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POLYVEND H-22
Powered Delivery Compartment
Service Supplement

This machine is equipped with a motor-powered delivery compartment. Its purpose is to discourage vandalism to the machine and its surroundings by maintaining a normally closed sliding tray that opens only during a dispense cycle. Any product or spindles that have been shaken from the machine previously is then dumped through an opening into the locked storage area below. This supplement describes the operation and component part of this optional assembly. Any H-22 beginning with serial #76542 is wired to accomodate this assembly.

OPERATION

As mentioned above, a sliding tray that is normally locked closed is utilized that must open each time a selection is made and the product is dispensed. The following sequence of operation will explain the electrical and mechanical functions that take place during each vend.

- When a credit is established through the coin changer, the vend relay is energized which also activates the solenoids on the sides of the compartment - SEE FIGURE 1.
- The activation of these solenoids move the horizontal locking arms so as to lock the plexiglas door and release the vertical locking arm's hold on the sliding tray. SEE FIGURE 2.
- When the selection is made and the selected dispense motor runs, breaking the holding series circuit through the motors, this pulse is picked up by the printed circuit board (FIG. 1) which starts the delivery compartment drive motor (FIG. 1) in its rotation.
- Since the sliding tray is no longer locked, the motor in its 360° rotation pulls the tray backward and then forward while the product is being dropped into the delivery compartment. The motor is de-energized when its switch is de-activated by its cam.
- At this point, the solenoids are de-energized and the springs on the horizontal locking arms pull them so as to again lock the tray and release the plexiglas door.
- The delivered product may now be removed from the compartment by opening the plexiglas door.
- There is also a switch that is operated by the plexiglas door (FIG. 1) that breaks the changer line 6 series circuit when de-activated. This prevents the insertion of coins into the changer when the plexiglas door is held open.

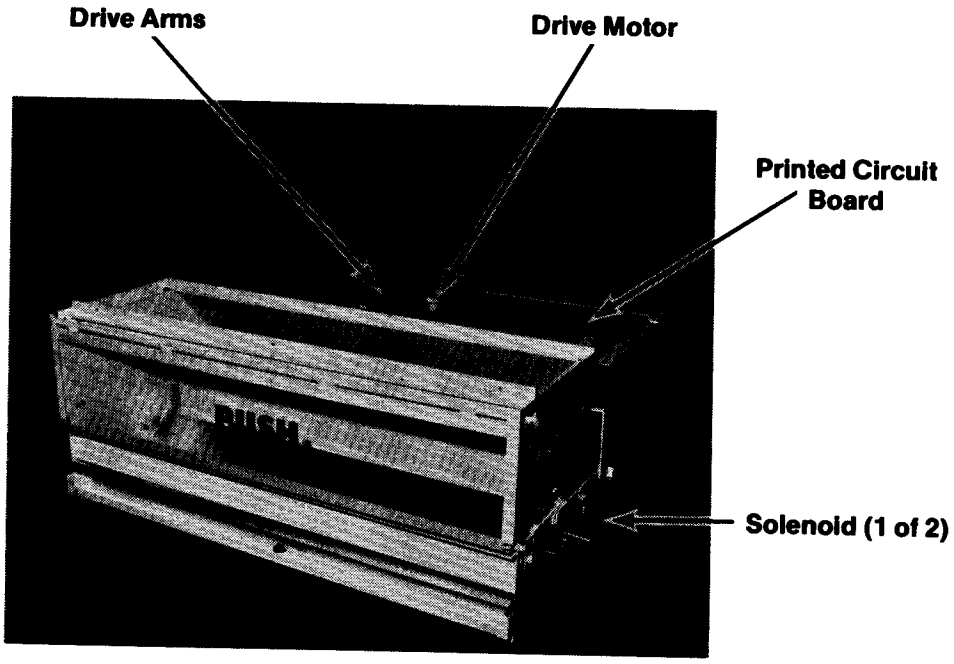

FIGURE 1

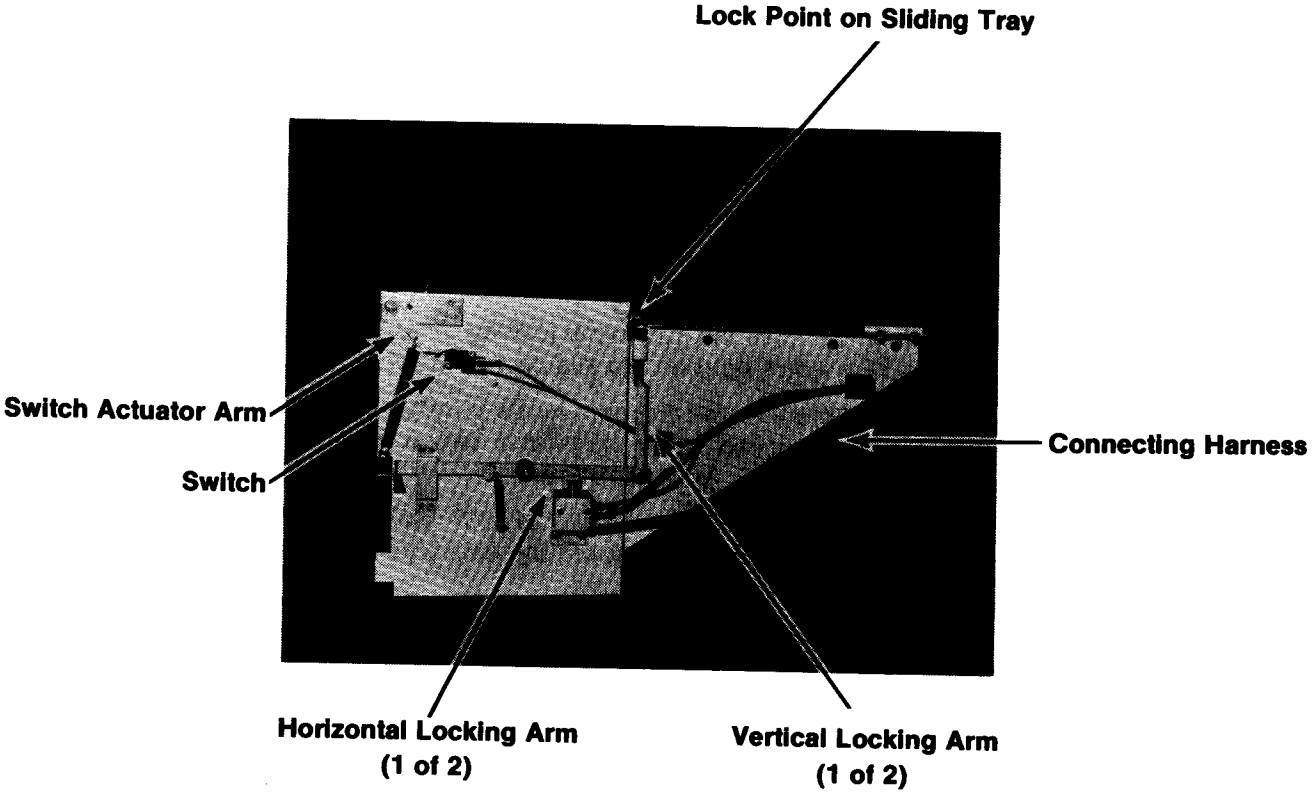

FIGURE 2

PRINTED CIRCUIT BOARD

A printed circuit board with solid state components is utilized on this compartment for control of the operation. This board is mounted on snap-on supports and can be easily removed for replacement. The board has been designed specifically for the powered delivery compartment and has a timed cut off that also protects the drive motor in case of a jam up. Because of its solid state construction, Polyvend does not recommend any field repair, but rather complete replacement with a new board from the factory. The board may be removed either from beneath, through the storage compartment or by removing the machine display bottom from inside the product area. The board may be unsnapped from its supports but the machine should be unplugged while doing so to prevent any damage due to shorting or grounding. No electrical hazard exists since all power to components are low voltage.

DRIVE MOTOR & CONNECTING ARMS

The drive motor (FIGURE 1) is 24 volt AC and propels the sliding tray when turned on by the printed circuit board. Once initiated, it normally completes a 360° rotation which drives the tray through connecting drive arms (FIG 1) to a completely open position at 180° and then closes it on the last half of its cycle. The motor has a switch and cam arrangement that is actuated on the initial movement and provides power back thru the board to the motor coil until de-activated after its 360° rotation. As mentioned above, the printed circuit board does control the drive motor and has a timed cut-off for jam-up protection. Any early cut-off by the board may be detected by a slamming shut of the tray by the extension springs mounted on the sides of the compartment (FIGURE 2). The motor is mounted under the display bottom and may be removed for repair or replacement by taking out the display bottom so as to get to the mounting screws and connecting arms.

SOLENOIDS & RATCHET ARMS

Two 24 volt AC plunger type solenoids - one on each side - are used to operate the horizontal locking arms that lock either the sliding tray or the plexiglas door closed during appropriate times of the cycle. As described in the operation section, these solenoids are first activated when the vend relay is energized by a credit on the machine. FIGURE 2 shows the solenoids in an energized position. Note the position of the pivot point of the horizontal locking arms and the movement realized when the plungers are pulled down by the solenoids. The retention on the back corners of the sliding tray is released and the plexiglas door is now locked by the front end of the horizontal locking arms. The compartment is at this point ready to be activated by a selection. Once the cycle is completed, the two solenoids are de-activated and the connected extension springs cause the horizontal locking arms to lock the sliding tray and release the plexiglas door so the product may be removed by the "paying" customer. Removal of the solenoids and locking arms is easily accomplished by removing the complete compartment from the machines. Refer to that section for instruction.

SLIDING TRAY

The sliding tray is mounted on precision ball bearing slides for low friction movement by the drive motor. It is either locked forward in the closed position to prevent access to the product or it is being moved through the horizontal front-to-back cycle by the drive motor to allow a vended product to fall into the delivery compartment. It is spring loaded closed by the extension springs shown in FIGURE 2. The bottom of the tray has an angled opening that mates against a stationary part of the compartment in its home position. Any product that falls down into this sloped area will be dumped into the lower storage compartment on the next vend cycle. Removal of the tray and slides is also accomplished by complete removal of the compartment from the machine.

PLEXIGLAS DOOR ASSEMBLY & SWITCH

The plexiglas door is mounted into a channel and rod that pivots in its mounting in the compartment. On one end of the rod is welded an actuator arm (FIGURE 2) that operates a snap-action lever switch that is wired in series with the Line 6 circuit back to the coin changer. With this switch de-activated, the machine will not accept coins to prevent the customer from holding the plexiglas door open while trying to vend. Once credit has been established and the solenoids are energized, the plexiglass door will be locked and the switch adjustment should be such that normal pushing action on the locked door will not de-actuate the switch. Another extension spring is utilized to always pull the plexiglas door closed. Removal of the plexiglas door assembly and switch requires complete removal of the compartment.

HARNESS CONNECTIONS

There are two harness assemblies required to connect the powered delivery compartment in an H-22 machine. The top one that goes up to the tilt-out control panel has a Y-connection that simply interconnects with the wiring of the later H-22's with this tilt-out panel. The other harness that connects to the top harness also connects to all the electrical component parts of the compartment.

A regular mechanical type delivery compartment may be installed in the machine. The mounting is the same and the machine harnesses can be reconnected after removing the top harness described above.

COMPARTMENT REMOVAL

To remove the complete compartment from a machine for repair or replacement, follow the procedure below.

- Open product loading door and lower storage door.
- Remove the left side deflector cover inside product display area of machine.
- Remove the sliding door to changer by flexing out in the middle to get bottom edge out of groove.
- Remove the right side deflector cover inside display area.
- Remove display bottom.
- Disconnect top wiring harness from compartment harness.
- Remove (3) #8 phillip head screws that hold top of compartment against inside of machine.
- Top of compartment will now tilt back and allow the whole assembly to be picked up out of the retainers on the bottom sides.
- Let the left side down and stand compartment on that end on bottom of machine. DO NOT stand on right side - door switch will be broken.
- Turn compartment 90^0 so that top compartment is parallel with front of machine.
- Pick up compartment and pull out through lower storage door opening with left side that was down against bottom of machine coming out first.
- To replace, reverse procedure.

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TROUBLE SHOOTING

As with any vending equipment, it is much easier to repair it with a basic understanding of its operation and components. Before working on this compartment, refer back to the previous sections of this supplement for an explanation of the function of each part. Listed below are some conditions on the powered delivery compartment that may cause the machine to be inoperative.

- MACHINE WILL NOT ACCEPT ANY COINS:
  - Check plexiglas door switch:
    - Terminals connected securely to common (C) and Normally Open (N.O.) positions on switch (two lower positions).
    - Switch is operative and adjusted properly.
  - Check all other connections of harnesses around compartment as well as behind tilt-out control panel of machine.
- MACHINE VENDS BUT SLIDING TRAY DOES NOT PULL BACK TO ALLOW PRODUCT TO DROP INTO COMPARTMENT:
  - Drive motor and tray make no movement at all:
    - Check all harness connections.
    - Check switch adjustment on drive motor. It should be in the bottom of the cam and de-activated.
    - Replace printed circuit board.
    - Replace drive motor.
  - Drive motor tries to turn but tray does not complete cycle.
    - Tray moves only slightly backward - seems to hit something solid:
      - Hits on one side - check solenoid, wiring connections to it and arm movement on that side.
      - Hits on both sides - check wiring connections from compartment up to behind tilt-out control panel - otherwise replace printed circuit board.
    - Tray moves approximately one-half of cycle and then binds or slams shut:
      - Check for drag in tray slides.
      - Check for drive motor arms rubbing on underside of display bottom.
      - Replace printed circuit board - timed cut-out going off early.
      - Replace drive motor.

- MACHINE VENDS AND TRAY OPERATES, BUT PLEXIGLAS DOOR WILL NOT OPEN:
  - Check for locking arms binding in lock position - identify which side is binding and determine cause.
  - Replace printed circuit board.
- MACHINE VENDS, TRAY OPERATES, PLEXIGLAS DOOR OPENS FREELY, BUT PRODUCT FALLS INTO DUMP AREA OF TRAY:
  - Check termination of spindle(s) of particular one(s) that are doing the above. On the lower rows, a too early drop will result in the product falling on the tray. NOTE: Candy modules cannot be used in conjunction with a motorized compartment, due to the speed with which the module vends
  - Replace printed circuit board.
- MACHINE VENDS, TRAY OPERATES, PLEXIGLAS DOOR OPENS FREELY, BUT PRODUCT BRIDGES AGAINST GLASS AND DOES NOT DROP.
  - Relocate thicker bagged product on lower rows in machine for more clearance.
  - Use lower count spindle for problem product.

NOTE: Do not turn spindles by hand, unless the vend relay is energized, so as to allow the compartment to complete a cycle along with the vend motor. Failure to do this can cause damage to the gears inside the drive motor.

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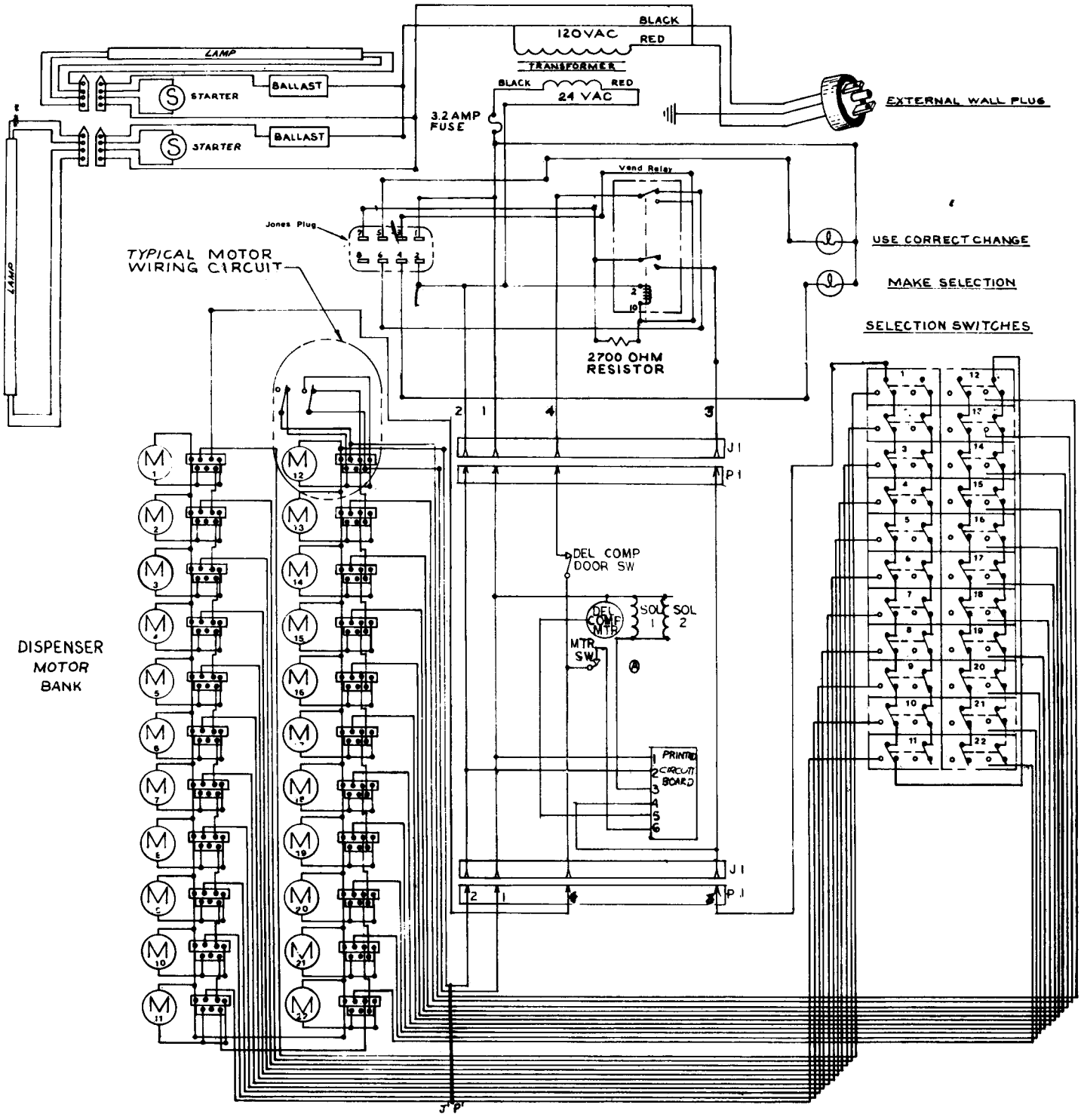

