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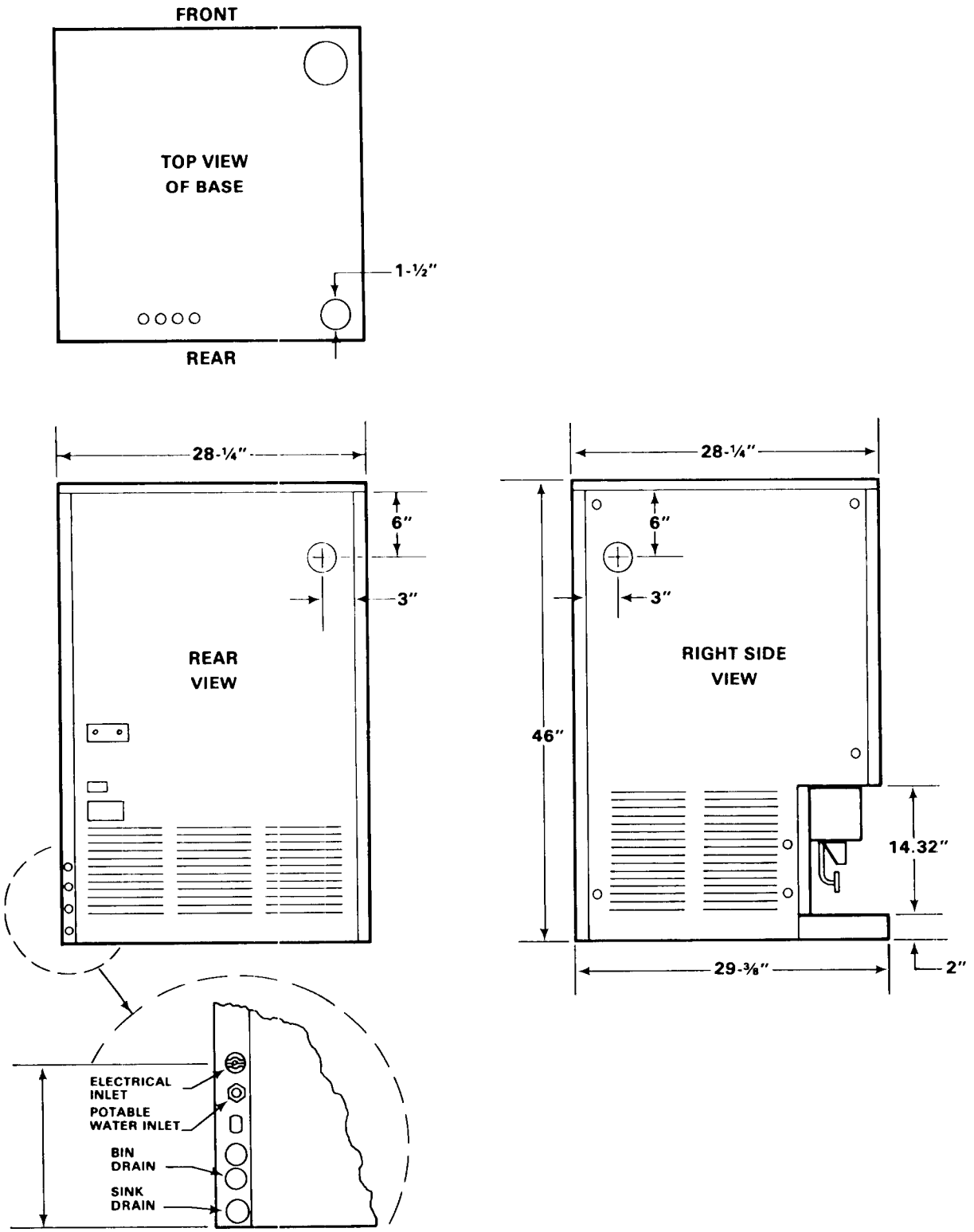
SPECIFICATIONS
MODEL RPD100



SPECIFICATIONS (Cont'd)

MODEL RPD100

Bin Storage: 90 lbs.*

Electrical: 115/60/1

Est. Ship. Wt.: 237 lbs.

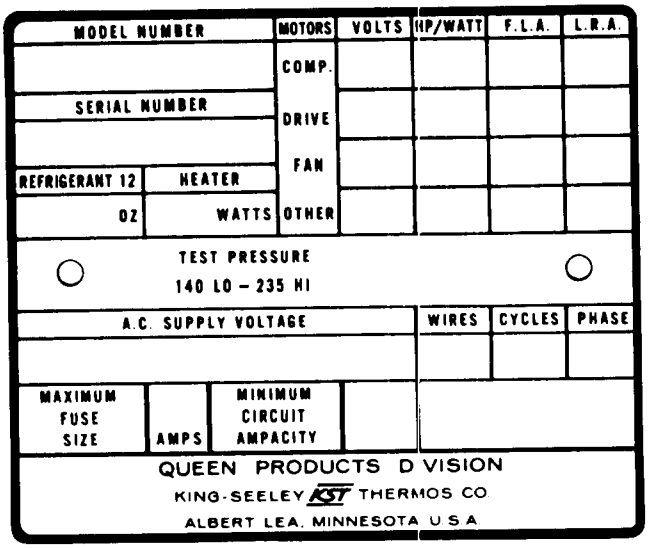
TWO YEARS PARTS WARRANTY
FRONT SERVICE ACCESS PANEL

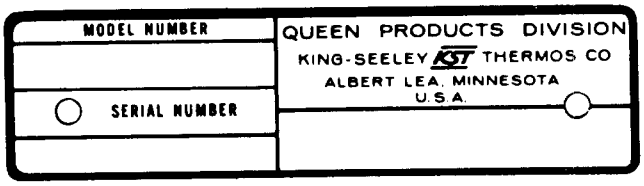
OPTIONAL KITS

SPKPCD1 - Stainless Panel Kit
KDPB2 - Dispensing Portion Box Kit
KDPB4 - Dispensing Portion Box Kit
KV7E-30A - Valve Kit - (5 valves)
KTX25 - 25-Ft. Ice Transport Tube
KTX50 - 50-Ft. Ice Transport Tube
KTX100 - 100-Ft. Ice Transport Tube

SEE NAMEPLATE, shown at left, for electrical specifications. NAMEPLATE located on the left section of the rear service panel of the cabinet.

Remove Splash Panel and the Sink Assembly to locate the Model/Serial Number plate, shown below, on the front center of the Base Assembly.





*Storage based on 90-percent of total volume x 34 lb. average density of ice. A.R.I. Standard.

We reserve the right to make product improvements at any time. Specifications and design are subject to change without notice.

This Dispenser has been engineered to our own rigid safety and performance standards. The National Sanitation Foundation (NSF) seal, signifies that it is listed with the NSF and that it complies with the materials and construction standards of the NSF. In addition, the Underwriters Laboratories, Inc., (UL) Listing Mark and the Canadian Standards Association (CSA) Monogram, both signify that its construction and design have been inspected and tested by them. NSF, UL and CSA inspectors also periodically examine production icemakers at the factory, to assure continued compliance.

To retain the safety and performance built into this Dispenser, it is important that installation and maintenance be conducted in the manner outlined in this manual.

SECTION I

GENERAL INFORMATION & INSTALLATION

I. INTRODUCTION

This manual provides specifications and the step-by-step procedures for the installation, start-up, operation, and the maintenance and cleaning for the SCOTSMAN Model RPD100 Dispenser.

The Model RPD100 Dispensers are quality designed, engineered and constructed, and thoroughly tested ice storage and dispensing systems, providing the utmost in flexibility to fit the needs of a particular user. Separate sections detail more specifically: General Information & Installation; Start Up Operation; Principles of Operation; Adjustment and Removal and Replacement Procedures; Maintenance and Cleaning Instructions; Service Diagnosis; Wiring Diagrams; and, the Illustrated Assemblies and Parts Lists.

With the Splash Panel, Sink Assembly and Rear Panel removed, work access can be gained for on-the-spot repair.

DESCRIPTION

An attractive compact cabinet with a Micomatte baked enamel finish. Also, an optional stainless steel panel kit is available. Both cabinets have up-to-date styling and easily removable front panels for easy access to electrical and mechanical components.

SELF-CONTAINED STORAGE BIN

The RPD100 Dispensers store ice in a self-contained, stainless steel ice storage bin cylinder, inside an insulated cabinet.

