INSTALLATION INSTRUCTIONS FOR INSTALLING A SERVICE REFRIGERATION MODULE ASSEMBLY AND DRYER REPLACEMENT KIT IN A NATIONAL VENDORS®, CROWN SEVENTY TWO®, HCDM-360 HOT COLD DRINK MERCHANDISER

These instructions cover the procedure for installing a Service Refrigeration Module Assembly and Dryer Replacement Kit in a Crown Seventy Two, HCDM-360 Hot Cold Drink Merchandiser.

Read these instructions carefully and thoroughly before installing the Kit. Retain these instructions for part number and installation information.

Kit, Part Number 360-8220, contains the following parts:

Part Number	Description	Quantity
360-8199	Service Refrigeration Module Assembly	1
310-4038	Dryer	1
360-8157	Compressor Charge Label	1
360-8230	5.33 oz. R-12 Label	1
360-8219	Installation Instructions	1

* * *

TO INSTALL THE KIT

NOTE

1. *For personal physical protection and safety, heed all of the safety WARNINGS given in these Instructions.*
2. *For Merchandiser protection heed the CAUTIONS given in these Instructions.*

WARNING

Installation of this Kit will involve discharging and recharging the Refrigeration System of the Merchandiser which should be performed only by a qualified refrigeration serviceman.

A. PARTS REMOVAL

1. Unlock and open the Cabinet Door.
2. Move the Main Power Switch in the Merchandiser to the OFF position.
3. Disconnect the Merchandisers electrical Service Cord from the wall receptacle.
4. Unlatch and rotate the Cup Dispenser Assembly out of the Merchandiser.
5. Remove the Cup Delivery Compartment Assembly from the Merchandiser by lifting the Cup Delivery Compartment Assembly up and off the Cup Station Support Assembly. See Figure 1.
6. Remove the Water Bath Cover from the top of the Water Bath Assembly. See Figure 1.
7. Place the Waste Bucket on the floor in front of the Merchandiser.
8. Disconnect the Water Bath Siphon Drain Tube and place the end of the Drain Tube in the Waste Bucket. See Figure 2.
9. Rotate the Siphon Pump Knob clockwise to close the line then squeeze the Siphon Pump until the water starts flowing. When the water gets near the top of the Waste Bucket stop the water flow by turning the Siphon Pump Knob counter-clockwise. Empty the Waste Bucket. Repeat this procedure until the Water Bath Assembly is empty. Place the Water Bath Siphon Drain Tube in its original position.
10. Turn the handle on the CO_2 Tank clockwise to the fully closed position. See Figure 3.
11. Disconnect the Regulator from the CO_2 Tank. See Figure 3.

WARNING

1. **Do not store full cylinders in or near a furnace or boiler room. Temperatures over 125 degrees F. (51.7 degrees C) are dangerous.**
2. **Do not store full cylinders near electrical or ungrounded electrical machinery.**
3. **Storage areas should be dry, well ventilated, and fire proof.**
4. **Be careful not to strike the neck of the cylinder when handling it.**
5. **Store the cylinders in a secure upright position.**

12. Pull the three Drain Tubes from the Cup Station Support Assembly. See Figure 3.
13. Remove the Screw and Overflow Switch Cover attached to the Cup Station Support Assembly. See Figure 3.
14. Remove the Harness Clamp and disconnect the Switch Receptacle from the Overflow Switch. See Figure 3.

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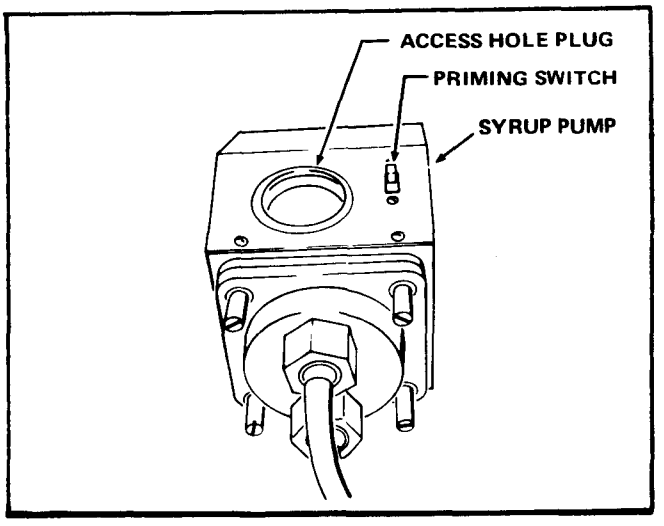

FIGURE 13

c. When a continous flow of syrup, free of air bubbles, is flowing from the Syrup Dispensing Spigot, move the Syrup Pump Priming Switch to the OFF position.

d. Return the dispensed syrup to the appropriate Syrup Tank.

e. Repeat steps a through d for each Syrup Pump.

9. Rotate the Cup Dispenser Assembly back in the Merchandiser.

10. Stick the small Label included in the kit, part number 360-8230, onto the upper, right corner of the Maintenance Instructions located on the back of the Cabinet Door so that the instructions will now read: WATER BATH CHARGE 5.33 oz. R-12.

