

INSTALLATION INSTRUCTIONS FOR A NATIONAL VENDORS[®], CROWN SEVENTY TWO[®], SERIES OR GOLDEN FURNITURE LINE, FM-72 FOOD MERCHANDISER LEG ASSEMBLY REPLACEMENT KIT

The parts included in this Kit will replace one Leg and one Leveler on any Crown Seventy Two, Series or Golden Furniture Line, FM-72 Food Merchandiser.

NOTE

When a replacement Leg Assembly is installed on a FM-72 Food Merchandiser, the replacement Leg will be 1/4 inch longer than the other 3 Legs on the Merchandiser. If the FM-72 Merchandiser is part of a bank of Merchandisers, it may be necessary to adjust the height of all other Merchandiser in the bank accordingly.

Leg Replacement Kit, part number 417-0022, includes the following parts.

Part Number	Description	Quantity
117-1098	Leg and Leveler Assembly	1
117-1052	No.5/16 - 18 x 3/4" Hex. Hd. Bolt	4
417-0024	No.5/16 - 18 x 1-1/4" Hex. Hd. Bolt	1
117-1022	Nut-5/16 - 18 Keps Conical Serrated Washer	1
417-0023	Installation-Instruction - Leg Replacement Kit	1
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The tools and equipment required to install a replacement Leg Assembly includes at least the following items:

Safety Goggles	Grinding Wheel-portable
Safety Shoes	Self-powered - or one that can be driven by a 3/8"
1/2" Cold Chisel	Electric Drill
Heavy Hammer	No. 5/16-18 Thread Tap
Scribe	Thread Tapping Tool
Center Punch	1/2" End, Socket, Ratchet
3/8" Electric Drill	Wrenches, or Pliers.
No. F (.257") dia. Drill Bit	Narrow metal-file
(21/64") x328" dia. Drill Bit	

Before starting the work of replacing a Leg Assembly on a FM-72 Food Merchandiser, read the complete instructions carefully and thoroughly, including all steps, Notes, Cautions, and Warnings. Reference to right or left in these instructions is the operators right or left as he looks into the front of the Merchandiser or the rear of the Merchandiser depending upon which area is referred to in the instructions.

WARNING

1. FM-72 Merchandiser is a heavy machine, weighs between 850 and 950 pounds depending upon how the Merchandiser is equipped.
2. DO NOT attempt to replace a Leg Assembly on a FM-72 Merchandiser without sufficient help, or without the equipment and tools specified in these instructions.
3. Be sure to follow each step of the procedure in the order given.
4. Read and heed all Notes, Cautions, and Warnings given in these instructions.
5. If the Leg Assembly to be replaced is badly damaged and if the Merchandiser is unstable in the up-right position, securely block the corner of the Merchandiser where the damaged Leg Assembly is, to keep the Merchandiser from falling over when steps I-A through I-Q are performed.
6. Wear the proper safety equipment (Safety Goggles, Safety Shoes, etc.) as the described task requires.
7. Be sure all tools are in a safe and good working condition.

NOTE

Before the job is started, be sure a sufficient amount of cleared, flat work space is available.

I. TO PREPARE THE MERCHANDISER FOR LEG AND LEVELER ASSEMBLY REPLACEMENT

Many of the attaching parts used in the FM-72 Food Merchandiser are metric-size parts for which replacements are not obtainable locally. All the attaching parts removed from the Merchandiser will be reused. National Vendors recommends that all attaching parts be stored in small coin envelope for safe keeping and that the envelopes be marked for quick identification.

- A. Be sure the Merchandiser Service Cord is NOT plugged into a wall receptacle.
- B. Unlock and open the Monetary Compartment.
- C. Remove the Coin Mechanism and Slug Rejector from the Monetary Compartment.

- D. Remove the Lower Front Panel from the Merchandiser.
- E. Remove the Money Box and (if the Merchandiser contains a Refrigeration System) the Condensation Pan.
- F. Unlock and open the Display Door.
- G. Remove the Fluorescent Light Bulbs from the Display Door.
- H. Unlock and open the Rear Loading Door.
- I. Remove the Display Assembly Cover and Delivery Drums from the Merchandiser.

CAUTION

The Delivery Drums must be removed to prevent damage to the Drums.

- J. Close and lock the Display Door.

