

INSTRUCTIONS FOR INSTALLING A NATIONAL VENDORS® CROWN SEVENTY TWO®, BF-72 BOWL DISPENSER ON A NATIONAL VENDORS, CROWN SEVENTY TWO, SERIES HCM-72 (ACMR EQUIPPED) HOT FOOD MERCHANDISER WITH A SERIAL NUMBER OF 62249 OR LOWER: OR ON A GOLDEN FURNITURE LINE HCM-72 (ACMR EQUIPPED) HOT FOOD MERCHANDISER WITH A SERIAL NUMBER OF 1199 OR LOWER

The BF-72 Bowl Dispenser, part number 850-00, is to be used when mounting a BF-72 Bowl Dispenser on a Series HCM-72 (ACMR equipped) Hot Food Merchandiser with a serial number 62249 or lower.

The BF-72 Bowl Dispenser, part number 850-01, is to be used when mounting a BF-72 Bowl Dispenser on a Golden Furniture Line HCM-72 (ACMR equipped) Hot Food Merchandiser with a serial number of 1199 or lower.

Series and Golden Furniture Line HCM-72 (ACMR equipped) Hot Food Merchandisers with serial numbers above the aforementioned serial numbers are all factory equipped to accept a BF-72 Bowl Dispenser without the necessity of using a Kit.

All HCM-72C (ACER equipped) Hot Food Merchandisers are factory equipped to accept a BF-72 Bowl Dispenser.

The BF-72 Bowl Dispenser Set-Up Instructions give all the information necessary to mount the Dispenser on a Merchandiser that is factory equipped to accept a Bowl Dispenser. The BF-72 Bowl Dispenser Set-Up Instructions shipped with the Bowl Dispenser must also be used in conjunction with these Installation Instruction.

Read these Installation Instructions and the Bowl Dispenser Set-Up Instructions carefully and thoroughly before beginning the work of installing the parts of the Kit.

The BF-72 Bowl Dispenser Left Sidewall Kit, part number 850-0111, includes the following parts:

Part Number	Description	Quantity
407-8007	HCM-72 Delivery Mechanism Left Sidewall Assembly	1
9900-046	attaching parts	1
9900-187	No. 8-32 x 1/4" RHS Self Tapping Screw	5
9900-200	No. 8-32 x 3/8" RHS Self Tapping Screw	5
	No. 10-32 x 3/8" RHS Self Tapping Screw/Lockwasher	2
	* * *	
114-8004	Bushing	1
	attaching parts	
114-8003	Delivery Mechanism Stop Latch	1
9900-161	No. 8-32 x 1/2" Pan Hd. Slotted, Self-tap Screw	1
	* * *	
110-8004	Spring	1
850-2076	Delivery Mechanism to Cabinet Harness Assembly	1
407-2041	Electrical Schematic Diagram	1
	* * *	
850-0103	Installation Instructions	1
	* * *	

The equipment required to perform the work given in these instructions includes:

1. A screwdriver
2. A set of open-end or socket wrenches
3. An Ohmmeter
4. A hammer
5. A drive punch
6. A 3-1/2" "C" Clamp
7. A 3/8" Electric Drill
8. A 1/4" metal drill bit
9. A 3/8" metal drill bit
10. A Measuring tape or ruler
11. A 7/8" Chassis Punch

To assure complete compliance with these Instructions and because of the number of operations involved in the revision to the Merchandiser and in the mounting of the Bowl Dispenser, National Vendors suggests that each individual step of each procedure in these Instructions be checked-off as it is performed.

The up-dating of the Merchandiser with a Bowl Dispenser involves the following seven procedures:

- I. TO PREPARE THE HCM-72 (ACMR EQUIPPED) HOT FOOD MERCHANDISER FOR UP-DATING.
- II. TO REMOVE THE DELIVERY MECHANISM LEFT SIDEWALL ASSEMBLY.
- III. TO INSTALL THE DELIVER MECHANISM REPLACEMENT LEFT SIDEWALL ASSEMBLY.
- IV. TO MOUNT THE BOWL DISPENSER CABINET ON THE MERCHANDISER CABINET
- V. TO INSTALL THE DELIVER MECHANISM TO CABINET TERMINAL BLOCK HARNESS ASSEMBLY IN THE HCM-72 MERCHANDISER
- VI. TO ELECTRICALLY CONNECT THE BOWL DISPENSER TO THE HCM-72 MERCHANDISER
- VII. BOWL DISPENSER FAMILIARIZATION

Read Section I of the Bowl Dispenser Set-Up Instructions which are packed in the Bowl Dispenser Carton. Disregard the notations relative to the specific place in the Set-Up Instructions where information regarding the use of the items in the Cloth Bag will be found. The use of these items will be outlined in these Kit Installation Instructions.

- I. TO PREPARE THE HCM-72 (ACMR EQUIPPED) HOT FOOD MERCHANDISER FOR UP-DATING
 - A. Disconnect the Merchandiser Service Cord Plug from the wall receptacle.
 - B. Unlock and open the Merchandiser Cabinet Door.
 - C. Remove all cans from the Merchandiser.

CAUTION

To prevent spoilage of the contents of the cans, store the cans under proper controlled temperature conditions until Merchandiser is put back in service.

- D. Remove the Delivery Mechanism from the Merchandiser.
- E. Place the Delivery Mechanism on a flat cleared surface.
- F. Close the Merchandiser Cabinet Door.

II. TO REMOVE THE DELIVERY MECHANISM LEFT SIDEWALL ASSEMBLY

- A. Remove the three No.8-32 x 1/4" RHS Self-tapping Screws which attach the Left Sidewall Assembly to the Apron Assembly. See Figure II-1.