11. Close and lock the Cabinet Door.

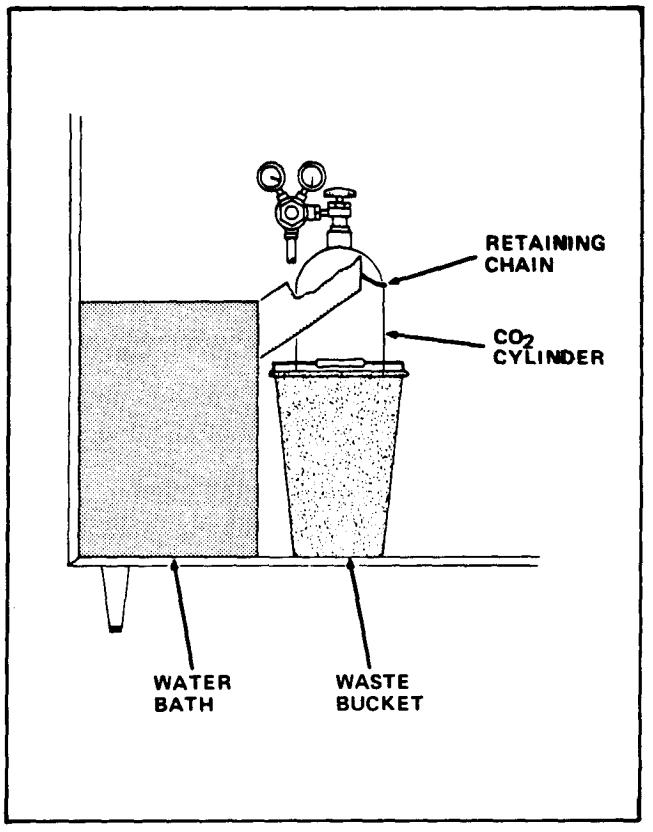

FIGURE 10

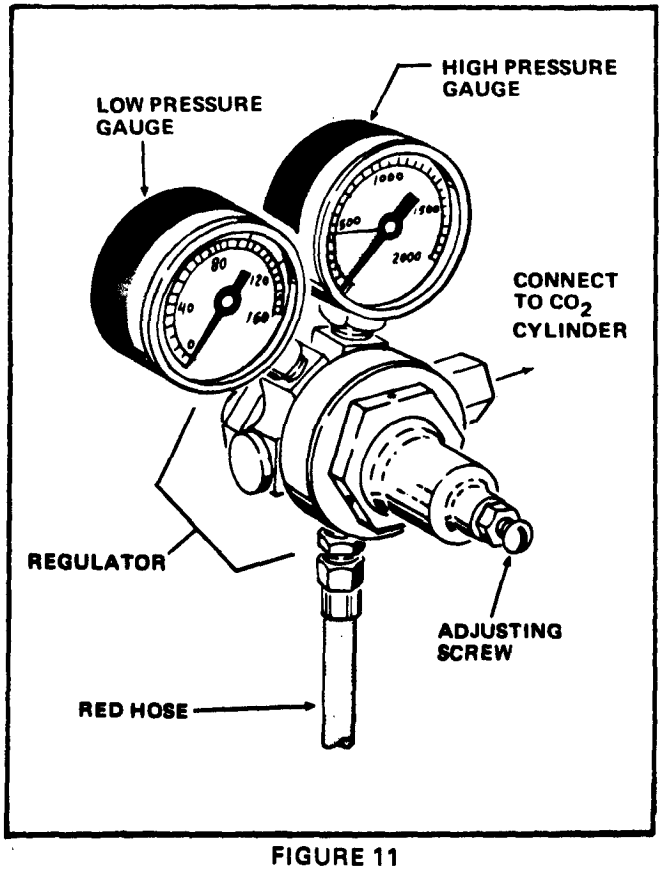

FIGURE 11

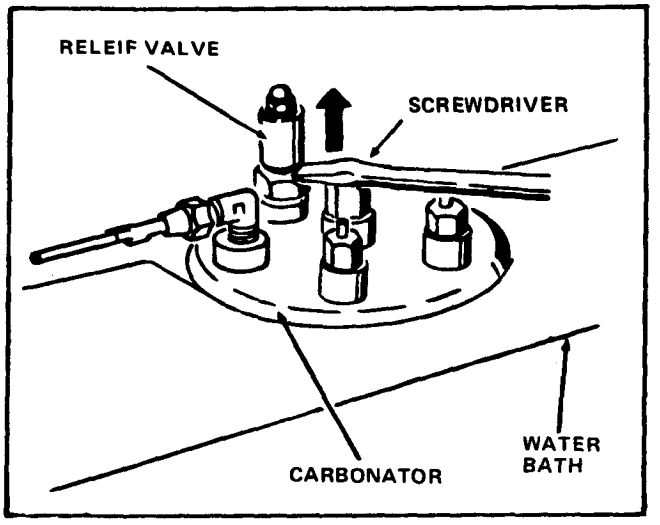

FIGURE 12

g. CLOSE the CO_2 Cylinder Valve.

h. Observe the Low Pressure Gauge. If the indication on the Gauge decreases, there is a leak in the carbonation system.

i. OPEN the CO_2Cylinder Valve.

j. Brush all connections wiht a soapy water solution. A bubble will appear wherever there is a CO_2 gas leak.

k. CLOSE the CO_2 Cylinder Valve.

l. Reset any fitting that leaks. Be sure the fitting is tight.

m. OPEN the CO_2 Cylinder Valve after testing for leaks.

5. Install the Water Bath Cover on top of the Water Bath. See Figure 1.

6. Place the Waste Bucket back in the Merchandiser.

7. Install the Cup Delivery Compartment on the Cup Station Support. See Figure 1.

8. Prime the Syrup System if syrup was lost in Step A-17.

   a. Place a clean empty cup in the Cup Delivery Compartment.

   b. Move a Syrup Pump Priming Switch to the ON position. See Figure 13. Air present in the syrup line will be forced out at the Syrup Dispensing Spigot.

32. Remove and retain four Screws attaching the Refrigeration Module Assembly to the bottom of the Refrigeration Compartment and remove the Refrigeration Module Assembly from the Water Bath and Refrigeration Module Final Assembly. See Figure 9.

B. INSTALLATION OF THE KIT

1. Remove the backing from the Compressor Charge Label, part number 360-8157, (the larger of the two labels included in the kit) and install on the Compressor of the replacement Refrigeration Module Assembly.

CAUTION

Because the replacement Refrigeration Module Assembly uses a different Dryer, the Refrigeration System now requires a charge of 5.33 oz. of Refrigerant R-12.

2. To install the Service Refrigeration Module Assembly, Part Number 360-8199 and Dryer, Part Number 310-4038, both parts included in the Kit, reverse Steps A-12 to A-32 of the Parts Removal Procedure. Be sure to follow all the Cautions and Warnings given throughout the instructions.

3. Fill the Water Bath with water.

   a. Rotate the Valve Handle of the Water Filter Head UP 90-degrees. This will shut the water supply off. See Figure 3.

   b. Connect the Merchandiser's electrical Service Cord to a properly polarized and grounded wall receptacle.

   c. Move the Main Power Switch in the Merchandiser to the ON position.

   d. Disconnect the tube at the discharge fitting of the Water Inlet Valve, that connects to the Water Feeder Cup. See Figure 3.

   e. Install the Fill and Flush Tube Assembly on the discharge fitting of the Water Inlet Valve.

   f. Position the free end of the Fill and Flush Tube Assembly inside the Water Bath.

   g. Using the Spray Hose, drain about two or three cups of water from the Water Tank until the Water Inlet Valve is heard energizing.

   h. Immediately rotate the Valve Handle on the Water Filter Head DOWN 90-degrees to open the supply of water.