OVERALL DIMENSIONS

The overall dimensions of the Dispenser depth, height, etc., allows the Dispenser to be installed in harmony with the existing counter equipment, EC900 Icemaker, or on the DMS50 Machine Stand.

II. UNPACKING AND INSPECTION

1. Call your authorized SCOTSMAN Distributor or Dealer, for proper installation. He's listed under ICE MAKING EQUIPMENT and MACHINERY in the yellow pages of the telephone book.
2. Visually inspect the exterior of the shipping container and skid and any severe damage noted, should be reported to the delivery carrier; and, a concealed damage claim filed subject to internal inspection, with carrier representative present.
3. BEFORE removal of any panels or packing, carefully lay the Dispenser on its back and remove the shipping bolts and the shipping base or skid; then, install the sink drain, packed in Ice Storage Bin.
4. Remove screws and shipping tape, and the Front Panel from the cabinet, and inspect for any concealed damage. Notify carrier of any concealed damage claims, as stated in step 2 above.
5. Remove screws, the Spout Cover Assembly, then pull each end of the Splash Panel and remove Splash Panel from the front of the Dispenser. Unplug the dispensing switches cable from the Control Box.
6. Remove all internal support packing, tape or wire from internal mechanisms.
7. Remove Water Strainer from shipping envelope for installation in water supply line.
8. Use clean damp cloth or disposable paper wiper to wipe clean the interior surfaces of the ice storage Bin and the exterior surfaces of the cabinet.
9. See NAMEPLATE on the left midsection of of the rear service panel of the cabinet and check that the local source voltage corresponds with the voltage specified on the nameplate.

CAUTION

Improper voltage supplied to Dispenser will void your parts replacement program.

10. Connect dispensing switches cable to the Control Box and replace Splash Panel.
11. Remove the Manufacturer's Registration Card from the front of the User's Manual and fill in all spaces including: Model Number and Serial Number taken from the aluminum plate located on the front of the Base Assembly. Forward the completed, self addressed, registration card to the SCOTSMAN factory.

III. LOCATION AND LEVELING

WARNING

This Dispenser is NOT designed for outside installations where air temperatures are below 50-degrees F. or above 100-degrees F., and the water temperature is below 40-degrees F. or above 100-degrees F. Extended periods of operation at temperatures exceeding these limitations will constitute misuse, under the terms of the Scotsman Manufacturer's limited warranty, resulting in LOSS of warranty coverage.

1. Position the Dispenser in the selected permanent location.

NOTE

Prior consideration for location site shall include:

1. *Minimum room temperature 50-degrees F. and maximum room temperature 100-degrees F.*
2. *Water inlet temperatures: Minimum 40-degrees F. and Maximum 100-degrees F.*
3. *Well ventilated location.*
4. *SERVICE ACCESS: Adequate space for all service connections, through the rear of the cabinet. A six-inch minimum clearance at rear and sides for routing cooling air.*
5. *Surface requirements for sealing Dispenser to counter.*

2. LEVELING - (On EC900 or DMS50 Machine Stand): Level the Cabinet in both the left-to-right and front-to-rear directions. Add metal shims, to ensure that the Splash Panel and Sink Assembly can be easily removed and reinstalled.
3. LEVELING - (General):

NOTE

When installing Dispenser on counter top, the base shall be secured to the counter top and properly sealed to prevent contaminants and vermin from entering through the base of the Dispenser. The following procedure is recommended and the sealant can be a food grade caulking material, or SCOTSMAN Sealant P/N 19-0529-00 or 19-0529-01.

1. *With the Splash Panel and Sink Assembly removed, position Dispenser in selected site location; then, with a marking pen, trace the outline of the Dispenser base on the counter top.*
2. *Remove the Dispenser temporarily and proceed to lay a one-fourth inch bead of sealing or caulking compound on the counter top, just INSIDE the above traced outline.*
3. *Carefully position the Dispenser over the traced outline and sealant bead and gently lower the Dispenser in place, checking to ensure there is a continuous and proper seal around the entire base of the Dispenser.*
4. *BEFORE the sealant sets-up or hardens, check the front-to-rear and left-to-right leveling of the Dispenser; and, if required, add shims to achieve proper leveling.*
5. *When necessary, recaulk any areas opened by the shim or leveling process, performed in step 4 above.*

IV. ELECTRICAL CONNECTIONS

See NAMEPLATE for current requirements to determine wire size to be used for electrical hookup. The Dispenser requires a solid earth ground wire. See wiring diagram.

Be certain the Dispenser is connected to its own electrical circuit and individually fused. The maximum allowable voltage variation should not exceed ten percent of the nameplate rating, even under starting conditions. Low voltages can cause erratic operation and may be responsible for serious damage to the motor windings.

All external wiring should conform to the national, state and local electrical code requirements. Usually electrical permit and services of a licensed electrician will be required.

V. WATER SUPPLY AND DRAIN CONNECTIONS

A. WATER SUPPLY CONNECTIONS: The recommended water supply line is a 3/8-inch O.D. copper tubing. Connect to cold water supply line with standard plumbing fittings, with a shutoff valve installed in an accessible place between the water supply and the Dispenser.

A wire mesh strainer is provided and must be installed with the cleanout plug down. Locate the strainer in the water supply line, next to the Dispenser with the arrow on the strainer, in the direction of the water flow. The strainer protects against large particles of rust, scale, etc., which may be loosened in the water supply pipe, at the time of installation.

Water supply lines and connections shall be installed conforming with local plumbing codes. In some cases, a plumbing permit and services of a licensed plumber will be required.

B. DRAIN CONNECTIONS: All drains are gravity type and must have a minimum 1/4-inch fall per foot on horizontal runs. The drains to be installed conforming with local plumbing code. The drain receptacle should be an open, trapped or vented construction. Recommended Bin Drain is 5/8-inch O.D.

copper tubing and should be vented and run separately. Sink drain to be 7/8-inch O.D. copper tubing.

VI. INSTALLATION - DISPENSER MOUNTING

A. DISPENSER MOUNTED ON TOP OF EC900:

1. Remove the rear and side panels from both the RPD100 and EC900. Remove and discard the Top Panel from the EC900.

NOTE

A drip pan is provided with the EC900, for use when the RPD100 is mounted on top of the EC900. The drip pan will catch any dripping from drink heads, or the water spout, when the RPD100 Sink Assembly is removed. With attaching screws removed, the drip pan can be slid to the rear to provide access to the EC900 from the top for service requirements. The drip pan is not required when the Top Panel is installed on the EC900.

2. Position the RPD100 on top of the EC900; then, install three fish plates, one on each side and one at the rear, to secure the bottom of the RPD100 to the top of the EC900. See Figure 1-1.
3. Check leveling of the RPD100 and use metal shims, as necessary, for proper alignment to ensure easy removal and replacement of the Splash Panel and Sink Assembly.
4. Align the drain fitting on the rear of the Sink Assembly with the drain fitting at the center of the base of the Dispenser; then, check that the O-Ring is installed on the drain tube and covered with petroleum jelly, applying jelly when necessary and then push Sink Assembly in, to lock in place.
5. Check Figure 1-1 to measure, prepare and install the two hold down clips, shipped with the RPD100.

NOTE

The installed hold down clips, keep the front edge of the Sink Assembly held down to prevent it from vibrating, yet allows the sink to be easily removed and replaced for cleaning.

6. Install the 110-inch long. one-inch I.D. Nylon reinforced P.V.C. ice transport tubing on the outlet of the EC900 Extruder, and secure with one of the hose clamps provided.

CAUTION

Use extra care when routing the ice transport tubing in the next step to:

1. **Avoid any kinking or restrictions of any kind to tubing; and, that all curves or bends in tube routing have the largest possible radius. Minimum recommended bend radius is six and one-half inches.**
2. **Be sure to route tubing away from all moving parts, such as pulleys and belts. Ties may be required to ensure that tubing does not contact any moving parts.**
3. **Use only tubing approved by SCOTSMAN for use with the EC900, and also use only hose clamps provided.**

7. Route the ice transport tube up through the gusset in the rear, left-hand corner of the EC900, through the hole in the base and mounting pan of the RPD100, continuing up through the hole in the foam insulation and out into the bin.
8. Guide the end of the tubing under the saddle, through the two U-clamps, with the end of the tubing extending about one inch beyond the last U-clamp. Excess tubing should be worked back down into the EC900 Cabinet.
9. Route electrical wiring from the Bin Level Control of the RPD100, to the terminal block located in the small control box of the EC900. Refer to the EC900 instructions and wiring diagram. These wires may be routed along the ice transport tubing.

