

## KIT PART NUMBERS 4274142 AND 4274143

### INSTRUCTIONS FOR INSTALLING A FIELD UPGRADE KIT IN A FOODKING MERCHANDISER

CHECK THE PARTS RECEIVED IN THE KIT WITH THE PARTS LIST IN THESE INSTRUCTIONS. IF ANY PARTS ARE MISSING, CONTACT THE NATIONAL VENDORS PARTS DEPARTMENT IMMEDIATELY.

Read these instructions carefully before installing the kit.  
Keep these instructions for part numbers and for future reference.

This kit contains the following :

PART NUMBER	DESCRIPTION	QUANTITY
1451056	8-32X.31 HWS TY23 ZB WAX	14
1571035	STANDOFF - PCB - 3/8 SNAP LOCK	2
1571154	STATIC ELECTRICITY CAUTION LABEL (FRANCE, U.K., U.S.)	1
3104053	TAPE - INSULATION	16 IN
4031248	RIVET - POP .125 DIA X .232	3
4270011	POWER PANEL LABEL (U.K., U.S.)	1
4270012	POWER PANEL LABEL (FRANCE)	1
4270013	POWER PANEL LABEL (GERMANY)	1
4270025	LABEL - LOCATE FOOD HERE	1
4270059	INSTRUCTIONS - FOODKING REWORK	1
4271127	PANEL, ELECTRICAL (115 V)	1
4271128	PANEL, ELECTRICAL (230 V)	1
4271129	BRACKET, ELECTRICAL PANEL	1
4271130	STOP - COLD FOOD DOOR LATCH	1
4272093	COVER ASSEMBLY - SENSOR	1
4273054	STRIP ASSEMBLY - DOOR GASKET - VERTICAL	2
4273056	STRIP ASSEMBLY - DOOR GASKET - HORIZONTAL	3
4273102	SPACER ASSEMBLY - DOOR GASKET - HORIZONTAL	1
4273104	EXTRUSION COVER ASSEMBLY	8
4273119	GASKET "P" SILICONE W/ADHESIVE BACK	47.625 IN
4274082	TUBE - DRAIN - CONDENSATE	1
4274084	PAN AND TUBE ASSEMBLY - EVAPORATOR	1
4274099	CARRIAGE ASSEMBLY - LIFT	1
4274104	SLIDER ASSEMBLY - LIFT - LEFT	1
4274109	SLIDER ASSEMBLY - LIFT - RIGHT	1
4274112	GUIDE - LIFT - LEFT	1
4274113	GUIDE - LIFT - RIGHT	1
4274114	RETAINER - SLIDER	2
4274115	SEAL - EVAPORATOR INLET	1
4274116	SEAL - EVAPORATOR OUTLET	1
4274122	HEIGHT GAUGE - 15.885"	1
4274123	HEIGHT GAUGE - 16"	1

**This kit contains the following (continued):**

<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
4274124	HEIGHT GAUGE - 16 1/8"	1
4274156	SHIM ASSEMBLY	2
4274161	FAN AND SHROUD ASSEMBLY (115 V) - EVAPORATOR	1
4274162	FAN AND SHROUD ASSEMBLY (230 V) - EVAPORATOR	1
4274163	BAFFLE - EVAPORATOR TOP	1
4274164	COIL - STANDOFF (CON. SIDE)	1
4274165	COIL - STANDOFF (OPPOSITE CON. SIDE)	1
4276003	IC ASSEMBLY - VERSION 427.03	1
4279021	HARNESS - FAN INTERFACE	1
4312124	TAPE - FLOCKED - .25" WIDE	86.5 IN
4402037	SCREW - #10-32X1 1/2 RHS-SS	4
4614027	SEAL - 1.00 X .87	13.75 IN.
4614027	SEAL - 1.00 X .87	49.5 IN
4727069	FOAM TAPE	2 FT.
4731070	SCREW - #10-32 X 1.75 PHS	1
6104424	NUT #10-32 S.S. EXT LW	5
6231188	LABEL - CAUTION - HOT SURFACE	1
6232518	STATIC ELECTRICITY CAUTION LABEL (GERMANY)	1
6237099	CLAMP - TUBE	1
9984165	JUMPER - GROUND WIRE	1

**In addition to normal hand tools, you will need the following to complete this installation:**

CORDLESS DRILL
POP RIVET GUN
DRILL BIT - 7/32" (.218)
DRILL BIT - 9/64" (.140)
DRILL BIT - 15/64" (.234)
SILICONE CAULKING
SCRAPER (FOR REMOVING OLD GASKETS)
FLASHLIGHT
THERMOMETER/HUMIDITY INDICATOR
UTILITY KNIFE

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### **Part I. Prepare the machine:**

1. Remove all products from the machine and store in a cold location.
2. Unplug the machine from its power source.

### **Part II. Remove parts:**

1. Remove and save the outer door support bracket and the bottom inlet screen. Save all screws for later reinstallation (**see figure 1**).
2. Remove the ballast cover from the front of the refrigeration unit and disconnect the wiring harness at the plug (**see figure 2**).
3. Remove and save the front support bracket. Remove the refrigeration unit, being careful not to damage any wiring harnesses. Save all mounting hardware. From the refrigeration unit, remove and discard the two guide pins (**see figure 1**).
4. Remove and discard the following: Two guide rails (4311201 and 4311202), rear stop bracket (4274045), and the center rear support bracket (4314078). Make sure the bottom shelf is completely clear of all parts (**see figure 1**).

### **Part III. Measure the machine for shims:**

1. There are three shim gauges. Each shim gauge is a straight piece of metal approximately 16" long with a slight angle bend down its length. In the following steps, you will be using them to determine if you need to add shim strips to your installation.

#### ***NOTE***

***Do not use force to stand the shim gauges straight up.***

2. While holding the shim gauge **with no holes (15.885")** vertical and resting one end on the cabinet floor, move it back and forth between the air inlet and outlet vents to check the distance between the air vents and the cabinet floor.

***If the shim gauge with no holes (15.885") is too long to fit, contact the GPL Service Department.***

***If the shim gauge with no holes (15.885") fits, proceed to the next step.***

3. While holding the shim gauge **with two holes (16")** vertical and resting one end on the cabinet floor, move the gauge back and forth between the air inlet and outlet vents to check the distance between the air vents and the cabinet floor.

***If the shim gauge with two holes (16") is too long to fit, you do not need any shims.***

***If the shim gauge with two holes (16") fits loosely, proceed to the next step.***

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4. While holding the shim gauge **with three holes (16 1/8")** vertical and resting one end on the cabinet floor, move the gauge back and forth between the air inlet and outlet vents to check the distance between the air vents and the cabinet floor.

*If the shim gauge with three holes (16 1/8") is too long to fit, and the shim gauge with two holes fits too loosely, you need one shim pair. Proceed to the next step.*

*If the shim gauge with three holes (16 1/8") fits, contact the GPL Service Department*

5. Apply 2" of double stick tape (4273049) to each end of both shim strips. Install the shim strips to the lift carriage assembly (4274099) against the left and right sides as shown (**see figure 4**), **CENTERED FRONT TO BACK**

**CAUTION**

*Do not use only one shim. Both sides must be shimmed equally.*

**Part IV. Modify the power panel (see figure 3):**

1. Remove the three screws holding the power panel to the machine, and dismount it from the cabinet. **DO NOT DISCONNECT ANY WIRES.**
2. Remove all components from the old power panel and install them in their corresponding places on the new power panel. **Avoid disconnecting any wires, unless you are very sure where they were connected.**
3. Install tube clamp (6237099) in the hole above the static label on the power panel, as shown.
4. Install the electrical panel bracket (4271129) to the machine floor where the old power panel was mounted. Partially install two screws into the holes at the top of the bracket, as shown.
5. Reconnect any power panel connections. Install the new power panel by hooking the keyed holes in the bottom of the power panel over the screws you installed in the previous step. Secure the top of the power panel to the underside of the cold cabinet with one screw. Tighten the two screws in the keyed holes.
6. Install 1 3/4 inches of foam tape (4614027) vertically to the right side of the power panel flush with the bend.
7. Install the static electricity caution and power panel labels to the new power panel.

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**Part V. Install chassis lift assembly (see figure 4):**

1. Locate the new left and right guides (4274112 and 4274113) as shown. Using the screws which formerly held the old guide rails, attach each guide as follows:
  - a. Secure each guide with one screw in its rear hole.
  - b. In the second hole from the rear, install a slide retainer clip in the orientation shown. Secure with one screw.
  - c. Using the two front holes as drilling templates, drill #28 (9/64") holes in the machine floor. Secure the guide with #8-32 thread cutting screws.
2. Place the left and right slider assemblies onto the guide assemblies. Position them with their handles up, and the handle angled tabs approximately centered in the guide notch front to back. They must rest loosely between the slide retainers and the guides. The plastic ramps should face toward the center of the cabinet.
3. Install the carriage assembly as follows:
  - a. The carriage has two narrow notches that fit over the two lips at the rear of the glide assemblies, as shown. Tilt the carriage to the left side and fit the notch over the guide assembly lip.
  - b. The carriage should fit snugly and rest firmly on the cabinet floor (with the slider handles up). Move the carriage around until it is in place.
  - c. Apply a small amount of grease where the surfaces of the levers and carriage assemblies meet.

**Part VI. Modify the refrigeration unit - part 1 (see figure 2):**

1. Remove the cover from the refrigeration unit.
2. Remove the old outlet seal and inlet seal. Clean all traces of adhesive from the cover, then attach the new outlet seal (4274116) and inlet seal (4274115). Set the cover aside.
3. Remove and discard the old blower assembly.
4. Using a #3 (7/32") bit, enlarge the three existing holes as shown, drilling through the foam insulation inside the refrigeration unit.
5. Remove and discard the old evaporator top baffle.

**Part VII. Modify the refrigeration unit - part 2 (see figure 5):**

1. Remove and discard the rear spacing bracket.
2. Remove three screws from the lower right side of the chassis as shown. Install rivets (4031248) in the holes where the screws were.
3. Using a #3 (7/32") bit, drill two holes in the locations shown, drilling through the foam insulation inside the refrigeration unit.