NOTE

At this point the incoming water normally would be routed to the Water Feeder Cup and on to the Water Tank. With the attachment of the Fill and Flush Tube Assembly to the discharge side of the Water Inlet Valve the water is diverted to fill the Water Bath.

   i. Fill the Water Bath with water until water starts dripping from the overflow drain into the Waste Bucket.

   j. Rotate the Valve Handle on the Water Filter Head UP 90-degrees to shut the water supply OFF.

   k. Remove the Fill and Flush Tube Assembly from the Water Inlet Valve and re-connect the tube from the Water Feeder Cup to the discharge fitting on the Water Inlet Valve.

   l. Rotate the Valve Handle on the Water Filter Head DOWN 90-degrees to re-open the supply of water for normal operation.

4. Install the CO_2 Cylinder in the Merchandiser.

NOTE

Never use a regulator gasket more than one time. Small hard-to-locate CO_2 leaks can result from using these gaskets a second time.

   a. Position the CO_2 Cylinder in the Merchandiser and attach the Retaining Chain to hold the Cylinder upright and in place. See Figure 10.

   b. Before attaching the CO_2 Regulator to the CO_2 Cylinder, open and close the CO_2 Cylinder Valve to blow out any foreign matter.

   c. Attach the CO_2 Regulator to the CO_2 Cylinder. See Figure 11. Be sure fitting is tight.

   d. SLOWLY open the CO_2 Cylinder Valve.

NOTE

Air may be present in the Carbonator. This air will not mix with the water, nor will it be absorbed in the water. As pressure builds up in the Carbonator, the air will become trapped in the top of the Carbonator and will prevent the Carbonator from becoming filled with water. The Water Pump will not be able to pump against the high pressure and it will operate continually; the water passing through the Water Pump by-pass, rather than into the Carbonator. The Carbonator can be freed of air by lifting the body of the Relief Valve. Once this condition is corrected, the entrapped air expelled, it will not re-occur as long as the Merchandiser is properly serviced.

   e. Lift the body of the Relief Valve, as shown on top of the Carbonator in Figure 12.

   f. Observe the High and Low Pressure Gauges. See Figure 11. The Low Pressure Gauge should indicate 4.2 kg/cm^2 (60 psi). The High Pressure Gauge should indicate pressure in excess of 35.15 kg/cm 2 (500 psi).

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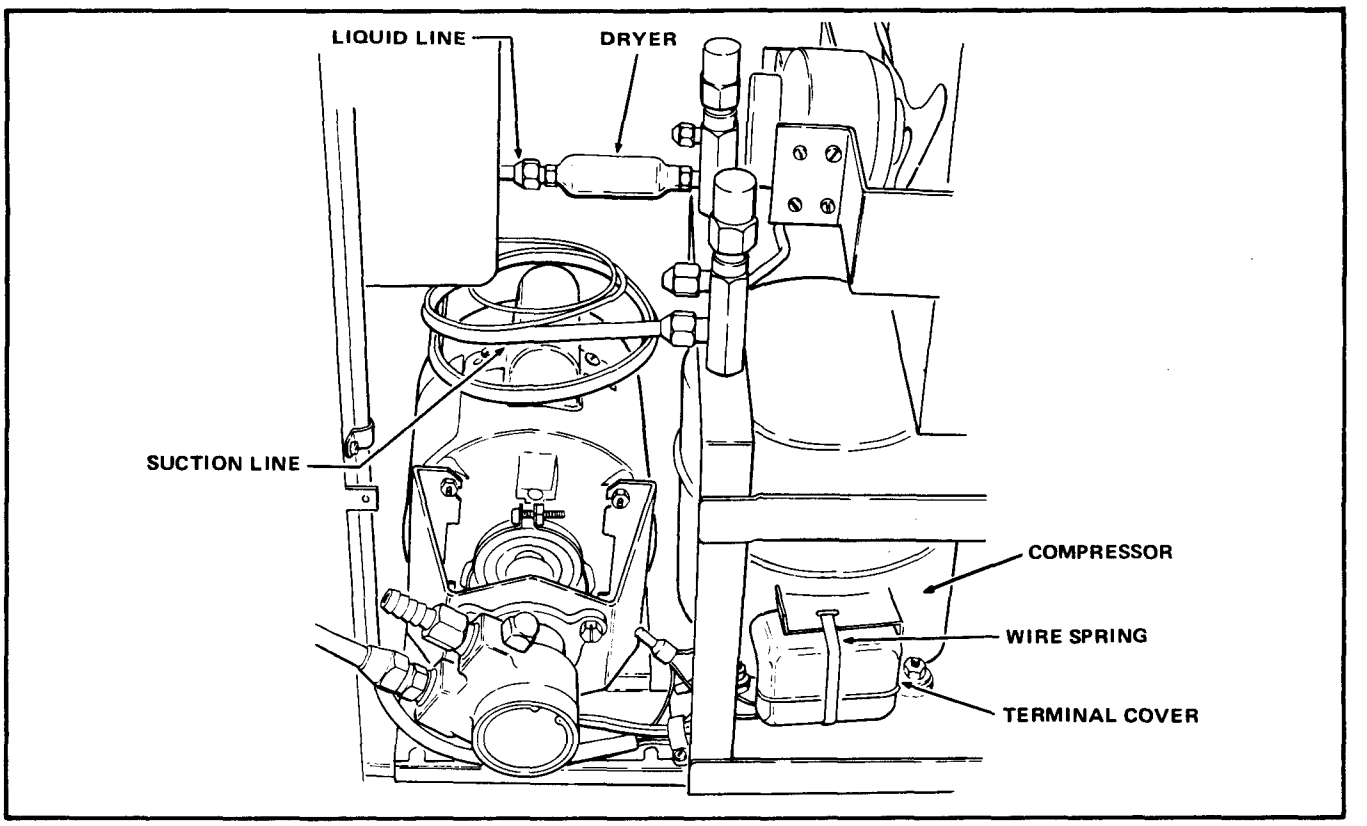