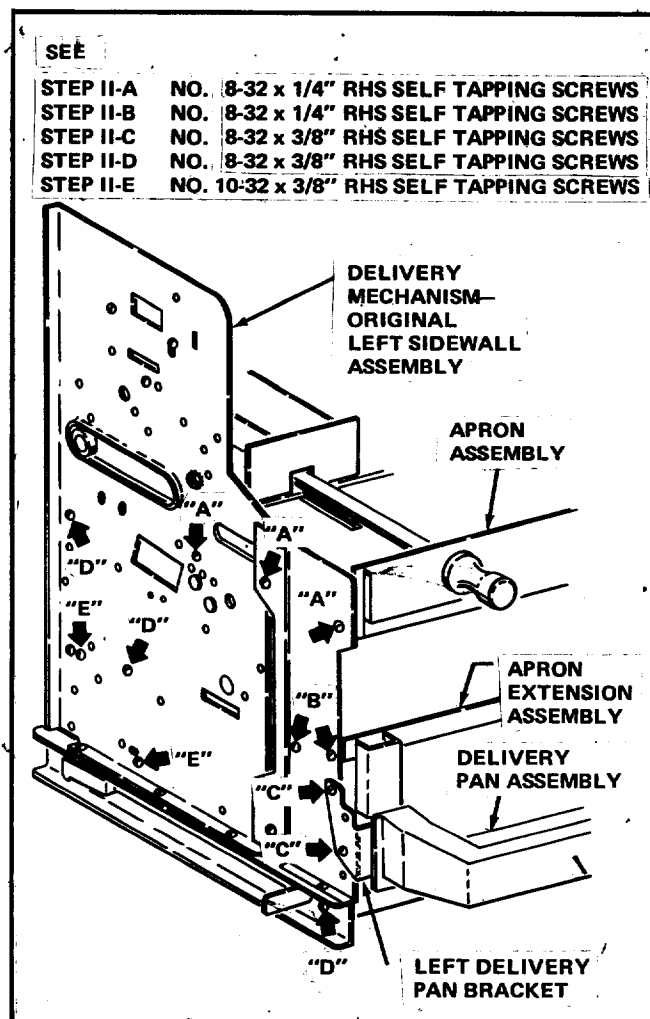


FIGURE II-1

- B. Remove the two No.8-32 x 1/4" RHS Self-tapping Screws which attach the Left Sidewall Assembly to the Apron Extension Assembly.
- C. Remove the two No.8-32 x 3/8" RHS Self-tapping Screw which attach the Left Delivery Pan End Bracket to the Left Sidewall Assembly.
- D. Remove the three No.8-32 x 3/8" RHS Self-tapping Screws which attach the Delivery Pan Assembly to the Left Sidewall Assembly.
- E. Remove the two No. 10-32 x 3/8" RHS Self-tapping Screws/Lockwasher which attach the Left Sidewall Assembly to the Extension Tube Assembly.
- F. Remove the Left Sidewall from the 'Delivery Mechanism.

III. TO INSTALL THE DELIVERY MECHANISM REPLACEMENT LEFT SIDEWALL ASSEMBLY

NOTE

1. The Screws included in the Kit or the Screws removed in Procedure III may be used to attach the replacement Left Sidewall Assembly.
2. Be sure the original thread in the threaded parts are used when the replacement Sidewall Assembly is attached to the Delivery Mechanism. The attaching Screws are self-tapping and if improperly installed can cut new threads. This recutting "reams" the screw hole and makes secure assembly impossible.

- A. Place the replacement Left Sidewall Assembly, part number 407-8007, on the Delivery Mechanism. See Figure III-1.