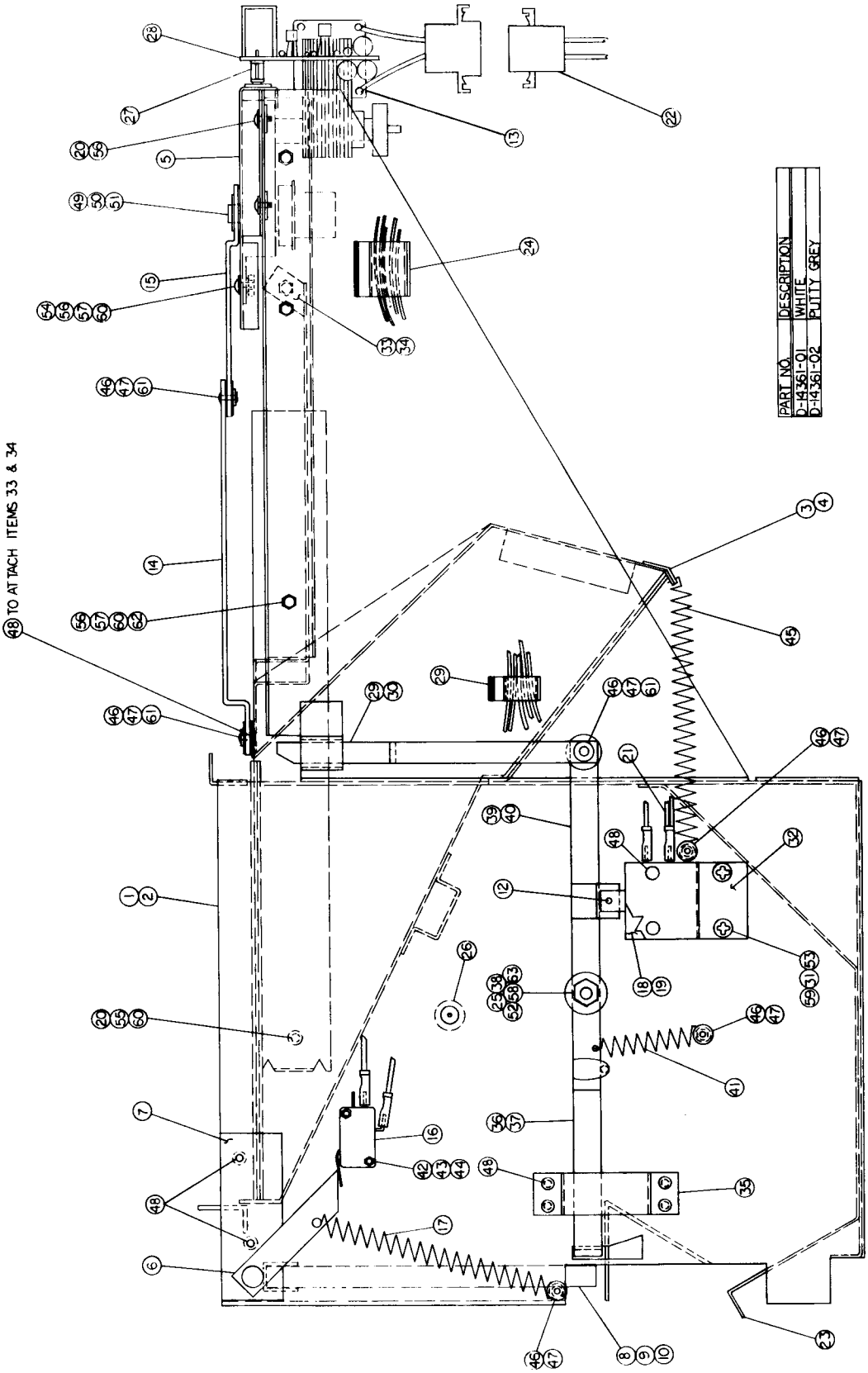

Motorized Delivery Compartment Assembly D-14361

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PARTS LIST
Motorized Delivery Compartment Assembly
14361-01

INDEX	PART NUMBER	NOMENCLATURE
1	14340-01	Compartment WA - Delivery
2	14340-02	Compartment WA - Delivery
3	13224-01	Tray WA - Sliding
4	13224-02	Tray WA - Sliding
5	13247-01	Support - Motor
6	14360	Channel - WA
7	13233	Retainer - Del. Compt. Dr.
8	1851-01	Door - Del. Red Push
9	1272	Pin - Roll 3/32 x 5/8
10	1298	Screw - TQ AB Pan #8
11	13250-01	Slide L. H.
12	13250-02	Slide R. H.
13	13251	Motor - Del. Compt.
14	13236-01	Arm - Sliding Tray
15	13237-01	Arm - Motor
16	13438	Switch - Lever
17	610	Spring Extension
18	13252	Solenoid
19	13396	Insulation - Solenoid
20	11894	Screw - TP 23 Pan #8
21	13264	Harness - Del. Compt.
22	13265	Harness - Del. Compt.
23	1841	Bottom - False
24	8538-01	Harness - Clamp
25	5983	Adhesive - Sealant
26	842	Bumper - Snap in Rubr.
27	11808	Support - Circuit Board
28	14365	P.C. Board Assy.
29	14353-01	L.S. Vert. Locking Arm
30	14354-01	R.S. Vert. Locking Arm
31	14268	Nutsert
32	14348-01	Brkt. Solenoid
33	14346-01	L.S. Brace - Tray
34	14347-01	R.S. Brace - Tray
35	14343-01	Brkt. - End Panal
36	14344-01	Arm - Horiz. Locking
37	14344-02	Arm - Horiz. Locking
38	14352	Bushing
39	14355-01	Arm WA - R.S.
40	14351-01	Arm WA - L.S.
41	13253	Spring - Extension
42	13399	Stud - Self Clinching
43	4527	Washer - Lock #4
44	11794	Nut - Hex # 4-40

INDEX	PART NUMBER	NOMENCLATURE
45	611	Spring - Extension
46	1745	Spacer - Detent Spring
47	1642	Rivet - Pop. 125D
48	729	Rivet - Pop
49	13276	Ring - E 5133-37
50	13277	Washer - 7/16 I.D. x 5/8 O.D.
51	13279	Washer - 5/8 E.D. x 1 O.D.
52	13412	Washer - 5/16 E.D. x 3/4 O.D.
53	4209	Washer - Lock #10
54	1465	Screw - #8
55	266	Washer - Lock
56	13400	Washer - Lock #8
57	13419	Washer - Flt #8
58	2385	Nut - Hex 1/4 - 2D
59	5372	Screw #10-24 x 3/8 MCH.
60	1958	Nut - Hex #8-32
61	13403	Washer - 3/16 E.D. 3/8 O.D.
62	638	Screw - TP 23 Flt #8
63	13398	Washer - 5/16 I.D.

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MODEL H-22
Automatic Rack Merchandiser
Service Manual

GENERAL

The H-22 Polyvend Automatic Rack Merchandiser has twenty-two (22) independent dispensing units. Each conveyor or "spindle" is activated by a separate push button in conjunction with a signal from the coin equipment. **Only merchandise in bags and having a hole punched tab may be vended.**

The separate dispensing or motor driven assemblies are installed on a plug-in basis from the front of the machine. This design provides an invaluable aid to the serviceman, allowing easy removal and replacement of any dispensing unit on location. These dispensing units are supplied with conveyors having two pitches to accomodate a wide range of products. The smaller diameter conveyor has a capacity for 15 units of the products in thinner bags, such as peanuts, candies, pastries, etc. The larger diameter conveyor will accommodate 10 thicker bags such as potato chips, pork skins, etc. All may be pulled out of the machine for easy loading and proper stock rotation. With either pitch, a single conveyor rotation dispenses one product.

The standard H-22 is supplied with (10) of the 15 position and (12) of the 10 position conveyors.

SPECIFICATIONS

- Height ..... 68"
- Width ..... 33 3/4"
- Depth ..... 25"
- Clearance for door opening ..... 30" (front)
- Shipping Weight ..... 370 lbs.

INSTALLATION

- Remove all external packing materials.
- Check for shipping damage.
- Remove keys from small envelope in the delivery compartment.
- Adjust leveling screws on the bottom of machine to eliminate any binding of product door in cabinet opening.
- Plug service cord into a 115 VAC source using the three prong grounded connector provided. If a grounded outlet is not available, use a proper external ground on **all** locations. (see page 11 for electrical schematic.)
- Load the coin tubes on the coin changer located behind sliding door on the right inner side of the product compartment.
- Operate each dispenser using coins. Test each dispenser with packing in place to simulate the presence of products.

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OPTION

- Floor mounting of machine (concrete).
  - Place machine in desired position.
  - Place angle brackets under each side of machine as shown in FIG. 1. (Make sure the angle rests on floor and points underneath machine. The leg with square holes should rest against side of machine). Scribe pencil lines on the floor around brackets.
  - Move machine away from brackets.
  - Make certain brackets are positioned at pencil lines. Secure brackets to floor using two red heads and anchor bolts, or using a "ramset" gun and four nails.
  - Move machine back into position between brackets.
  - Using square holes in brackets as guides, drill (4) 11/32" diameter holes into sides of machine.
  - Insert 5/16" carriage bolts thru bracket and into machine from the outside. Secure with (4) lock washers and wing nuts on inside of storage compartment as shown in FIG. 1.

OPTION

- Wall mounting of machine (FIG. 2).
  - Make sure machine is as close to wall as possible.
- Place bracket on top of machine and against wall to locate on stud or hollow portion of wall depending on construction. Mark all holes or mark around bracket if holes cannot be marked.
- Drill (1) 5/16" hole in top of machine as marked.
- If wall is frame construction.
  - Drill (2) 3/16" into wood wall stud.
  - Secure bracket to wall using lag bolts.
- If wall is concrete block:
  - Drill (2) 11/16" or 3/4" holes into blockwall (hollow part of block).
  - Insert toggle bolts in bracket.
  - Attach toggles.
  - Insert toggles and bolts through holes in block.
  - Tighten bolts and clamp bracket to wall.
- Return machine to wall position so that bracket hole is aligned with hole drilled in machine. (Protect top with cloth to prevent scratching.)
- Remove cloth and insert stove bolt thru bracket and top of machine.
- Open product door and spin wing nut onto the stove bolt and tighten.

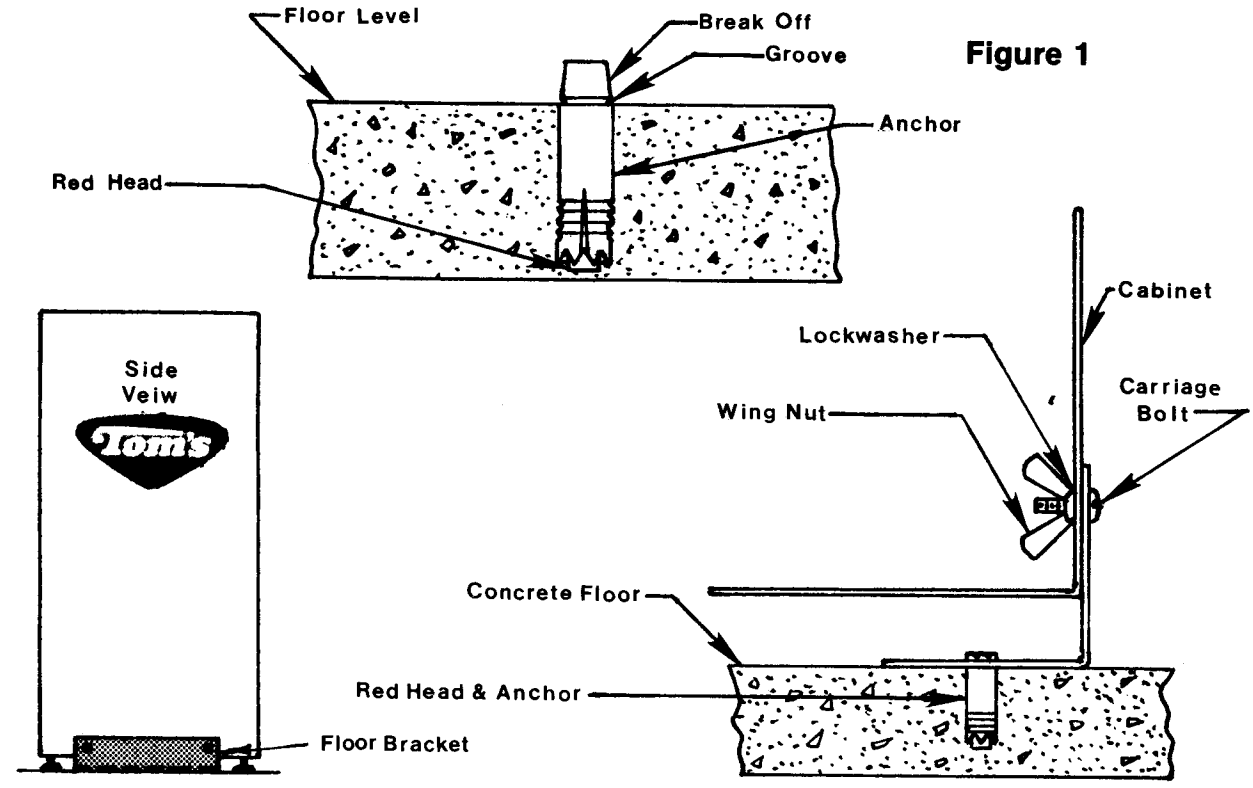

Figure 1

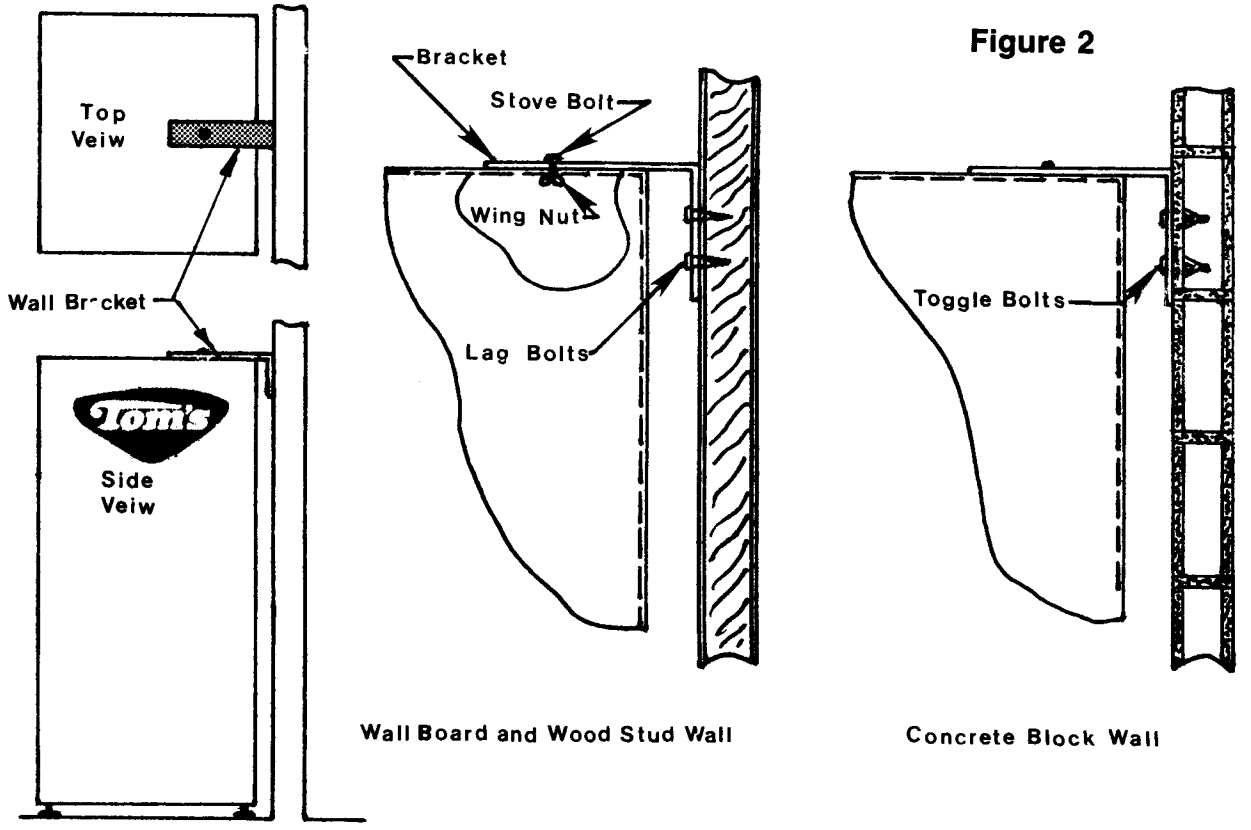

Figure 2

Wall Board and Wood Stud Wall

Concrete Block Wall

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PRODUCT LOADING

All product loading of the H-22 is accomplished from the front. Using one of the two keys provided, open the service door in the top of the machine. This provides access to all dispensers.

To load any dispenser, lift its cover bar assembly and gently pull the helical conveyor out of its socket, (see FIG. 3). Hold it by the front tip and load all new products face forward over the rear hub to maintain a "first out" product flow. After loading, there should be one product on each position of the conveyor (see FIG. 4).

To insert loaded conveyor, lift up the cover bar assembly and push firmly into the motor socket until a "snap" is felt. This "snap" is the detent spring engaging, which assures the conveyor is fully seated and cannot fall out.

The procedure is repeated for each dispenser until the machine is fully loaded.

Figure 3

Chip products conveyor has 10 vending positions, four of them shown by arrows below:

Figure 4

STORAGE COMPARTMENT

The storage compartment (FIG. 5) has 6 cubic feet of space to be used for storing extra products, spare parts or dispensers. It is a versatile compartment to be used as each operator chooses. This compartment is located in the bottom of the H-22 and may be opened with the same key that opens the product loading door.

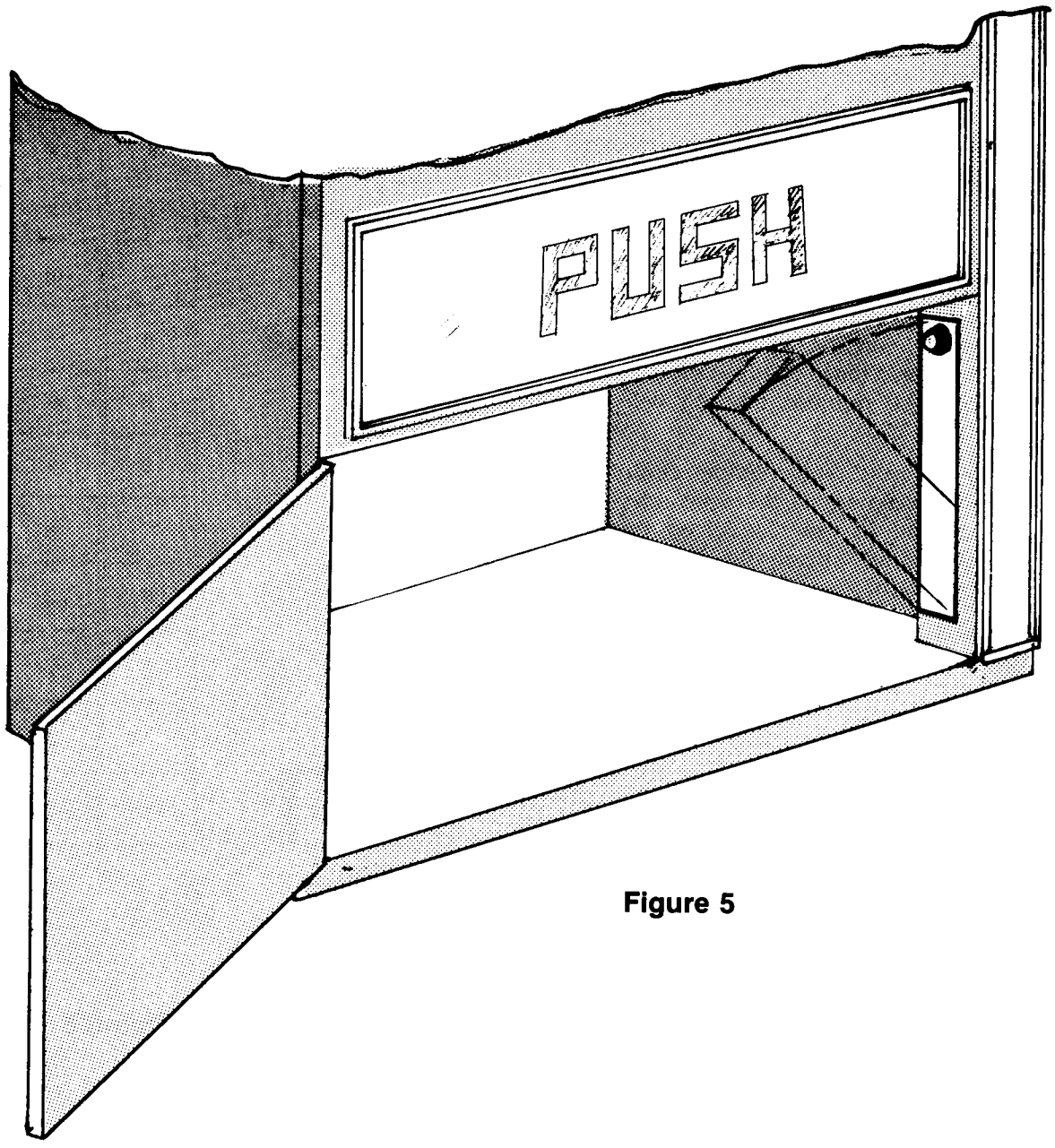


Figure 5

COIN COLLECTION

The coin bank is located in the storage compartment in the right-hand corner as shown in FIG. 5. The second key supplied will open the coin bank. Insert the key, press in and rotate 1/4 turn counterclockwise to unlock the bank. Allow the bank to tilt to the left until it can be lifted out. Remove the coins and replace by reversing the procedure.