FIGURE 8

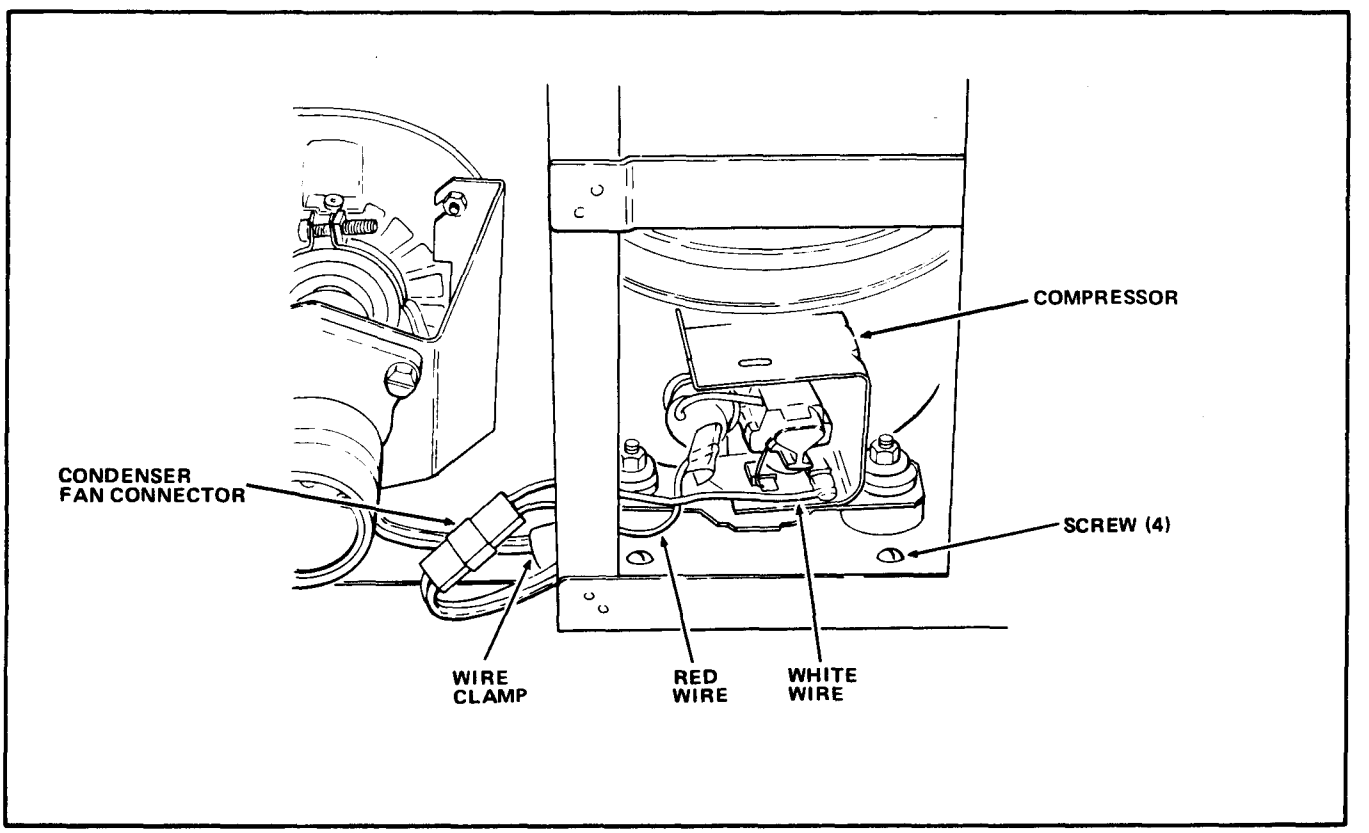


FIGURE 9

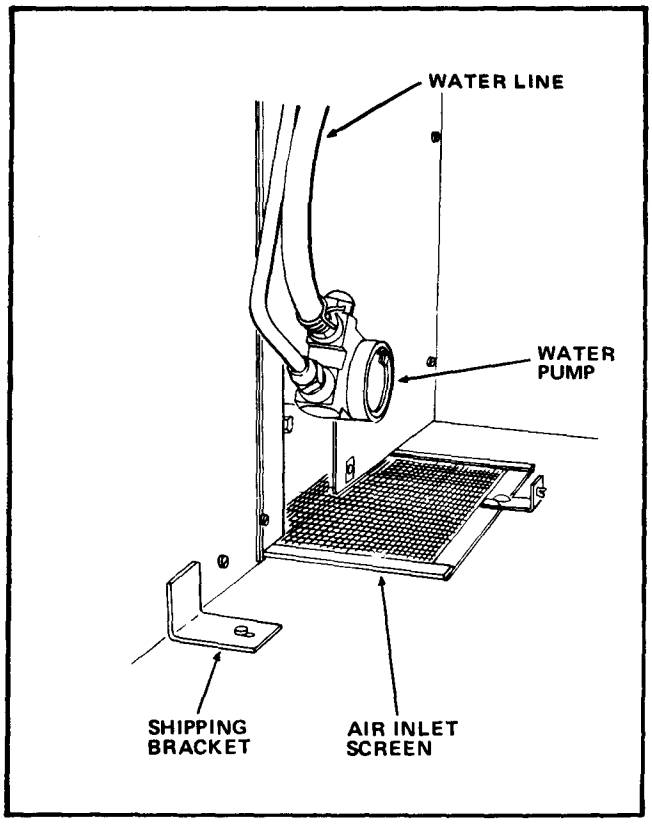


FIGURE 6

CAUTION

DO NOT allow moisture and air to enter the Refrigeration System. Mositure can freeze and block the openings in the Liquid Line Valve and corrode the metal parts in the system.

25. Purge the refrigerant from the refrigeration system.

26. Remove and retain the Screw attaching the Top Bracket to the Refrigeration Module Assembly and rotate the Bracket UP. See Figure 7.