B. DISPENSER MOUNTED REMOTE OR ON COUNTER:

CAUTION

Be sure the Dispenser is installed on a solid support in accordance with local codes. Securely attach the Dispenser to the counter or other support with the shipping bolts or bolts of equivalent size to prevent possible tipping over of the Dispenser. Omit use of the bolt in the rear right-hand corner, eliminating interference with the sink drain assembly.

1. Level and seal the base of the Dispenser to the counter or other support, as given in the paragraph I-III-3 LEVELING.
2. Refer to paragraph I-VI-A above, and route the one-inch I.D. Nylon-reinforced P.V.C. ice transport tubing in the same manner into the RPD100 installed remote from the EC900.
3. When mounted on a counter top, cut a one and one-half inch diameter hole in the counter top at the left rear corner of the Dispenser.

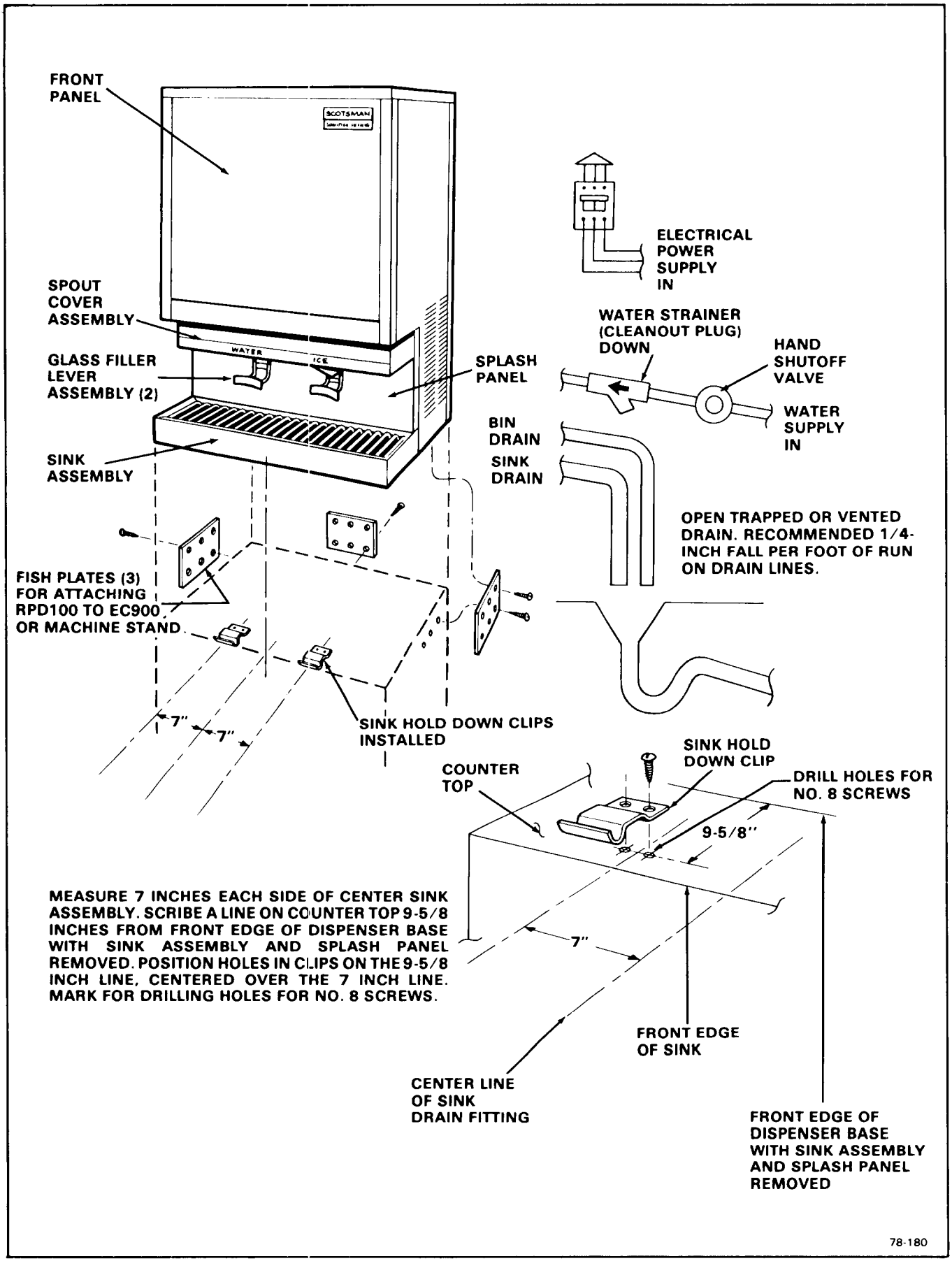


Figure 1-1. Installation Practice

4. When the ice transport tube delivers ice from above the Dispenser, cut a one and one-half inch diameter hole in the left side panel, or left rear panel, six inches below the top of the panel and three inches from the edge of the panel next to the left rear corner post. See Specifications page.

CAUTION

Strictly observe the following instructions in the use and handling of SCOTSMAN approved Nylon reinforced ice transport tubing, see Figure 1-2:

1. **Use only SCOTSMAN approved Nylon reinforced one inch I.D. transport tubing available in 25, 50 and 100 foot lengths, from your authorized SCOTSMAN dealer.**
2. **DO NOT splice tubing.**
3. **DO NOT route tubing from above the Dispenser down to the base and back up to the ice storage bin level. This U-shape in tubing forms a trap, or low section in the tubing, that will fill with water which cannot be drained.**
4. **Route all transport tubing to allow meltage water to drain to either the RPD100, the EC900, in both directions. Refer to instructions supplied with the EC900.**

VII. INSTALLATION - OPTIONAL KITS

Install kits ordered with the Dispenser:

1. KDPB2 Dispensing Portion Box Kit - designed to dispense an amount of ice LESS than the standard dispenser; or,
2. KDPB4 Dispensing Portion Box Kit - designed to dispense an amount of ice MORE than the standard dispenser; or,
3. KV7E-30A Valve Kit - a five-valve soda drink kit, of which one valve is used to replace the water spout which must be removed to install this kit.
4. SPKPCD1-Stainless Steel Panel Kit.
5. KTX25 - 25-foot length of Nylon reinforced, one-inch I.D. tubing for ice transporting.
6. KTX50 - 50-foot length of Nylon reinforced, one-inch I.D. tubing for ice transporting.
7. KTX100 - 100-foot length of Nylon reinforced, one-inch I.D. tubing for ice transporting.

The installation instructions for each of the above listed kits are shipped in the individual kit package.

VIII. FINAL CHECK LIST

1. Is the Dispenser level? (IMPORTANT)
2. Have all kits, if any, been installed and properly checked?
3. Has the sink drain assembly been installed?
4. Have all electrical and piping connections been made?
5. Has the ice transport tubing been installed and properly routed for good drainage?
6. Has the voltage been tested and checked against the nameplate rating?
7. Is the water supply line shutoff valve installed and electrical wiring properly connected?
8. Have the Bin and Cabinet been wiped clean?
9. Has the owner/user been given the User Manual and instructed on how to operate the Dispenser?
10. Has the Manufacturer's Registration Card been properly filled out? Check for correct Model and Serial numbers from Serial nameplate, then mail the completed card to the SCOTSMAN factory.
11. Check all conduit lines, to guard against vibration or rubbing and possible failure.
12. Is there at least six inches clearance behind and around the Dispenser for proper air circulation?
13. Is the Dispenser in a room where ambient temperatures are a minimum of 50-degrees F. all year around?
14. Has water supply pressure been checked to ensure a minimum of 20 PSI?
15. Has the owner been given name and telephone number of the authorized SCOTSMAN Service Agency serving him?