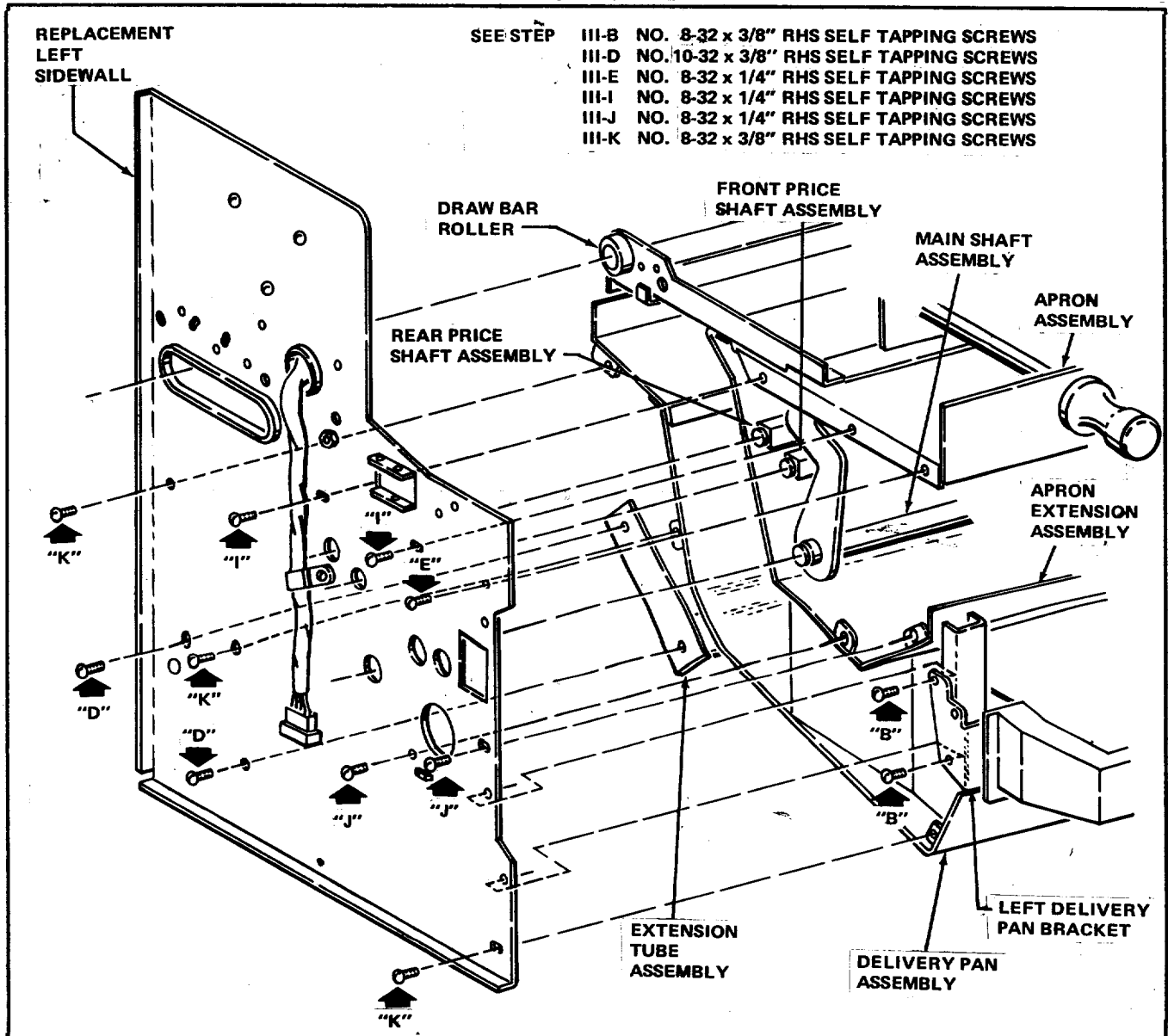


FIGURE III-1

- B. Loosely attach the Left Delivery Pan End Bracket to the Left Sidewall with two No. 8-32 x 3/8" Screws. The Bracket fits on the outside of the Sidewall.
- C. Place the Roller on the Draw Bar Assembly in the slot in the Sidewall. The extension arm on the Draw Bar Assembly must be below the Roller on the Sidewall. Lubricate the Rollers and the Sidewall slot.
- D. Loosely attach the Left Sidewall Assembly to the Extension Tube Assembly with two No.10-32 x 3/8 RHS Self-tapping Screws. See Figure III-1.
- E. Loosely attach the front edge of the Apron Assembly to the Left Sidewall Assembly with a No.8-32 x 1/4" RHS Screw.
- F. Install the Rear Price Shaft Assembly in the Left Sidewall Assembly. Lubricate the Shaft end before placing it in the Sidewall use.
- G. Install the Front Price Shaft Assembly in the Left Sidewall Assembly. Lubricate the Shaft end.
- H. Install the Main Shaft Assembly in the Left Sidewall Assembly. The stud on the end of the Shaft Assembly extension must fit into the slotted guide in the Draw Bar extension on the underside of the Apron Assembly. Lubricate the Main Shaft Assembly pivot and the slot in the Draw Bar. Be sure the Draw Bar Rollers are properly in place in the slots in both the Left and Right Sidewall Assemblies and that the stud on the right extension of the Draw Bar is in the slot in the Rack Plate Assembly. See Figure III-2.
- I. Loosely attach the Apron Assembly at its two remaining attaching points with two No.8-32 x 1/4" RHS Screws.
- J. Loosely attach the Apron Extension Assembly to the Left Sidewall Assembly with two No.8-32 x 1/4" RHS Screws.

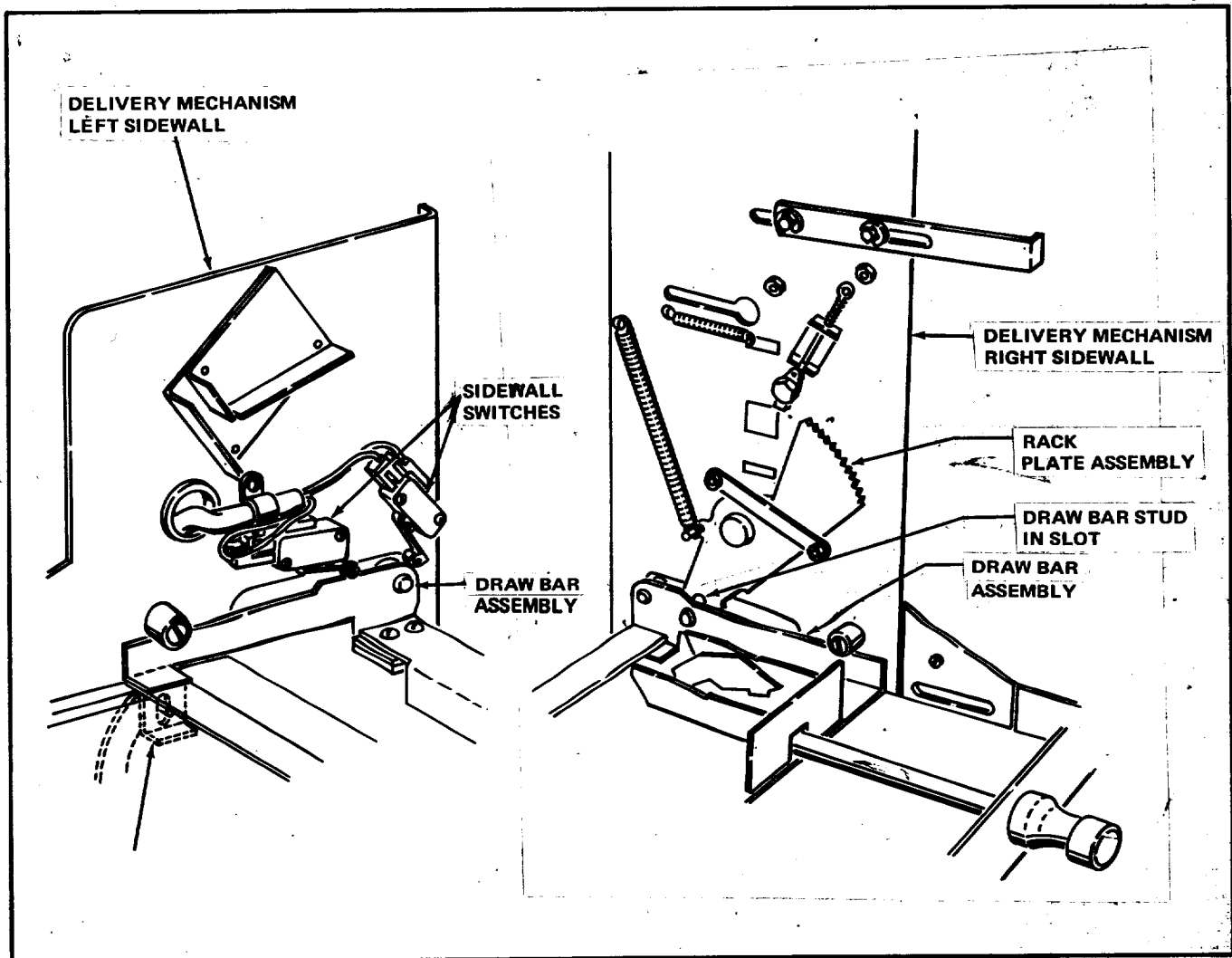


FIGURE III-2

- K. Loosely attach the Delivery Pan Assembly to the Left Sidewall Assembly with three No.8-32 x 3/8" RHS Screws.
- L. Inspect the Delivery Mechanism, be sure all Shafts and Rollers referred to in steps III-F, G, and H are properly positioned in both the Left and Right Sidewall Assemblies. See Figure III-3.