27. Disconnect the Suction Line and the Liquid Line in the Refrigeration Compartment. See Figure 8.

28. Remove the Dryer from the Refrigeration Compartment. See Figure 8.

29. Remove the Wire Spring and the Terminal Cover from the Refrigeration Module Assembly. See Figure 8.

30. Disconnect the RED and WHT wires from the Refrigeration Module Assembly. See Figure 9.

31. Remove the Wire Clamp and disconnect the Condenser Fan Connector. See Figure 9.

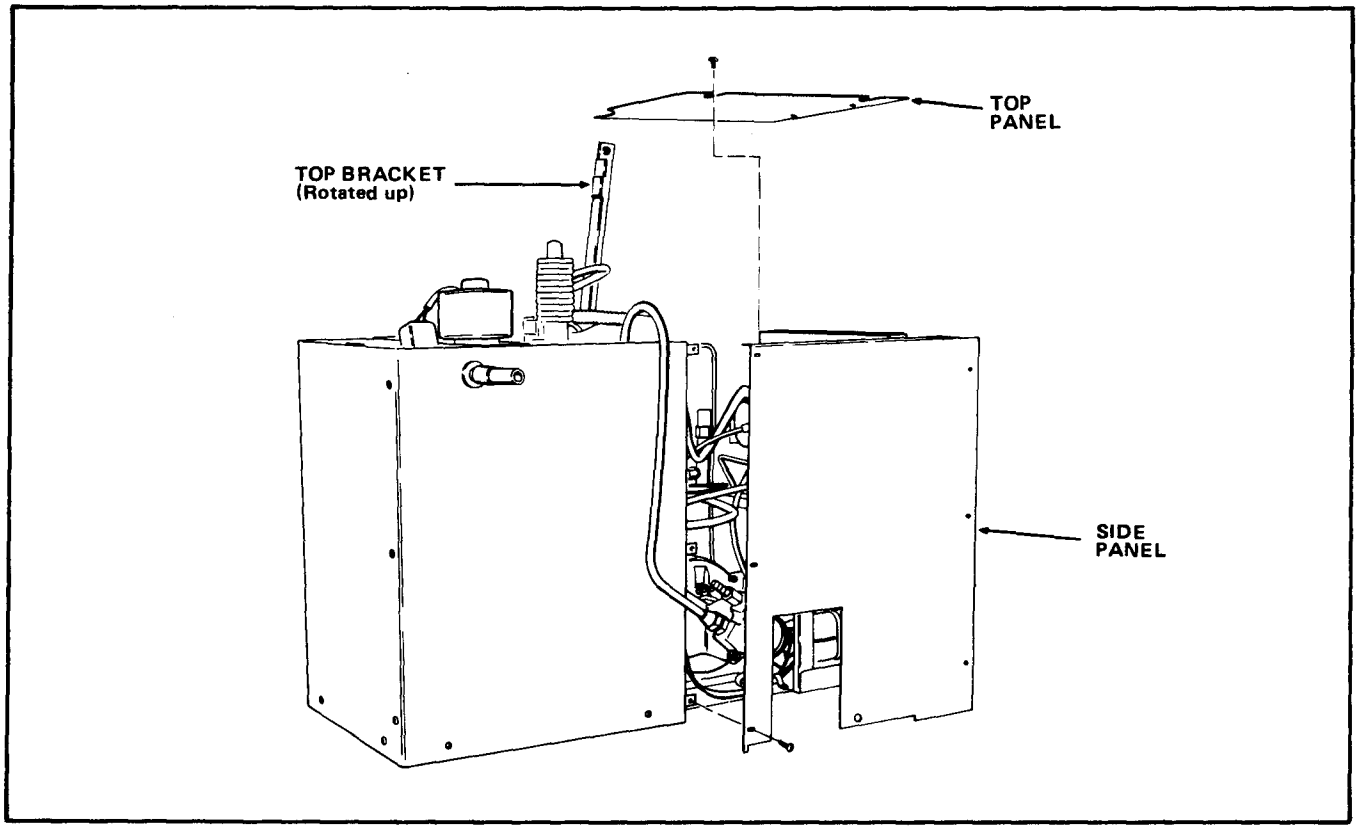
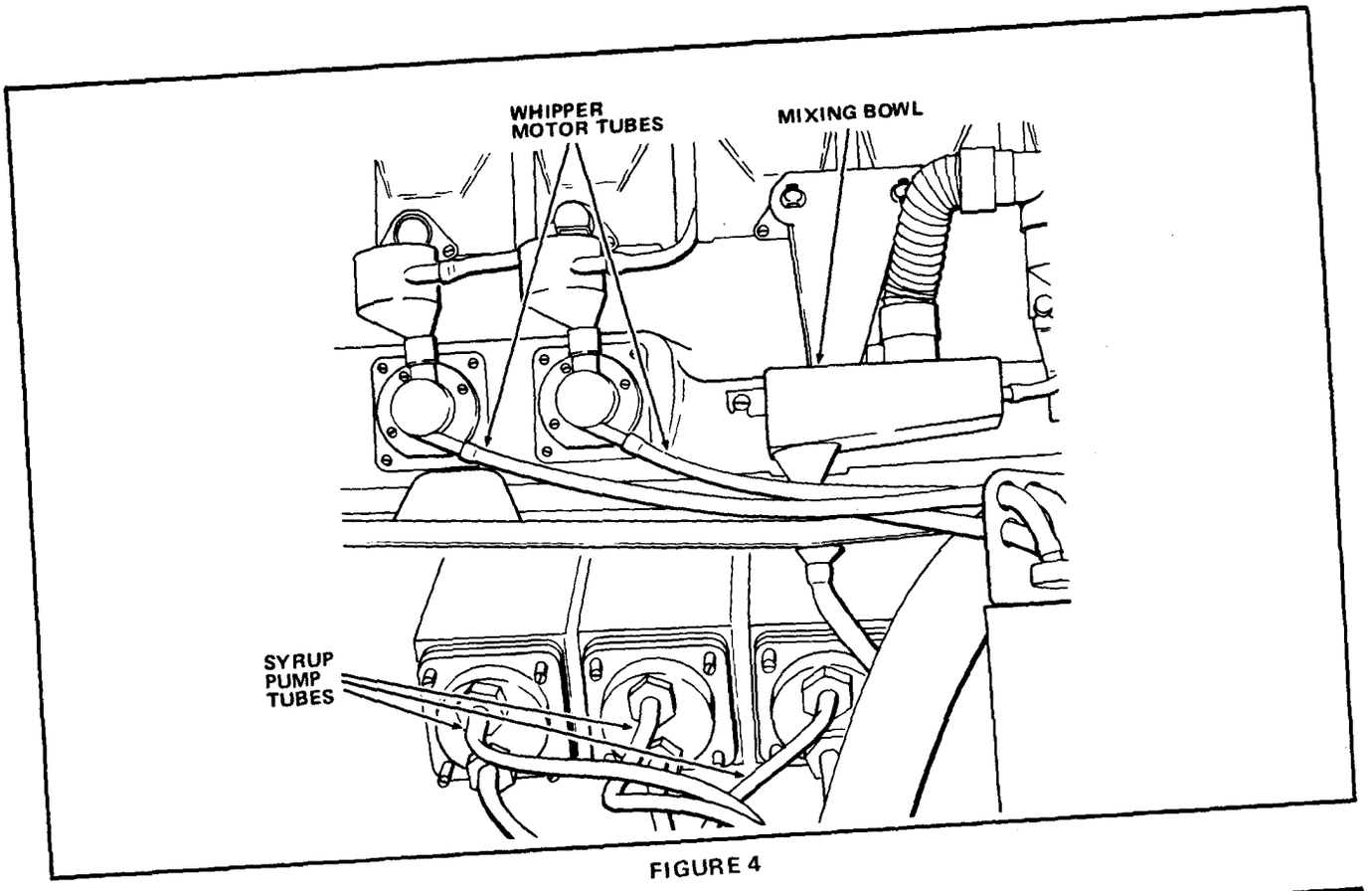


