Switch - Snap
7	12661	1	Wiring Harness
8	12754	2	Screw #4 - 40 x 1"

HELIX SLIDING TRAY ASSEMBLY
16108



SLIDING TRAY ASSEMBLY — D-16108

ITEM	PART NUMBER	QTY.	DESCRIPTION
1	A-1642	4	Pop Rivet
2	A-1745	2	Detent Spacer, (T)
3	A-1869	2	Detent Spacer
4	A-16110	2	Screw - Helix Coupling
5	A-1743	2	Detent Spring
6	B-15443	2	Helix Drive Coupling
7	B-16092	2	Helix Hub
8	A-12813	2	Spring Lock
* 9	B-16099-01	1	Tray Divider
	B-16099-02		
	B-16099-03		
*10	C-16104-01	1	Sliding Tray Weld Ass'y
	C-16104-02		
	C-16104-03		
11	C-15926	2	Tray Insert
*12	B-16102-01	2	Helix
	B-16102-02		
	B-16102-03		
13	A-729	6	Pop Rivet

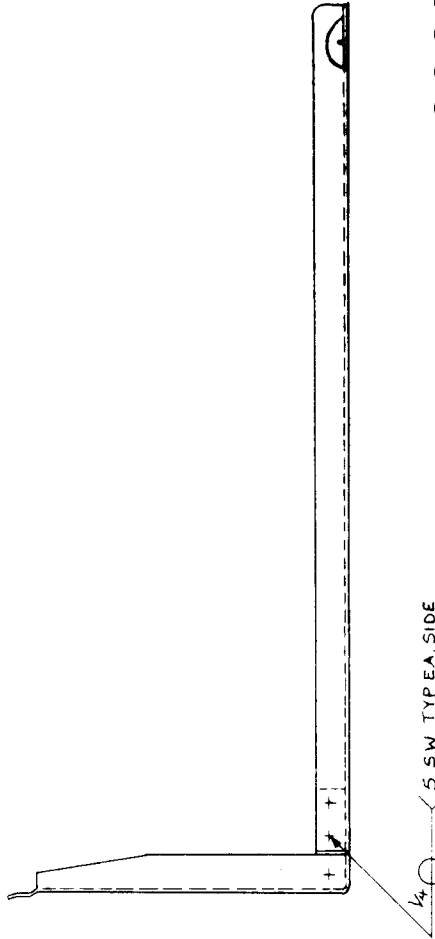
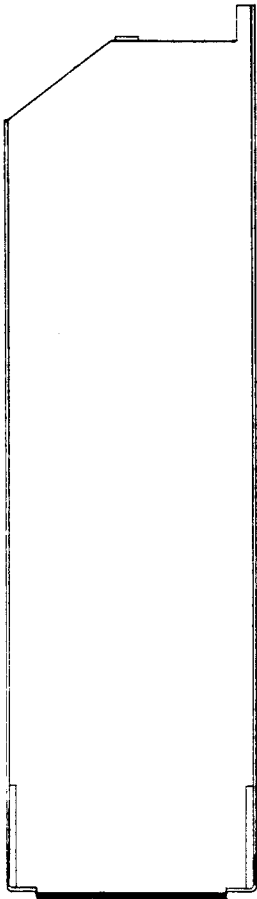
*See Tabulation Below