NOTE

1. *If the Merchandiser is a FM-72A Cold Food Merchandiser or a FM-72 Hot or Cold (Combination) Food Merchandiser follow steps I-K through I-O.*
2. *If the Merchandiser is a FM-72C Hot Food Merchandiser skip to step I-M.*

- K. Remove the Refrigeration System from the Merchandiser.
 1. If the Merchandiser being worked on is a FM-72A or a FM-72B Merchandiser, unlock and open the Rear Service Access Door.
 2. Remove the two Screws which attach the Control Panel and open the Control Panel.
 3. Disconnect the Refrigeration Compressor Cord Plug.
 4. Remove the 10 Screws which attach the Rear Exhaust Screen and Cabinet Spacer to the Merchandiser Cabinet and remove the Screen and Spacer.
 5. Remove the 4 Bolts and Nuts which attach the Compressor Support, Retainer Assembly, and Rear Channel.
 6. Remove the 2 Screws which attach the Cover Assembly that is located at the lower left-hand (out-side edge) corner of the Refrigeration Compartment.

7. Carefully remove the sealant that is around the Evaporator Tube. DO NOT destroy the sealant, it will be reused when the Refrigeration System is replaced.
8. Carefully remove the Screw which attaches the Thermostat Capillary Tube Retainer Plate.

CAUTION

Handle the Capillary Tube carefully. DO NOT break, kink, flatten, or stretch the Thermostat Capillary Tube.

9. Carefully move the Thermostat Capillary Tube to the side, out of the way of the Refrigeration System.
10. Place wooden blocks between the Evaporator and the Compressor to brace the Evaporator and to hold it in its proper up-right position.
11. Remove the Screw and Washer which attaches the Evaporator to the left-hand (Cabinet outside) Wall of the Refrigeration Compartment.
12. Carefully slide the Refrigeration System Assembly (Compressor, Evaporator, Tubing, etc.) out of the Merchandiser Cabinet.

WARNING

1. **The Refrigeration Assembly is a heavy unit. At least two men should remove the Unit from the Merchandiser.**
2. **Be sure the Evaporator is properly and solidly braced to keep it in its proper up-right position.**

13. Place the Refrigeration System Assembly in its up-right position on a flat, cleared surfaced.

CAUTION

Always keep the Refrigeration System Assembly up-right to prevent the oil from flowing out of the Compressor and into the rest of the System.

14. Close the Control Panel and reinstall the 2 Screws removed in step I-K2.
15. Close and lock the Rear Service Access Door.
- L. Close and lock the Rear Loading Door.

CAUTION

Check to be sure the Rear Service Access Door, the Rear Loading Door, the Display Door, and Monetary Compartment are closed and securely locked, and that the Control Panel is securely screwed in place.

- M. Prepare a space on a cleared flat surface (preferably a floor) that is a large enough to provide an adequate place to lay the Merchandiser on its side or back. Be sure there is enough additional room to provide free movement around the entire Merchandiser when step I-O is performed.

NOTE

National Vendors recommends the Merchandiser be placed on its right-hand side (Display Door Hinge side of Cabinet) up, if it is convenient to perform procedures II and III with the Merchandiser in that position.

- N. Place four 4" x 4" x 36" pieces of wood on the cleared flat surface.
1. If the Merchandiser is to be placed on its side, place the four-by-fours parallel to each other and about 15 inches apart.
 2. If the Merchandiser is to be laid on its back, be sure the four-by-fours are placed so none of the pieces are under the Rear Loading Lock Assembly. Place 3 of the piece of wood under the Rear Load Door/Rear Service Access Door area and one piece of wood under that part of the rear of the Merchandiser that is, when the Merchandiser is in an up-right position, below these Door. Additional blocking must be used with the fourth four-by-four to compensate for the Door thickness.

NOTE

National Vendors recommends that some type of padding be placed over the four-by-fours to prevent damage to or scratching of the Merchandiser's painted surface.

- O. Lay the Merchandiser either on its side or back (depending upon how the four-by-fours are placed) on the four-by-fours.

WARNING

1. National Vendors recommends six men be used to lay the Merchandiser in place. The FM-72 Food Merchandiser is heavy - exercise great care and judgement when performing step I-O.
2. DO NOT roll the Merchandiser on two Legs when laying the Merchandiser down. Lift the Merchandiser off the floor to when laying the Merchandiser down to prevent Merchandiser shift and fall.
3. NEVER lay a FM-72 Food Merchandiser with the Display Door/Monetary Compartment down.