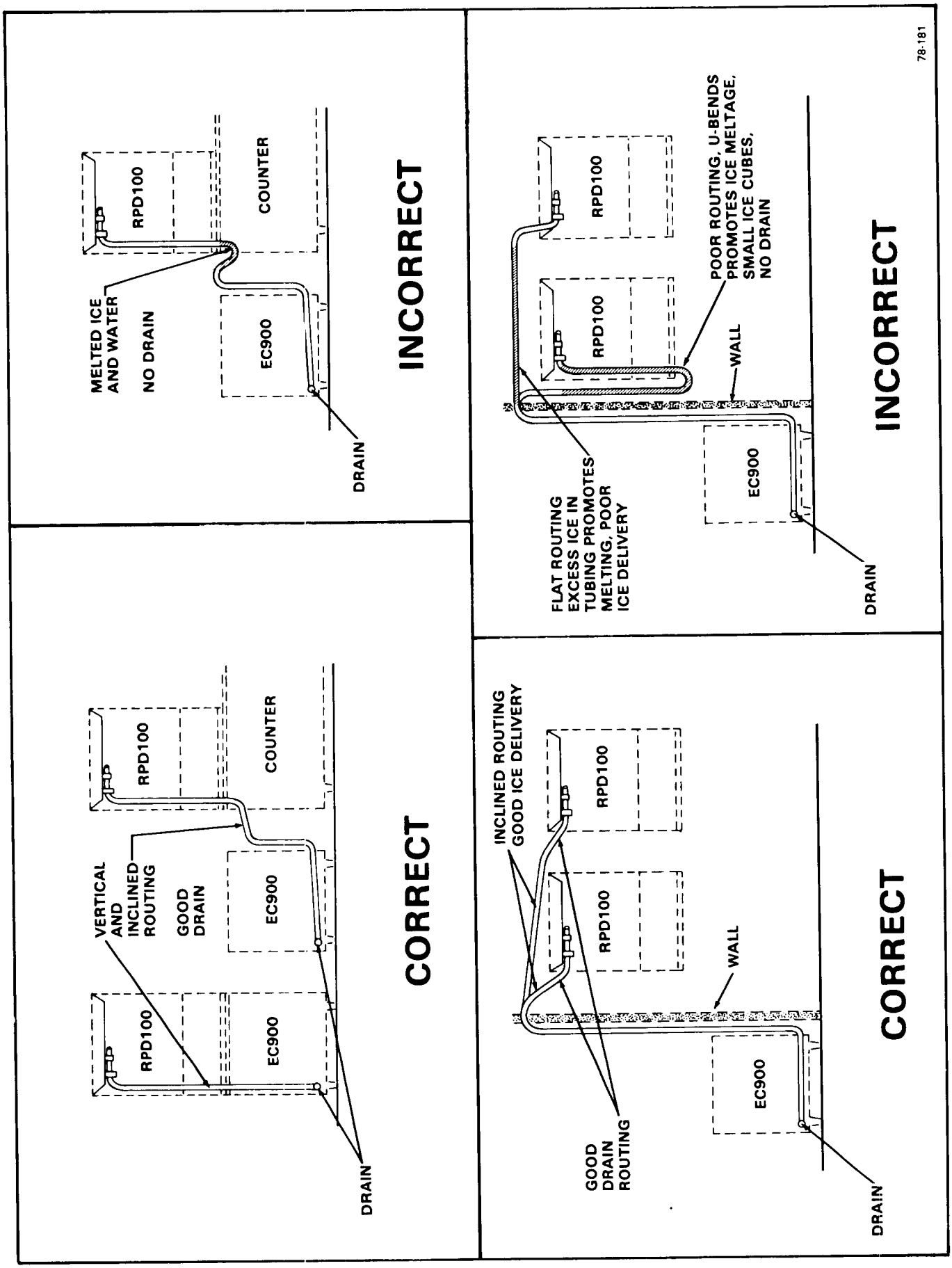


Figure 1-2. Examples of Ice Transport Tube Routing

SECTION II

OPERATING INSTRUCTIONS

I. START UP

1. Move both Manual ON-OFF toggle switches on the EC900, to the ON position, to start the automatic icemaking operation.
2. Within two or three minutes of operation, flaked ice will begin dropping from the ice spout at the upper end of the Freezer Assembly into the Extruder feeder hose.
3. Within the next two minutes or so, squared broken cubed ice should be emerging from the breaker end of the Extruder Assembly and into the ice transport tube that delivers ice to the ice storage bin in the RPD100.

NOTE

During the next phase, the time required to transport ice from the breaker end of the Extruder Assembly, through the ice transport tubing and into the ice storage bin of the RPD100, will vary according to type of installation, for example:

1. *RPD100 mounted on top of EC900: Travel time is about four to five minutes.*
2. *RPD100 remote from EC900: Travel time equals the length of the ice transport tube, in feet, multiplied by roughly two-feet-per-minute. So, travel time through a 16-foot tube would require roughly eight minutes. These time figures are mediun examples, and any, or all can be increased or decreased by variation in local ambient air temperatures and water supply.*

4. Observe the time required for ice to be transported from the Extruder breaker to the ice storage bin in the Dispenser, for future reference. That is, how long in minutes it takes for the first ice to be deposited in the storage bin.

NOTE

Let the icemaking process continue without interruption, until the bin in the Dispenser is filled with ice, up to the bin thermostat. During that time, return to the RPD100 to finalize start up procedures, with next steps.

5. Remove two screws and tilt the top of the Front Panel out slightly, then, lift the Panel off of the two alignment pins on the front of the Dispenser. See Figure 2-1.
6. Pull the Sink Assembly out and remove from the base of the Dispenser.
7. Remove screws at each end of the Spout Cover Assembly around the dispensing outlets and remove the Cover from the Dispenser.
8. Remove two screws and pull the Splash Panel loose from the Dispenser, and tilt the top of the Panel in and lay the Panel down to gain access to the Control Box.
9. Move the Master ON-OFF toggle switch, on the Control Box, to the ON position.
10. Check that all drain lines are tight and will not leak.
11. Replace the Splash Panel and the Sink Assembly.
12. Test that the RPD100 bin thermostat causes the EC900 icemaker to shut OFF. Hold ice against the bin thermostat bulb and generally less than one minute is required for the thermostat to react and cause the EC900 shutoff. See Figure 2-1.
13. Remove an amount of ice from the bin in the Dispenser to lower the ice level to below the bin thermostat bulb.

NOTE

Within minutes after the ice is removed from the sensing bulb, the bulb will warm up and cause the EC900 icemaker to restart. This control is factory set and should not be reset until testing is performed. Normal setting is about 35-degrees F. CUT-OUT and 40-degrees F. CUT-IN.

14. Thoroughly explain to the owner/user the significant specifications of the Dispenser, the start up and operation, maintenance and cleaning procedures. Answer all questions about the Dispenser, by the owner; and, inform the owner of the name and telephone number of the authorized SCOTSMAN Service Agency serving him.