FIGURE 7



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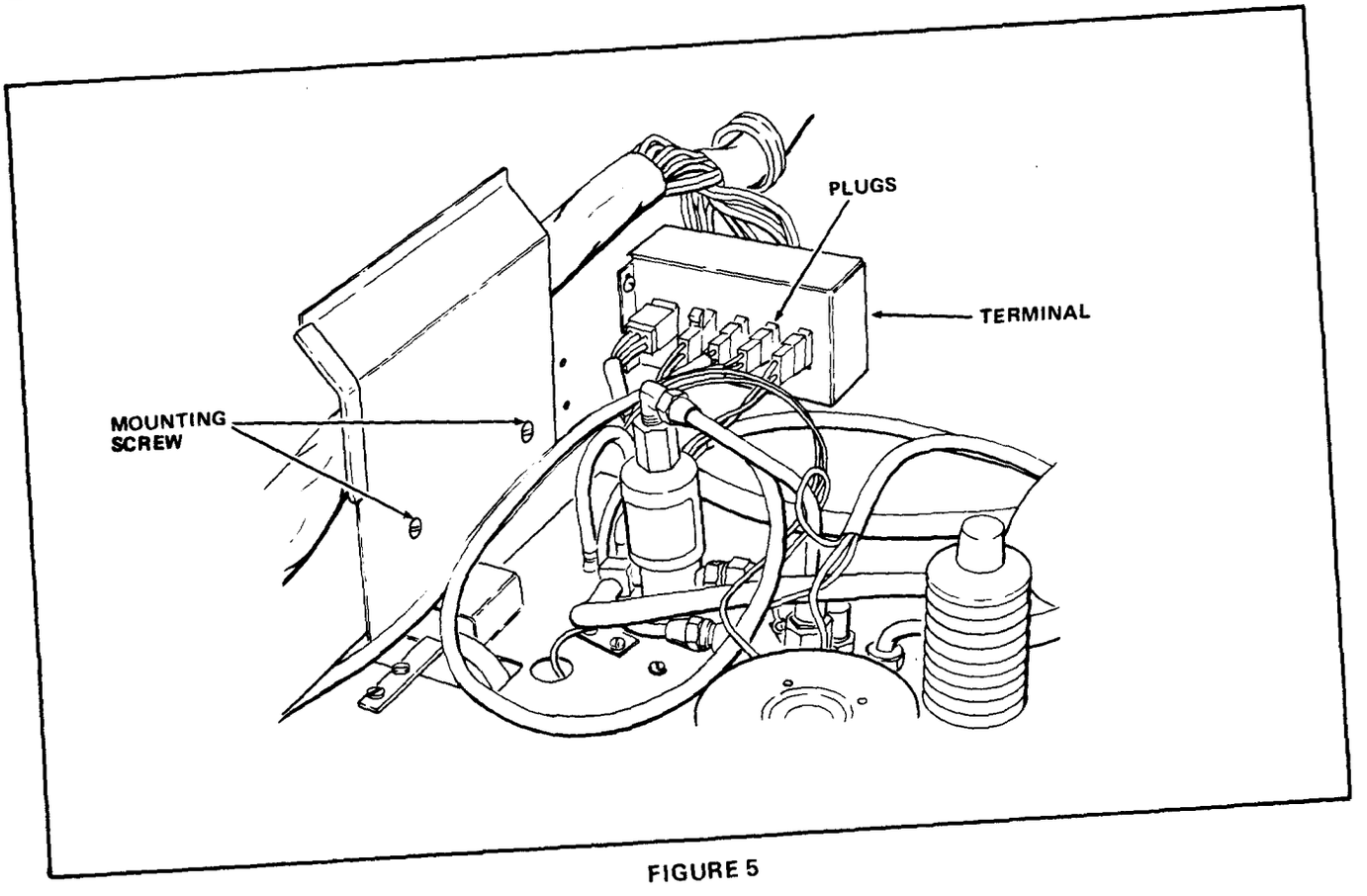