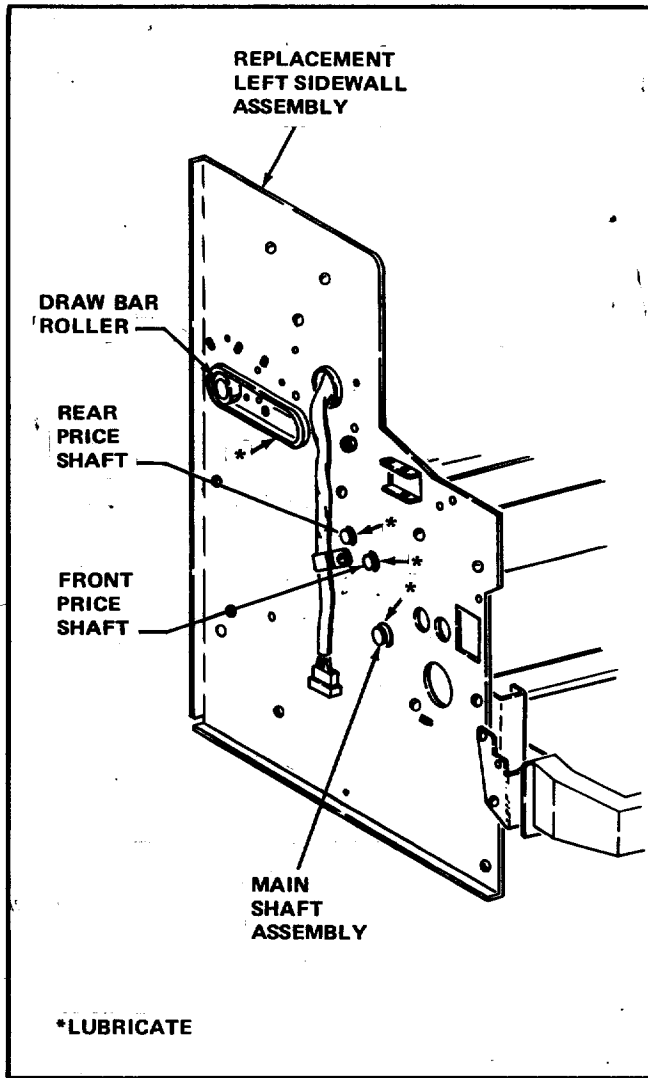


FIGURE III-3

- M. On the replacement Left Sidewall Assembly are two Switches. Be sure the roller on the actuation blade of the Switches is resting on the top edge of the left extension of the Draw Bar Assembly and are not caught between the Draw Bar Assembly and the Sidewall. See Figure III-2.

- N. Tighten all Screws.

- O. Place the Bushing, part number 114-8004 on the No.8-32 x 1/2" Pan Head Screw, part number 9900-161. See Figure III-4.
- P. Install the Delivery Mechanism Stop Latch, part number 114-8003, on the replacement Sidewall Assembly. The yellow handle of the Lever is to be toward the front end of the Delivery Mechanism. The hole in the Latch is to be aligned with the hole that is toward the bottom of and about 6 7/8" back from the front edge of the Sidewall Assembly.

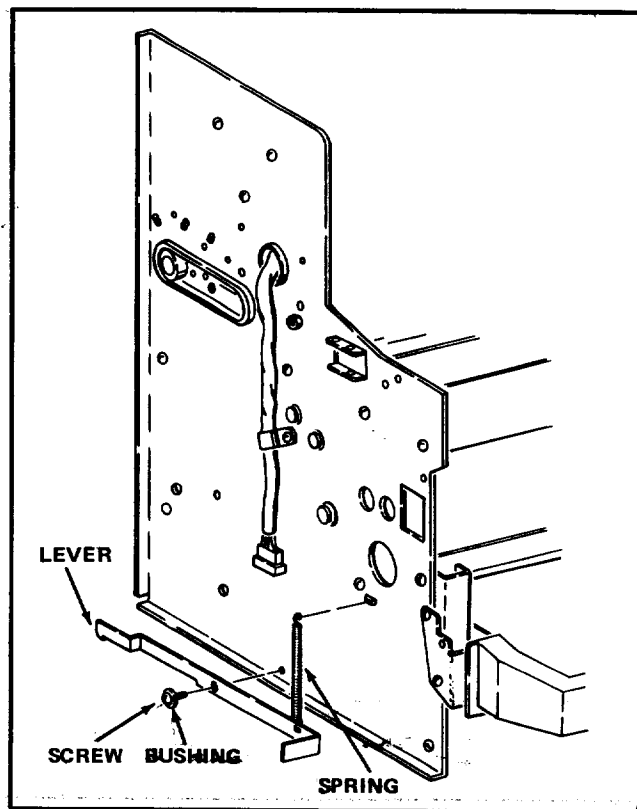


FIGURE III-4

- Q. Attach the Lever to the Sidewall Assembly with the Screw/Bushing Assembly created in step III-O.
- R. Install Spring, part number 110-8004. One loop of the spring is to be attached in the hole in the Lever and the other in the expanded notch on the Sidewall.
- S. Pull the black Lock Release Bar on the Right Sidewall Assembly to the out position. See Figure III-5.