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**Part VIII. Modify the refrigeration unit - part 3 (see figure 2):**

1. Ensure the axial fan is mounted to the evaporator fan shroud (4274129). If it is not, mount the axial fan to the new evaporator fan shroud (4274129) with #8-18 x 2.5 hex head screws. Be sure the airflow arrow on the fan points toward the evaporator.
2. Install the fan and shroud assembly into the refrigeration unit with four #10-32 x 1.5 screws and KEP nuts, and one #10-32 x 1.75 screw and KEP nut, as shown.
3. Connect the new fan to the old fan's wiring harness with the fan interface harness (4279021).
4. Attach the "CAUTION - HOT SURFACE" label (6231188) to the rear of the refrigeration unit.
5. Locate the air gap between the evaporator bracket and the drain pan, near the drain end **(see figure 6). APPLY 2" OF CORK TAPE TO THE BOTTOM EDGE OF THE EVAPORATOR BRACKET TO SEAL THIS AIR GAP. REPEAT ON THE OPPOSITE SIDE BRACKET AT THE DRAIN PAN.**
6. To the bottom edge of the downwind side of the evaporator bracket, install 1 coil standoff (4274165) under the end of the evaporator which is opposite of the tubing connections.
7. Install one coil standoff spacer (4274164) under the tubing connection end of the evaporator as shown **(see figure 6).**
8. Apply foam tape (4727069) to fill any gaps between the evaporator top baffle and the slots in the sidewall insulation, as shown.
9. Seal all holes from the previous fan with silicone sealant. Be sure to seal the metal and insulation holes.
10. Apply 2" of cork tape to the evaporator bracket opening that previously had the old fan harness running through it.
11. Install the new evaporator top baffle (4274163).

**Part IX. Modify the refrigeration unit - part 4 (see figure 7):**

1. Remove and discard the old condensate drain tube and the evaporator pan and tube assembly.
2. Install the new evaporator pan and tube assembly (4274084).
3. Attach the new condensate drain tube (4274082) to the drain spout on the condensate drain pan. Attach the other end of the condensate drain tube to the evaporator pan and tube assembly. Make sure the tube fits in the opening as shown.
4. Reinstall the cover to the refrigeration unit.

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**Part X. Modify the refrigeration unit - part 5 (see figure 8):**

1. Apply 5" of cork tape to the area above and surrounding the liquid and suction lines entering the sidewall insulation (shaded area 1). Be sure the cork tape covers the insulation that is exposed on the condenser side.
2. Apply 4" of cork tape to the bare tubing entering and leaving the accumulator (shaded area 2).
3. Apply 3" of cork tape to the bare suction line near the compressor (shaded area 3).

**Part XI. Modify the front support bracket (see figure 9):**

1. In the location shown, drill a  $\frac{3}{16}$ " hole.

**Part XII. Install the refrigeration unit:**

1. Make all electrical connections from the refrigeration unit to the machine while sliding the unit into place.
2. Raise both slider handles forward and down to raise the refrigeration unit. Secure the handles to the glides with #8-32 thread cutting screws (1451056).

**Part XIII. Install a new EPROM (see figure 10):**

1. Remove the cover to gain access to the controller board assembly.
2. Locate the EPROM, U3, as shown. Observe the location of the notch. You will need to install the new EPROM with the notch facing the same way as the old one.

**CAUTION**

*The EPROM is sensitive to static electricity. Ground yourself by grasping a metallic part of the machine (such as the door) during the following procedure.*

3. Carefully remove the old EPROM.
4. While grounding yourself to the machine with one hand, carefully pick up the new EPROM and locate it over the socket, *making sure the notch faces the same way as did the old one.*
5. Carefully insert the EPROM into the socket, making sure all pins go into their respective holes in the socket. When all pins are lined up with their holes, gently press the EPROM into the socket with your thumb. **DO NOT FORCE.** Inspect the EPROM to make sure no pins are bent under the device.
6. Replace the controller cover.

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**Part XIV. Install door seal strips (see figure 11):**

1. The inner door has a flexible magnetic gasket, similar to a household refrigerator door. You will be installing metallic strips to adhere to this magnetic gasket, enabling it to fit more snugly.
2. From the outer door shadow box, remove the plastic edging from the top, bottom, and latch sides as shown. DO NOT remove the plastic edging from the hinge side of the shadow box.
3. Double sided tape (4273049) should be applied to the black metallic strips. If not, apply to strips.

**NOTE**

*The vertical metallic strips extend past the horizontal strips, as shown.*

4. Apply the top vertical metallic strip assembly (4273054) to the black plastic thermal break as shown. Be sure the left edge of the strip is aligned with the inner edge of the thermal break, and the top edge of the strip is aligned with the top edge of the black plastic thermal break.
5. Apply the bottom vertical metallic strip assembly (4273054) to the black plastic thermal break as shown. Be sure the left edge of the strip is aligned with the inner edge of the thermal break and the top edge of the strip is butted against the bottom of the top vertical metallic strip.
6. Apply the top metallic strip assembly (4273056) to the black plastic thermal break as shown. Be sure the bottom edge of the strip is aligned with the inner edge of the thermal break and the right edge is aligned with the vertical metallic strip.
7. Apply one bottom metallic strip assembly (4273056) to the black plastic thermal break as shown. Be sure the bottom edge of the strip is aligned with the bottom edge of the thermal break and the right edge is aligned with the vertical metallic strip.
8. Apply the horizontal door gasket spacer assembly (4273102) to the cabinet, below the thermal break. Be sure the top edge of the spacer assembly is aligned with the bottom of the black plastic thermal break and the right edge is aligned with the vertical metallic strip.
9. Apply one metallic strip assembly (4273056) to the horizontal door gasket spacer assembly (4273102), below the bottom metallic strip assembly applied in step 5, as shown. Be sure the top edge of the strip is aligned with the bottom of the black plastic thermal break and bottom metallic strip assembly and the right edge is aligned with the vertical metallic strip.
10. Do not install a metallic seal strip to the hinge side of the thermal break.
11. Apply 1.00 x .87 seal (4614027) to the black plastic thermal break on the side wall, on the hinge side.



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**Part XV. Modify the orientation of the temperature sensor (see figure 12):**

1. Remove the temperature sensor and housing from the solenoid cover. Discard the housing.
2. Drill a 15/64" (or #A) hole in the location shown.
3. Reposition the temperature sensor and new housing (4272093) as shown, 90° to its original orientation.
4. Place a 3/8 snap lock standoff (1571035) in each of the holes that are not used.

**Part XVI. Replace the cold food door latch stop (see figure 13):**

1. Remove the cold food door latch stop (4271099) as shown. Keep the two screws.
2. Using the two screws previously removed, install the new cold food door latch stop (4271130) to the cabinet. Be sure the slot closest to the angled part of the door latch stop is pushed forward to make contact with the screw. Also be sure the angle is facing out from the cabinet.

**Part XVII. Install miscellaneous parts:**

1. Install the outer door support bracket. Install the bottom inlet screen, but do not install the two screws farthest away from the front of the machine.
2. Install the modified front support bracket on top of the bottom inlet screen, using the screws that secure the rear of the bottom inlet screen.
3. Install the ground wire (9984165).

**BEFORE BEGINNING PARTS XVIII AND XIX PERFORM THE FOLLOWING:**

1. Disconnect all electrical connections from the inner door and mark for identification.

***NOTE***

***Removing the inner door is optional, but is recommended to facilitate ease of assembly.***

2. Remove the inner door from the cabinet and place it, facing up, on a level surface.

**Part XVIII. Prepare to Install Flocked Tape (see figures 14 and 15):**

1. Remove the sensor cover assembly from the inner door solenoid cover. Do not discard.
2. Remove the inner door solenoid cover. Do not discard.
3. Remove the solenoid mounting plate with solenoid and bracket assemblies attached. Do not discard.
4. Remove the holder plate lock tab and the push on retainers (2). Do not discard.
5. Remove the tray shields, vend door tracks, vend doors, price tag retainers and the door stop and price holders.

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**Part XIX. Install Flocked Tape and “P” Gasket (see figure 16):**

1. Peel the backing from the flocked tape and install vertically on the inner door, flush with the inner door opening from the top vend door track to the bottom vend door track, on both vertical inside surfaces.
2. Reinstall the parts removed in part XVIII in reverse order.
3. On the inner door, seal between the top of the top vend door track and the inner door with silicone sealant. Also, seal between the bottom of the bottom vend door track and the inner door with silicone sealant.
4. Peel the backing from the "P" gasket and install on the vertical length of the cold food door gasket on the hinge side as shown.

**AFTER COMPLETING PART XIX PERFORM THE FOLLOWING:**

1. Reinstall the inner door on the cabinet. Insure that the door is hung properly by performing the following: loosen the hinge screws and push the door towards the food compartment. While holding the door in, tighten the hinge screws.
2. Reconnect all electrical connections disconnected from the inner door.