OPERATION

The H-22 Single Price Automatic Rack Merchandiser is operated as shown in FIG. 6.

A-Coin mechanism supplies a 75 milli-second pluse to vend relay, closing it.

B-Vend relay now is "locked on" to ladder circuit of all dispenser motors. (22 through 1)

C-Energized vend relay opens normally closed circuit to "coin blocking" relay to prevent further acceptance of coins.

D-Energized vend relay also closes circuit to selector switch ladder circuit. (22 through 1)

E-When any selector switch button is pressed, all circuits higher in number will be broken to prevent cheating and the dispenser motor unit associated with the number pressed will be started.

F-Upon starting any vend motor, ladder circuit B will be broken to deenergize the vend relay. A "carry over" switch in the dispensing motor assembly continues supplying power to complete one rotation.

The vend cycle is complete and the merchandiser is ready for another sale.

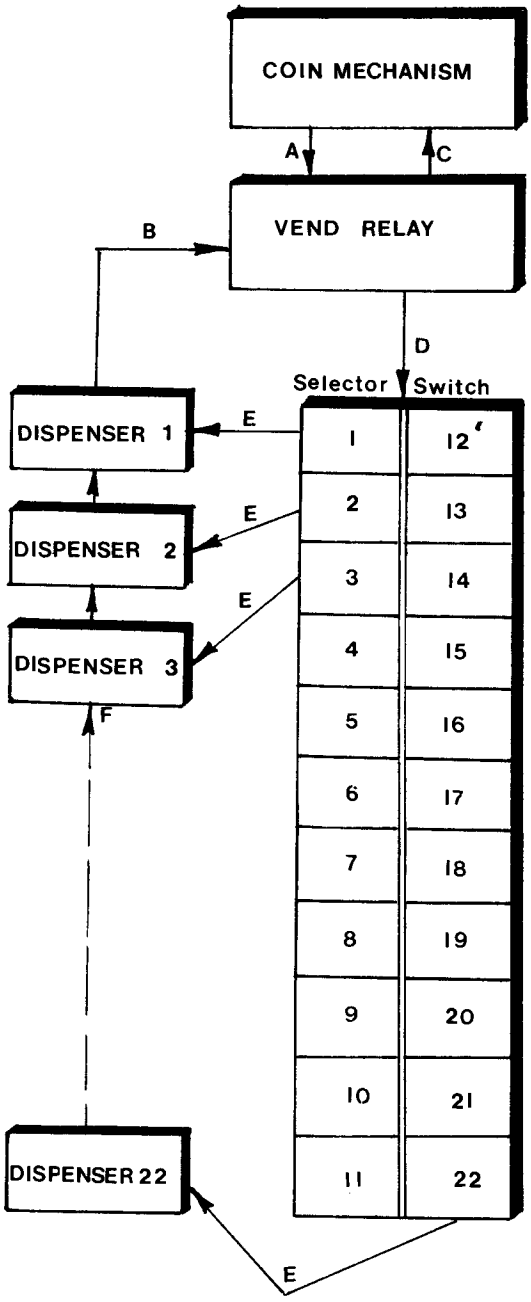


Figure 6

DISPENSERS

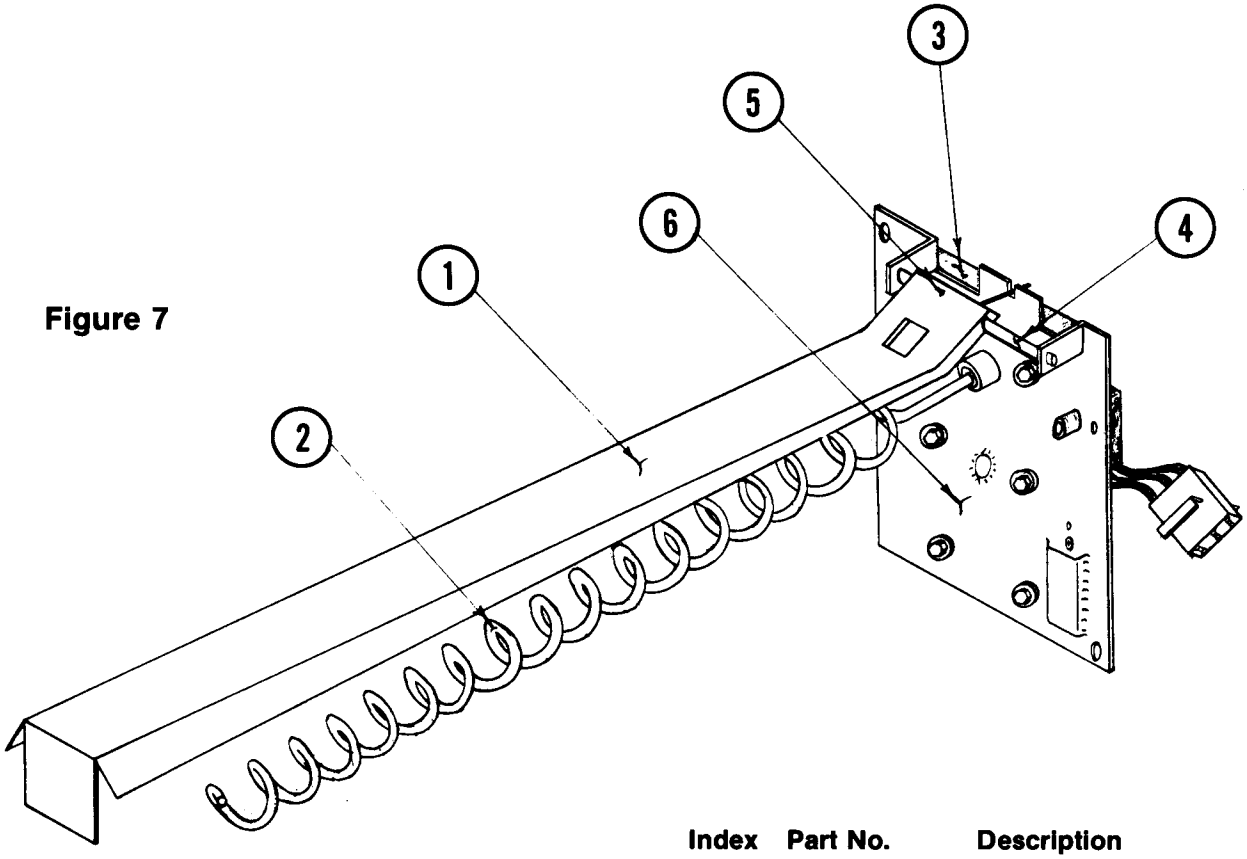
FIG. 7 illustrates the dispenser unit used in the H-22. The 3 basic components as labeled in FIG. 7 are:

(1) Cover Bar
(2) Spindle conveyor
(3) Motor Assembly

When a product selection is made (see section E of operation), an electric signal starts the motor, turning the helical conveyor one complete rotation. This operation advances all products forward dispensing the front selection into the delivery compartment.

The cover bar has three functions. It discourages theft through shaking the machine, provides a number on the front tab for product selection with the matching number on the selector switch assembly, and presents a more attractive appearance to the machine by concealing the conveyor.

Figure 7



Index	Part No.	Description
1	14329-01	Cover Bar
2	10033	Conveyor, 15 Positions
2	10034	Conveyor, 10 Positions
3	10231-01 10231-02	Motor Assy.-Single Price
3	14322-01 14322-02	Motor Assy.-4 Price
4	14343	Pivot Pin
5	14318	Cover Bar Spring
6	13519-01 13519-02	Motor Faceplace

Suffix -01 = White, -02 Putty Grey

ELECTRICAL

The H-22 Single Price Automatic Rack Merchandiser operates from a primary power source of 115 volts, 60 cycle A.C. This power source is reduced through a transformer to a secondary source of 24 volts, 60 cycle A.C. which supplies power to the entire machine with the exception of the fluorescent lighting. The low voltage system offers greater protection in the servicing and maintenance of the machine. The electrical schematic (FIG. 10) shows the entire electrical system.

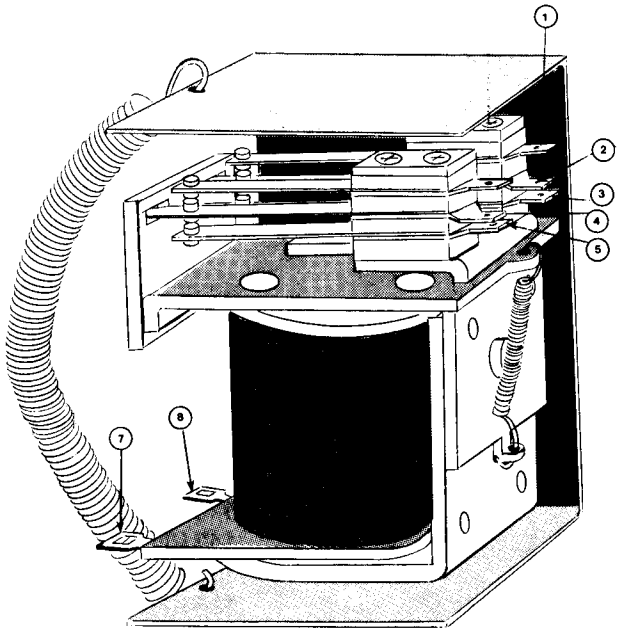
The Polyvend H-22 with "tilt out" power panel is illustrated in this service manual. Some electrical components have been relocated from behind the sliding door of the old style H-22 to the tilt out power panel. A list of these components is given in this service manual. The components that are mounted to the power panel are accessible by following the steps on page 11.

Some components on the power panel have 115 volts supplied to them (ballasts, transformer etc.) therefore care should be taken when servicing these components. The selector switches, coin changer, motors, and relay are all supplied with 24 volts from the 24 volt side of the transformer. The operation electrical schematic, trouble shooting, and relay hook-up are identical for the old style H-22 and new style H-22.

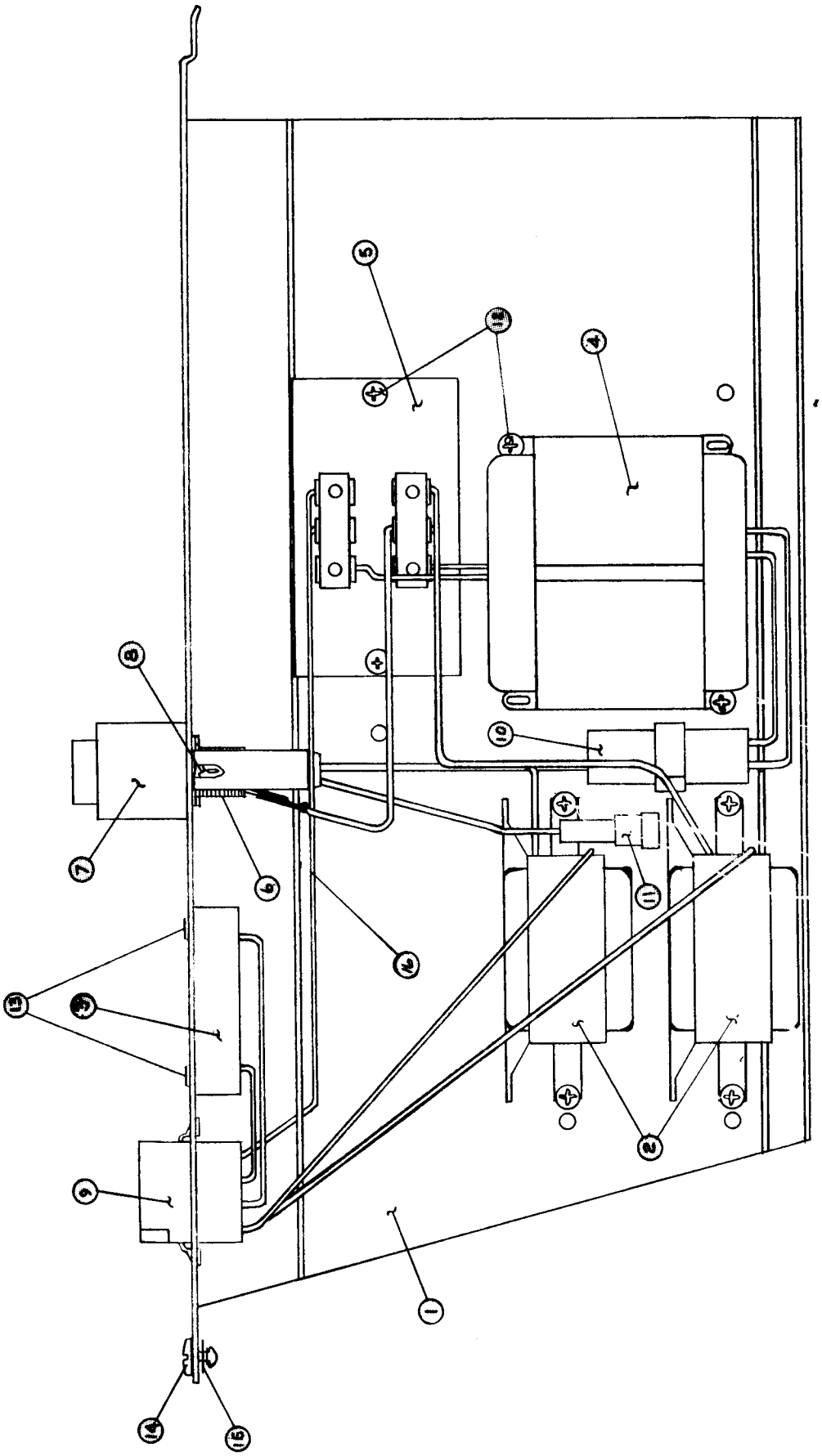
If the vend relay fails, it is replaced by detaching (pulling) the relay from its bracket (held only by a spring) and pulling each wire from its terminal. The new relay may then be installed by connecting the red wire to 1 (in FIG. 8), the green wire to 2, the yellow wire to 3, the orange wire to 4, the brown wire to 5. On the opposite side of the relay, the yellow wire is attached to 7 and the white wire to 8.

The fuse can be replaced as required by turning the red cap on the bottom of the fuse holder toward the rear of the machine until it falls free. The fuse can then be replaced with a new one.

Lighting from the H-22 is supplied by two 15 watt fluorescent lamps located on the left side and top of the product compartment.



Vend Relay
Figure 10



Power Panel Complete C-12693

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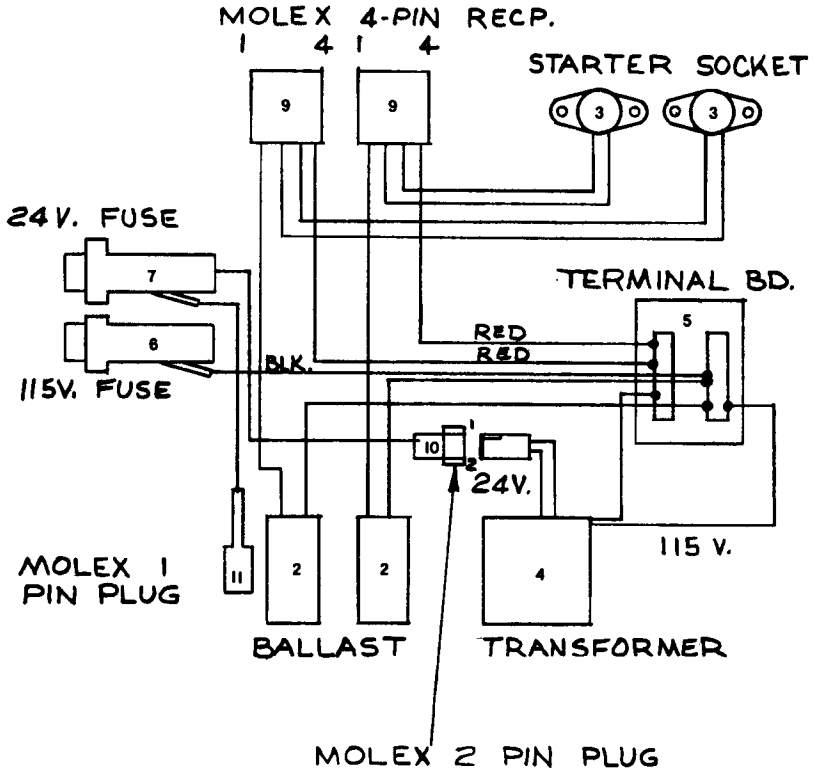
Item	Qty.	Part No.	Description
1	1	12706-01	Panel-Power
2	2	104	Ballast-115 Volt
3	2	1466	Socket-Starter
4	1	1565	Transformer with receptacle
5	1	1652	Board-Terminal
6	1	996	Fuseholder-115 Volt
7	1	1487	Fuseholder-24 Volt
8	1	1489	Clip-Mounting
9	2	4839	Receptacle-4 pin
10	1	4844	Plug-2 pin
11	1	4842	Plug-1 pin
12	8	1298	Screw
13	4	302	Screw
14	1	12667	Fastener-¼ turn
15	1	12668	Retainer-Fastener
*	8		Female Term.
*	2		Male Term.
*	8		.250 Quick Dis-connect
*	1	12671	Decal-Starter
*	1	12672	Decal-Fuse
16	Typ.		(Red) 20 AWG 7/28 B.C. .023 SAE-GBT
*	1	222	Fuse 2 Amp (115V Holder)
*	1	1488	Fuse 3.2 Amp (24 Volt Holder)

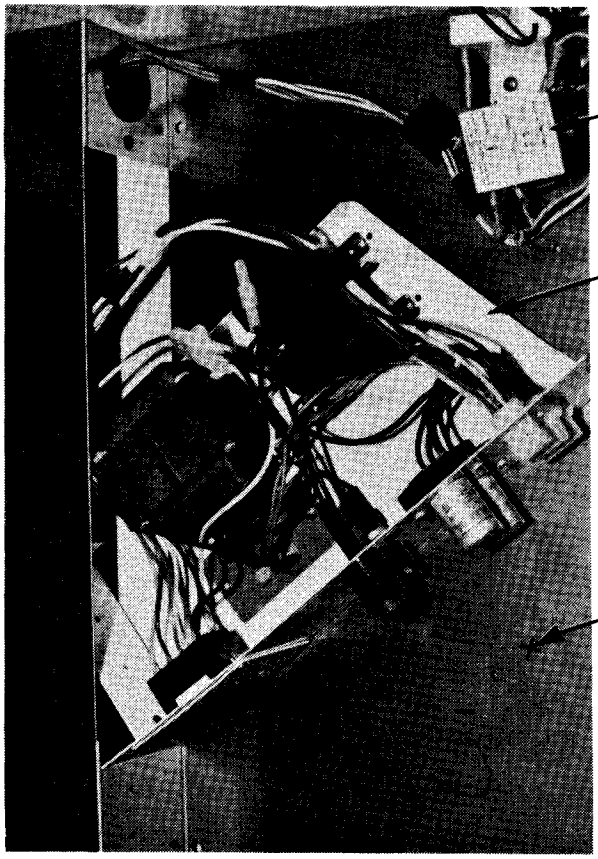


Wiring Sketch ITEMS 2,3,4,5,6,7,9,10,11

- To gain access to the components mounted on the tilt out power panel:
  - Turn power to machine off (unplug service cord from wall outlet).
  - Open product loading door.
  - Push sliding door back to expose power panel.
  - Locate retaining screw at top of power panel and turn it ¼ turn.
  - Tilt top of panel out.
- To remove power panel:
  - Follow steps above.
  - Lift panel up and out.
  - Unplug quick-disconnects
  - Replace by reversing the steps above.