SLIDING TRAY ASSEMBLY

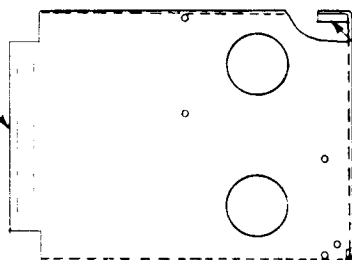
Part Number	Sliding Tray W/A		Tray Divider		Helix	
	Part Number	COLOR	Part Number	COLOR	Part Number	SIZE
D-16108-01	C-16104-01	White	C-16099-01	White	B-16102-01	1 1/8"
D-16108-02	C-16104-01	White	C-16099-01	White	B-16102-02	1 5/8"
D-16108-03	C-16104-01	White	C-16099-01	White	B-16102-03	1 3/8"
D-16108-04	C-16104-02	P. Grey	C-16099-02	P. Grey	B-16102-01	1 1/8"
D-16108-05	C-16104-02	P. Grey	C-16099-02	P. Grey	B-16102-02	1 5/8"
D-161-8-06	C-16104-02	P. Grey	C-16099-02	P. Grey	B-16102-03	1 3/8"
D-16108-07	C-16104-03	Brown	C-16099-03	Brown	B-16102-01	1 1/8"
D-16108-08	C-16104-03	Brown	C-16099-03	Brown	B-16102-02	1 5/8"
D-16108-09	C-16104-03	Brown	C-16099-03	Brown	B-16102-03	1 3/8"

HELIX BASE TRAY
16106

PART NO.	DESCRIPTION
C-16106-4	Paint White A-336
C-16106-5	Paint Putty Grey A-5220
C-16106-6	Paint Brown A-5218



C-16105 BASE HELIX



A-16098 BUSSET HELIX BASE
(2) REQ'D

ALPHABETICAL PARTS LIST

PART NUMBER	DESCRIPTION
11598	Angle-Service Door-Corner Frame
12698	Arm Assembly-Module
15922-01	Bank-Coin
104	Ballast 110 VAC
11503	Ballast 220 VAC
344	Barrell Lock-Rear Door
16106	Base - Helix
12834	Board-30 Price Switch
3193	Board Assy - 4 Price Terminal w/harness
1652	Board Assy - 4 Price Terminal Only
1477-01	Bottom - Display White - 03 Brown
1394	Bottom-False Delivery Compt.
16101-01	Brace - Helix Base White - 03 Brown
1416-01	Bracket-Reject Lev. Mtg.
12931	Bracket - Sliding Tray
842	Bumper-Delivery Compt.
326	Bumper-Right Hand Inner Panel
1178	Bushing-Bearing Module Arm
1322	Bushing-Inner Panel
730	Bushing-Module Arm Shaft
2438	Bushing-Service Cord
1435	Bushing-Shoulder
12538	Cam-360° Motor
570	Cam-Lock Rear Door
12537	Cam-180° Motor
1483	Cam-Lock Service Door
5404	Cam-Straight Coin Bank Lock
14271-01	Cap-Escutcheon End
4949	Casting-Coin Insert
12562	Casting-Coin Insert
10487	Chain-Assembly Wedge Complete
1928-01	Chain-Confectionery-Ladder
10526	Chain-Confectionery-Plastic
1754	Chain-Cylinder (2 Required)
1723	Chain-Housing
1719	Chain-Lifter
10416	Chain-Segment Complete
1717	Chain-Slide
1720	Chain-Spring
16234	Changer-M-300-9402
10319-01	Chute-Upper Coin
10462-01	Chute-Upper Coin
348	Clip-Lock Rear Door

PART NUMBER	DESCRIPTION
16161-01	Compartment-Delivery White - 03 Brown
1473	Cord-Service
8436-01	Cover-Wire
10342	Cup-Coin Return
4886	Cup-Confectionery
8571-02	Decal-15¢
8571-03	Decal-20¢
8571-04	Decal-25¢
thru-18	Decal-95¢
1790	Decal-Selection Number 1-22
12844	Decal-Price Board
1790-01	Decal-Selection Number 23-30
1479-01	Deflector-Left Hand White - 03 Brown
1439-01	Deflector-Right Hand White - 03 Brown
15443	Drive - Helix
10356	Door-Rear
3887	Door-Service SS 3000
11342	Door-Service CS4
16249	Door-Sliding
12766	Equalizer-Leg
13063-01	Escutcheon
16205	Escutcheon - DCD Lens
10340-01	Fixture Assy-Lamp White - 03 Brown
11696	Fan-Rear Door 220 VAC
11596	Frame-Service Door Hinge Side
11594	Frame-Service Door Lock Side
11595	Frame-Service Door Top or Bottom
1488	Fuse-24V-3.2 AMP
222	Fuse-2 AMP 220 VAC
1487	Fuse Holder-24V
11600	Gasket-Service Door
1924	Glass-Service Door
12666	Harness-Correct Change
12677	Harness-Indicator Light
12686	Harness-Jones Plug 4 Price
16078	Harness-Jones Plug Multi Price
13676	Harness-Price
1629	Harness-Lamp Side
1520	Harness-Lamp Top
16114	Harness-Main Motor 4 Price
14838	Harness-Main Motor Multi Price
13678	Harness-Sub Main 4 Price
12838	Harness-Sub Main Multi Price