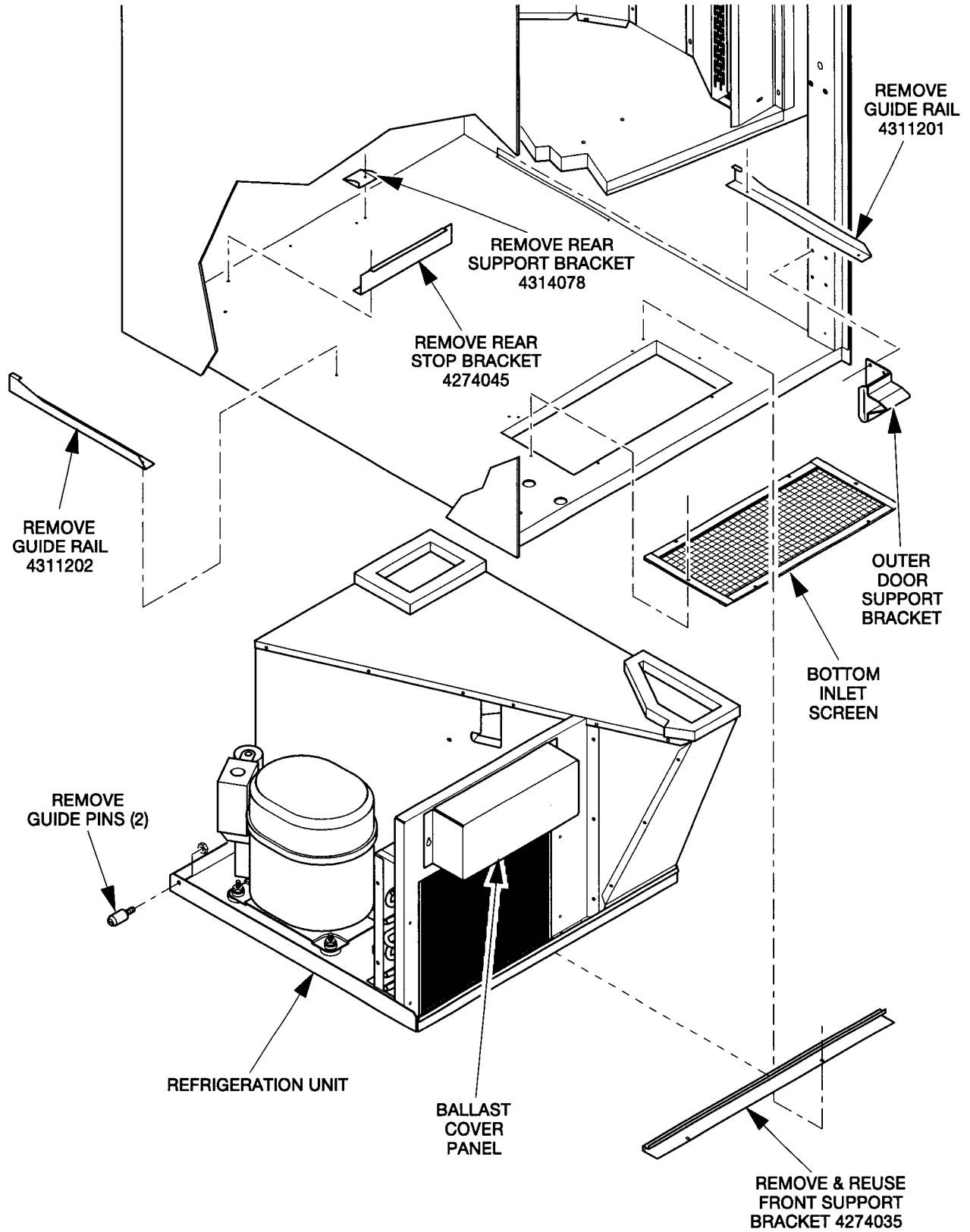
**Part XX. Install new extrusion cover assemblies (see figure 17):**

1. Remove any decals and foreign material from the metal extrusions between the vend door as shown. It is very important that there be an airtight seal between the extrusion and the extrusion cover.
2. Make sure the extrusions are at room temperature. Using isopropyl alcohol, thoroughly clean and dry the surface of the extrusions.

***IMPORTANT***

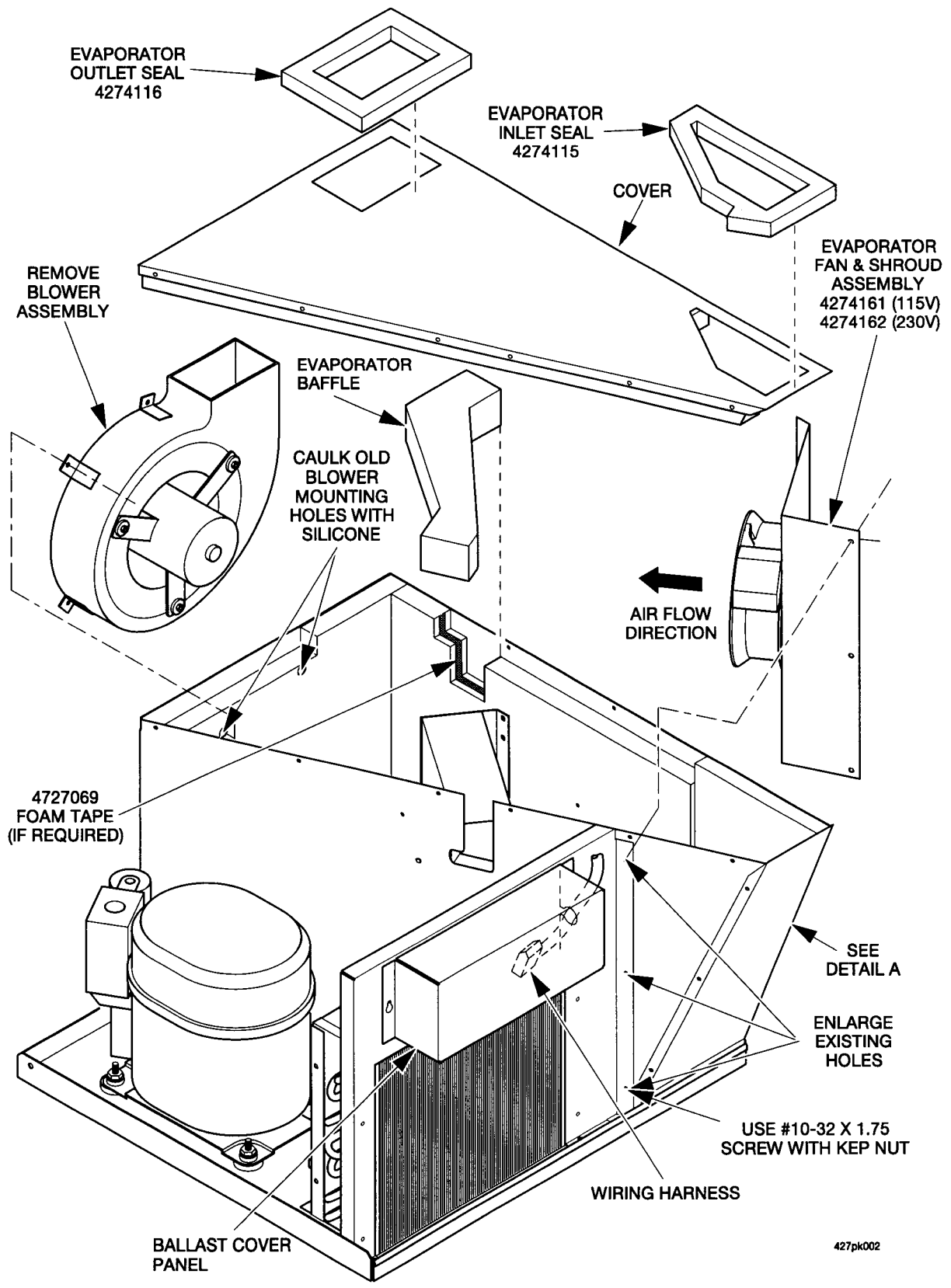
***Be sure the extrusions are clean, dry, and at room temperature before continuing.***

3. Peel the backing from the double-sided tape on the back of the extrusion cover assemblies.
4. Align an extrusion assembly with the right side of a metal extrusion, and centered from top to bottom.
5. Firmly press the extrusion cover over the extrusion to secure it in place.
6. Repeat this step for all remaining extrusions.
7. Apply the “LOCATE FOOD HERE” decals to the extrusion covers as shown.