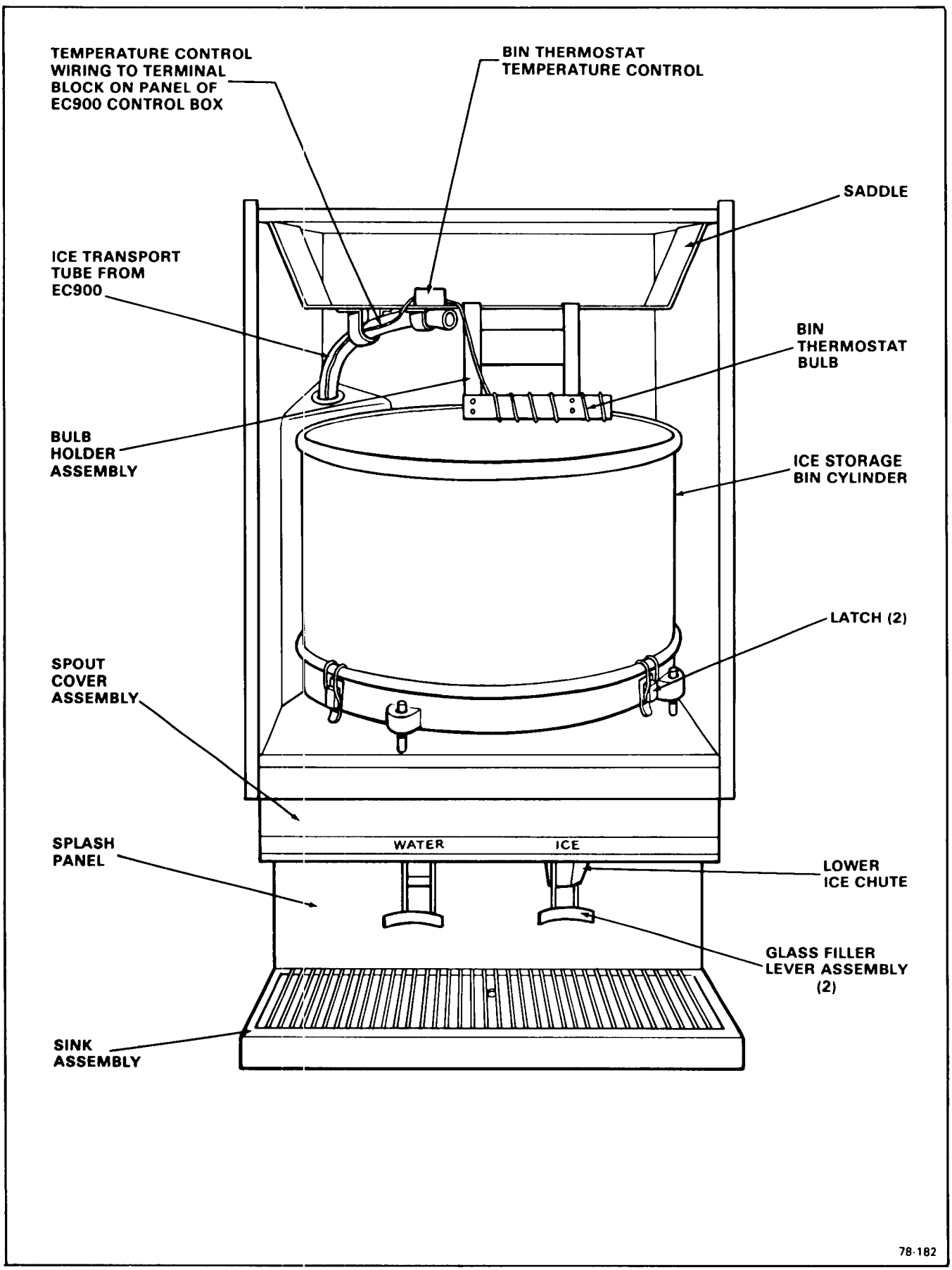


Figure 2-1. RPD100 Dispenser - Component Location

SECTION III

PRINCIPLES OF OPERATION

How It Works

Three descriptions follow: the POWER ON - STANDBY; the VEND SWITCH - HELD IN, where the operator pushes the ICE Glass Lever Filler Assembly IN and holds it IN; the VEND SWITCH - PUSHED IN, IMMEDIATELY RELEASED. In both VEND modes, the pushing IN of the ICE Glass Lever Filler Assembly depresses the Vend Switch, which begins the Ice Dispensing Cycle. See Figure 3-1.

I. POWER ON - STANDBY

In the STANDBY condition, electrical power is ON to the RPD100, ice is in the ice storage Bin, and the two motors, the Agitator Drivemotor and the Ice Dispensing Motor are de-energized, stopped, waiting for the Vend Switch to start a Dispense Cycle.

As shown in the timing chart, Figure 3-1, at T0, the Vend Switch is in the N/C position, the actuator arm roller of the top Cam Switch is on the outer surface of the Cam, the N/O contacts CLOSED; the actuator arm roller of the bottom Cam Switch is in the short groove of the Cam, with that Switch in the N/C position; the current path to the motors is not complete, so both motors are OFF. The Ice Portion Box is filled with ice, centered below the open ice chute hole in the bottom of the Bin, at the FULLY LEFT, rest position.

II. VEND SWITCH - HELD IN

The Vend Switch is depressed and HELD IN, T1, the N/O contacts CLOSE, there is no change in the top and bottom Cam Switches from the STANDBY positions, and a current path is being supplied to both motors, which start to operate. The rotating Cam on the Ice Dispensing Motor causes the actuator arm roller of the bottom Cam switch to ride up, out of the short groove onto the outer surface of the rotating Cam, moving toward sequence T2.

At T2, the actual dispense of ice begins. The HELD IN Vend Switch, the N/O contacts still CLOSED, both motors operating, and the Drive Link arm on the Ice Dispensing Motor moves the Ice Portion Box over the Lower Ice Chute and ice is dispensed into a container, glass, paper cup, etc. Both Cam Switches have the N/O contacts CLOSED, the actuator arm rollers on the outside surface of the Cam, which is rotating toward T3.

The actuator arm rollers of both Cam Switches drop into the long groove of the Cam, which moves both switches to the N/C position, opens the current path and both motors are OFF. However, the Dispensing Cycle has not been completed, because the Vend Switch has not been released, as yet; and, the Ice Portion Box is stopped, but it has not traveled to the FULLY LEFT, rest position.

Then, at T3, the Vend Switch is released and moves to the N/C contacts. This event completes the current path through the two Cam Switches, which remain unchanged from the T3 positions, to re-start both motors.

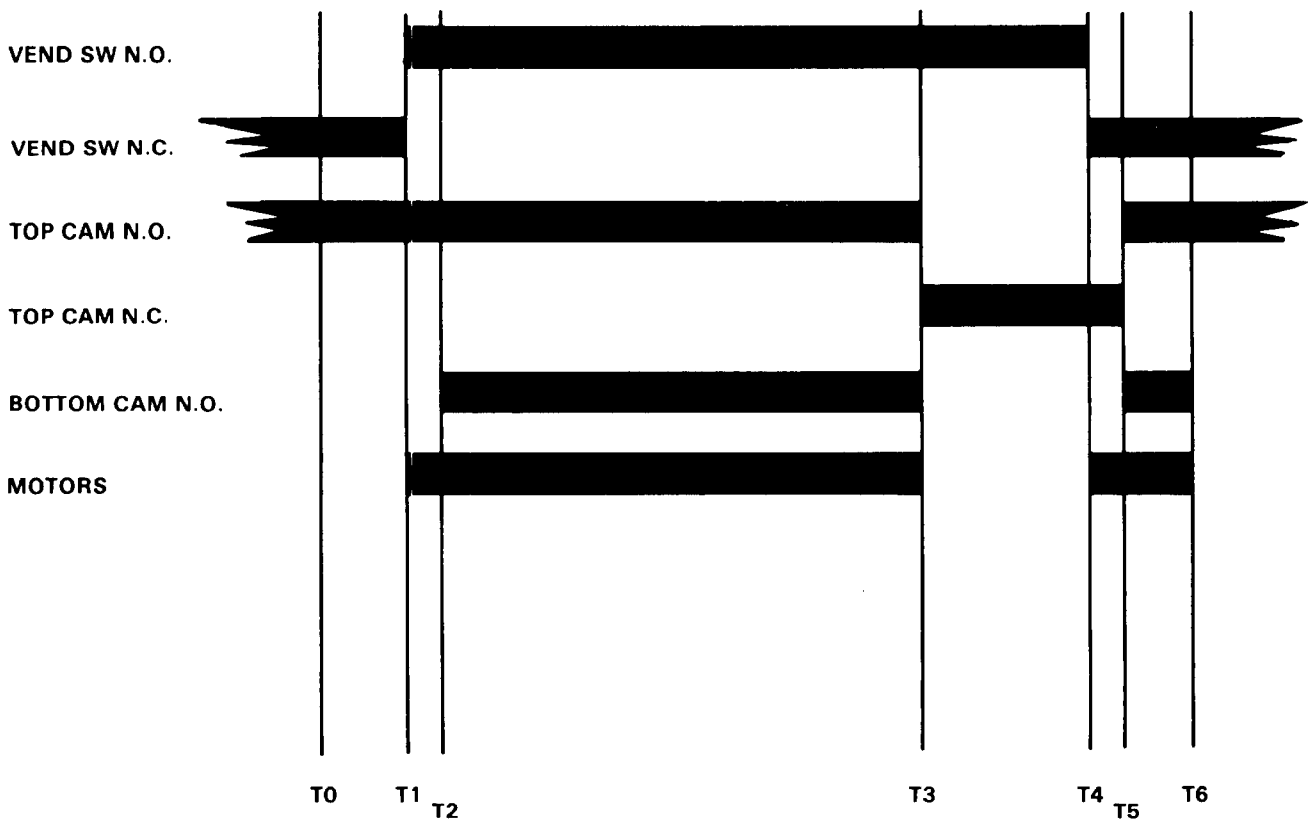
As the Cam rotates, the actuator arm rollers of both Cam Switches move up, out of the long groove, beginning T4. Both Cam Switches change, closing the N/O contacts, which keeps both motors operating; and, begins to move the Ice Portion Box to the FULLY LEFT, rest position.