New Part Numbers (Not on power panel.)

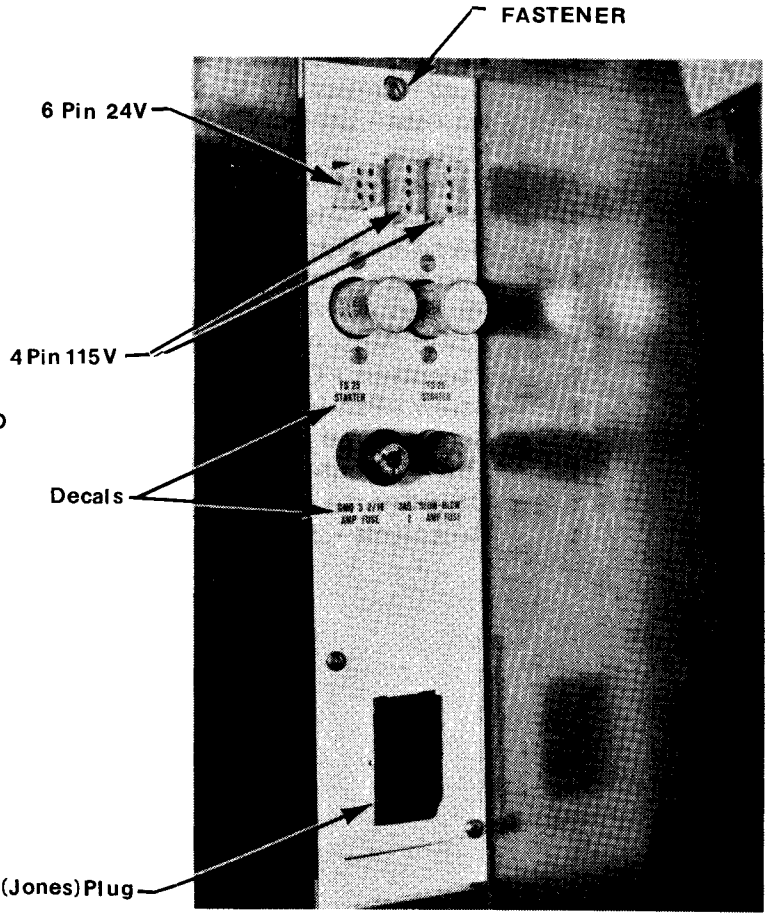
Part No.	Qty.	Description
1961	1	Bushing - Snap 1½
12747	1	Cord - Service (12 ft.)
12664	1	Harness - Correct Change
12689	1	Harness - Jones Plug (Changer)
12694	1	Harness - Motor
12678	1	Harness - Relay
1629	1	Harness - Side Lamp
1520	1	Harness - Top Lamp
12708-01	1	Panel W.A. - R.H. Inner
12693	1	Power Panel Asy. - Complete
12669	1	Receptacle - Clip-on
1868	1	Screw - Pan Hd. #8
1715	1	Screw - Type AB Pan Hd. #8
5365	1	Strap - Ground
12748	1	Cord-Service, 12 inches
8536	1	Receptacle - 3 pin



TILT OUT POWER PANEL

Fig. 1 H-22 & H-12*

*On H-12 Omit One (1) Ballast, Starter, and Starter Socket



POWER PANEL CLOSED

Fig. 2

JONES PLUG BOARD PIN 5 & 7
MAKE SELECTION LIGHT COMES ON SHOULD NOT.

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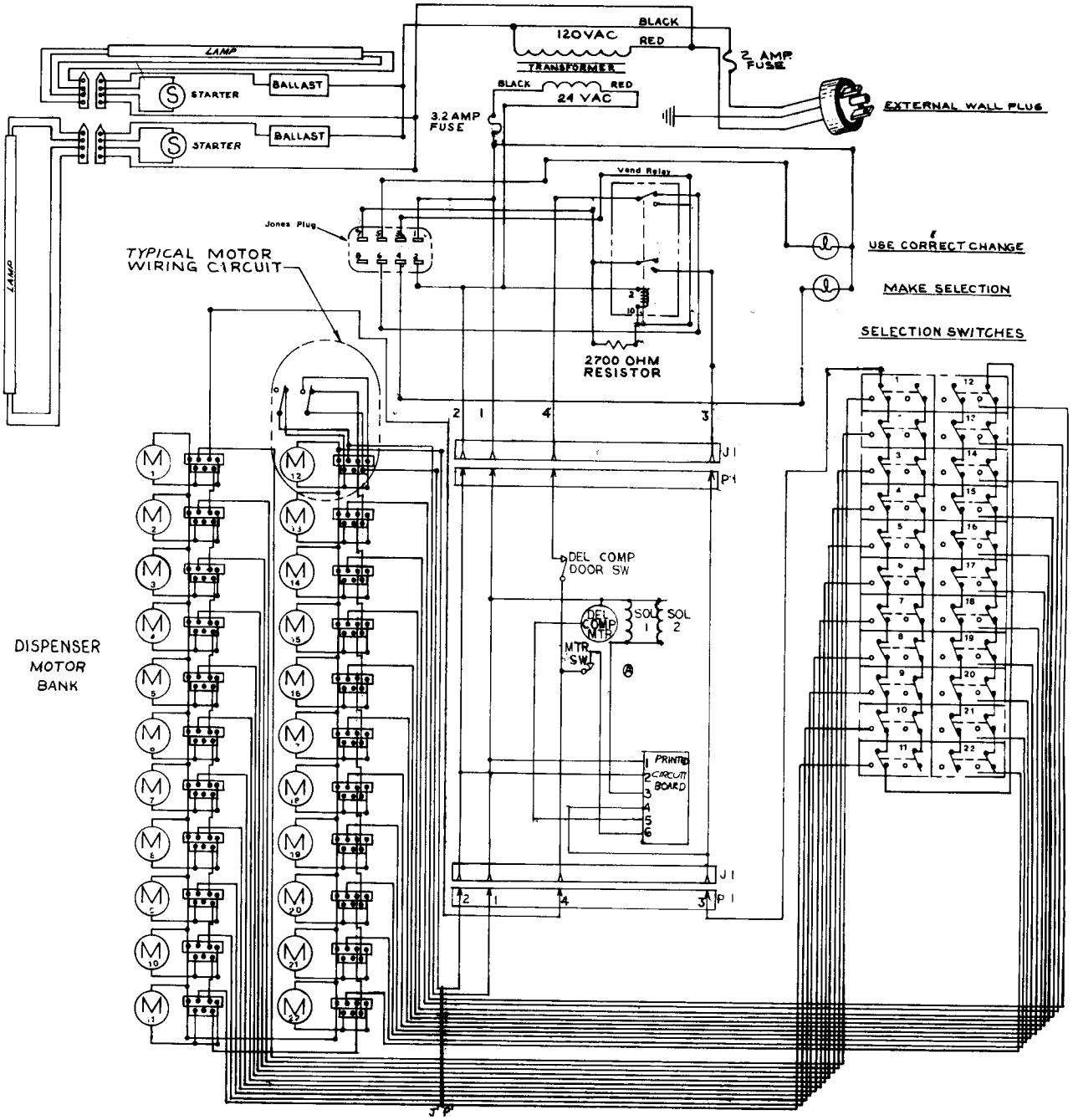
TO TEST VEND RELAY SHORT ORANGE & BROWN
RELAY SHOULD CLOSE MAKE SELECTION
NOW IF CLOSES ORANGE WIRE FROM PIN 7 OF JONES PLUG HAVE A BREAK.



SELECTOR SWITCH

The #22 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 phillips head screws and disconnecting it from the machine harness connector is located in the upper rear portion of the storage compartment.

PRODUCT DELIVERY COMPARTMENT

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

- Remove display compartment bottom.
- Remove the left side panel.
- Remove the right side panel and sliding door.
- Remove 3 screws on the front inside edge of the delivery compartment.
  NOTE: Support the compartment while removing the last screw to prevent dropping.
- Lift up compartment to release it and lower it into the storage compartment.
- Open storage compartment and remove.
- Reverse procedure to replace.

REAR ACCESS PANEL

A large access panel is provided on the rear of the H-22. Its only purpose is to permit access to the wiring in the rear of the machine. To remove it, dispenser motor assemblies #1 and #18 must be removed to gain access to the two screws holding the panel. In removing these screws, be sure that the panel is supported externally from the rear. If unsupported it can fall.

H-22 TROUBLE SHOOTING — Single Price

- MACHINE WILL NOT ACCEPT COINS
- Make sure it is plugged into power at the wall outlet. (Look to see if fluorescent lamps are on.)
- Check for credit on the machine by attempting a selection.
- Check machine for leveling. (Such a condition can cause rejected coin to drop through rejector mechanism.)
- Check type of coin changer in machine. It must be a 24 volt Single Price unit. If not, replace.
- Check coin rejector scavenger for full release. If it is not releasing, clean and repair or replace rejector mechanism.
- Attempt to close vend relay by hand. If the vend relay will stay closed, locate the coin equipment plug and make sure it is connected and has no loose connections or wires.
- Check vend relay contacts between the red and green wires. They must be making contact. If all connections and contacts are all good, change the coin changer.
- Manually rotate dispensing conveyor #22 counter clockwise. If it electrically picks up and completes one cycle, repeat for dispensing conveyor #1. If one fails to operate, the ladder circuit between 22 and 1 is broken. Locate break by testing each dispenser in order, beginning with #21, #20, #19 etc. until the first dead position is found. This dead dispenser motor assembly, the next higher number assembly, or wiring between the two is faulty.
- If dispenser #22 did not complete its cycle above, check 24 VAC power supply by activating the manual payout on the coin changer. If it does not operate, the fuse is blown, wiring is defective or the transformer has failed. Check fuse and wiring before replacing the transformer.
- Coin changer should now accept coins.

- MACHINE WILL ACCEPT ALL COINS BUT...
  - No selection can be made.
    - Check brown wire continuity. This wire runs from selection #1 on the selector switch through the connectors located in the back of the storage compartment, and from there to the vend relay terminal in the control panel area.
    - Check for good continuity through brown and orange wire contact setting on vend relay. When relay is energized, these should be in contact.
    - Check for good continuity through green and yellow wire contact setting on vend relay. When relay is energized, these should be in contact.
    - Check orange wire continuity. This wire runs from the vend relay through the connectors located in the back of the storage compartment to the receptacle for the changer's Jones plug. (Shown on Page 22)
    - Check for a coin lodged in the coin path of the changer at the coin credit switches.
    - Check for defective vend switch in the coin changer. This is normally checked using a coin changer test stand.
    - Check the continuity of the selector switch at #1 position when switch is depressed.
  - Only one selection cannot be made.
    - Determine fault by substituting an operational motor assembly in this position. If motor assembly now functions properly, the replaced one needs repair. If not, the wiring is faulty.

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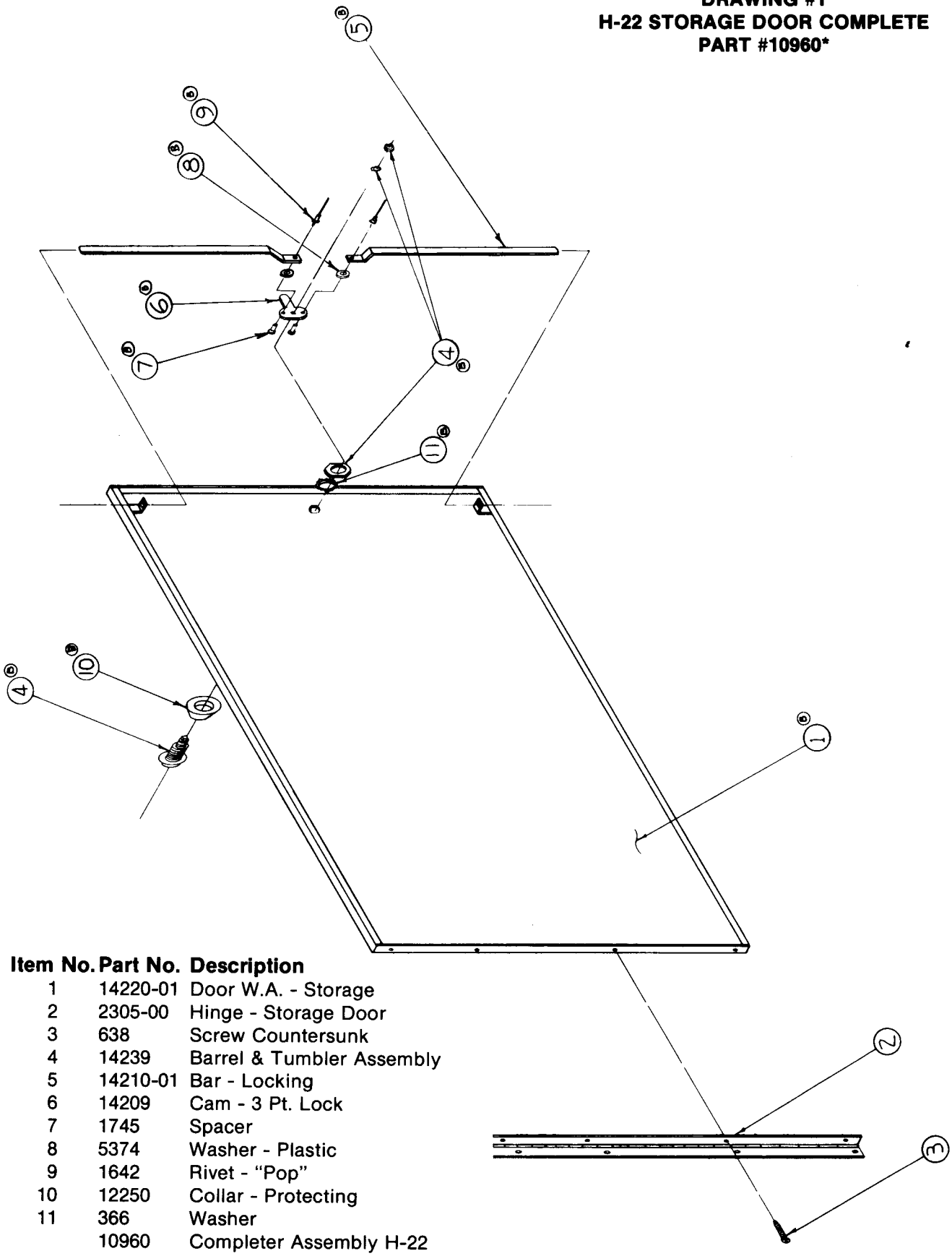
DRAWING #1
H-22 STORAGE DOOR COMPLETE
PART #10960*

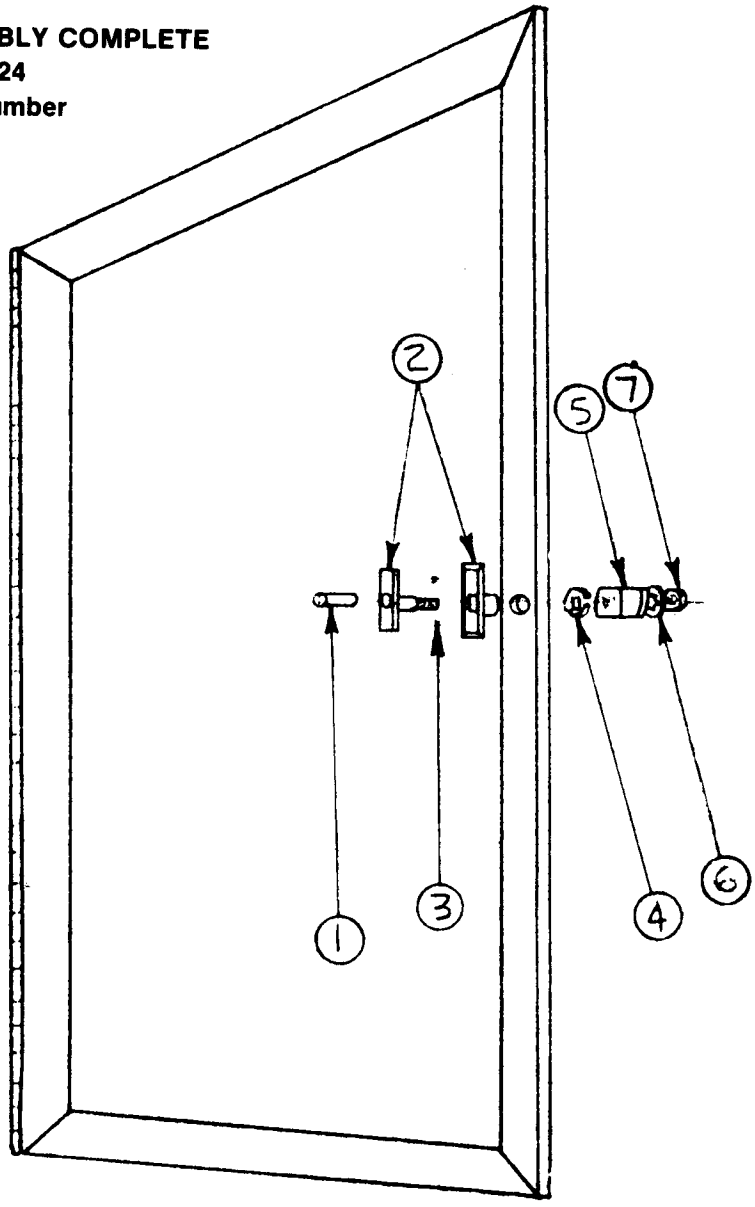


Item No.	Part No.	Description
1	14220-01	Door W.A. - Storage
2	2305-00	Hinge - Storage Door
3	638	Screw Countersunk
4	14239	Barrel & Tumbler Assembly
5	14210-01	Bar - Locking
6	14209	Cam - 3 Pt. Lock
7	1745	Spacer
8	5374	Washer - Plastic
9	1642	Rivet - "Pop"
10	12250	Collar - Protecting
11	366	Washer
	10960	Completer Assembly H-22
		Complete Assembly H-22
		Door W.A. - Storage H-22

*Specify Key Number

T HANDLE LOCK ASSEMBLY COMPLETE
PART # 14324
Specify Key Number

GLASS DIM. 25 13/16 x 36 3/16 x 3/16"



Item	Part No.	Description
1	14326*	Cylinder
2	11537	T Handle Assembly
3	746	Screw
4	11539	Stop Cam
5	14317	Lock Cam
6	1680	Lock Washer
7	11538	Hex Nut