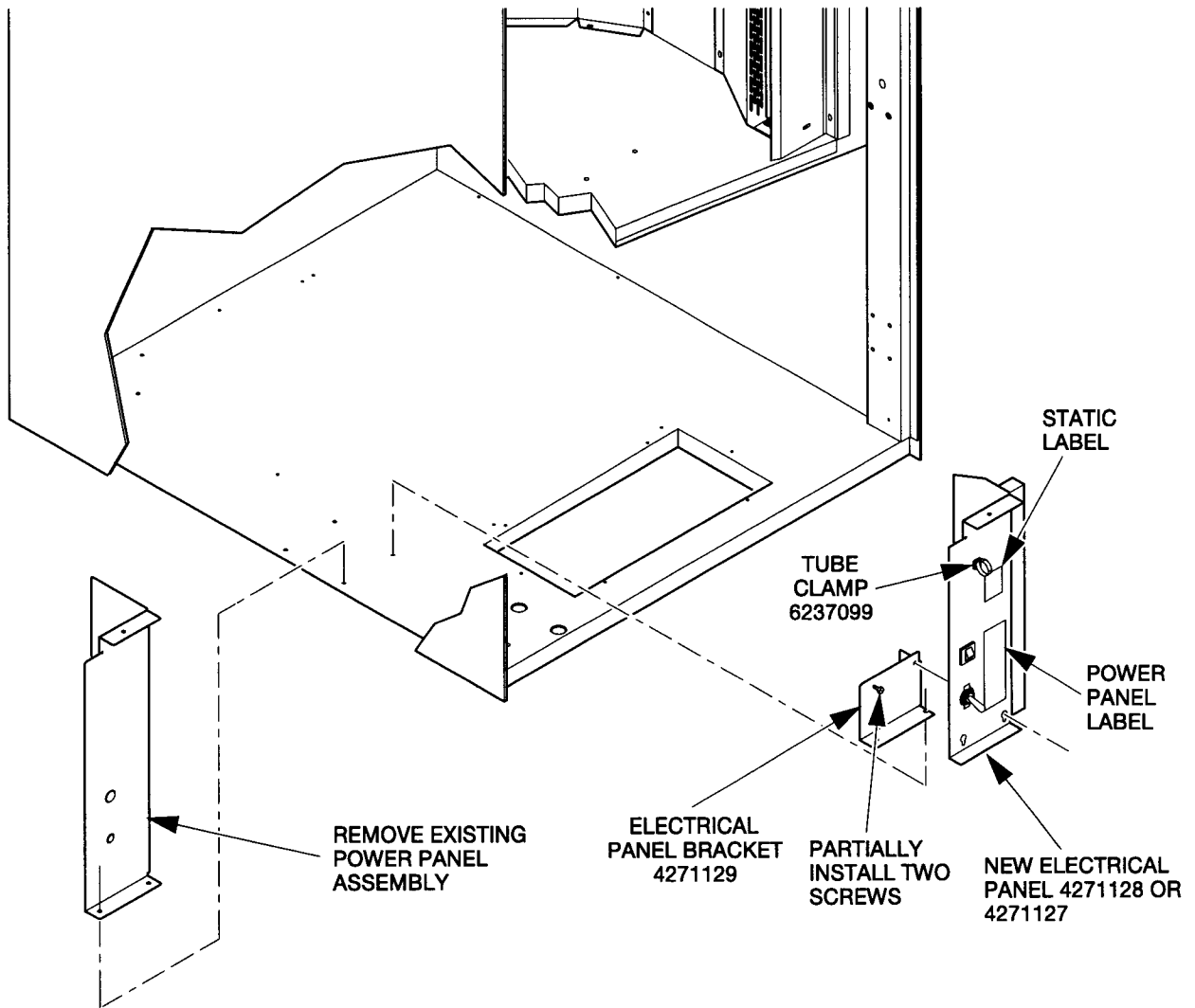
427pk004

Figure 1



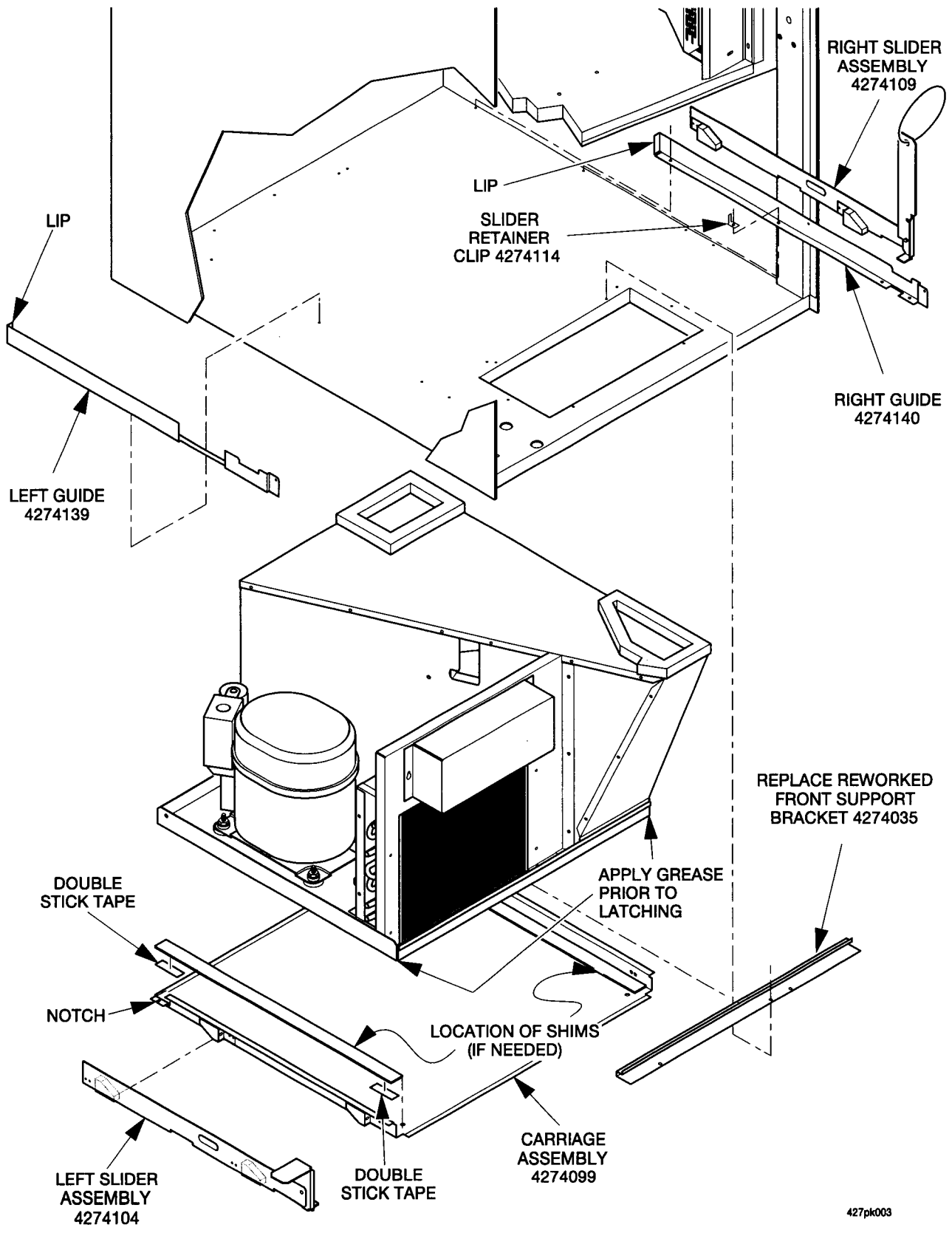
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Figure 2



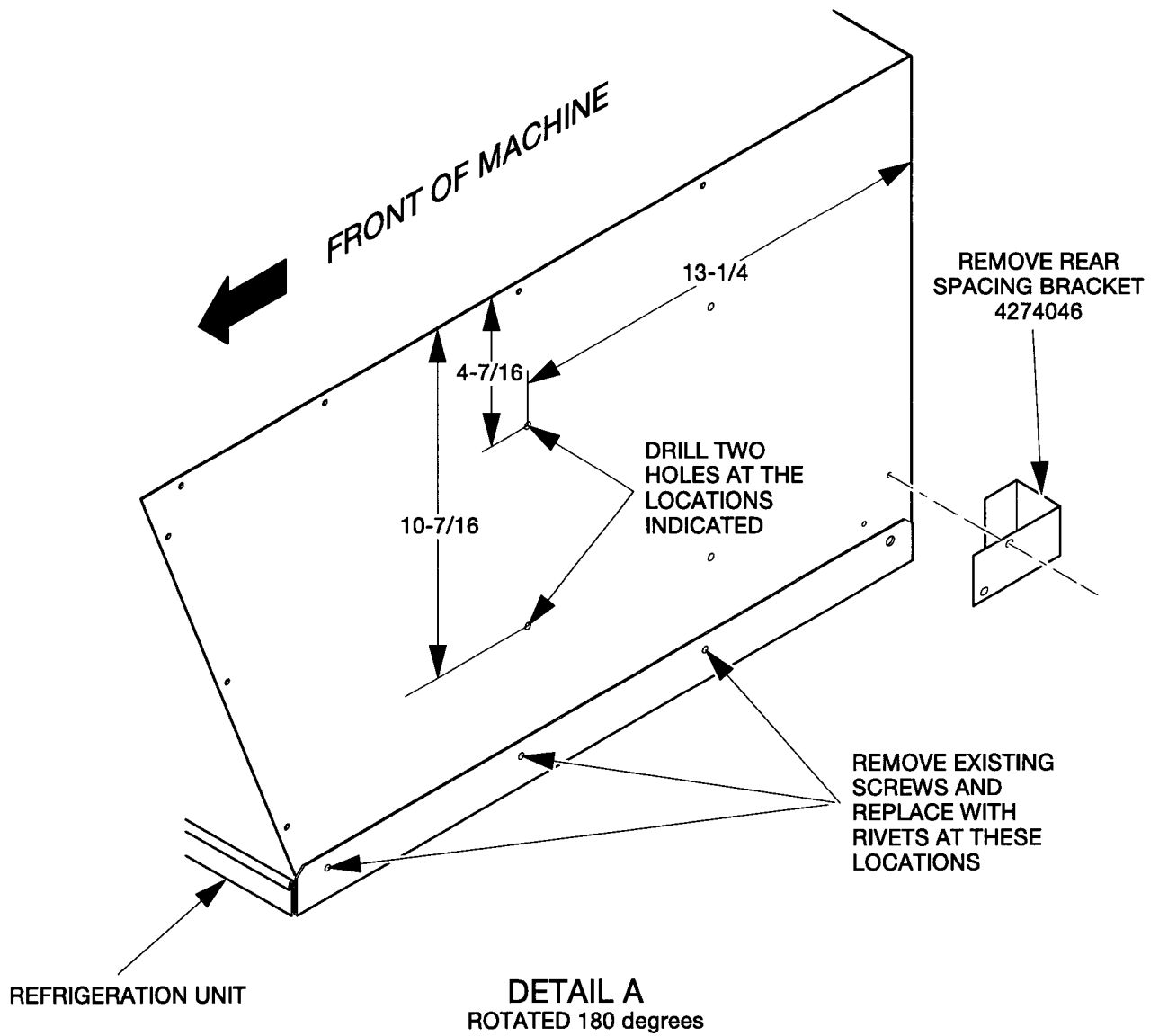
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Figure 3



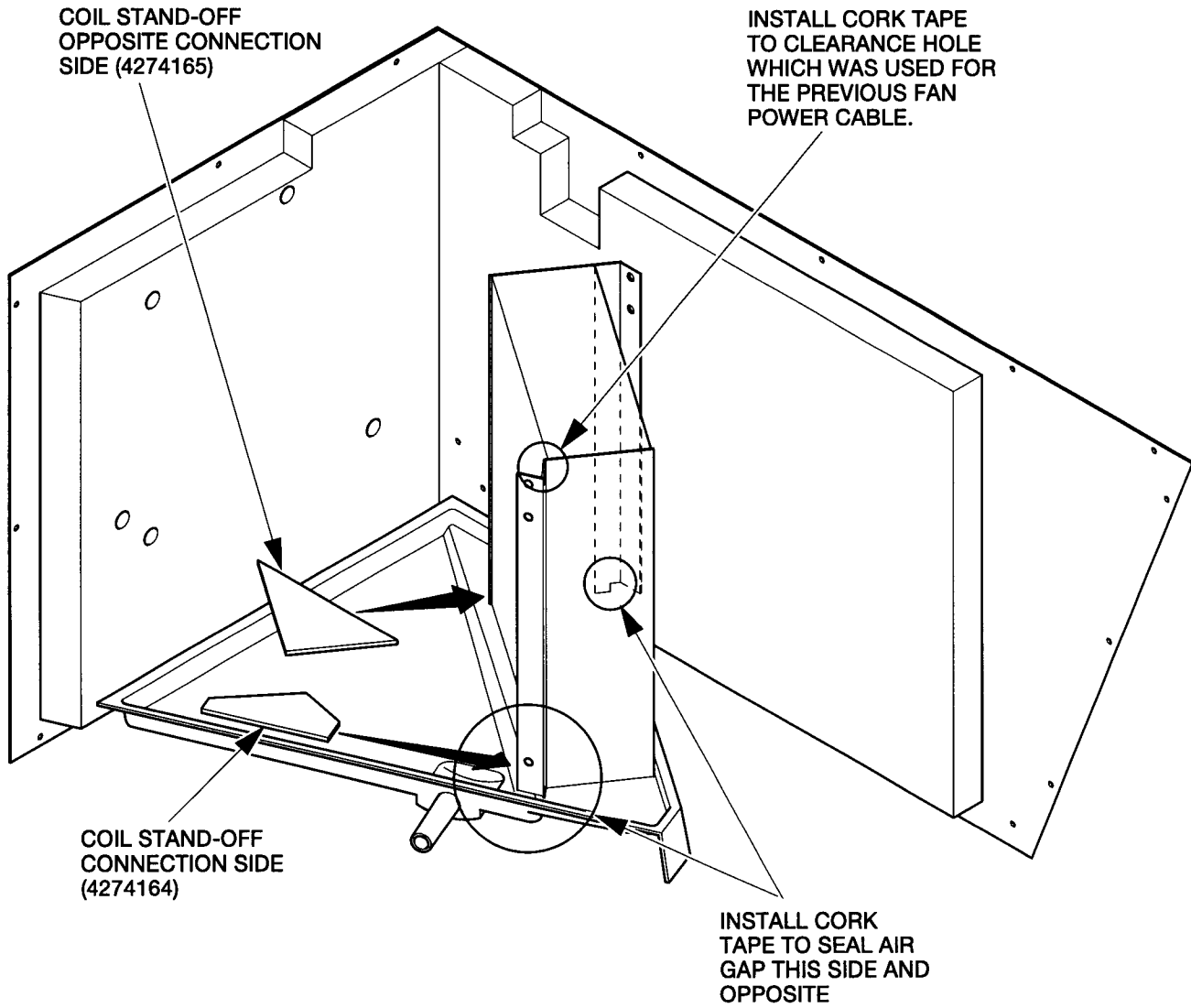
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Figure 4