With both motors operating, the Drive Link on the Ice Dispensing Motor moves the Ice Portion Box to the FULLY LEFT, rest position, which is centered below the ice chute opening in the bottom of the Bin; simultaneously, the Agitator Drivemotor is rotating the Ice Agitator in the ice-filled Bin causing ice to drop through the ice chute opening and fills the Ice Portion Box at T5. At this time, the rotating Cam causes the actuator arm roller of the lower Cam Switch to drop into the short groove of the Cam, the lower Cam Switch moves to the N/C contacts, opening the current path to shut both Motors OFF, T6.

The Dispensing Cycle has been completed, a portion of ice has been dispensed, the Vend Switch released, the Ice Portion Box is in the standby, rest position at FULLY LEFT, is refilled with ice, and both Motors are stopped. All switch positions are the same as they were in the beginning STANDBY condition, the CAM having made a full 360-degree rotation.

III. VEND SWITCH - PUSHED IN, IMMEDIATELY RELEASED

Between T1 and T2, the Vend Switch is momentarily depressed and released. When the Vend Switch is pushed IN, at T1, the N/O contacts are CLOSED, which provides a current path to start both Motors operating.



T0 STAND BY.
T1 VEND SW DEPRESSED.
T2 MOTOR ON CARRY-OVER (BOTTOM CAM).
T3 MOTOR STOPS IF VEND SWITCH IS STILL DEPRESSED.
T4 MOTOR STARTS WHEN VEND SWITCH IS RELEASED.
T5 MOTOR ON CARRY-OVER (BOTTOM CAM).
T6 END OF CYCLE MOTOR STOPS.

NOTE: *IF VEND SWITCH IS RELEASED AFTER T2 & BEFORE T3, THE MOTOR WILL NOT STOP AT T3 AND THE TIME BETWEEN T3 AND T4 MUST BE OMITTED FROM THE TIMING CHART. ICE DELIVERY IS COMPLETED BEFORE T3.*

Figure 3-1. RPD100 Vend Cycle Chart

The rotating Cam on the Ice Dispensing Motor causes the actuator arm roller of the bottom Cam Switch to ride up, out of the short groove onto the outer surface of the rotating Cam closing the N/O contacts of the bottom Cam Switch.

When the Vend Switch is released, the motors continue to operate through the CLOSED contacts of the bottom Cam Switch. The Drive Link arm on the Ice Dispensing Motor moves the Ice Portion Box over the Lower Ice Chute and ice is dispensed into a container, glass, paper cup, etc. Both Cams have the N/O contacts CLOSED, the actuator arm rollers on the outside surface of the Cam, which is rotating toward T3.

T3 and T4 occur simultaneously, the time between T3 and T4, shown on the Timing Chart, must be omitted. The actuator arm rollers of both Cam Switches drop into the long groove of the Cam, both Cam Switches have the N/O contacts OPEN, and the top Cam Switch is at the N/C contact. A current path continues to keep the Motors operating and the Cam rotating toward T5.

At T5, the actuator arm rollers of both Cam Switches have ridden up, out of the long groove to the outer surface of the rotating Cam, CLOSING the N/O contacts of both switches with a continued current path to the operating Motors. This causes the Drive Link arm on the Ice Dispensing Motor to move the Ice Portion Box to the FULLY LEFT, rest position, which is centered below the ice chute opening in the bottom of the bin; simultaneously, the Agitator Drivemotor is rotating the Ice Agitator in the ice-filled Bin causing ice to drop through the ice chute opening and fills the Ice Portion Box.

At T6, the rotating Cam causes the actuator arm roller of the lower Cam Switch to drop into the short groove of the Cam, OPENING the N/O contacts interrupting the current path to shut both Motors OFF.

The Dispensing Cycle has been completed, a portion of ice has been dispensed, the Vend Switch released, the Ice Portion Box is in the standby, rest position at FULLY LEFT, is refilled with ice, and both Motors are stopped. All switch positions are the same as they were in the beginning STANDBY condition, the CAM having made a full 360-degree rotation.

IV. COMPONENT DESCRIPTION

A. BIN THERMOSTAT CONTROL

The Bin Thermostat Control is located on the left section of the Saddle, above the Cylindrical Ice Storage Bin. The sensing capillary tube of the control is routed and wrapped around the Bulb Holder Assembly, located next to the Bin Thermostat Control and extends down into the ice storage bin.

The Control functions to automatically SHUT OFF the EC900 Icemaker, when the ice storage bin is filled and ice contacts the capillary tube. It also signals the RESTART of the Icemaker when the capillary tube starts to warm up after ice has been removed from the bin. Factory settings are 35-degrees F. CUT OUT and 40-degrees F. CUT-IN. ALWAYS CHECK a replacement Bin Thermostat Control BEFORE installing the Control in the Dispenser. Prepare a container of ice and water and insert a thermometer. As temperature indications on the thermometer decrease to 35-degrees F., insert the capillary tube of the bin Thermostat Control and determine temperature of CUT-OUT when an audible click is heard in the Control. Slowly add hot water to container and check audible click in the Control for CUT-IN while observing increase in temperature of water to 40-degrees F. Refer to procedure IV-I to adjust Bin Thermostat Control.

NOTE

The Bin Thermostat Control is wired through the holding relay and will not CUT-OUT the Icemaker until the end of the Harvest Cycle. Altitude adjustment should ONLY be performed on Icemakers installed at 2000-foot level locations and ABOVE, and adjust only in increments of one-fourth turn of a screw at a time.

B. WATER INLET SOLENOID VALVE

The Water Inlet Solenoid Valve functions only when the Glass Lever Filler Assembly for WATER is pushed IN and held IN. Pushing IN the WATER Glass Lever Filler Assembly depresses the Water Switch, which then moves from the STANDBY condition in the N/C position, to the N/O position, and makes a current path through the Water Inlet Solenoid Valve and water is dispensed. The Water Switch operates as an ON-OFF switch, so when the switch is held IN, it is ON, and maintains current to the Water Inlet Solenoid Valve until the WATER Glass Lever Filler Assembly is released, shutting OFF the Water Switch, which returns to the N/C position and opens the circuit to the Water Inlet Solenoid Valve, which in turn, closes and shuts OFF incoming water.

C. ICE AGITATOR - BREAKER SYSTEM

The Ice Agitator-Breaker System is comprised of the Stationary Bin Bottom, the Ice Agitator Assembly which is powered by the Agitator Drivemotor for rotation within the Bin, the Cylindrical Ice Storage Bin which also is stationary, and the Ice Breaker. The Ice Breaker is installed and locked into position with the two ends installed into slots in two Ice Breaker Brackets on the inner wall of the Bin.

When a Dispensing cycle begins, the Agitator Drivemotor operates to rotate the Ice Agitator Assembly, inside the Bin, through the shaft, bearing and Drive Hub Assembly. The rotating Ice Agitator Assembly moves the ice inside the bin where the ice is forced up the two slightly inclined panels, 180-degrees apart on the Ice Breaker; then, when the moving ice drops off the high side of the inclined panels it breaks into pieces to prevent masses of ice clinging together, which would cause problems in dispensing. An inclined displacement of material is designed in the Stationary Bin Bottom, leading away from the ice chute opening. This design provides a means of preventing any buildup of ice masses at the ice chute opening, for, as the Ice Agitator rotates it continuously pushes new ice over the ice chute opening and keeps moving ice away from the opening. For details related to switch positions, refer to procedures I, II and III in this section.

D. ICE DISPENSER MOTOR - ICE PORTION BOX

The Ice Dispenser Motor and Ice Portion Box function to dispense an ice portion from the Cylindrical Ice Storage Bin through the Lower Ice Chute into a container. Through a Drive Link arm, on the Ice Dispenser Motor, a pivot connection is made to a movable arm on the Ice Portion Box, which is moved within two short tracks, from the FULLY LEFT, rest position, where it is filled with ice supplied through an ice chute opening in the bottom of the bin, to the dispense position over the Lower Ice Chute, where the ice is dispensed into a container, then, the Ice Dispenser Motor completing the dispense cycle returns the Ice Portion Box to the FULLY LEFT position and is shut OFF.