II. REMOVAL OF THE DAMAGE LEG FROM THE MERCHANDISER

WARNING

1. Wear Safety Goggles when performing procedure II.
2. Be sure all tools are in a safe condition before using them.

- A. Remove the damaged Leg Cone from the Merchandiser Cabinet. Use a 1/2" cold chisel and hammer to remove the damaged Leg Cone from the Merchandiser Cabinet at the weld spots.
- B. Use a portable self-powered grinder or a grinding wheel attached to an electric drill to remove the excess weld flash from and to smooth the area from which the Leg Assembly was removed.

III. INSTALLATION OF A REPLACEMENT LEG ASSEMBLY

NOTE

1. The two front Leg Assemblies and the left-hand rear (Drum Assembly area side) Leg Assembly require the drilling and tapping of 4 holes for each Leg Assembly replaced. See Figure III-1.
2. The right-hand rear (Refrigeration System Area side) Leg Assembly requires the drilling of 3 holes and the tapping of 2 of these holes.
3. Be sure to follow the appropriate procedure for the replacement Leg Assembly being installed.

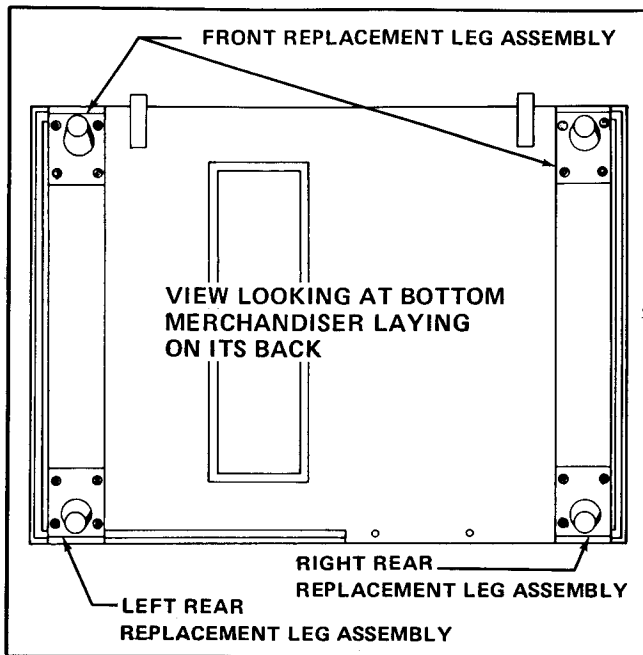


FIGURE III-1

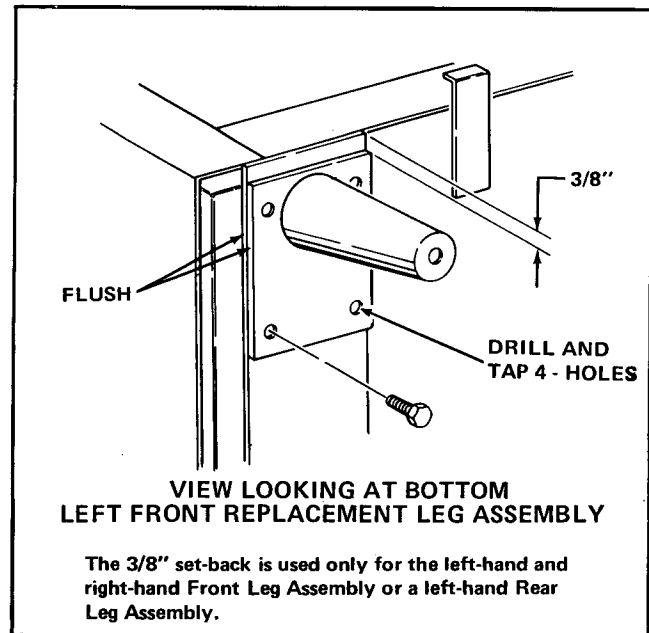


FIGURE III-2

A. To Install A Front Replacement Leg and Leveler Assembly Or A Left-hand Rear Leg and Leveler Assembly.

1. Hold the replacement Leg and Leveler Assembly (part number 117-1098) against the Cabinet Leg Base Plate area from which the damage Leg Cone was removed. The replacement Leg Assembly Cone should be toward the front of the Cabinet if a front Leg is being replaced and toward the rear of the Cabinet if a rear Leg is being replaced. The cone-side edge of the replacement Leg Assembly Base Plate should be 3/8" back from the outer (short-side) edge of the Leg Base on the Cabinet. See Figure III-2. The outer-side edge (long sides) of the replacement Leg Assembly Base must be aligned and be flush with outer-side edge of the Leg Base on the Cabinet. This placement and square alignment is important.
2. Use the replacement Leg and Leveler Assembly as a template. Mark the center of each of the 4 holes in replacement Leg and Leveler Assembly on to the Cabinet Base Plate.
3. Remove the Leg and Leveler Assembly from the Cabinet.
4. Center punch the 4 marked centers.
5. Drill a .257" diameter (No.F drill bit) hole at each of the 4 centers. Only drill through the Cabinet Base Plate and Cabinet Bottom Panel. a No.F drilled is the proper size bit for drilling a lead hole for a No.5/16 -18 thread tap.