427pk005

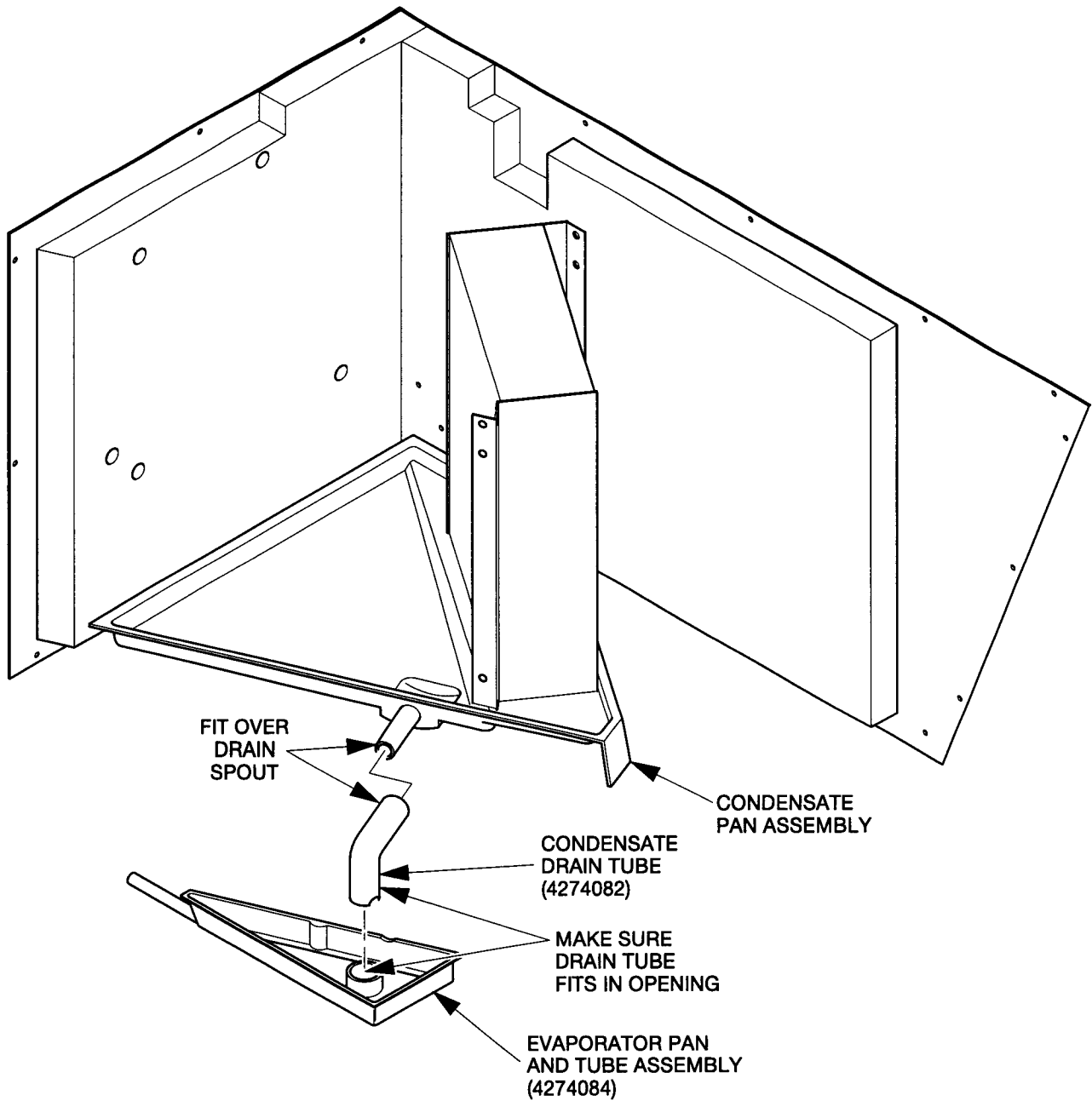
Figure 5



427pk006

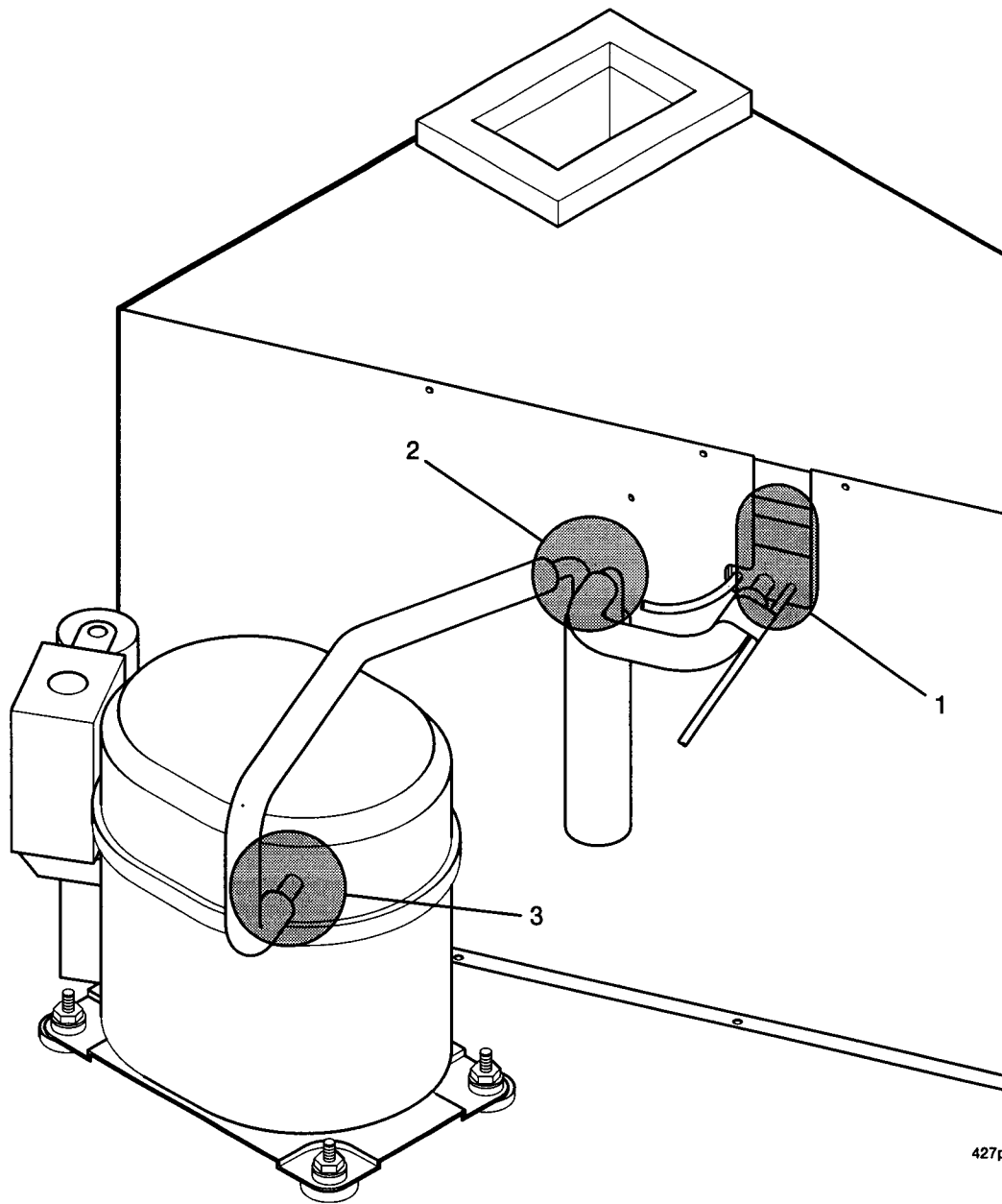
Figure 6





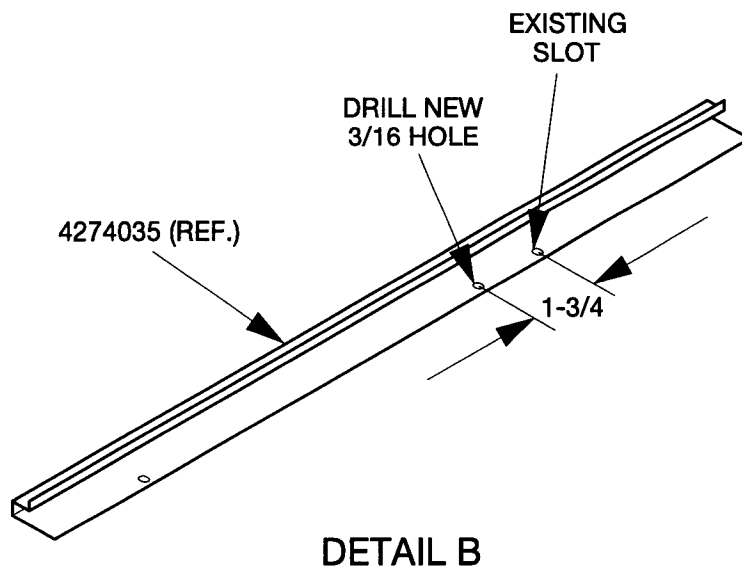
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Figure 7