SECTION IV

ADJUSTMENT AND REMOVAL AND REPLACEMENT

The procedures provided in this Section are arranged in alphabetical order, to make specific Adjustment and Removal and Replacement information easy to locate.

Read the instructions thoroughly before performing any Adjustment or Removal and Replacement Procedures.

WARNING

The adjusting screws on the Temperature Control device have very sensitive response to adjustment. DO NOT attempt to adjust the screw until after thoroughly reading and understanding the following instructions and illustrations. Over-adjusting or erratic guessing, can foul the instrument and cause ultimate delay and part replacement, WHICH COULD HAVE BEEN PREVENTED.

I. ADJUSTMENT OF THE BIN THERMOSTAT CONTROL

The control for the Bin Thermostat is the Temperature Control, mounted on the front of the Saddle, located across the top of the Dispenser above the Cylindrical Bin.

See Figure 4-1 for location and direction of rotation, clockwise (CW) or counterclockwise (CCW), of the adjusting screws on the Temperature Control, in the particular Control the adjustment is to be performed.

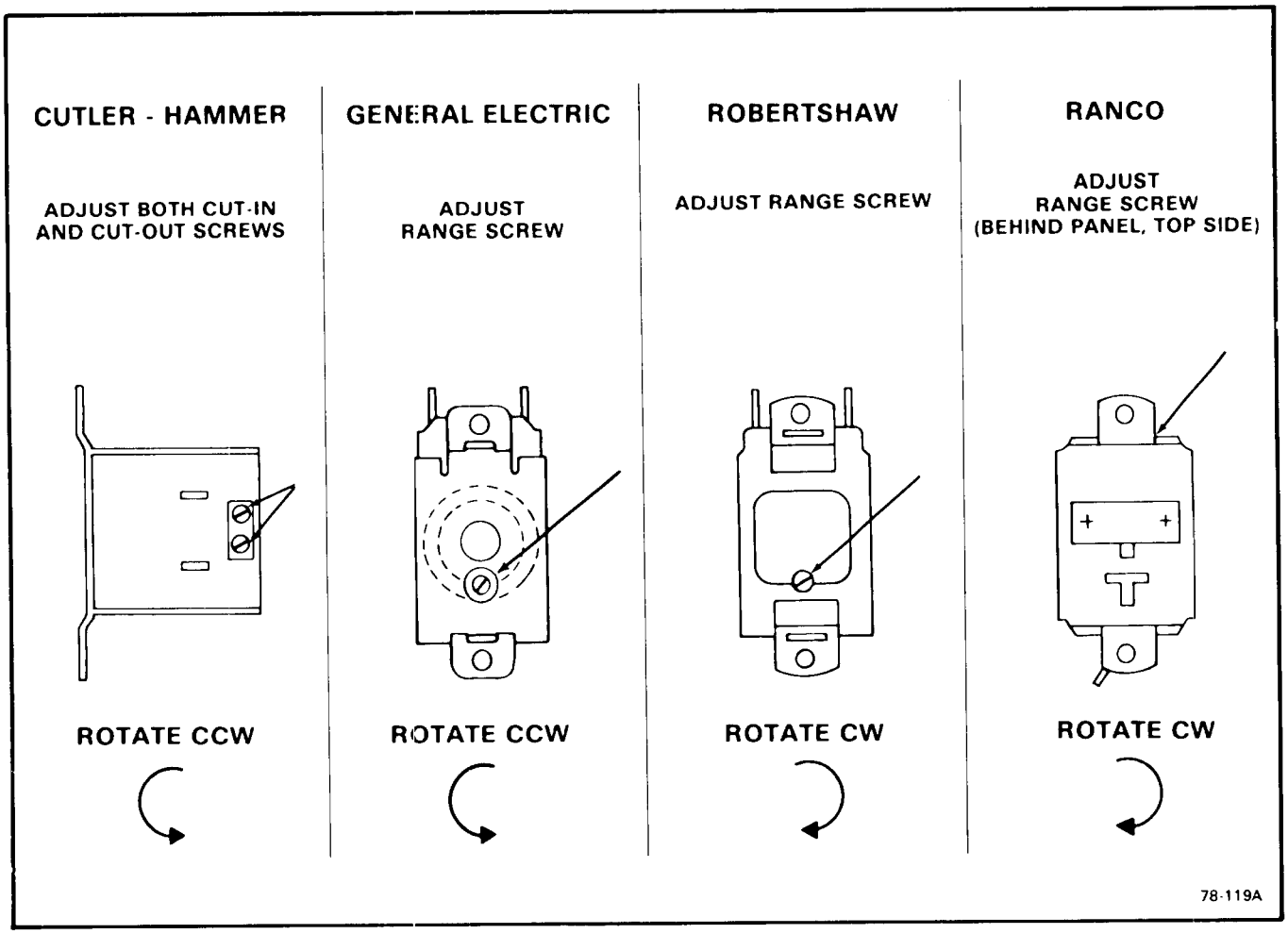


Figure 4-1. Adjustment of the Temperature Control.

II. ADJUSTMENT OF THE ICE DISPENSER MOTOR CAM AND SWITCHES

NOTE

1. *Adjustment of the Cam on the Ice Dispenser Motor should not be performed by anyone other than a qualified serviceman. This adjustment should only be performed following any parts replacement related to the dispensing mechanism; when the Ice Portion Box does not fully close, or fully open, during the dispense cycle; or, when a check of the Cam or switches discloses loose setscrews have caused the Cam or the switches to slip from the original factory checked and approved operating positions.*
2. *DO NOT perform this adjustment in an attempt to increase or decrease the portion of ice dispensed. Two kits are available for that purpose, refer to SPECIFICATIONS in the front of this manual.*

To Adjust the Cam and Switches:

1. Study Figure 4-2, to become familiar with location of the parts and the relationship of the key parts, to each other and to the adjusting screws.

   VIEW-A: illustrates the end of the Ice Dispensing Motor Assembly having the Cam, Switches, the Motor Brake, and the slots and adjusting screws for the IN-OUT adjustment to the switch actuator arm roller.

   VIEW-B: shows the location of the two setscrews and the two grooves in the Cam.

   VIEW-C, D and E: this series shows the two extreme positions and the correct position to be used in adjusting the Cam.

   VIEW-F: shows the side-to-side adjustment of the lower switch actuator arm roller, in a different reference axis than that used in VIEW-C, D and E.

2. When replacing a switch(s), attach to the Switch Bracket with the screws about midway in the slots, as in VIEW-F. Make snug, but do not fully tighten screws.

3. When replacing the Cam, the Ice Portion Box should be in the FULLY LEFT position; then, install the Cam on the shaft of the Motor with the short groove on the Cam, DOWN, facing away from the Motor, VIEW-B.

4. Rotate and position the Cam, so the lower switch actuator arm roller is centered in the short groove of the Cam; then, tighten the accessible setscrew on the Cam.

5. Push and hold the Motor Brake IN. The spring-loaded Brake is located around the lower end of the Motor and this step releases a ratchet-lock to free the Cam for rotation.

CAUTION

DO NOT rotate the Cam COUNTERCLOCKWISE, as CCW rotation will cause the switch actuator arm to be bent or break. Prevent possible damage by rotating CLOCKWISE.

6. While holding the Motor Brake IN, rotate the Cam CLOCKWISE, until the second setscrew appears and becomes accessible; then, tighten that setscrew.
7. Using VIEW's C, D and E as a guide, loosen the adjusting screws in the slots at the top of the Switch Bracket, VIEW-A, and adjust the Switch Bracket IN or OUT, so the lower switch actuator arm roller is positioned as in VIEW-E; then, tighten the screws.
8. Recheck the second reference axis, VIEW-F, and when necessary, loosen the two screws attaching the two switches to the Switch Bracket and adjust in the side-to-side movement, until center of the lower switch actuator arm roller is in alignment, as shown in VIEW-F; then, tighten screws.
9. Depress the lower switch actuator arm and observe the full travel of the roller, as the switch clicks ON and OFF, appears to be within the normal limits, as indicated in the shaded dotted lines in the groove illustrated in VIEW-F.

NOTE

When the observed travel of the roller is seen to extend OUTSIDE of the shaded normal limits indicated, repeat steps 7 and 8.

10. With the electrical power ON, to the RPD100, momentarily push IN on the Glass Lever Filler Assembly to initiate a dispense cycle; then, observe the CAM-Roller positions at the end of the cycle.