FIGURE 5

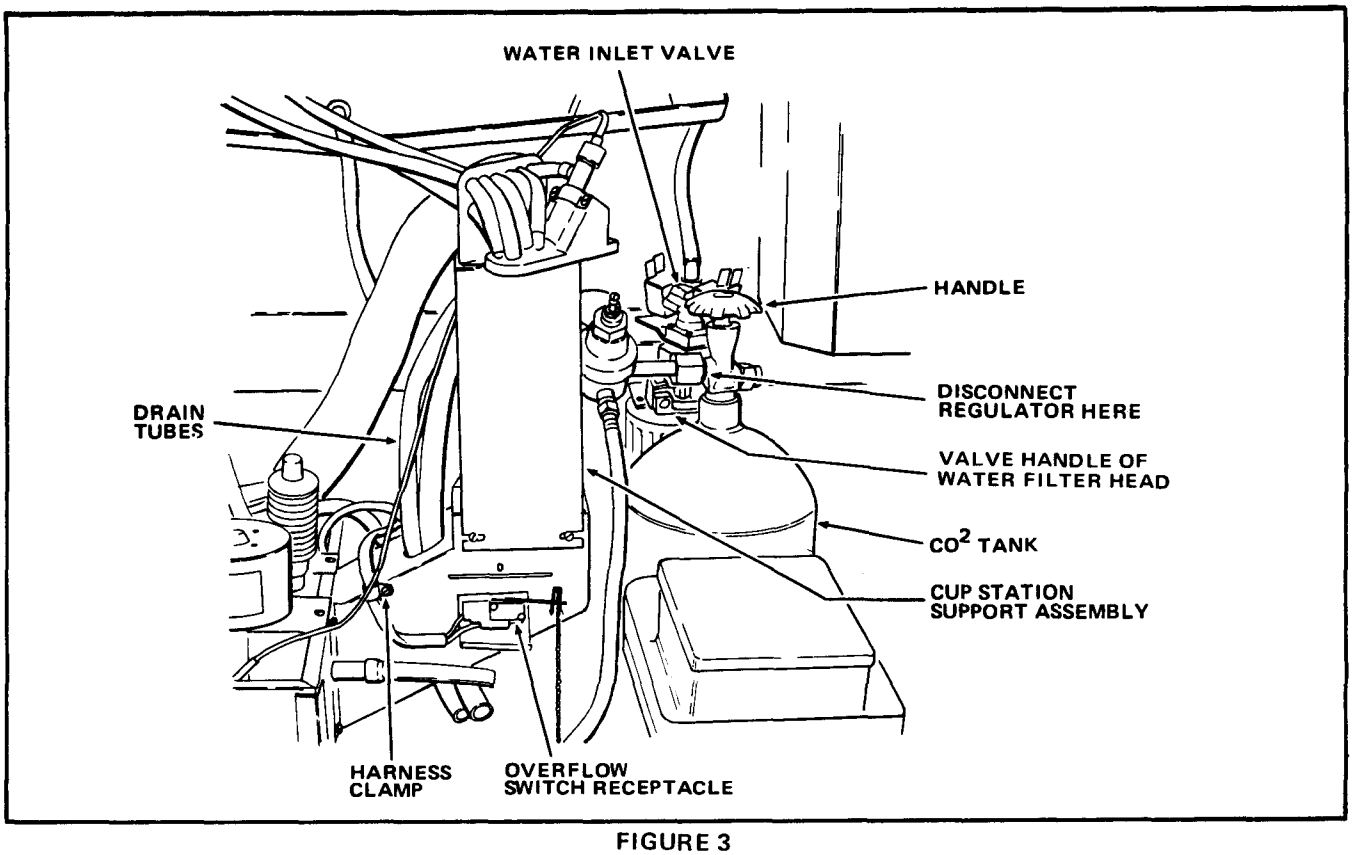

FIGURE 3

15. Disconnect the Tubes from the Soup and Chocolate Whipper Motors. See Figure 4.

16. Disconnect the Drain Tube from the bottom of the Mixing Bowl. See Figure 4.

17. Disconnect the three Syrup Pump to Water Bath Tubes at the Syrup Pump. See Figure 4.

NOTE

These Tubes are filled with Syrup. A cup can be used to catch the syrup after each tube is disconnected.

18. Disconnect the five plugs from the Terminal on top of the Water Bath Assembly. See Figure 5.

19. Remove the two Mounting Screws attaching the Water Bath and Refrigeration Module Final Assembly to the Left Sidewall. See Figure 5.

20. Disconnect the Water Line at the Water Pump. See Figure 6.

21. Rotate the quarter turn Fastener counter-clockwise on the front of the Air Inlet Screen and slide the Air Inlet Screen out of the bottom of the Refrigeration Compartment. See Figure 6.

22. Remove two Screws and two Shipping Brackets attaching the Water Bath and Refrigeration Module Final Assembly to the Cabinet floor. See Figure 6.

23. Slide the Water Bath and Refrigeration Module Final Assembly out of the Merchandiser.

24. Remove the Screws, the Top Panel and Side Panel from the Water Bath and Refrigeration Module Final Assembly. See Figure 7.

WARNING

1. **Discharging and recharging the Refrigeration System should be performed only by a qualified refrigeration serviceman. Specific instructions pertaining to charging and discharging the system will not be given.**
2. **Wear safety glasses. R-12 refrigerant boils at minus twenty one degrees fahrenheit (-21°F.) and may freeze any skin area that comes in contact with the refrigerant. If R-12 refrigerant accidently comes in contact with exposed skin, immediately flush the affected areas of skin with cold water and treat for frostbite.**
3. **DO NOT inhale the vapor from R-12.**
4. **DO NOT discharge the Refrigeration System when an open flame exists in the area. R-12 and an open flame produce a toxic gas.**