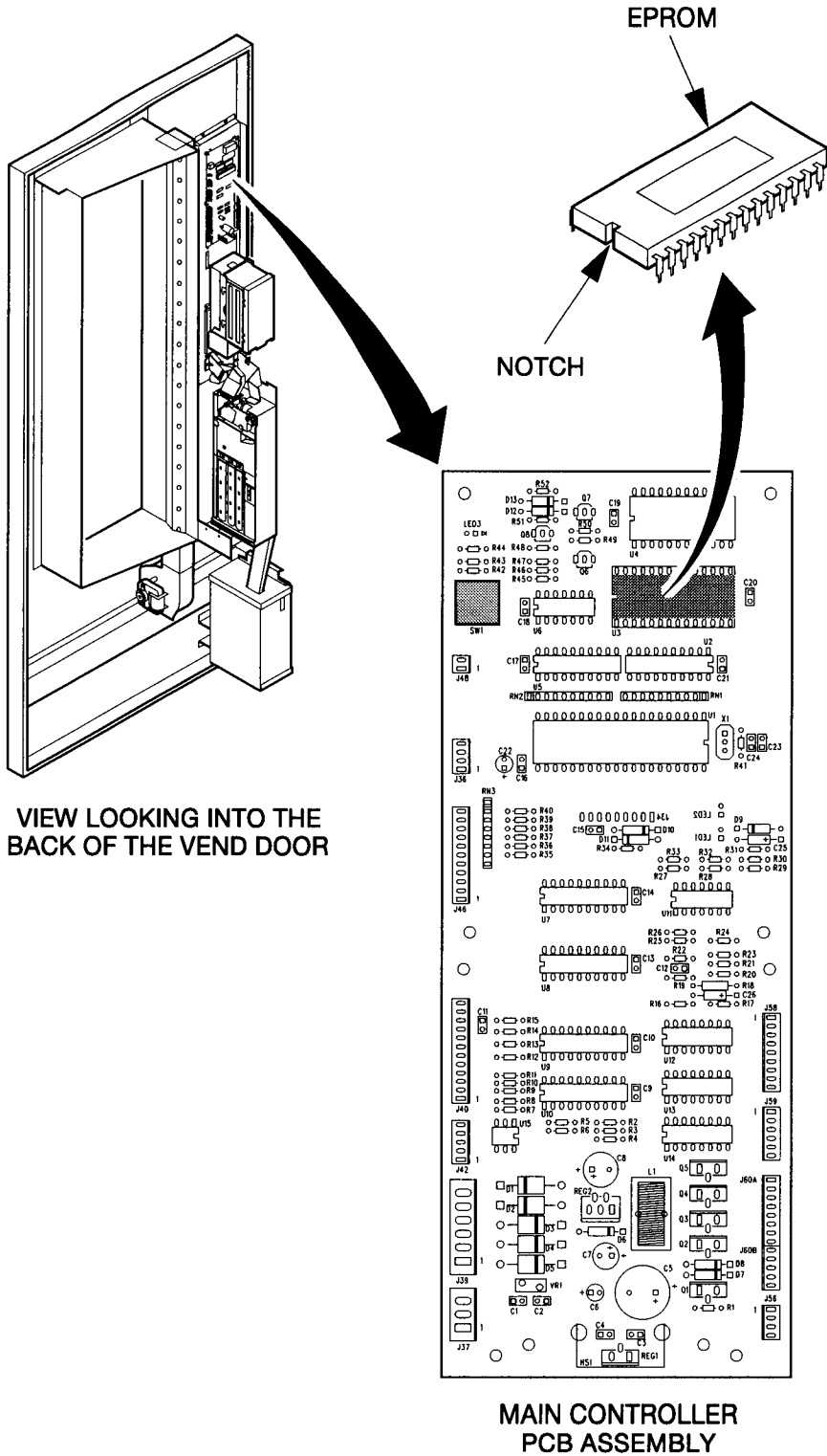
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Figure 8



427pk010

Figure 9



VIEW LOOKING INTO THE  
BACK OF THE VEND DOOR

MAIN CONTROLLER  
PCB ASSEMBLY

427pk011

Figure 10

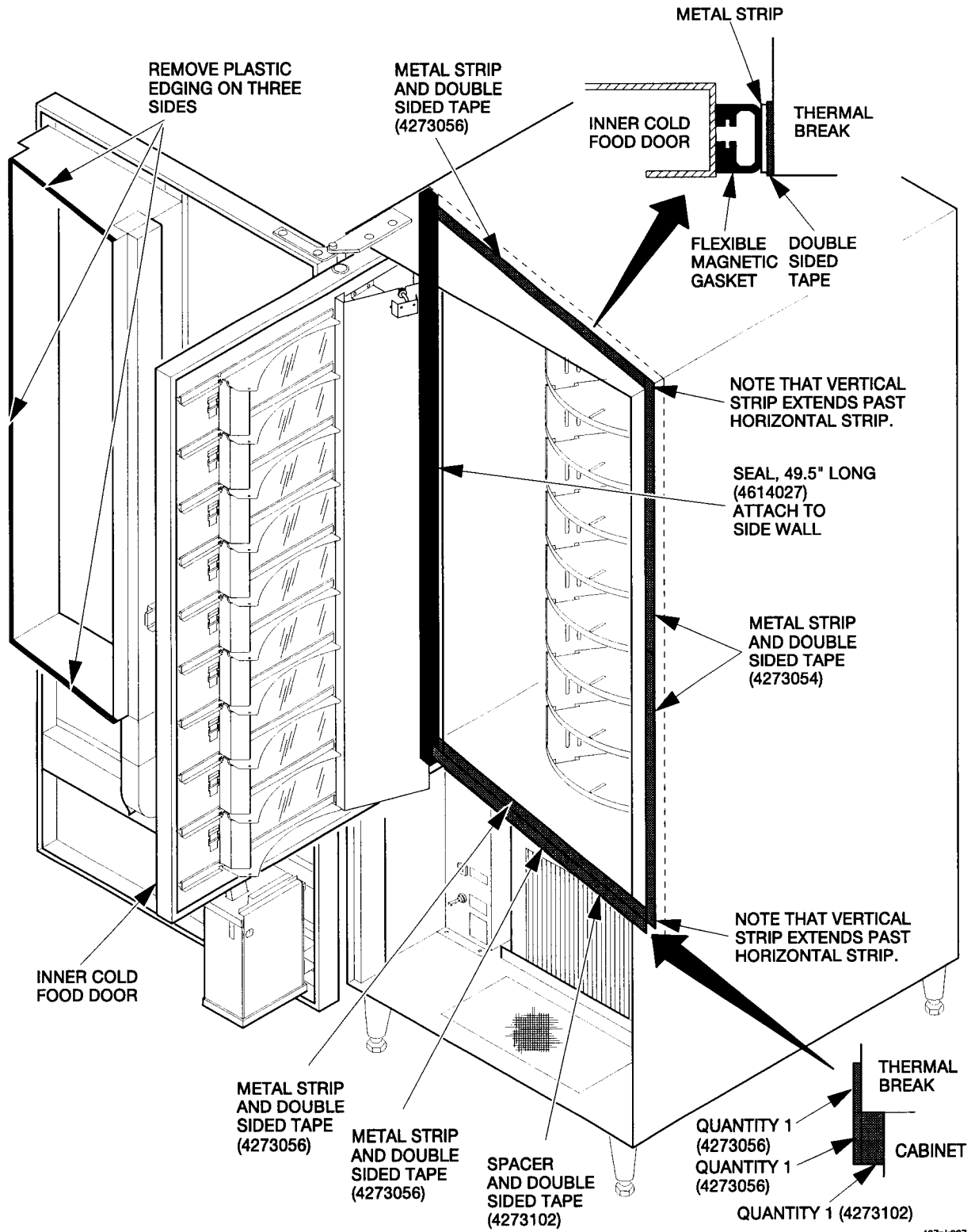
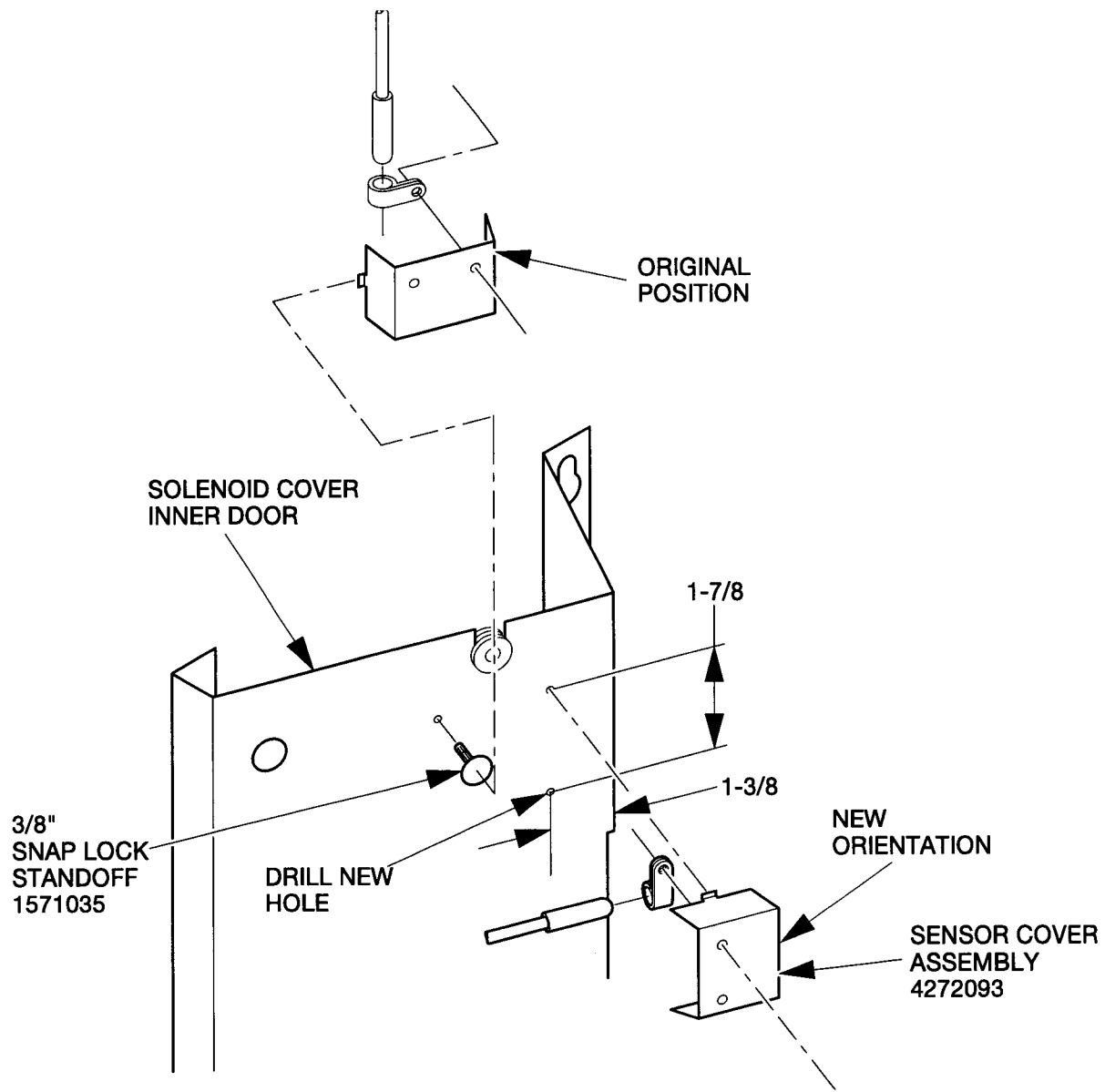