* Specify Key Number

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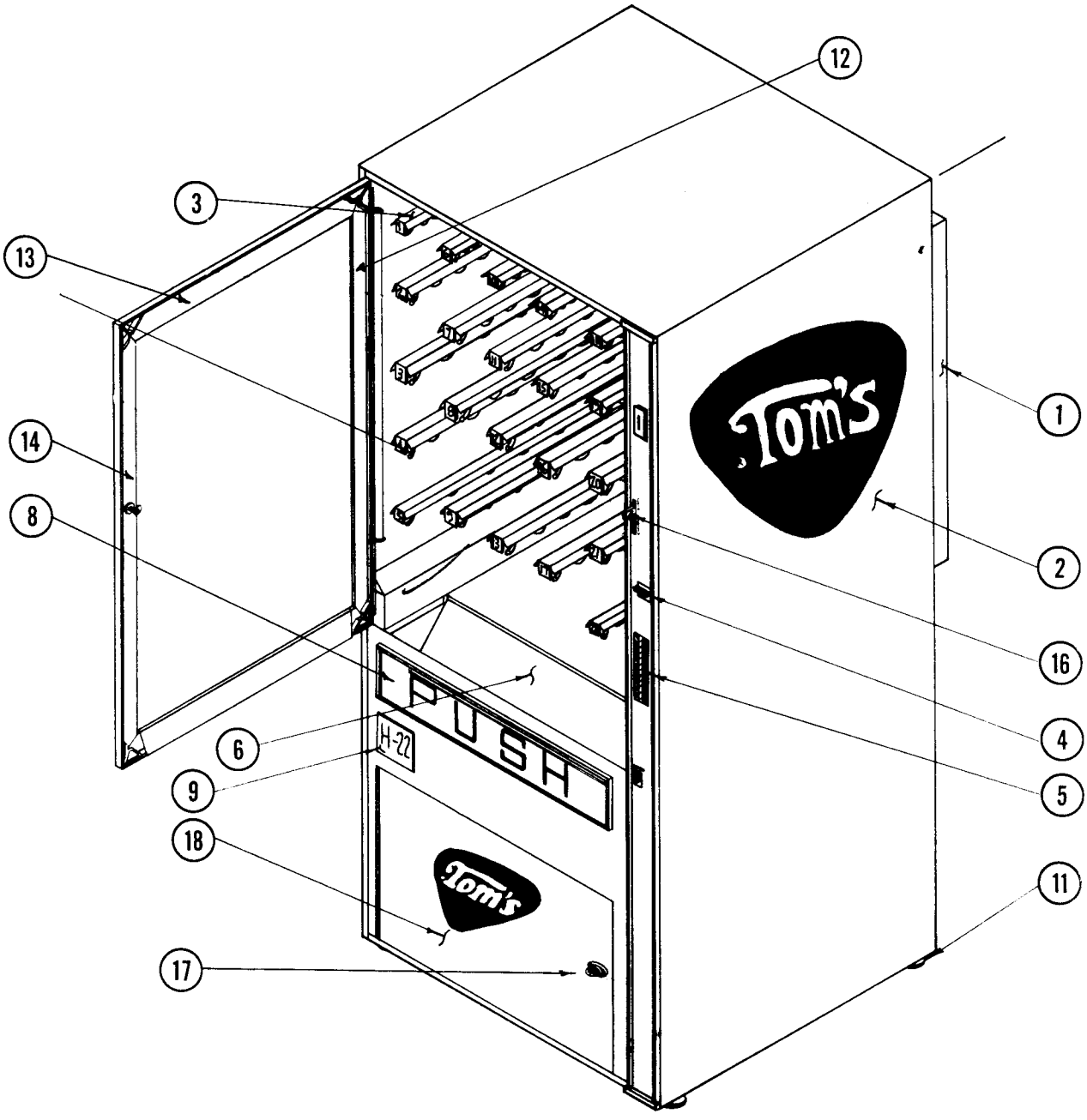
Index	Part No.	Description
1	11185	Rear Door Assembly w/Screens-New Style
2	11009	Outer Shell
3	10208	Conveyor Cover Bar & Sold out Wire Loop, Sub-assembly
	10208	Cover Bar
4	1592	Indicator Light - Double "make Select & Correct Change"
5	10199	Selector Switch complete (w/Harness & Buttons)
	1627	Selector Button (Specify Number)
	11311	Selector Button Inserts (Specify Number)
	599	Selector Button Caps
6	10431	Anti-theft door - New style with roll pins
8	1851	Plexiglass product Deliver Door
9	522	H-22 Name Plate
11	12766	Leg Equalizer
12	1240	Door Extrusion Left Side without hinge
13	1241	Door Extrusion - Top or Bottom
14	1235	Door Extrusion - Lock Side
16	11031	Reject Lever Assembly
17	10115	Storage Compartment Door Lock Assembly
18	5137-01	Storage Compartment Door Assembly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1
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16
4
5
11
Tom's
PUSH
H-22
Tom's

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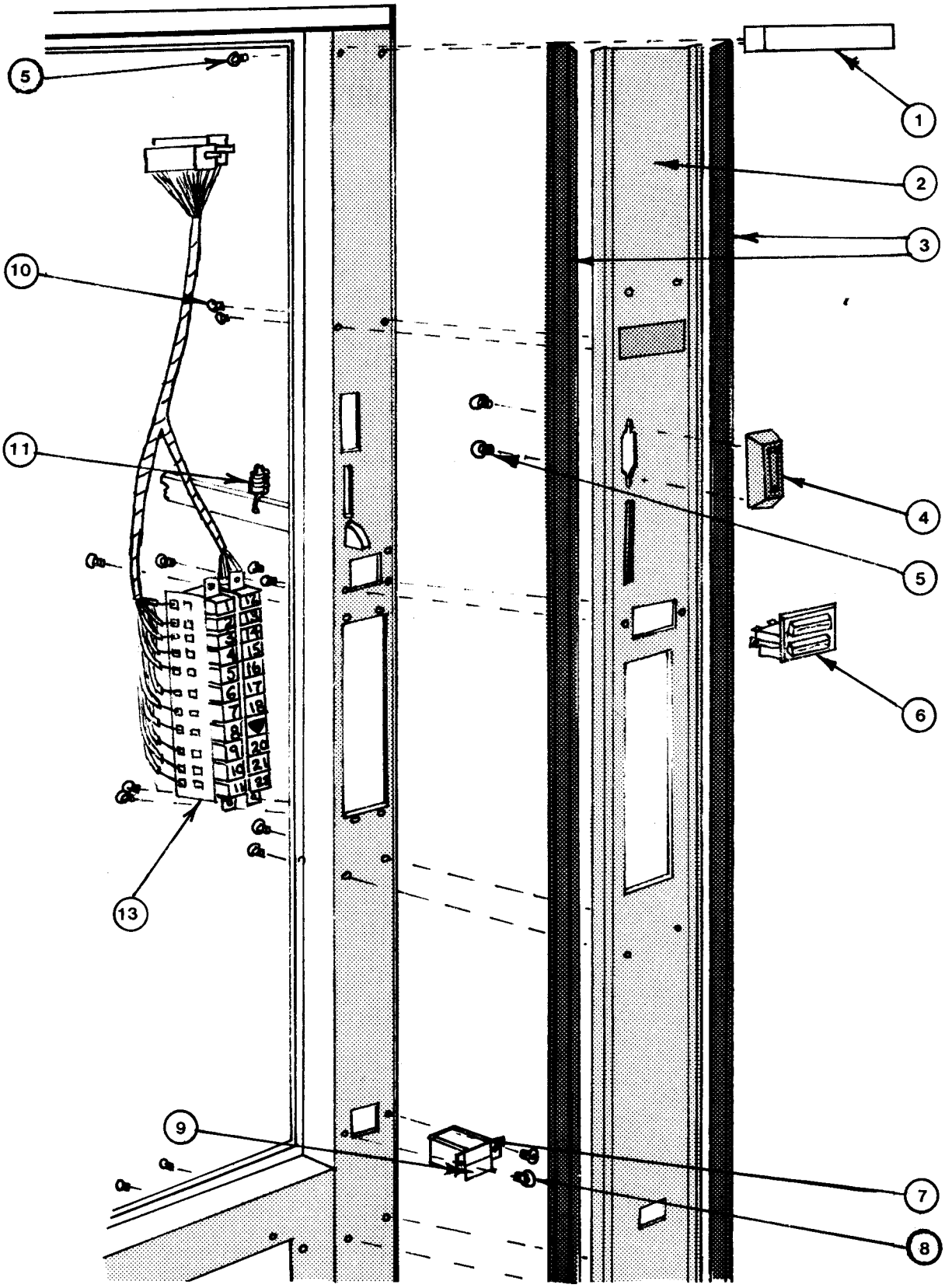
Index	Part No.	Description
1	4960	Trim Cap
2	12618	Escutcheon Plate
3	4989-2	Side Trim for Escutcheon Plate (Black)
4	4959	Coin Insert Casting
5	1465	Screw, #8-32x3/8 Machine
6	1592	Indicator Light-Double "Make Select & Correct Change"
7	10342	Coin Return Cup Assembly-Complete
8	0729	"Pop" Rivet #SD-42-BS
9	0577	Coin Return Door - Only
10	1293	Screw #8x3/8 "AB"
11	0084	Spring - Reject Lever
12	0793	Bracket - Selector Switch
13	10199	Selector Switch Complete with Harness & Buttons
	1627	Selector Button (Specify Number)
	0599	Selector Button Caps
	11311	Selector Button Inserts (Specify Number)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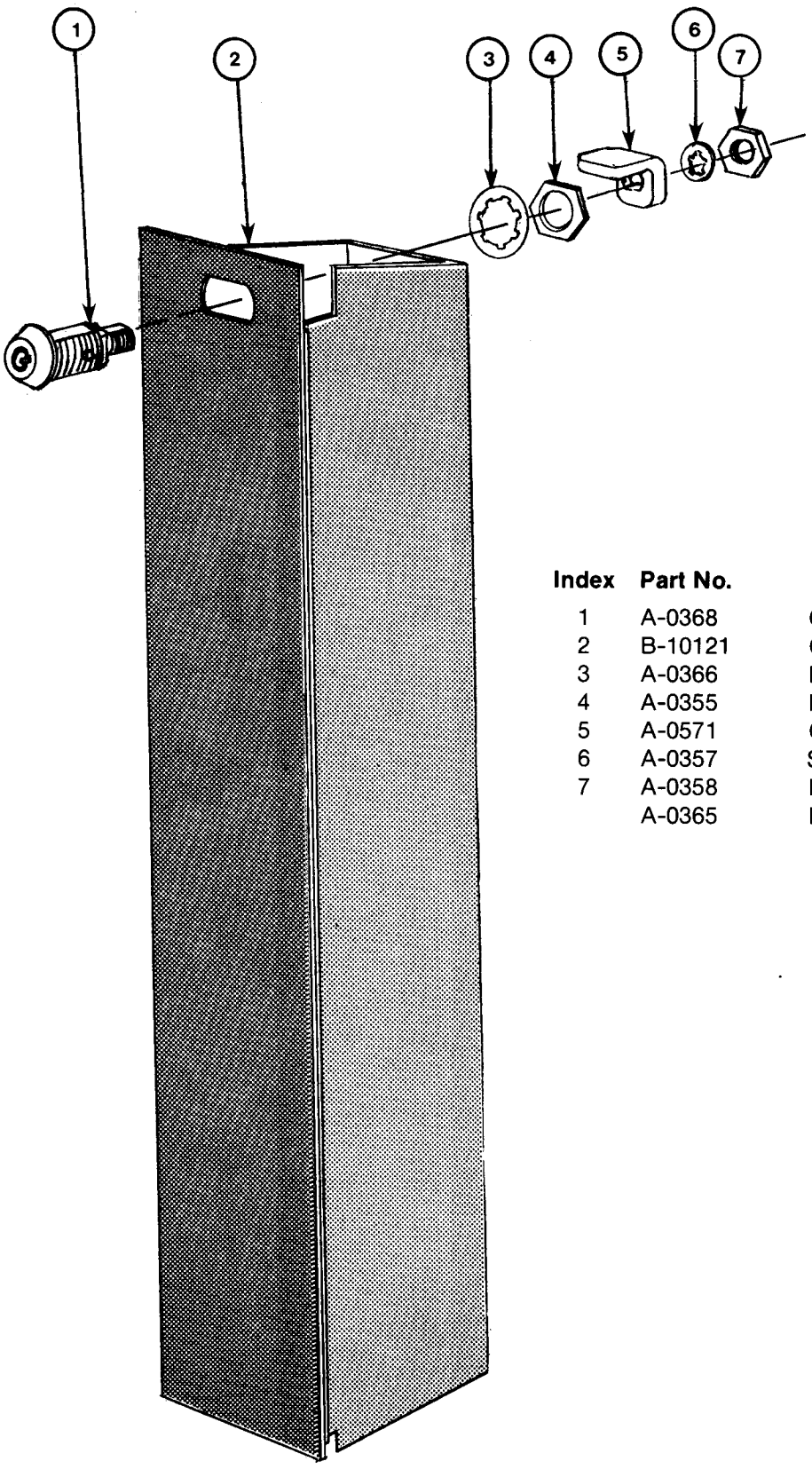

Index	Part No.	Description
1	A-0368	Chicago Lock, CCW Keyed MST
2	B-10121	Coin Bank
3	A-0366	Lock Washer
4	A-0355	Hex Nut
5	A-0571	Cam
6	A-0357	Shakeproof Lockwasher
7	A-0358	Hex Nut
	A-0365	MST Key, For No. A-0368

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H-22
Parts Price List

Twenty-Two Selection Snack Machine

Part Number	Description	Price
10205-01	Actuator WA-Sold Out	1.150
10205-02	Actuator WA-Sold Out	1.150
10432-01	Arm WA-Channel	6.100
12406-01	Arm WA-Door	.850
12406-02	Arm WA-Door	.850
12407	Arm WA-Elevating	4.300
13237-00	Arm-Motor	.347
13237-01	Arm-Motor	.500
13405-04	Arm-Rachet Assy. L.H.	1.210
13405-02	Arm-Ratchet Assy. L.H.	1.060
13405-01	Arm-Ratchet Assy. R.H.	1.060
13405-03	Arm-Ratchet Assy. R.H.	1.210
13255-02	Arm-Ratchet L.H.	.400
13255-01	Arm-Ratchet R.H.	.400
13236-01	Arm-Sliding Tray	.550
13332	Arm-Switch	.200
13454	Baffle-Left Side	6.780
10121-01	Bank WA-Coin	4.000
10208	Bar Assy.-Cover	3.000
13416	Board Assy.-Pc.	37.000
1841	Bottom-False	2.510
13402	Bracket	.260
13395	Brkt.-Anti Theft	.270
13490	Brkt.-Anti Theft	1.660
13453	Brkt.-Chute Sldg. Tray	.280
1416-01	Brkt.-Reject Lev. Mtg.	.240
11734	Brkt.-Selector Switch	.172
8439-01	Brkt.-Side Lamp	1.510
8439-02	Brkt.-Side Lamp	1.460
795-01	Brkt.-Top Lamp Mtg.	1.830
795-02	Brkt.-Top Lamp Mtg.	1.780
868	Brkt.-Vend Relay	.450
8438-01	Brkt.-Wire Cover	.360
8438-02	Brkt.-Wire Cover	.360
13245	Btm. & Back-Del. Compt.	5.380
13222	Btm.-Del. Compt. Tray	2.920
13254	Btm.-False, Slide Tray	2.000
13434	Bumper-Snap	.070
326	Bumper-Snap In.	.040
842	Bumper-Snap In. Rubr.	.050
13387	Bushing-Ratch. Arm	.46
1961	Bushing-SB-1500-21	.100
730	Bushing-SB-437-5	.020
2438	Bushing-SR-6N3-4	.060
1531-01	Cam-Double Offset	.350
3548	Cam-Lock 7235	.210
8498	Cam-Lock, Nat.	.350
8499	Cam-Lock, Nat.	.430
8500	Cam-Lock, Nat.	.410
571	Cam-Lock, 7-586	.290
4960	Cap-Trim	1.45
4959	Casting-Coin Insert	1.170
10689	Chain-Candy Mod., H-22	1.500
12746	Changer 08-52-005	104.020
5741	Changer-S759802807	103.600
1907	Changer-08-56-005	104.020
11029-01	Chute WA-Coin	3.030
13223	Chute-Sliding Tray	4.150
8538-01	Clamp-Cable 3/8	.090
8538-02	Clamp-Cable-5/8	.180
10469-01	Compt. Assy.-Del.	20.860
10469-02	Compt. Assy.-Del.	20.250
10495	Compt. Assy.-Del.	64.850
11099	Compt. Assy.-Del.	65.020
13249-01	Compt. WA-Delivery	38.460
12747	Cord-Service	3.060
12748	Cord-Service	.880
12259	Conterweight-Door	.540
731-01	Cover-Conveyor	2.100
13455	Cover-Inner L. Side	13.160
13355-01	Cover-Pc. Board	.970
10342	Cup Assy.-Coin Return	3.750
10230	Cup WA-Coin Return	1.900
1940	Cup-Dispensing	.38
1790	Decal-Sel. Number	.52
5213	Decal-Sel. Number	.540
11540	Decal-Warning	.070
13428-01	Del.-Compt. Assy.	156.000
11010-01	Door Assy.-Rear	17.400
10113-01	Door Assy.-Service	40.000
10960	Door Assy.-Storage	11.080
10431-01	Door WA-Anti-Theft	17.410
10431-02	Door WA-Anti-theft	17.150
11185-01	Door WA-Rear	15.520
577	Door-Coin Return Cup	.500
5263-01	Door-Del.	9.500
1851-01	Door-Del. Red Push	8.400
11915	Door-Plastic Svc.	88.000
5157-01	Door-Sliding	5.340
5157-02	Door-Sliding	5.100
5137-01	Door-Storage Compt.	9.460
4620	Door-SVC	62.950
11185-02	Door-WA Rear	15.560
13457-01	End WA-Chute L.H.	4.000
13457-02	End WA-Chute R.H.	4.000
13221-01	End-Chute L.H.	1.890
13221-02	End-Chute R.H.	1.890
12766	Equalizer-Leg E. Slot	.580