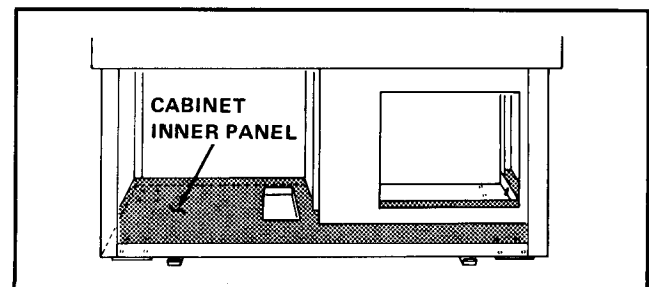


FIGURE III-3

NOTE

1. Be sure the centerline of each of the 4 holes is perpendicular to the Cabinet Base Plate.
2. There is a Cabinet Inner Panel that extends from the front of the Cabinet to the rear of the Cabinet on the left-hand side and one that extends from the front of the Cabinet half-way back to the rear on the right-hand side. DO NOT drill into these Cabinet Inner Panel. See Figure III-3.
6. Tap each of the 4 holes through with a No.5/16 - 18 thread tap. Be sure to tap through both the Cabinet Base Plate and Cabinet Bottom Panel.
7. Reinstall the replacement Leg and Leveler Assembly. Be sure it is correctly positioned per step III-A1.

8. Attach the replacement Leg and Leveler Assembly with four No.5/16-18 x 3/4" Hex. Head Bolts (part number 117-1052). Be sure the Bolts are securely tightened.

9. Skip to Procedure IV.

B. To Install A Right-hand Rear Replacement Leg and Leveler Assembly.

1. Use a (21/64") .328" diameter drill bit to enlarge the hole already in the Cabinet Leg Base and to drill through the Cabinet Bottom Panel. This hole will be visible inside the Cabinet. See Figure III-4.

2. Place the replacement Leg and Leveler Assembly (part number 117-1098) on the Cabinet Base Plate. The replacement Leg Assembly Cone should be toward the rear of the Cabinet. There are four holes in the replacement Leg Assembly Base Plate. The Leg Assembly Cone is approximately centered between two of the holes and away from the other two holes. Only one of the two holes that the Leg Assembly Cone is between, can be aligned with the hole enlarged in step III-B1 when the replacement Leg Assembly Base is centered properly on the Cabinet Base Plate. See Figure III-4.

3. Attach the Leg and Leveler Assembly with the No.5/16-18 x 1-1/4" Hex. Head Bolt (part number 417-0024) and attach the Bolt with the No.5/16-18 Nut (part number 117-1022). See Figure III-4.

4. Square the replacement Leg Assembly on the Cabinet. The outside edges (long sides) of the Leg and Leveler Assembly must be aligned with the outer-side edge of the Leg Base on the Cabinet. This square alignment is important.

5. Use the replacement Leg and Leveler Assembly as a template. Mark the center of each of the two holes that are in the end of the Leg and Leveler Assembly that is opposite. (short-side end) the end containing the hole into which the Bolt was placed in step III-B3.