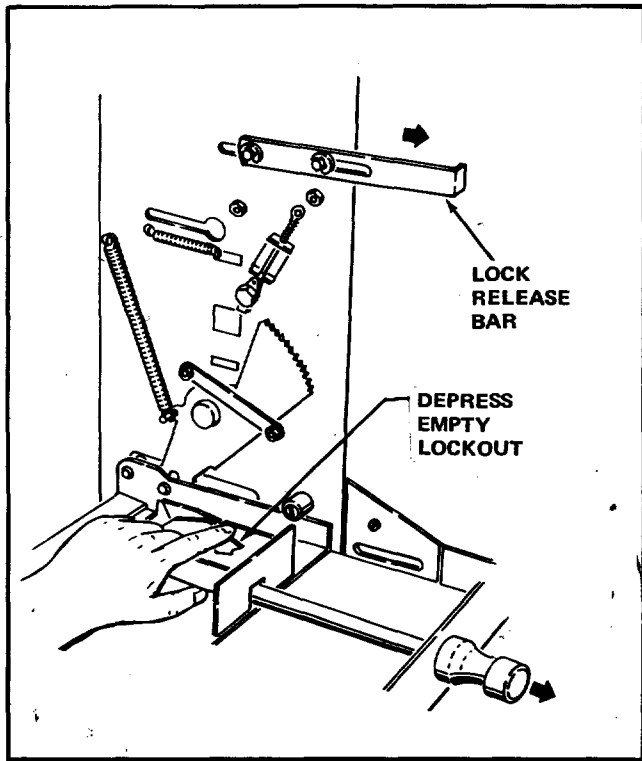


FIGURE III-5

- T. Depress the Empty Lockout Lever Assembly on the first Can Ejector Assembly and pull the Pull Knob for that Assembly out for a complete cycle. The action should be smooth.
- U. Repeat step III-S for the other 6 Ejector Assemblies.
- V. When the Draw Bar Assembly is in the at-rest position the left extension of the Assembly holds the Switches on the Left Sidewall in the depressed NO (normally open) position. Check the Switches for proper adjustment. National Vendors suggests the Connector on the front Switch be removed and an Ohmmeter be used to check continuity between the Common (Arm) and NO contacts when the Draw Bar is at rest. See Figure III-6.
- W. With the Ohmmeter still in place repeat step III-S. As the Draw Bar extension moves from under the Switch should move to the NC (normally closed) position.
- X. Before completing the cycle of the Draw Bar check the continuity of the Switch through its Comm and NC contacts.

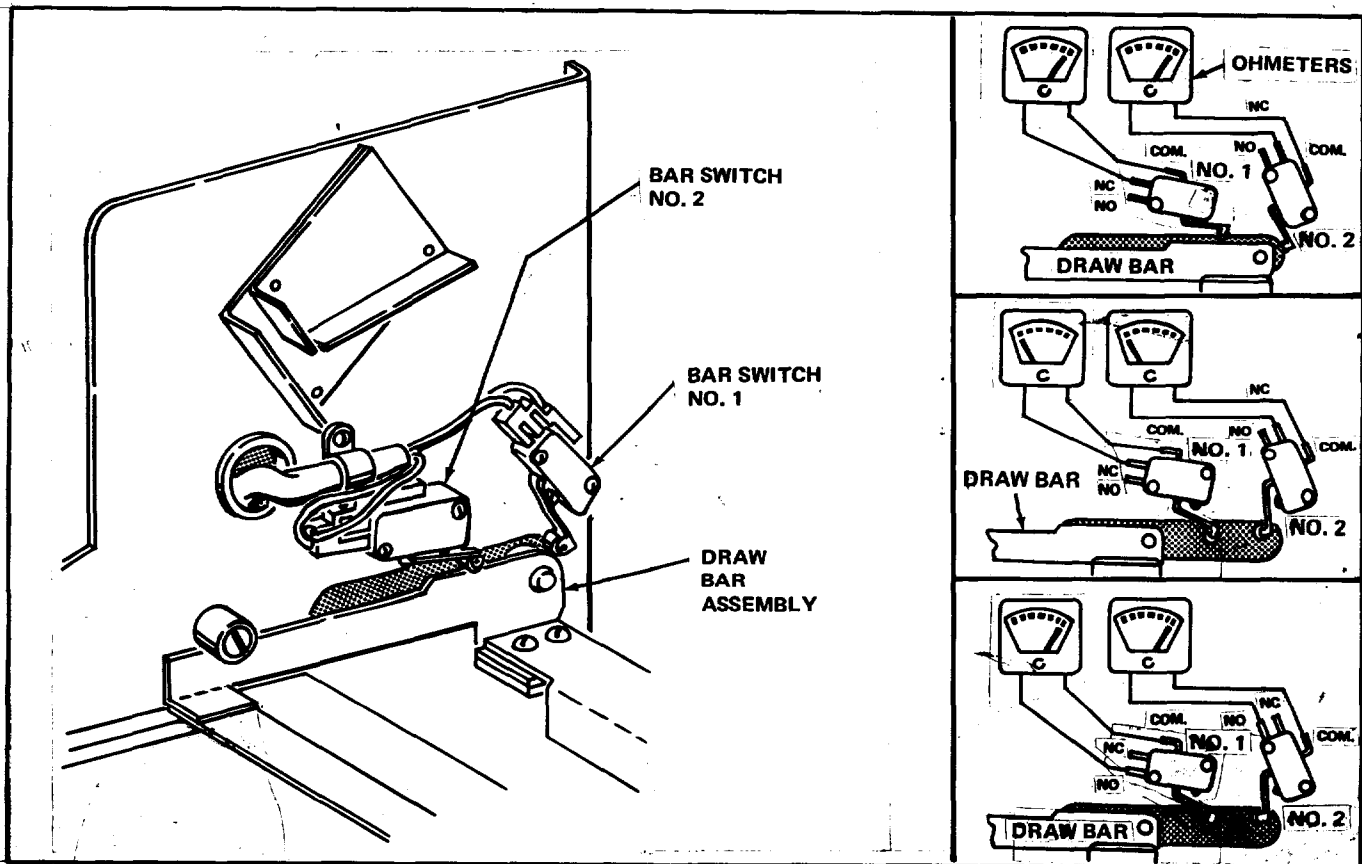


FIGURE III-6

- Y. If the Switch does not operate as indicated, after the Draw Bar is back at the at-rest position loosen the Screws which attach the Switch to the Sidewall and rotate the Switch closer to the Draw Bar extension.
- Z. Tighten the Switch mounting Screws.
- AA. Repeat steps III-U through III-Z until proper Switch operation is attained.
- AB. Attach the Connector removed in step III-U to the Switch.
- AC. Repeat required steps III-U through III-AA for the second Switch on the replacement Left Sidewall Assembly.

IV. TO MOUNT THE BOWL DISPENSER CABINET ON THE MERCHANDISER CABINET

- A. Read Part I- General Information of Section II of the Bowl Dispenser Set-Up Instructions.