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Part Number	Description	Price
5946	Extension-Lock	.900
12615	Extrusion-R.S. Trim	5.630
4174	Extrusion-Trim	5.020
13381	Filler-Del. Compt.	.300
10217-01	Fixture Assy.-Light	3.150
10217-02	Fixture Assy.-Light	3.100
11362-01	Fixture Assy.-Light	3.360
11362-02	Fixture Assy-Light	3.300
1488	Fuse-GMQ 3	.550
222	Fuse-MDL 2	.320
10686-01	Gusset WA-Cover Bar	2.160
12664	Harness-Correct Chg.	1.100
12677	Harness-Correct Chg.	.95
12689	Harness-Jones Plug	7.000
1520	Harness-Lamp	1.100
1629	Harness-Lamp	1.540
12694	Harness-Main Motor	20.480
12891	Harness-Relay	1.440
2305-02	Hinge-Strg. Dr.	1.26
2305-01	Hinge-Strg. Dr., CRS	.720
2305-00	Hinge-Strg. Dr., ZP	.650
8656	Hopper Assy.-Coin	3.470
4624	Insert-Del. Trim	.150
4625	Insert-Del. Trim	.150
4626	Insert-Del. Trim	.630
4622	Insert-LWR Trim	.840
4990-03	Insert-Price 25C	.150
4990-04	Insert-Price 30C	.150
13396	Insulation-Solenoid	.040
12023	Kit-Floor Seal	3.42
1804	Label-U.L.	.100
1703	Label-Vend Relay	.020
1592	Lamp-Change & Selct.	1.390
546	Lamp-F18T8/CW/K28	2.170
5262	Lamp-Indicator, Amber	1.200
11031-01	Lever WA-Reject	3.110
4864	Lever-Reject	.720
10231-01	Motor Assy.	11.000
11794	Nut-Hex #4-40	.010
1958	Nut-Hex #8-32	.010
355	Nut-Hex SP 3/4-10	.11
11520	Nut-Hex SP 3/4-24	.100
1788	Nut-Hex SP 3/4-27	.160
358	Nut-Hex SP 9/32-28	.080
2385	Nut-Hex 1/4-20	.020
533	Nut-Weld #8-32	.090
1296	Nut-Weld #8-32	.020
5165	Pad-S/S	.91
11246-01	panel WA-Motor Mtg.	27.100
11246-02	Panel WA-Mtr. Mtg.	26.950
13246-01	Panel-Del. Compt. L.H.	3.950
13246-02	Panel-Del. Compt. R.H.	3.950
12693	Panel-Power	27.220
12707	Panel-R.H. Inner	7.540
12708-01	Panel-WA-R.H. Inner	11.780
12708-02	Panel-WA-R.H. Inner	11.280
10073	Pin WA-Pivot	.200
1272	Pin-Roll 3/32x5/8	.010
5164	Pkg.-Carton Cap D/C	1.420
5163	Pkg.-Flange Tube H-22	7.070
1293-04	Plate-Date, H-22	.880
12618-01	Plate-Escutcheon	6.050
12618-04	Plate-Escutcheon	6.890
5189-02	Plate-Instruction	5.340
1250-01	Plate-Lock Reinf.	.100
1302	Plate-Patent Notice	.140
1414	Plate-Rej. Lever Cov.	.26
13248-00	Ratchet WA-Channel	9.130
13248-01	Ratchet-WA Channel	9.780
8536	Raceptacle 3-Pin	.090
12669	Receptacle-Clip-On	.130
1806	Rejector-81-15-353	26.000
10184	Relay Assy.-H-22 SP	5.540
12678	Relay Assy.-Vend	7.760
1817	Retainer-Del. Comp. Dr.	.200
1935-01	Retainer-Front Shaft	.210
13276	Ring-E, 5133-37	.080
2559	Ring-E, 5133-25	.050
2225	Ring-Grip 5555-31SZF	.040
851	Ring-Silver Solder	.040
642	Rivet-Drive 125DX187	.060
13404	Rivet-Pop	.050
729	Rivet-Pop 125DX232	.010
1642	Rivet-Pop 125DX419	.020
13240	Rod-Door	3.410
766	Screen-Fbrglas. 18x16	.130
766-01	Screen-Rear	.070
766-01	Screen-Shell BTM	.070
4737	Screw-Mch. Pan. #10	.020
1465	Screw-Mch. Pan. #8	.020
12252	Screw-Mch. Pan. #8	.010
13435	Screw-Mch. 10-32/¼	.020
13401	Screw-Mch. #8-32x5/16	.010
1715	Screw-Sems. Pan. #8	.030
11521	Screw-Sems Trs. #10	.100
2614	Screw-Tp. A. Pan. #8	.010
1298	Screw-Tp. AB. Pan. #8	.010
286	Screw-Tp. F. Rnd. #10	.020
1868	Screw-Tp. Pan. #8	.050
13140	Screw-Tp. 1 Pan. #10	.020
638	Screw-Tp. Flt. #8	.020
318	Screw-Tp. 23 Hex. 1/4	.06
863	Screw-Tp. Pan #4	.010
11894	Screw-Tp. 23 Pan #8	.010
13228	Screw-Weld 1/4-20	.040
13220	Screw-8-32 1 F.	.030
2558	Shaft-Front Sprocket	.070
1939	Shaft-Vertical	.750

Part Number	Description	Price
11009-08	Shell Assy. H22 Delx.	177.040
11009-01	Shell Assy.-Toms Ivory	175.380
13397	Shim	.440
5166	Skid Assy.-Carton	2.14
13250-01	Slide-L.H.	4.340
13250-02	Slide-R.H.	4.340
801	Socket-Lamp Holder	.300
13252	Solenoid	4.380
1745	Spacer-Detent Spring	.11
1869	Spacer-Dentent Spring	.070
5107-02	Spacer-Lock	.140
13410	Spacer-Rath Spg.	.350
827	Spacer-Reject Lever	.300
57	Spring-Detent	.020
13253	Spring-Ext.	.21
84	Spring-Extn. 1 3/4	.310
610	Spring-Extn. 3	.22
611	Spring-Extn. 3	.180
3903	Sprocket-Drive	.330
2565	Sprocket-Front	.250
2563	Sprocket-Rear	.250
2607	Starter-FS 25	.350
545	Strap-Harness	.040
1362	Strap-Ty. Wrap	.010
13399	Stud-Selfclinching	.040
11808	Support-Circuit Brd.	.060
13247-01	Support-Mtr.	4.190
13438	Switch-Lever	1.000
10199-01	Switch-Selector 22SP	42.00
11245-01	Track Assy.-Lower	5.660
11245-02	Track Assy.-Lower	5.530
11032-01	Track WA-Upper	1.730
11032-02	Track WA-Upper	2.480
13224-01	Tray WA-Sliding	23.670
1948-01	Trim-Del. Comp. H-22	1.900
4611	Trim-Del. Compt. Side	2.150
4612	Trim-Del. Compt. Side	2.150
4609	Trim-Lower	2.91
4614	Trim-Lwr. CSV-15 4P	3.680
4185-01	Trim-Right Side	6.080
5364	Washer-Flat #10	.050
4201	Washer-Flat #6	.140
3276	Washer-Flat 1/4	.010
4527	Washer-Int. Th. #4	.050
266	Washer-Int. Th. #8	.010
366	Washer-Int. Th 3/4	.080
357	Washer-Int. Th. 9/32	.06
12573	Washer-Lock Nat. Lock	.090
13400	Washer-Lock Split 8	.010
13412	Washer-Mtr.	.040
8504	Washer-Nat. Lock	.080
13419	Washer-Plain A. #8	.010
4209	Washer-Split #10	.100
13403	Washer-3/16 ID	.030
13398	Washer-5/16 ID	.090
13279	Washer-5/8 ID 1 OD	.070
13277	Washer-7/16 ID 5/8 OD	.080
534	Wheel-Roller Skate	.410
5365	Wire-Ground	.140

Polyvend Inc.
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H-22
SERVICE MANUAL
SUPPLEMENT

Polyvend has recently made several improvements to the H-22 and H-12 models which will become effective with shipments made after September 15, 1980.

This supplement to the H-22 manual is intended to describe these changes and provide related part numbers. Please add this supplement to your current H-22 service manual.

1. Three Point Locking System

In order to make the storage door less susceptable to pilferage the storage door of the H-22 and H-12 machine will now be secured in three places. This new door is interchangeable with old style. Drawing #1 illustrates the new 3-point locking storage door for the H-22.

Part # 14220-01 is door only for the H-22.

Part # 14218-01 is door only for the H-12.

Part # 10960 is complete door assembly for the H-22.

Part # 14221 is complete door assembly for the H-12.

Please specify desired key number when ordering complete door assemblies or when ordering barrel and tumbler assembly part number 14239.

2. Spring Loaded Cover Bar and Spindle Retainer

In order to help prevent product from being shaken off the spindles and spindles from coming out of the motor sockets a new spring loaded cover bar is provided. This bar has a tab which holds the spindle in position and bar must be raised before removing spindle for loading. See Drawing #2 for correct adjustment of spindle retainer. The "sold out" wire loop assembly has been eliminated.

Parts for the spring loaded cover bar as follows:

Part # 14329-01 Cover bar—White
Part # 14329-02 Cover bar—putty grey
Part # 14318 Spring
Part # 51-01 Retaining pin

3. Selector Switch Guard

To help prevent damage to the selector switch a guard has been added behind the selector switch.

Part # 14254 selector switch guard.

4. Service Door

The product service door of the H-2 and H-12 have been redesigned to move the glass forward preventing product from lodging between the spindles and the glass.

Part # 14323-01 — H-22 Service Door complete. #14373 Glass only.

Part # 14323-02 — H-12 Service Door complete. # 14372 Glass only.

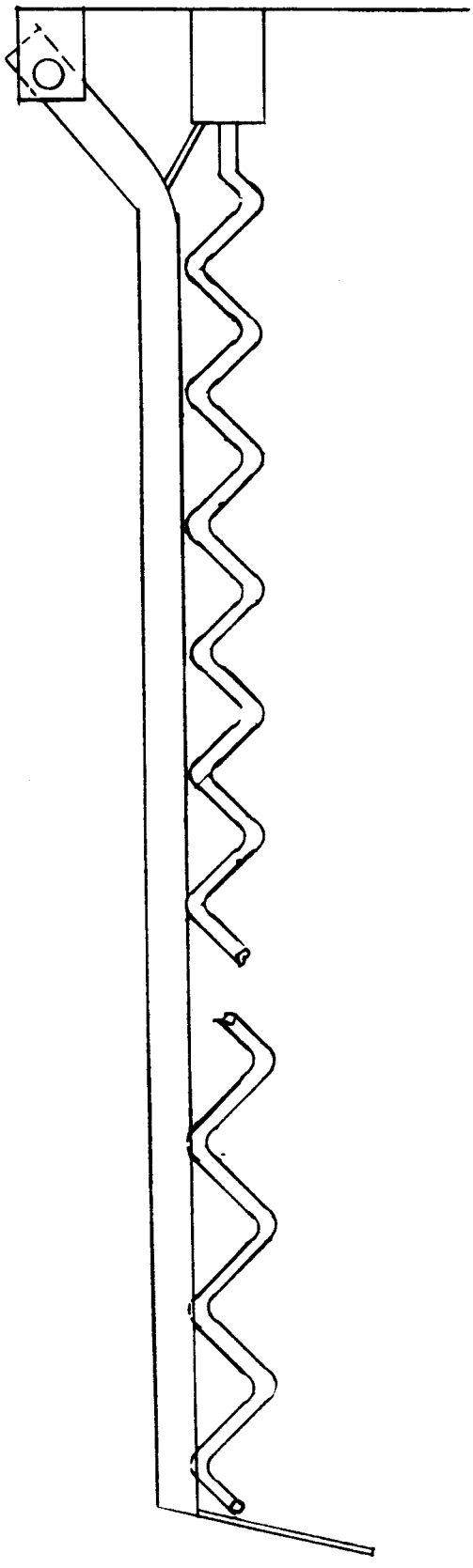
5. T-Handle Lock

As a part of the new door design a T-handle lock is now standard. This lock will also provide greater security against pilferage. T-handle lock assembly complete is part #14324. Please specify key number desired.

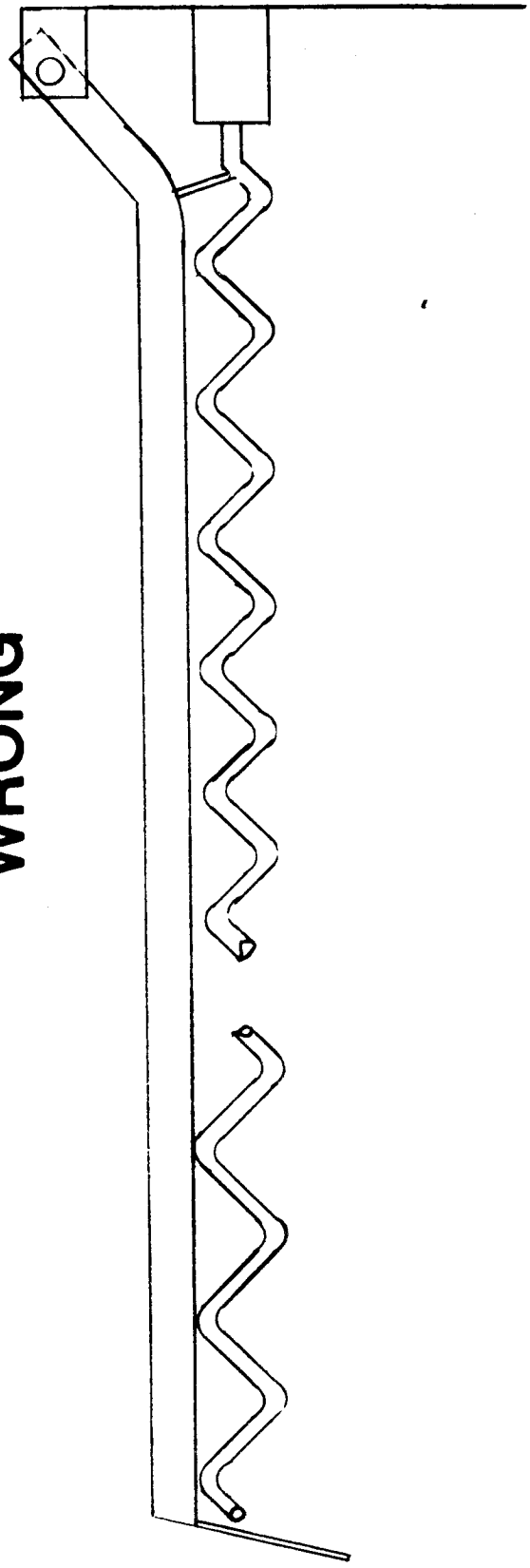
DRAWING #2
CAUTION NEW STYLE H-22

Use Care In Loading:
Lift cover bar before removing spindle to avoid bending spindle retainer.

RIGHT



WRONG



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6. Slotted Coin Mechanism Door

A slot has been added to the sliding door. This slot allows the locking cam of the service door to be turned into its locking position, thereby locking the sliding door also.

7. Plastic End Caps

Escutcheon end caps are now molded of plastic, part # 14270.

8. Embossed Price Display

The escutcheon will now be indented to accept the price insert. Part #14371

9. Supplemental Parts list for H-22 Deluxe

The H-22 Deluxe glass front vendor differs from the standard model in its color and trim.

In order to help you more accurately obtain parts for the H-22 deluxe, we have compiled the attached parts list which consists of those parts different from the Standard H-22.

When ordering locks, please inform the sales clerk they are for the H-22 Deluxe service door or storage door.

H-22 DELUXE
PARTS LIST SUPPLEMENT

Part Number	Description
4852-02	Bottom - Display
11099	Compartment Assembly - Delivery
10208-02	Cover Bar
5230-01	Deflector - L.H.
11010-01	Door - Rear
4620	Door - Service
5157-02	Door - Sliding
13594	Door - Storage
10217-02	Fixture - Light
11362-02	Fixture - Light
12677	Harness - Correct Change
2305-02	Hinge - Storage Door
4624	Insert - Delivery Trim
4625	Insert - Delivery Trim
4626	Insert - Delivery Trim
4622	Insert - Lower Trim
5262	Light - Indicator Correct Change
10231-01	Motor - H-22 Deluxe
11246-02	Panel - Motor Mounting
12708-02	Panel - R.H. Inner
13593	Panel - Woodgrain
5189-02	Plate - Instruction
11009-08	Shell - H-22 Deluxe
4611	Trim - Del Compt. Side
4612	Trim - Del Compt. Side
4609	Trim - Lower
4614	Trim - Lower CSV-15
4185-01	Trim - Right Side
11245-02	Track - Lower
11032-02	Track - Upper
13456	Vinyl

FOUR PRICE OPTION

The H-22 machine is now offered as a 4-price model as well as single price. The 4-price model H-22 machine is a completely different machine than the single price unit in its operation, however, except for the parts listed below the physical characteristics are the same.

Part Changes to H-22 Motor (see Drawing #3)

Part # 14322 4 price motor assembly complete

Part # 14275 Switch bracket

Part # 12660 Motor switch - 2 required

Part # 12754 Screw - 2 required

Part # 11794 Nuts - 2 required

Part # 941 Pop rivet - 2 required

Part # 14276 Cam follower

Part # 12661 Motor Harness

Other Part Changes:

#12686 Jones Plug Harness

#14308 Main Motor Harness

#3193 4-price Board w/Harness

#3007 Price Board

#14321 Jumper Wire - 4 required

#14370 Harness - Price Wire

No vend relay and harness assembly is required in the 4-price H-22.

A 4-price coin changer is required.

New selection decals:

#14335 Single price decal

#14336 Four price decal Specify price 25¢ to 45¢

VEND OPERATION

The Four Price H-22's basic vending operation is described below:

Depositing coins establishes credit circuits (1 to 4) in the coin mechanism. The ones established are determined by the price setting and the amount of coins deposited.

When a selection button is depressed and sufficient credit is established for that price setting in the coin mechanism, the corresponding price line circuit is completed through the coin mechanism and terminal board to the dispense motor selected.

The dispense motor starts its rotation which actuates its snap-action switches.

The inside (#1) motor switch breaks the series circuit to the selector switch and makes one side of the 24 volt circuit to the motor coil.

The outside (#2) motor switch breaks line 6 to the coin mechanism - clearing it and makes the other side of the 24 volt circuit to the motor coil.

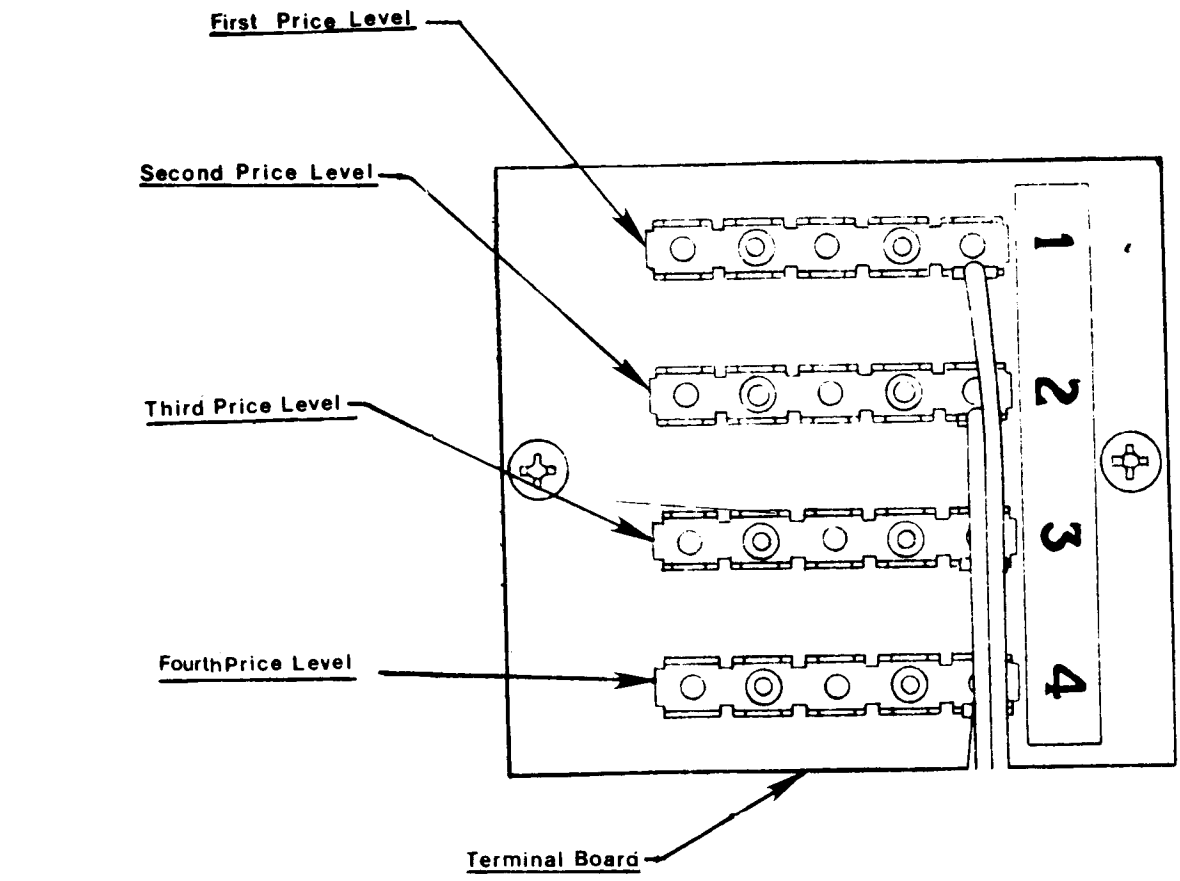
The dispense motor rotates 360° until the motor switches are de-actuated by its cam. The product is delivered and the series circuits to the selector switch and line 6 (crem coils) of the coin mechanism are again made ready for the next vend.