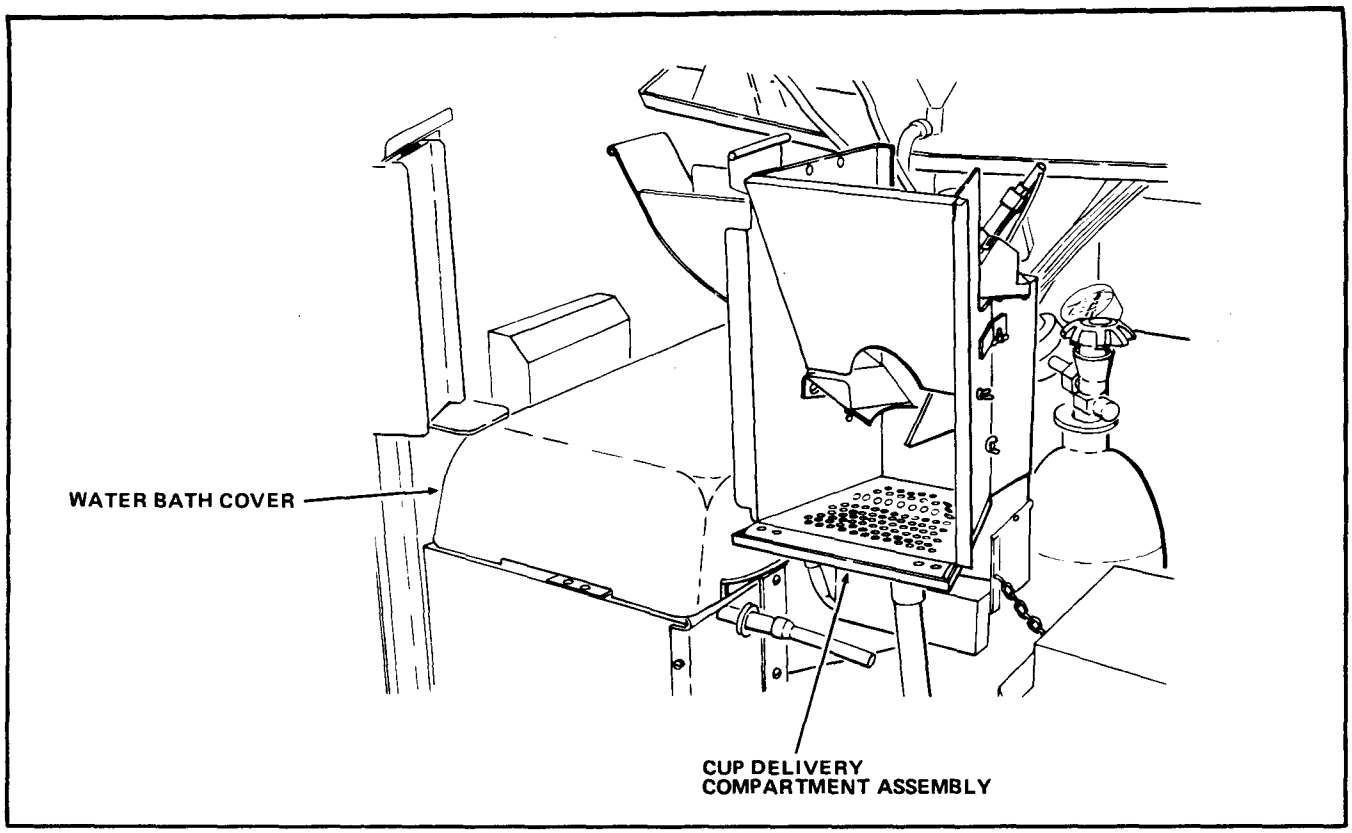

FIGURE 1

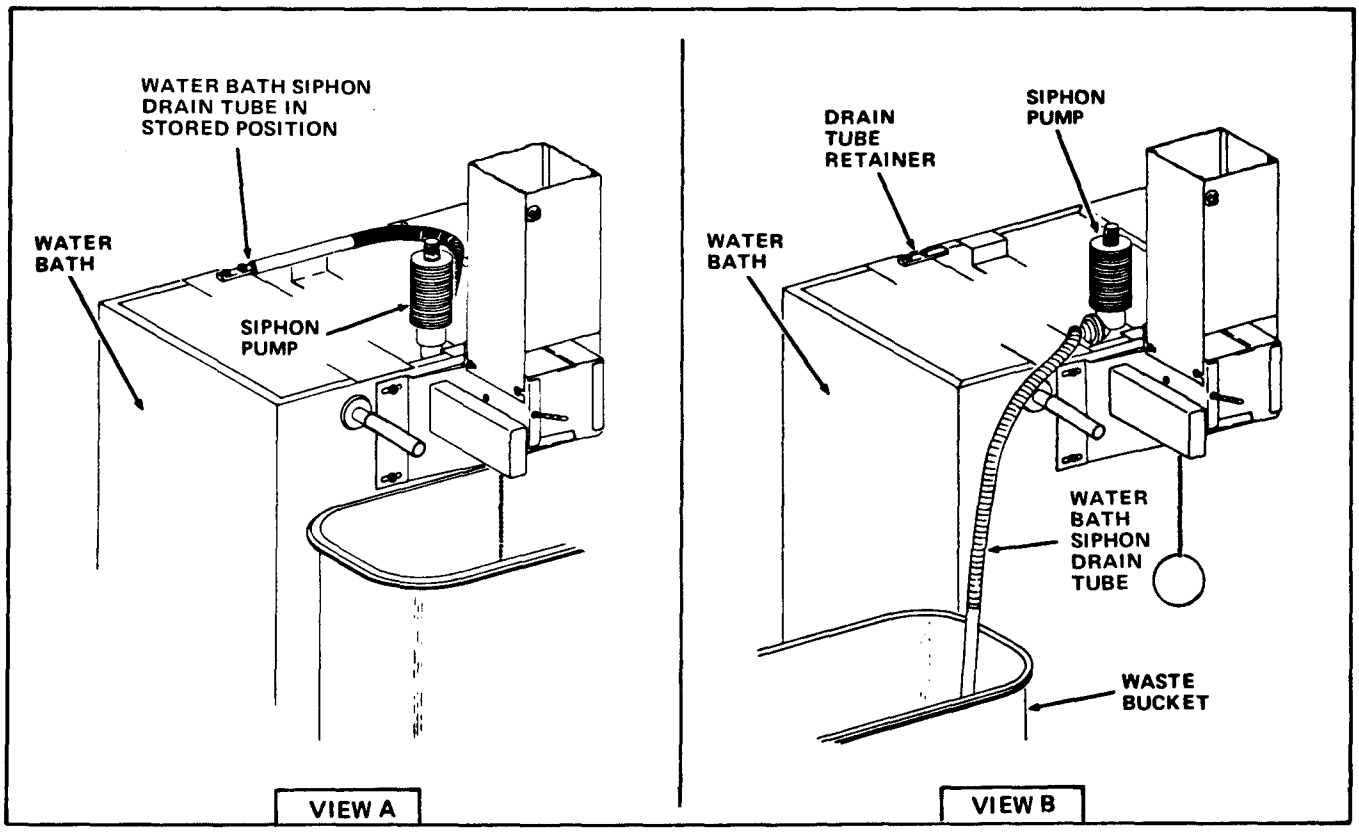

FIGURE 2