WARNING

Be sure the Merchandiser Service Cord Plug is not attached to a wall receptacle.

- B. Determine on to which side of the Merchandiser Cabinet The Bowl Dispenser is to be attached.
- C. At the front of each side of the Merchandiser Cabinet, toward the bottom of the Cabinet is a knock-out. If the Bowl Dispenser is to be mounted on the left-hand side of the Merchandiser, punch out the plug on the left-hand side of the Merchandiser Cabinet. If the Bowl Dispenser is to be mounted on the right-hand side of the Merchandiser, punch out the plug on the right-hand side of the Merchandiser Cabinet. See Figure IV-1.
- D. Follow step G of Procedure II of Section II of the Bowl Dispenser Set-Up Instruction Heed the Warnings given in this step.
- E. Follow steps H through K of Procedure II of Section II of the Bowl Dispenser Set-Up Instructions, except tighten the two Self-locking nuts.
- F. Place the Bowl Dispenser Cabinet in position against the Merchandiser Cabinet. See Figure IV-2.
- G. Hold the two Cabinets together at their upper front edges with a "C" Clamp.

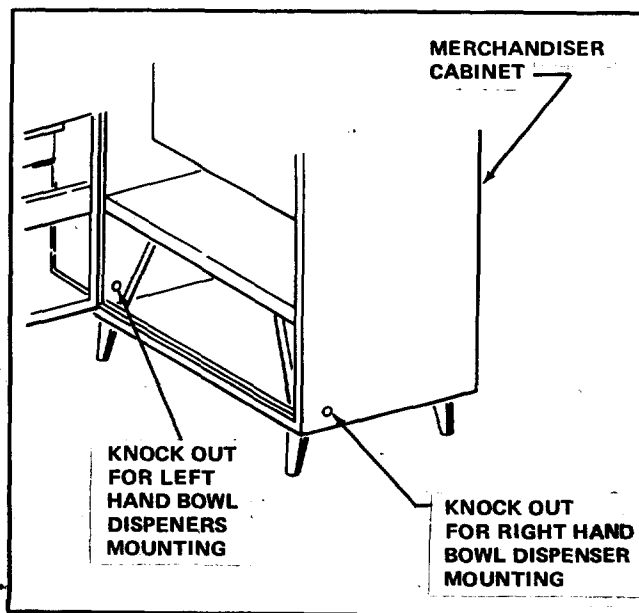


FIGURE IV-1

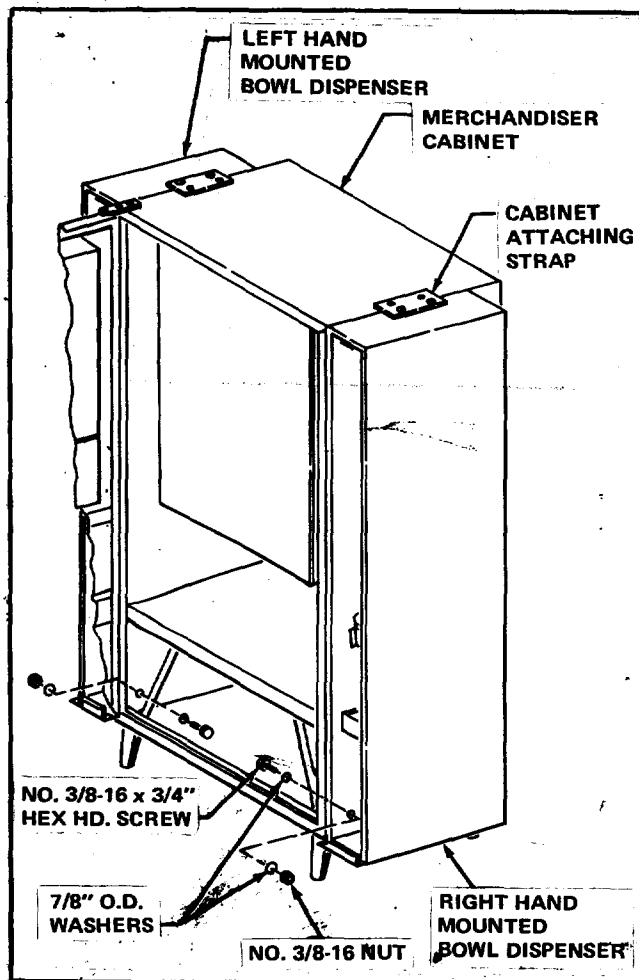


FIGURE IV-2

H. Attach the two Cabinets together at their lower front side corners. The hardware referred to is shipped in the Cloth Bag in the Bowl Dispenser.

1. Place one of the Two 7/8" x .390" x .060 Washers on the No.3/8-16 x 3/4" Hexagon Head Screw.
2. Insert the Hex. Head Screw with the Washer on it through the holes in lower front corner of the Cabinet sides.
3. Place the second 7/8" x 390" x .060" Washer on the Screw and attach the Screw with the No.3/8-16 Nut. Set the Nut snug but not wrench tight.

I. Align the top and front faces of the two Cabinets.

J. 1. Mark the hole center location of the two unused holes in the Cabinet Attaching Strap on to the top of the Merchandiser Cabinet. See Figure IV-3.

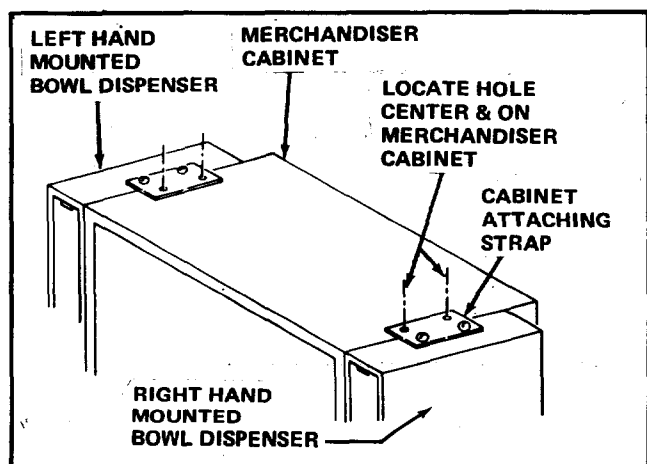


FIGURE IV-3

2. If the hole referred to in the Note in step H of Procedure II of Section III of Bowl Dispenser Set-Up Instruction is to be used, mark the center of this hole also on the Merchandiser Cabinet side.