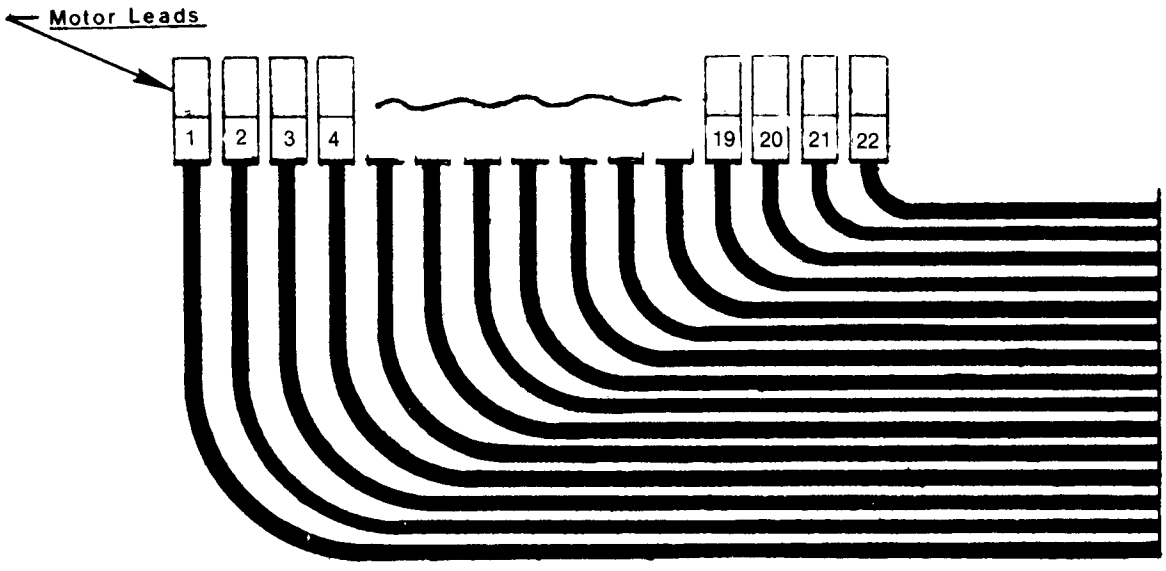
PRICE SETTING

A numbered black lead from each motor (selection) is connected to the 4 price terminal board (Dwg. 4). Each price level on this terminal board corresponds to the same price level in the 4 price changer.

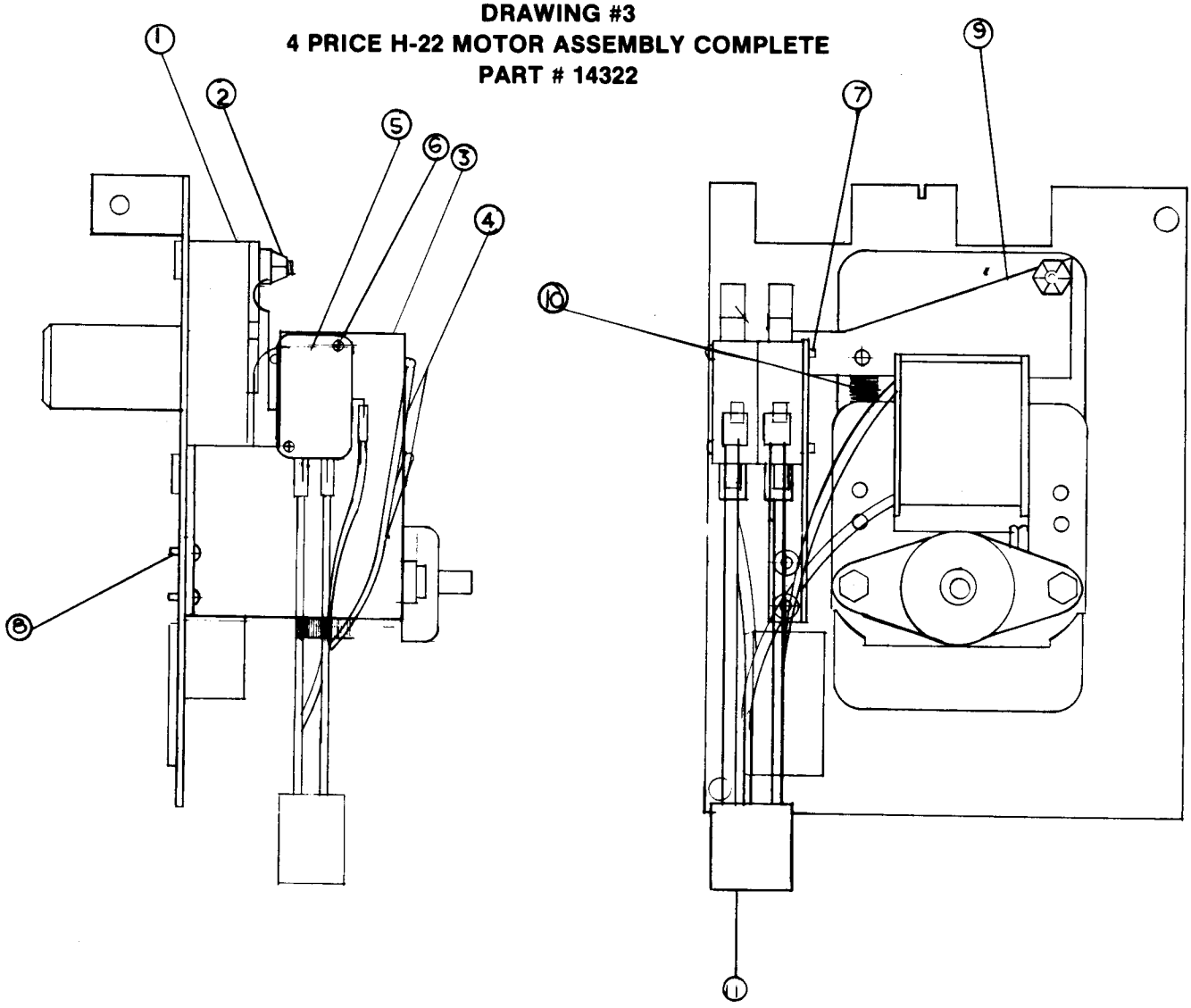
Set the four price level in the changer to desired vend price and connect the black motor lead (selection) to the corresponding price level on the terminal board.

DRAWING #4


First Price Level
Second Price Level
Third Price Level
FourthPrice Level
Terminal Board
1
2
3
4


Motor Leads
1
2
3
4
19
20
21
22

DRAWING #3
4 PRICE H-22 MOTOR ASSEMBLY COMPLETE
PART # 14322



Item No.	Part No.	Description	No. Req'd
1	*	Motor-Gear Train-G.I. (see Tabulation)	1
2	A-819	Pal Nut 8-32 (Acorn Type) Style AK	1
3	A-14275	Brk. T-Switch	1
4	A-822	Insulation-Sleeving 16 (.053ID) 3"LG	2
5	A-12660	Switch-Gear Motor	2
6	A-12754	Screw 4-40	2
7	A-11794	Nut 4-40	2
8	A-941	Rivet-Pop	2
9	A-14276	Cam-Follower	1
10	A-814	Spring	1
11	A-12661	Harness Motor	1

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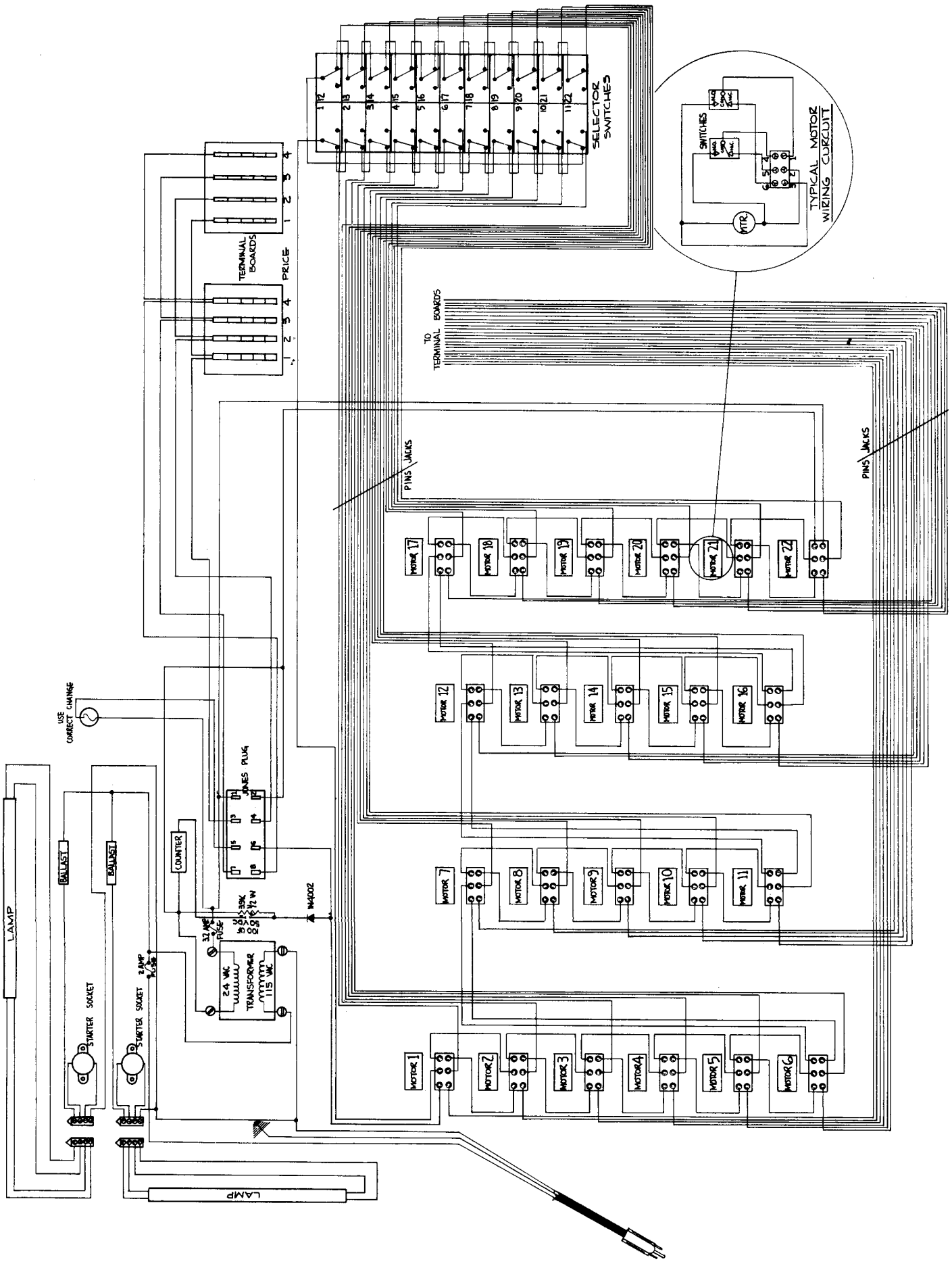


FOUR PRICE H-22

TROUBLE SHOOTING

- MACHINE WILL NOT ACCEPT COINS: Remove acceptor/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 115 volt outlet. (Are fluorescent lamps on - check 2 amp fuse)
    - Make sure changer Jones Plug is 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.
    - Check series circuit that runs through all the outer switches on the dispense motors:
      - Manually rotate spindle #22 clockwise.
        - If it fails to electrically pick up and complete a cycle; check wire continuity from Pin #1 of Changer Jones plug receptacle to pin #1 of Dispense Motor #22. Also check motor assembly #22 for proper switch operation and connection.
        - If #22 electrically picks up and cycles; repeat above test for motor #1.
          - If #1 fails to pick up electrically; the series circuit is broken between #22 and #1. Locate break by continuing above test through the circuit in descending number order (#22 thru #1) until the first dead position is found.

            Either this "dead" dispenser motor assembly or the last operable assembly is faulty.
          - If #1 picks up electrically; check wire continuity from pin #6 of motor #1 to pin #6 of the Changer Jones Plug receptacle.
    - If all the above check good, the coin changer is defective.
- MACHINE WILL ACCEPT COINS BUT...
  - No selection can be made.
    - Check for coins lodged in coin path of changer.
    - Check series circuit that runs through all the inner switches on the dispense motors:
      - Manually rotate spindle #22 clockwise.
        - If it fails to electrically pick up and complete a cycle; check wire continuity from pin #2 of Changer Jones Plug receptacle to pin #4 of Dispense Motor #22. Also check Motor Assembly #22 for proper switch operation and connection.
        - If #22 electrically picks up and cycles; repeat above test for dispenser #1.
          - If #1 fails to pick up electrically; the series circuit is broken between #22 and #1. Locate break by continuing above test through the circuit in descending number order (#1 thru #1) until the first dead position is found. Either this "dead" dispenser motor assembly or the last operable assembly is faulty.
          - If #1 picks up electrically; check wire continuity from pin #5 of motor #1 to position #1 of selector switch.
    - If all the above check good, the coin changer is defective.

- Only some selections can be made.
  - Changer must be a 24 volt 4-price unit.
  - Identify defective selections by number and determine if a dead price level in changer is cause of failure. Also be sure of vend price setting for that level.
  - Check for defective selector switch assembly. The selector switch is wired in series starting at position #1 and running down the left side. A jumper then connects to position 12 and the series circuit runs down the right side. A defective selector switch is indicated when a sequence of selections in this series do not operate.

    EXAMPLE: Selection #1, #2, #3, and #4 can be made but the remaining selections can not. The selector switch is defective between positions #4 and #5.
  - Check for good and proper connection of price setting motor leads at terminal board above changer.
- MACHINE WILL VEND CONTINUOUSLY.....
  - Determine selections that are vending continuously.
    - If selections are controlled by a common price level of changer - replace changer.
    - If free-vending selections have no common connection by price level - dispense motor assembly is probably defective.
- MACHINE WILL ACCEPT CERTAIN COINS BUT NOT OTHERS (ALWAYS A COIN MECHANISM PROBLEM).....
  - Will not accept quarters.
    - Check to see if coin tubes have sufficient coins to retract 25¢ blocking finger.
    - If coin tubes are full and finger is not retracted, check for loose connection, burned out electromagnetic coil, or defective tube switch.
    - Check to see if the 25¢ blocking finger is adjusted so that when magnetically pulled in, the tip is clear of the rejector/acceptor.
    - If none of the above, clean, adjust, or replace acceptor/rejector.
  - Will not accept nickels and dimes.
    - Check 5¢/10¢ blocking fingers.
    - If fingers are retracted, check to see if the fingers are adjusted so that when magnetically pulled in, the tips clear the rejector/acceptor.
  - If not the above; clean, adjust, or replace the acceptor.
  - If not retracted, check for loose connection, or a burned out electromagnetic coil.

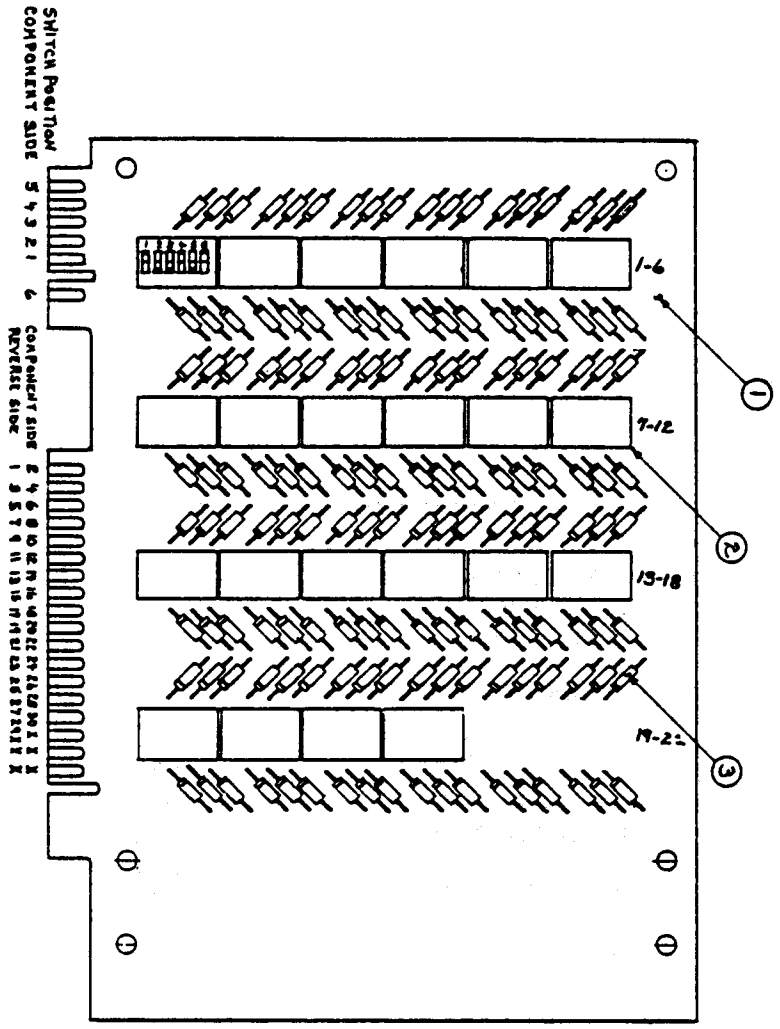
H-22
MULTI PRICE

The H-22 multi price vendor uses the same basic cabinet as the H-22 single price. This supplement is provided to show electrical differences in the two vendors.

Trouble shooting the H-22 multi price is basically the same as the H-22 single price.