Figure 11



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Figure 12

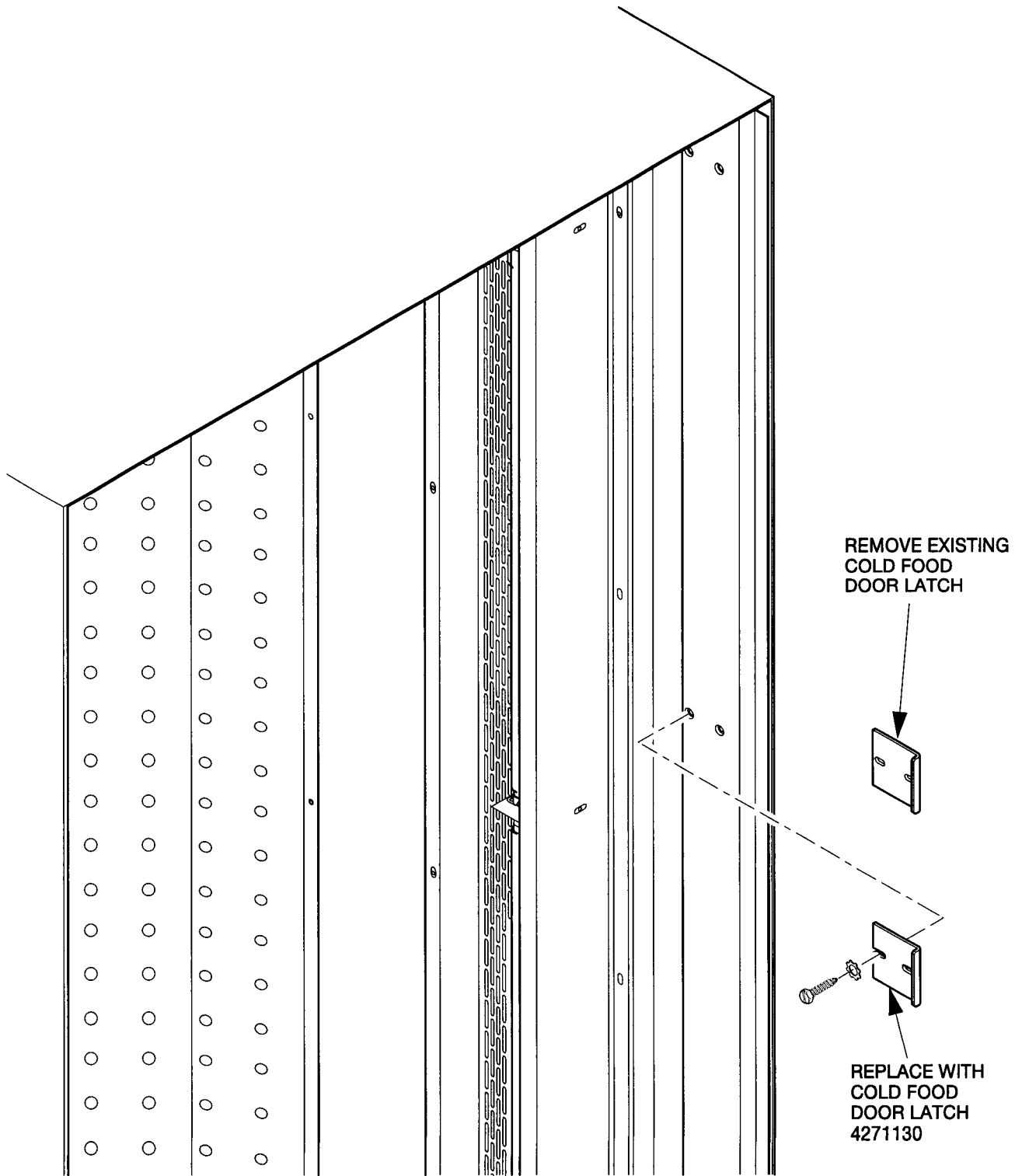


Figure 13

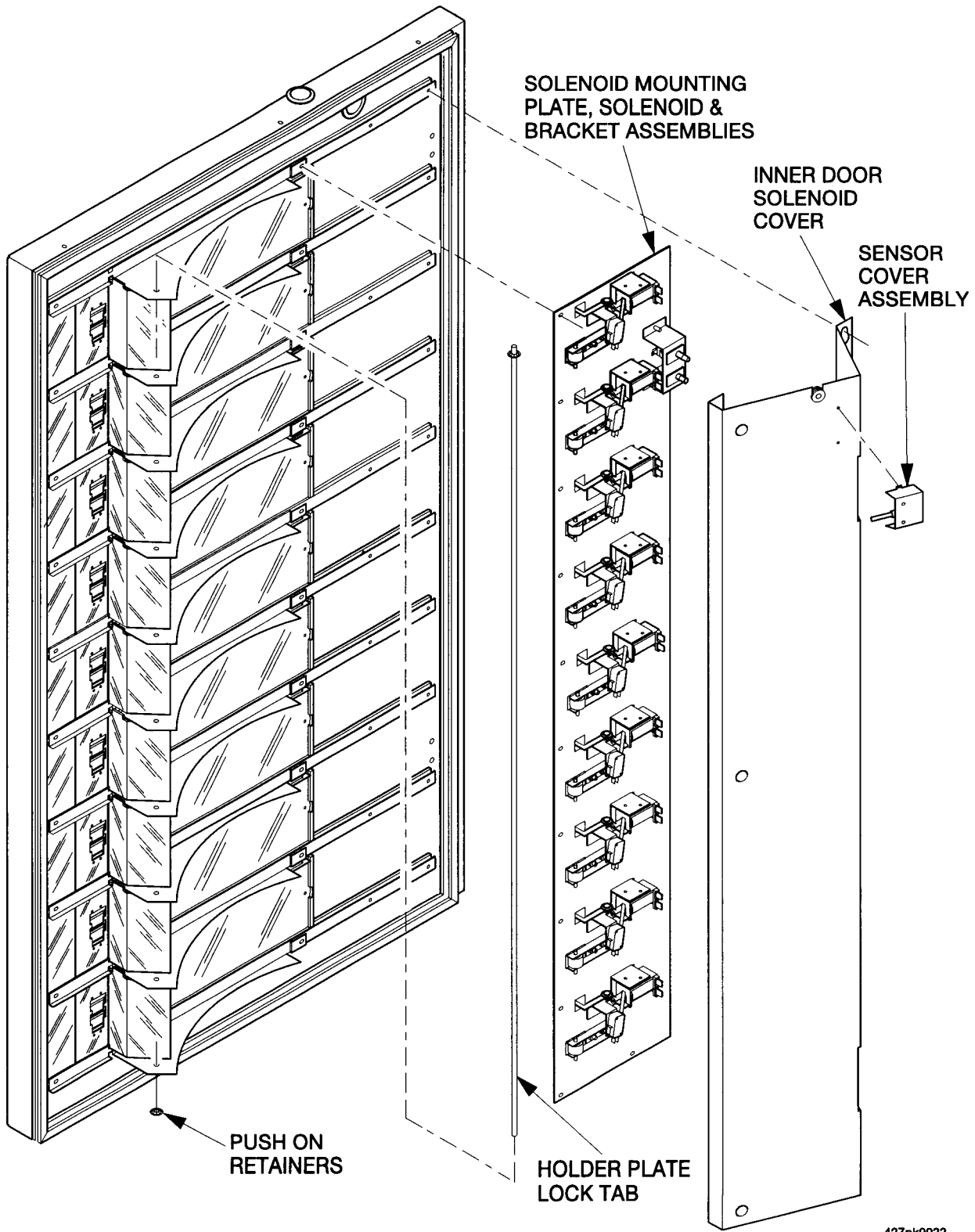


Figure 14