K. Remove the No.3/8-16 Screw, Washers, and Nut which attach the Cabinets and remove the Bowl Dispenser Cabinet from the Merchandiser Cabinet.

L. Remove the "C" Clamp.

M. 1. Drill a 1/4" diameter hole through the top of the Merchandiser Cabinet at the two centers marked in step IV-J1 above.

2. If the hole referred to in step IV-J2 is to be used, drill a 3/8" diameter hole through the Merchandiser Cabinet side at that hole center mark.

N. Place the Bowl Dispenser Cabinet on the Merchandiser and:

1. Install the "C" Clamp to hold the Cabinets together.
2. Attach the Cabinets per step IV-H above.
3. Insert the two remaining No.10-32 x 3/8" PHS Screws through the two unused holes in the Cabinet Attaching Strap. See Figure IV-4.

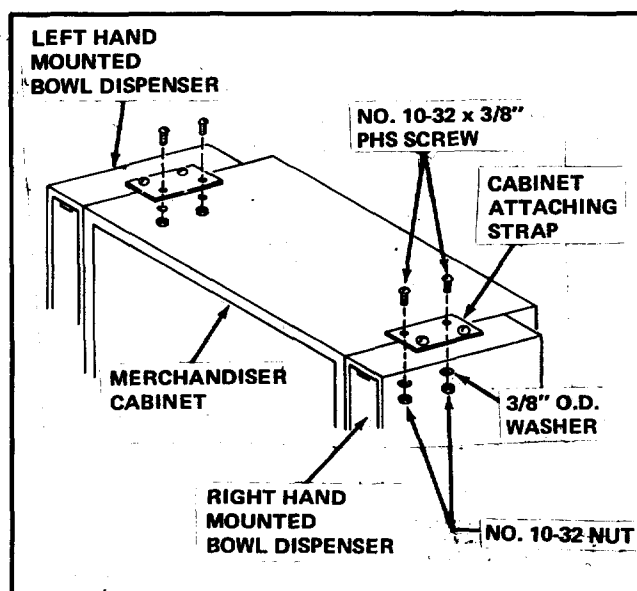


FIGURE IV-4

4. Place the two remaining 3/8" x .203" x .032" Washers and the two remaining No.10-32 Self locking Nuts on the Screws. Do not tighten the Nuts.

5. If the hole referred to in step IV-M2 above is to be used, attach the Cabinets together through the hole with attaching hardware of the type used when step IV-G above was performed.

6. Remove the "C" Clamp.

O. Align the top and front of the two Cabinets.

P. Tighten the hardware securely.

NOTE

Be sure each steps of each Procedure thus far covered has been properly performed.

- Q. On the Service Cord outlet side of the rear panel of the Merchandiser Cabinet, measure 2-3/4 inches in from the side edge of the Cabinet and 19-1/8 inches down from the top edge of the Cabinet and mark the intersection point. See Figure IV-5.

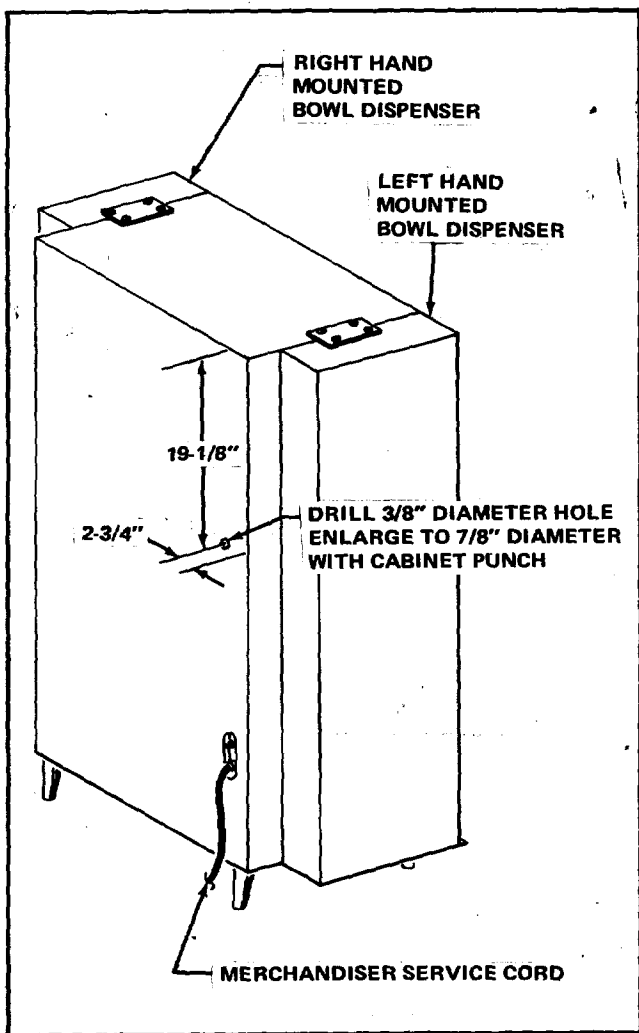


FIGURE IV-5

- R. Drill a 3/8 inch diameter hole at that point described in step IV-Q.
- S. Use a 7/8 inch diameter Chassis Punch to enlarge the 3/8 inch diameter hole to 7/8 inch diameter.
- T. Clean all drill chips out of the Merchandiser Cabinet.

V. TO INSTALL THE DELIVERY MECHANISM TO CABINET TERMINAL BLOCK HARNESS ASSEMBLY IN THE HCM-72 MERCHANTISER

- A. Remove the two Screws which attach the Terminal Box Cover in the Merchandiser. See Figure V-1.
- B. Remove the Terminal Box Cover.
- C. Attach the Delivery Mechanism To Cabinet Terminal Block Harness to the Terminal Block in the Terminal Box.