PART NUMBER	DESCRIPTION
16106-01	Helix-Base White - 03 Brown
16101-01	Helix-Base Brace White - 03 Brown
16102-01	Helix-1 $\frac{1}{8}$ "
16102-03	Helix-1 $\frac{3}{8}$ "
16102-02	Helix-1 $\frac{5}{8}$ "
11597	Hinge-Service Door
16092	Hub-Helix
16101-01	Insert-Plastic, Helix
12814	Knob-Door
5262	Lamp-Amber
1616	Lamp-Correct Change
11720	Lamp-Correct Coins
759	Lamp-Fluorescent
12766	Leg-Equalizer
10338-01	Leg and Plate Assy Block
13134-01	Lever-Reject
5262	Light Indicator
13803	Lock-Service Door
16266	Manual-Service
13121-01	Module-Confectionery
16231-01	Module-Helix Gum and Mint
16108-01	Module-Helix 1 $\frac{1}{8}$ "
16108-03	Module-Helix 1 $\frac{3}{8}$ "
16108-02	Module-Helix 1 $\frac{5}{8}$ "
10484-01	Module-Rack Chain White - 03 Brown
12569-01	Motor Assy. 180° (Wedge or Gum & Mint) Four Price
12564-00	Motor Assy. 180° (Wedge or Gum & Mint) Multi Price
14256-01	Motor Assy. 360° (Helix) Four Price
14256-00	Motor Assy. 360° (Helix) Multi Price
347	Nut-Hex Rear Door
11538	Nut-Hex Service Door
16107	Panel-Motor Mtg.
12693	Panel-Power
15924	Panel-Right Hand Inner
1407	Pendulum-Sliding Door
1293-43	Plate Data
12819-01	Plate-Inst.
1302	Plate-Patent Notice
1484	Plate-Polyvend
1414	Plate-Reject Cover
10484-01	Rack-Module Assy. (Wedge)
12669	Receptacle-Clip On
13134-01	Reject Lever

PART NUMBER	DESCRIPTION
729	Rivet-Pop
638	Screw-#8 Flat
1715	Screw-#8 Pan
11894	Screw-23 Pan # 8 Coin Insert Casting
1298	Screw-#8 3/8"
286	Screw-#10 Round
1868	Screw-Module Arm
746	Screw-Service Door
13053	Shell-Assy.
11969	Spacer-Rear Door
16108	Sliding Tray (Helix)
89	Spring-Reject Lever
12813	Spring-Lock (Helix)
2607	Starter-FS 25
11539	Stop-Cam Service Door
1472	Stripping-Neoprene
11808	Support-Circuit Board
12839	Switch-Selector
11504	Transformer 220 VAC/24 VAC
13597-01	Tab and Stripper White - 03 Brown
12703-01	Track-Upper
16099-01	Tray Divider
1470-00	Trim-Delivery Compt. Side
1470-01	Trim-Delivery Compt. Top and Bottom
342-01	Tumbler-PD-20
1809-01	Tumbler-PO-1
345	Washers-Tab Lock Rear Door
1680	Washers-1/2 Service Door
5365	Wire-Ground 9"
1709	Wire-Ground 32"
12675	Wiring Harnexx-Sub Main
12690	Wiring Harness-Jones Plug Four & Twelve Price
12204	Wiring Harness-10-12 Price W/Terminal Block