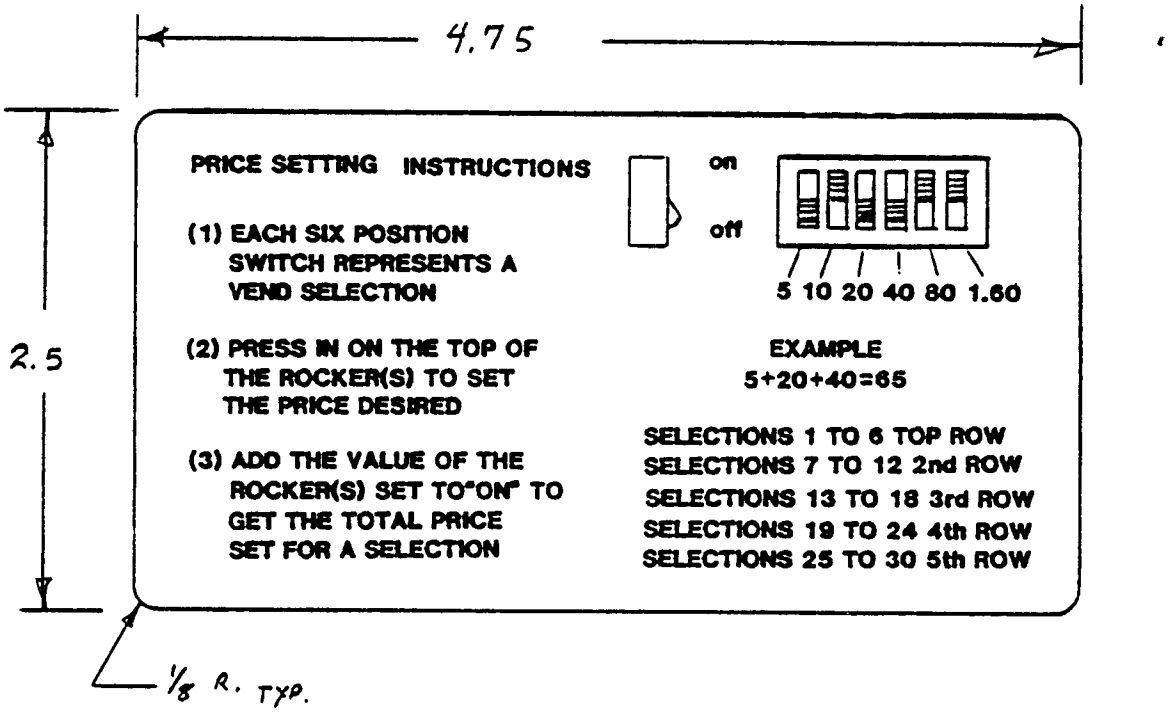
INSTALLATION

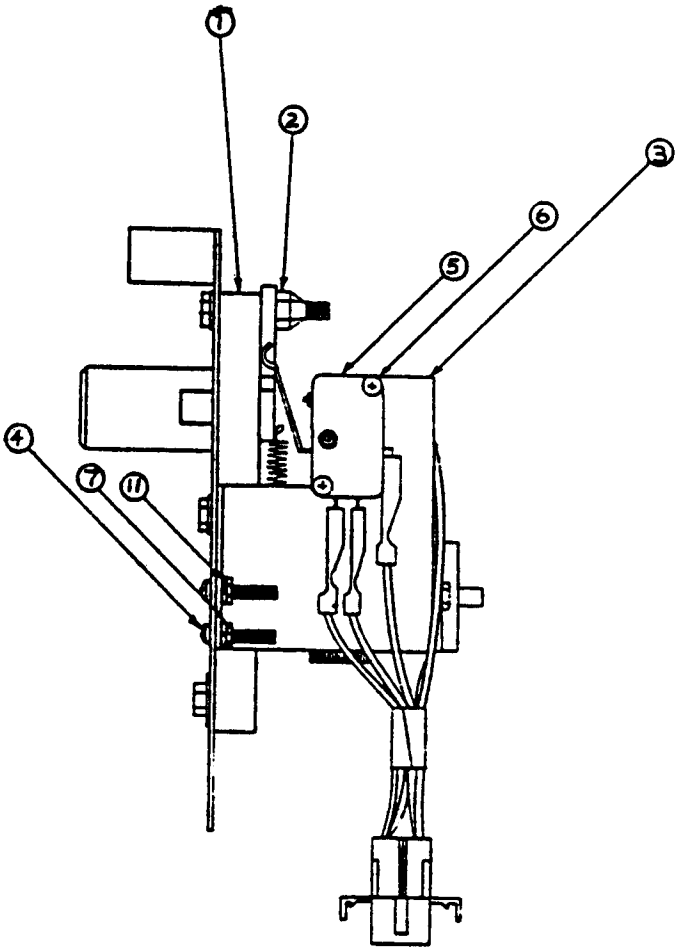
- Remove outside shipping carton.
- Place machine into position and adjust leveling legs so it is level and aligned with adjacent machines.
- Locate small envelope in delivery compartment inside "Push" door and remove keys.
- Open glass service door with supplied key and remove all internal packing. (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 cover bars.
- 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 4 rows for all 22 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.

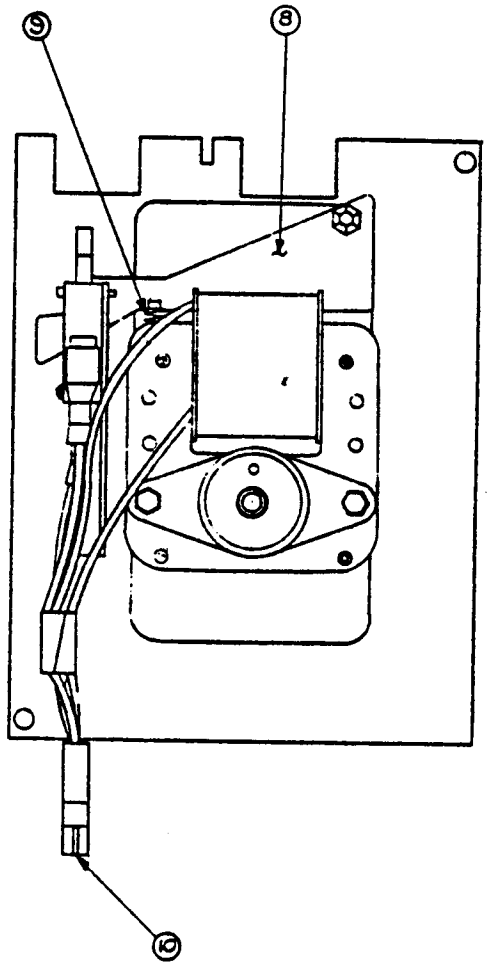


ASSEMBLY NO. 16309

ITEM	PART NO.	DESCRIPTION	QTY.
1	B-16186	P.C. Board	1
2	B-16239	Switch (EECO 24000 GGB)	22
3	CMI-2079-2	Diode (in 4003)	132

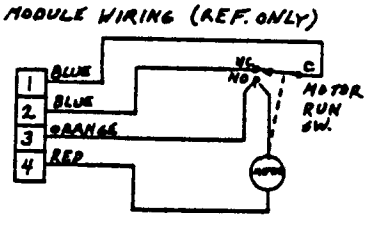

4.75
2.5
PRICE SETTING INSTRUCTIONS
(1) EACH SIX POSITION SWITCH REPRESENTS A VEND SELECTION
(2) PRESS IN ON THE TOP OF THE ROCKER(S) TO SET THE PRICE DESIRED
(3) ADD THE VALUE OF THE ROCKER(S) SET TO "ON" TO GET THE TOTAL PRICE SET FOR A SELECTION
on
off
5 10 20 40 80 1.60
EXAMPLE
5+20+40=65
SELECTIONS 1 TO 6 TOP ROW
SELECTIONS 7 TO 12 2nd ROW
SELECTIONS 13 TO 18 3rd ROW
SELECTIONS 19 TO 24 4th ROW
SELECTIONS 25 TO 30 5th ROW
1/8 R. TYP.





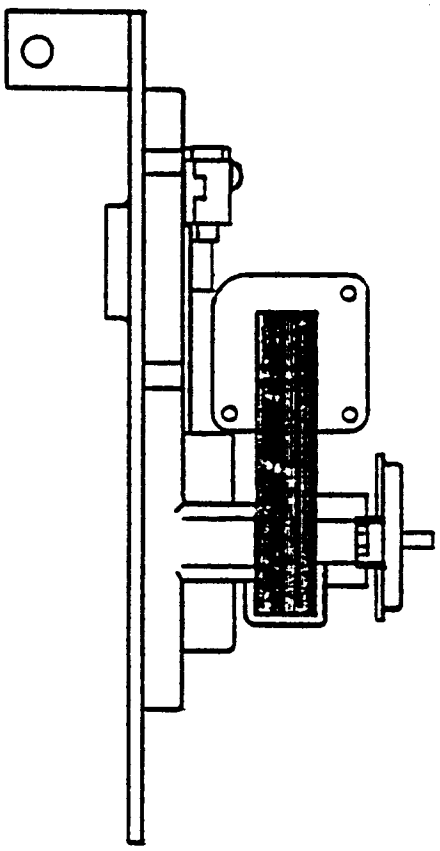
Item No.	Part No.	Description	No. Req'd
1	*	Motor-Gear Train G.I. (see tab)	1
2	A-819	Palnut 8-32 (acorn) Style AK	1
3	A-14275	Bracket-Switch	1
4	A-16198	Screw 4-40-5/16"	2
5	A-12660	Switch-Gear Motor	1
6	A-13261	Screw 4-40-5/8"	2
7	A-11794	Nut 4-40	2
8	A-14276	Cam Follower	1
9	A-814	Spring	1
10	A-16179	Harness-Motor (see note)	1
11	A-4527	Washer-Lock	2
12	2114	Tape	2"

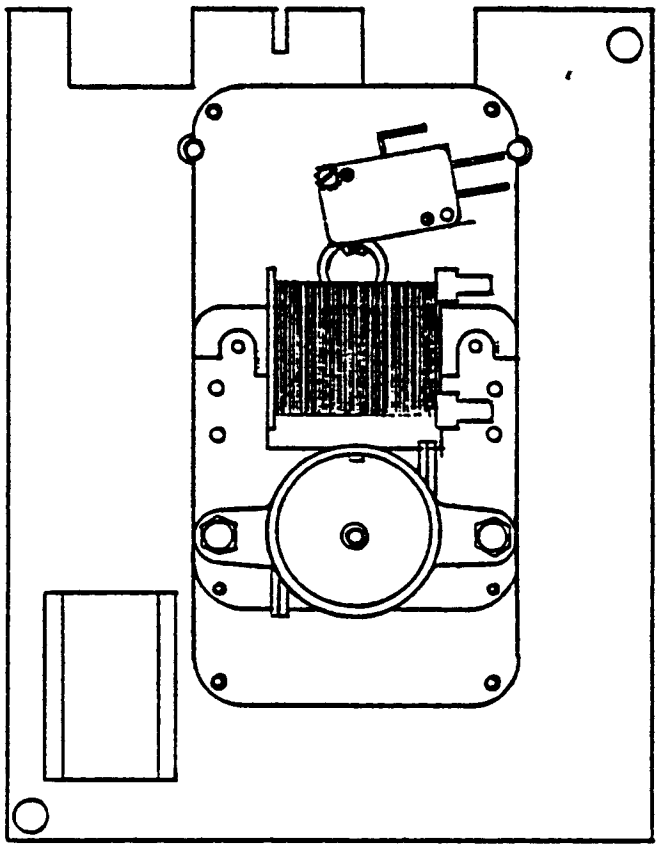
Part No.	* Use Part No.
C-16174-01	D-16178-01 (White)
C-16174-02	D-16178-02 (Putty Grey)



NOTE: Item #10 motor harness to be connected as follows:

Pin	Wire Color	Connected To
3	Orange	2 Wires-One to Motor One to Switch N.O. Term
4	Red	A.C. Motor
1	Blue	Switch-Common Term
2	Blue	Switch-Normally Closed Term





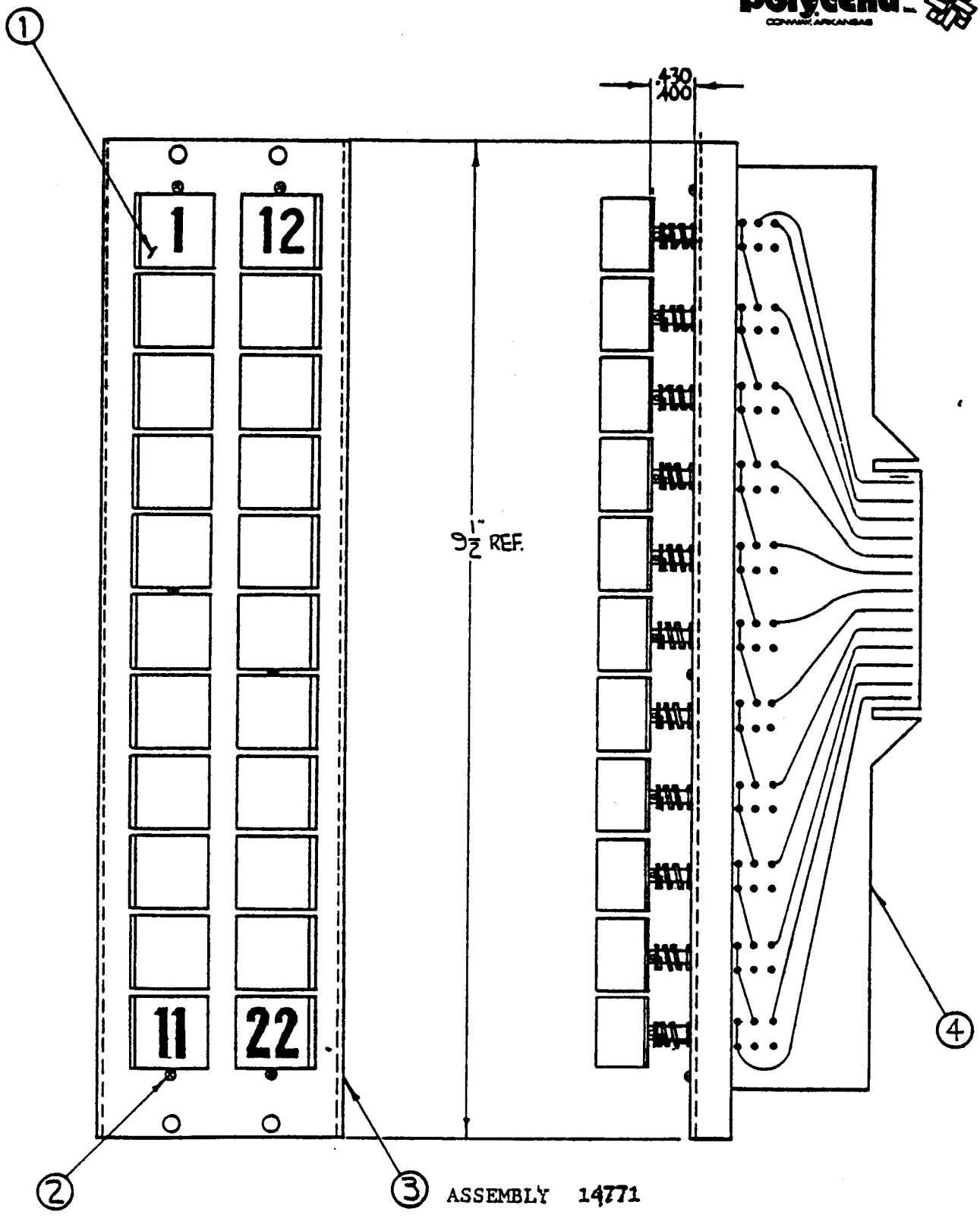
NEW STYLE H-22/H-30 MOTOR

PART NUMBER 16283

16283U PY01555
1628302 PY01556

H-22
MULTI PRICE
PARTS LIST

16234-00	Changer M-300
16078	Harness Loner Plug
16173	Harness Main Motor
16308	Harness Selector Switch
16174-00	Motor Assembly
16283	Motor Assembly (new style)
16309	Price Setting Board
12693	Power Panel
16328	Relay Module
14771	Selector Switch (new style)



ITEM	PART NO.	DESCRIPTION	QTY.
1	C-15981-01	Selector Switch Buttons	22
	C-15981-22		
2	A-14772	#4-40 Screw, ⅛" Long	6
3	B-14254	Selector Switch Guard	1
4	C-16040	Selector Switch Sub-Assy.	2

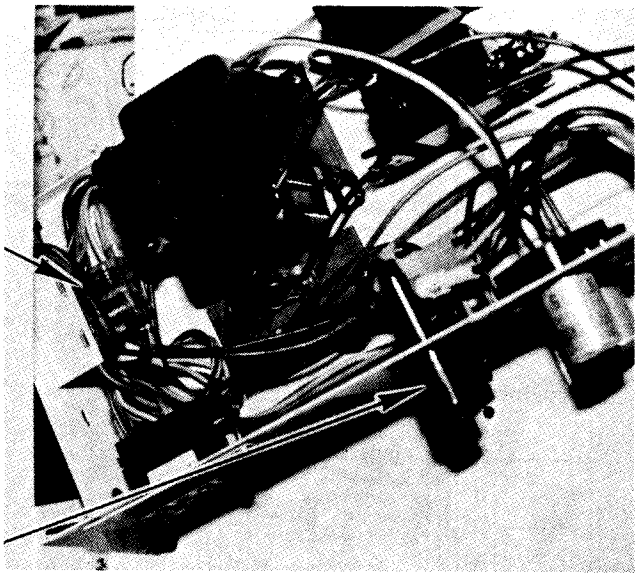
NEW STYLE POWER PANEL
ON ALL TOM'S MACHINES

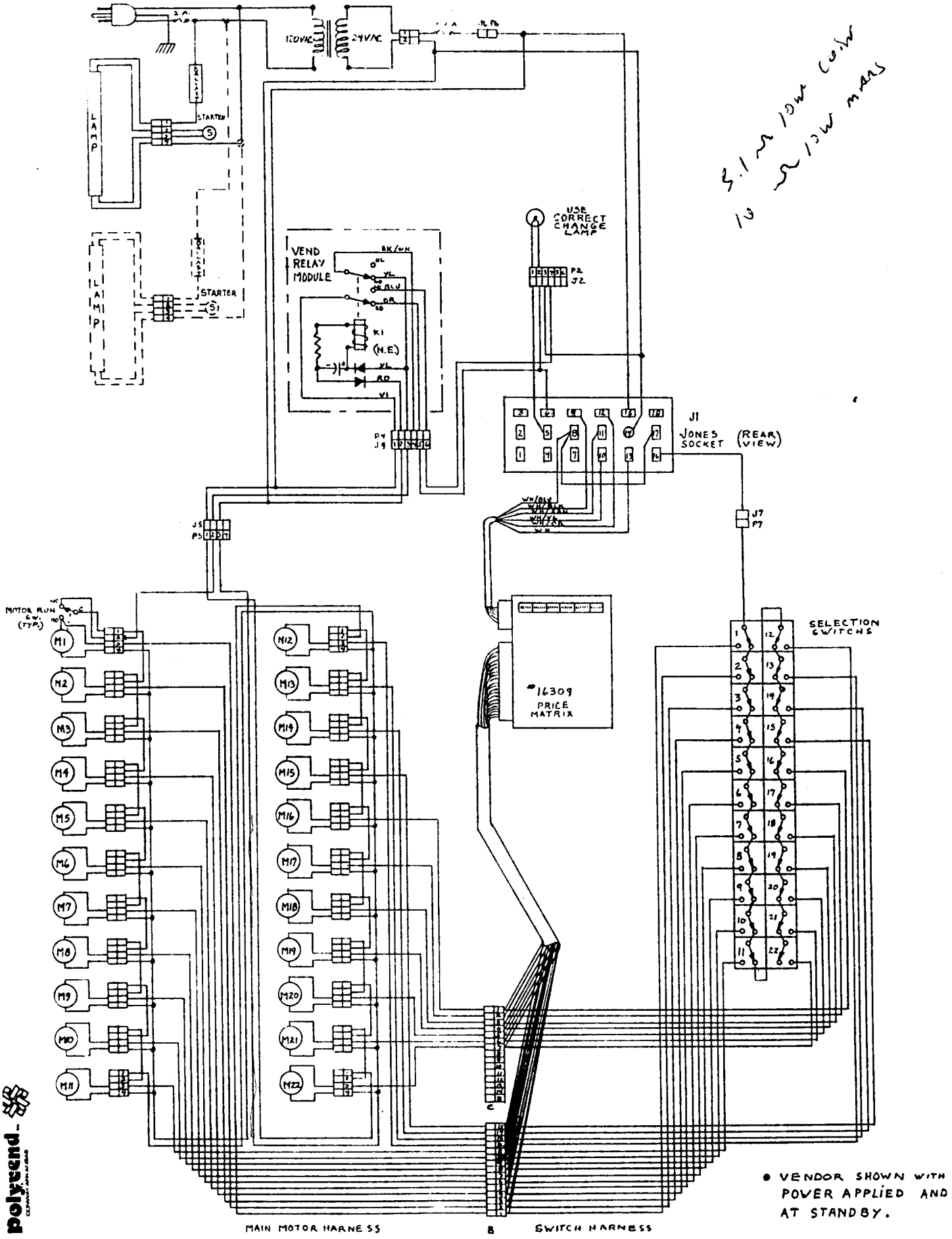
Board Ass'y
(P.C. Board, Relay, Diode, etc.)

Relay Without Harness
Part Number 16325

Relay With Harness
Part Number 12714

Red
Cap Fuses





• VENDOR SHOWN WITH POWER APPLIED AND AT STANDBY.