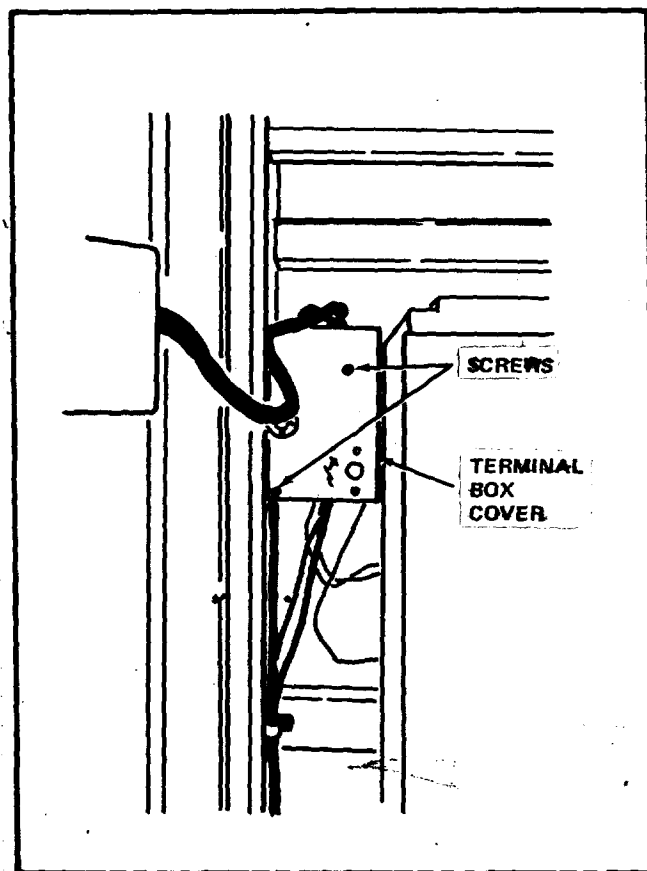


FIGURE V-1

1. Attach the White Wire Push-on Terminal to a Terminal on the side of the Block which has the White Wires attached to it.
2. Attach the Black Wire Push-on Terminal to a Terminal on the side of the Block which has the Black Wires attached to it.
3. Remove the Screw which attaches the Green Grounding Wire in the Terminal Block.
4. Add the Green Wire Terminal on the Harness Assembly and install the Screw.

- D. Replace the Terminal Box Cover and attaching Screws.
- E. Remove the Screws which attach the two Cable Clamps which attach the Harness between the Service Cord outlet and the Terminal Box. See Figure V-2.

- F. Route the Delivery Mechanism Harness through the two Cable Clamps and attach the Cable Clamps with the Screws removed in step V-E.
- G. Attach the replacement Schematic Diagram to the inside of the Merchandiser Cabinet Door. Remove or mark-out the original Schematic Diagram that was in the Merchandiser.

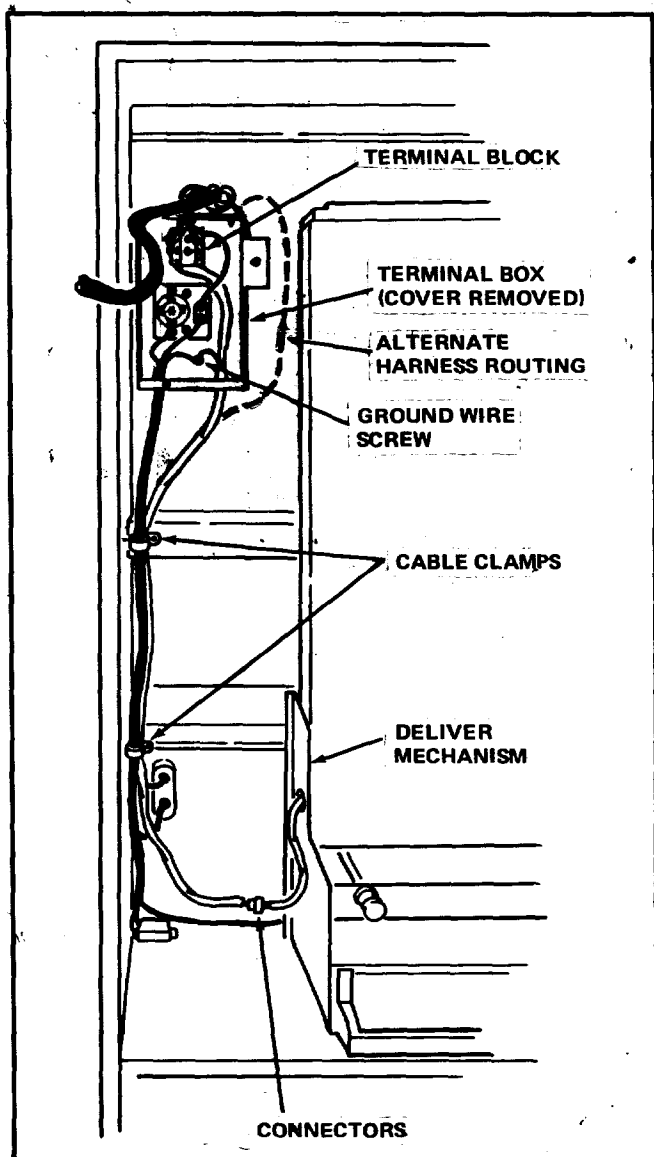


FIGURE V-2

VI. TO ELECTRICALLY CONNECT THE BOWL DISPENSER TO THE HCM-72 MERCHANDISER

Be sure the steps of Procedure V were properly performed.

- A. The Bowl Dispenser Cable, which is shipped in the bottom of the Bowl Dispenser Cabinet, has a smaller Connector at one end than at the other. Attach the larger Connector to the Receptacle that is toward the fuse Box end of the Cable installed in Procedure V.
- B. Follow step B through N of Procedure III-K of Selection II of the Bowl Dispenser Set-Up Instruction.
- C. Install the Merchandiser Delivery Mechanism in the HCM-72 Merchandiser.
- D. Attach the Connector on the Delivery Mechanism Harness to the lower Connector on the Harness installed in Procedure V of this Instruction. See Figure V-2.
- E. Install the Bowl Dispenser Mechanism Panel. See Procedure III of Section IV of the Bowl Dispenser Set-Up Instruction.
- F. Attach the Merchandiser to a properly polarized wall receptacle.

VII. BOWL DISPENSER FAMILIARIZATION

Read carefully and follow the steps given in Sections III through VI of the Bowl Dispenser Set-Up Instruction.