6. Remove the Screw, Nut, and Leg and Leveler Assembly from the Merchandiser.

7. Center punch the two marked centers.

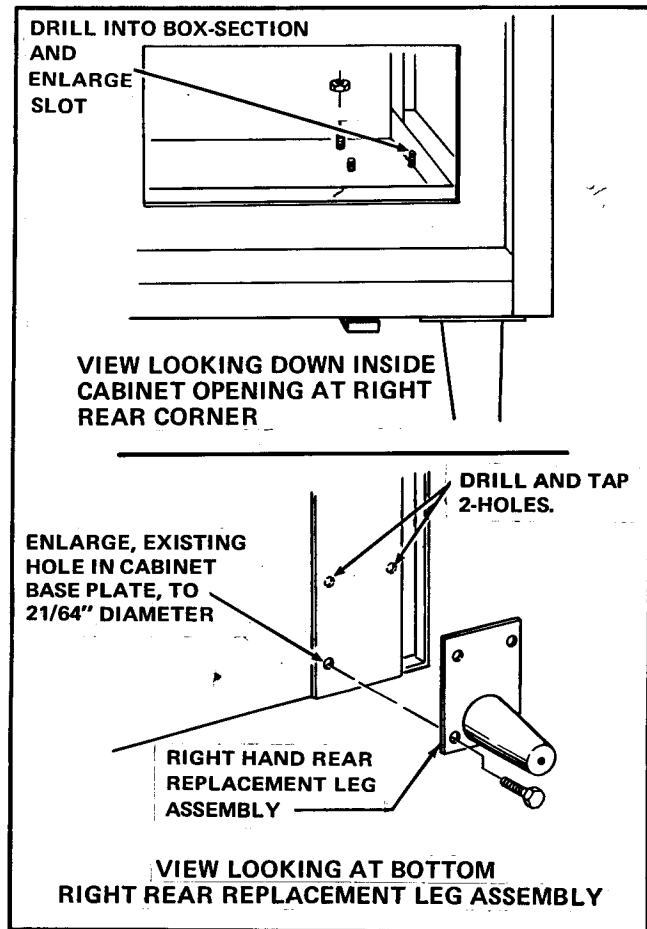


FIGURE III-4

8. Drill a .257" diameter (No.F drill bit size) hole at each of the 2 centers. One of these holes, the outside Cabinet side hole, will cut into and slot the vertical flange of the box section that is the right-hand side extension of the Cabinet Inner Panel. Be sure to drill 3/4" to 1" into this flange. Both holes will be visible inside the Cabinet. A No. F drill bit is the proper size bit for drilling a lead hole for a No.5/16-18 thread tap.

NOTE

Be sure the centerline of each off these holes is perpendicular to the Cabinet Base Plate.

9. Use a file to increase the width of the slot in the flange of the box section sufficiently to clear the threads on a 5/16" Bolt.

NOTE

A pair of pliers may be used to bend the edges of the slot in the flange to provide the required clearance, as a substitute for filing the slot larger.

10. Tap each of the 2 holes drilled in step II-B8 through with a No.5/16-18 thread tap.
11. Install the replacement Leg and Leveler Assembly. Be sure it is correctly positioned per step III-B2.
12. Attach the replacement Leg and Leveler Assembly as indicated in step III-B3 with the No.5/16-18 x 1 1/4" Hex Head Bolt and the No.5/16-18 Nut. DO NOT tighten the Nut.
13. Install a No. 5/16-18 x 3/4" Hex. Head Bolt (part number 117-1052) in each of the two holes tapped in step III-B10.
14. Tighten all three Bolts securely.
15. Follow Procedure IV.

IV. TO PREPARE THE MERCHANDISER FOR RETURN TO SERVICE

1. Stand the Merchandiser up-right on its Legs.

WARNING

1. National Vendors recommends six men to be used to lift the Merchandiser to the up-right position. The FM-72 Food/Merchandiser is heavy - exercise great care and judgement when performing step IV-1.
2. DO NOT roll the Merchandiser to its up-right position on two legs. Lift the Merchandiser and set it on all four Legs to prevent damage to the Legs and possible Merchandiser shift and fall.

NOTE

1. *If the Merchandiser is a FM-72A or FM-72B Merchandiser follow step IV-2.*
2. *If the Merchandiser is a FM-72C skip to step IV-3.*
2. If the Merchandiser is a FM-72A or FM-72B Merchandiser, replace the Refrigeration System by reversing the appropriate parts of step I-K and I-L and I-N then procede to step IV-3.
3. Reverse steps I-A through I-J.
4. Level the Merchandiser. The replacement Leg is approximately 1/4" longer than the original Legs. If the Merchandiser was in a bank of equipment all the other Merchandiser in the bank will probably have to be height adjusted to match the FM-72 Merchandiser.
5. Thoroughly test-vend the Merchandiser.
 - a. Be sure the Merchandiser reaches and holds the proper operating temperature.
 - b. Be sure the Merchandiser operates properly both with and without products in the Drums.
 - c. Be sure the Merchandiser operates properly both with and without coin insertion.