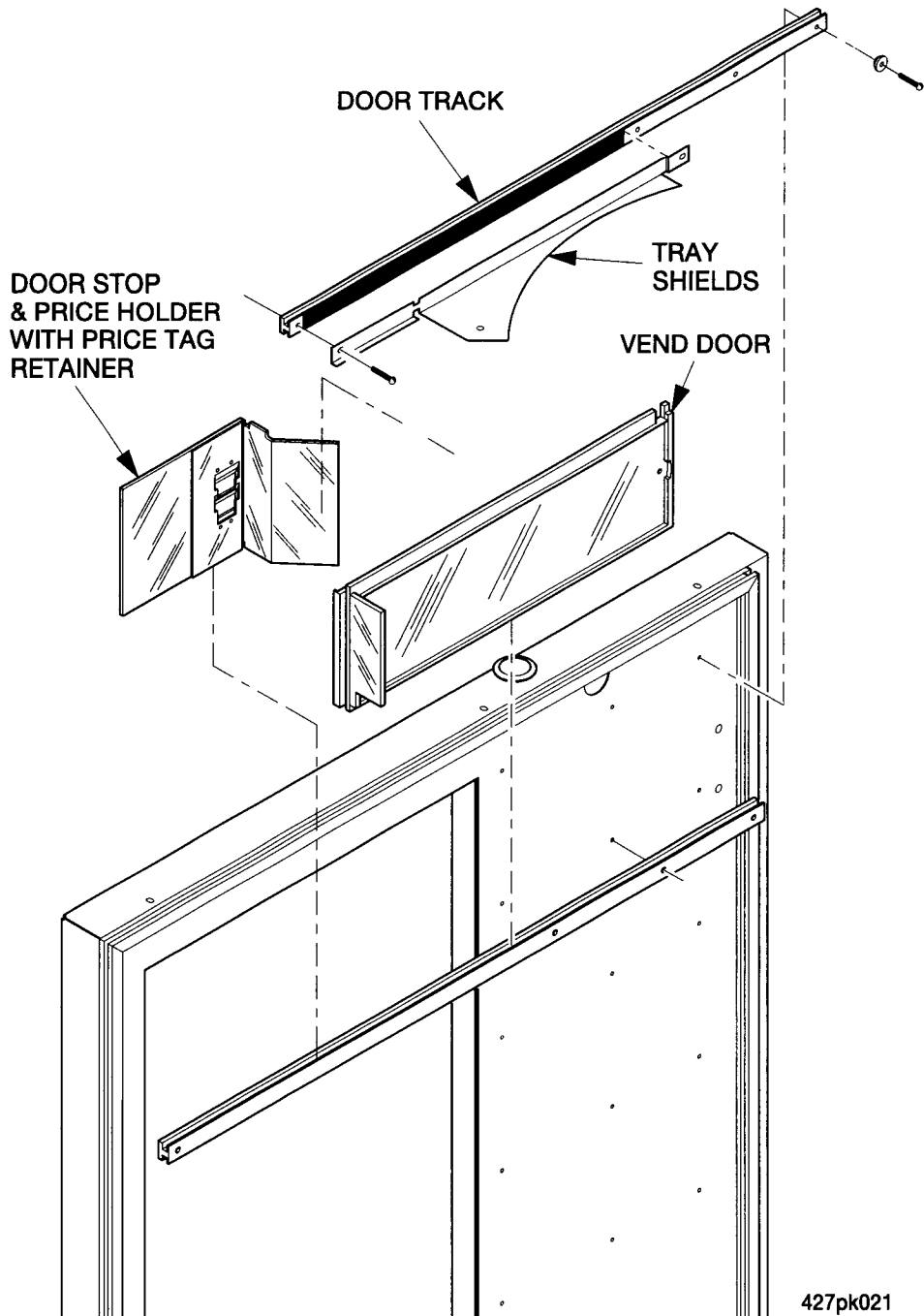


Figure 15

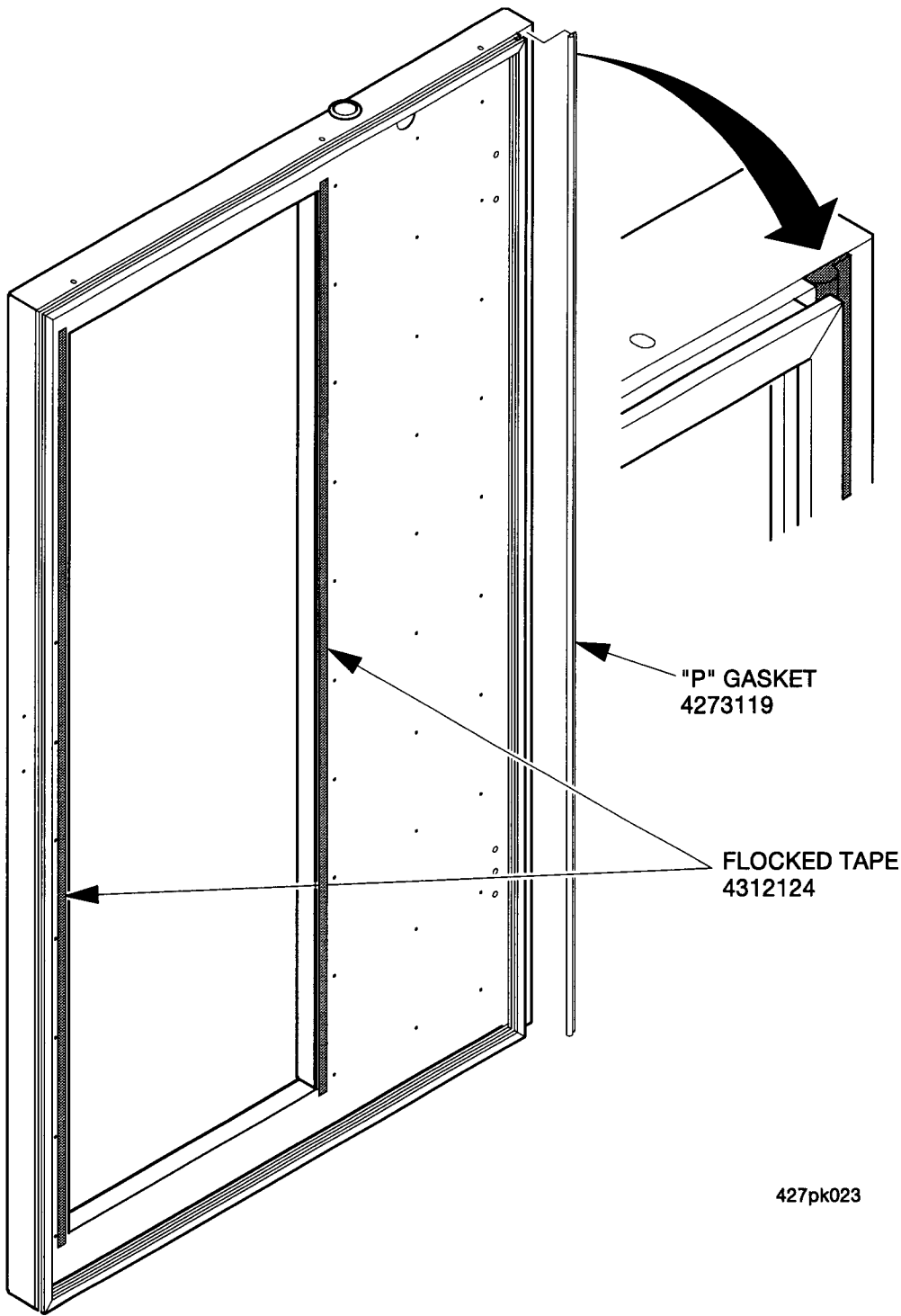
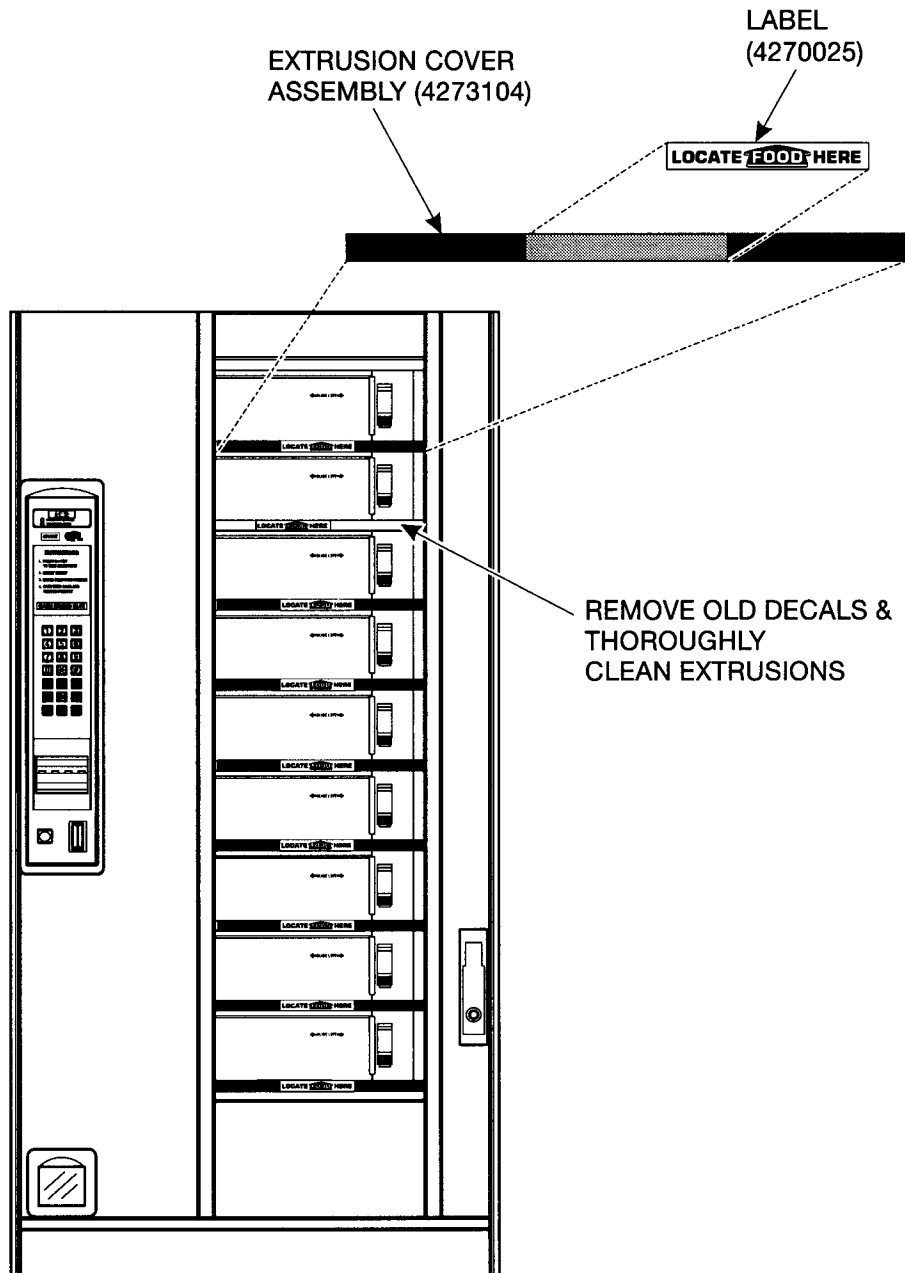


Figure 16



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Figure 17