NOTE

The correct CAM-Roller position should be as in VIEW-E and VIEW-F. Experience has shown that in new installations of ice dispensing mechanisms in the RPD100, a second adjustment of the Cam is generally required, because the Motor Brake does not instantly STOP rotation of the Motor, at the end of the dispense cycle. The Ice Portion Box has travelled to the FULLY LEFT, rest position and has started back, as if starting a new dispense cycle, then STOPS. This undesirable over-travel of the Ice Portion Box is corrected with a second, final Cam adjustment, as given in the next steps.

CAUTION

Two directions of adjustments can be performed in this final adjustment to the Cam. When the Ice Portion Box stops SHORT of the FULLY LEFT position,

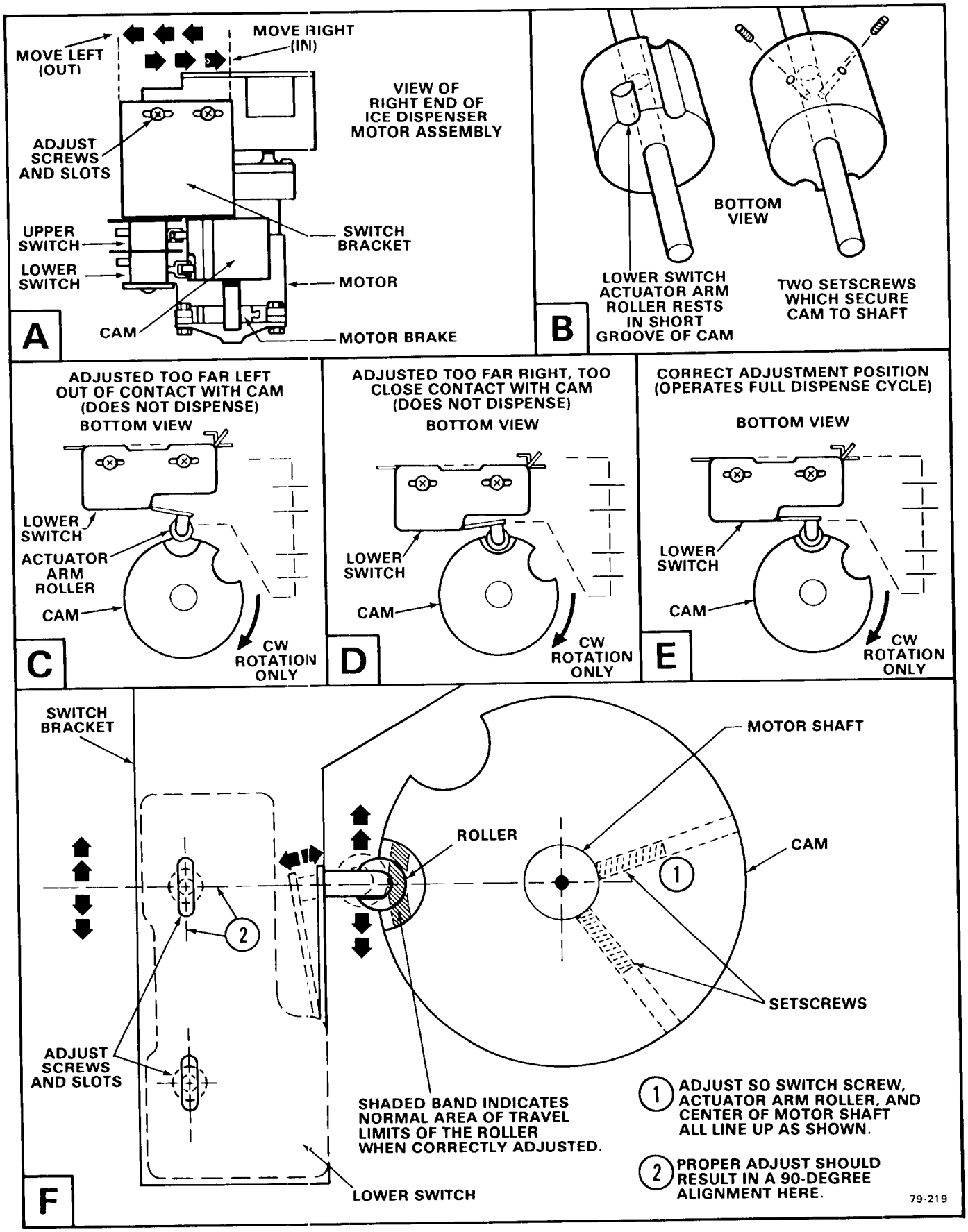


Figure 4-2. Adjustment of Cam-Switch Positions

loosen the setscrews and rotate the cam, very carefully COUNTERCLOCKWISE, three or four degrees; then retighten setscrews. When the Ice Portion Box travels PAST the FULLY LEFT position and starts back, loosen the setscrews and rotate the Cam CLOCKWISE three or four degrees, then tighten setscrews.

---

11. With the electrical power OFF, to the RPD100, loosen the setscrews on the Cam and slowly rotate the Cam three or four degrees CLOCKWISE; then, retighten the setscrews.
12. With the electrical power ON, to the RPD100, momentarily push IN on the Glass Lever Filler Assembly to initiate a dispense cycle, then, at the end of the cycle check that the Ice Portion Box stops at the FULLY LEFT, rest position. When necessary, repeat adjustment to achieve proper positioning of the Ice Portion Box.

WARNING

Be sure the electrical power supply and the water supply are OFF, BEFORE starting any of the following REMOVAL AND REPLACEMENT procedures, as a precaution to prevent possible personal injury or damage to equipment.

III. REMOVAL AND REPLACEMENT OF THE BIN THERMOSTAT CONTROL

CAUTION

Check to be sure the building source electrical power to the RPD100 and the EC900 is OFF or disconnected.

A. To remove the Bin Thermostat Control:

1. Remove two screws and tilt the top of the Front Panel out slightly, then lift the Panel off of the two alignment pins on the front of the Dispenser.
2. Pull the Sink Assembly out and remove from the base of the Dispenser.
3. Remove screws at each end of the Spout Cover Assembly, around the dispensing outlets, and remove the cover from the Dispenser.
4. Remove two screws and pull the Splash Panel loose from the Dispenser and tilt the top of the Panel in, and lay the Panel down to gain access to the Control Box.

NOTE

The Bin Thermostat Control is electrically connected to the EC900 24-volt circuit.

5. Disconnect the electrical leads from the Bin Thermostat Control, located on the front of the Saddle above the Cylindrical Bin.
6. Remove the thumbscrews from the Bin Thermostat Control and the wingnuts from the Bulb Holder Assembly; then, lift the two parts from the Saddle and carefully unwind the capillary tube for removal of the tube from the Bulb Holder Assembly. Do not kink the tube or use excessive pulling or handling.

B. To replace the Bin Thermostat Control, reverse the removal procedure.

IV. REMOVAL AND REPLACEMENT OF THE CYLINDRICAL BIN AND INTERNAL PARTS

A. To remove the Cylindrical Bin:

1. Remove two screws and tilt the top of the Front Panel out slightly, then lift the Panel off of the two alignment pins on the front of the Dispenser.
2. Unlock the Ice Breaker from the two brackets on the inner wall of the Cylindrical Bin and remove the Ice Breaker. See Figure 4-2.
3. Unscrew and remove the Cap Assembly, then, lift out the Ice Agitator Cone, and Ice Agitator Assembly.
4. Unlock the two Latches at the front of the Cylindrical Bin and remove the Bin from the Dispenser, using care not to contact or possibly damage the Bin Thermostat Control capillary tube and other parts.

B. To replace the Cylindrical Bin and internal parts, reverse the removal procedure.

V. REMOVAL AND REPLACEMENT OF THE DRIVEMOTOR ASSEMBLY

A. To remove the Drivemotor Assembly:

1. Remove two screws and tilt the top of the Front Panel slightly, then, lift the Panel off of the two alignment pins on the front of the Dispenser.
2. Pull the Sink Assembly out and remove from the base of the Dispenser.
3. Remove screws at each end of the Spout Cover Assembly, around the dispensing outlets, and remove the Cover from the Dispenser.
4. Remove two screws and pull the Splash Panel loose from the Dispenser and tilt the top of the Panel in, and lay the Panel down to gain access to the Drivemotor Assembly.
5. Move the Master ON-OFF toggle switches, on the RPD100 and EC900 Control Boxes, to the OFF positions.

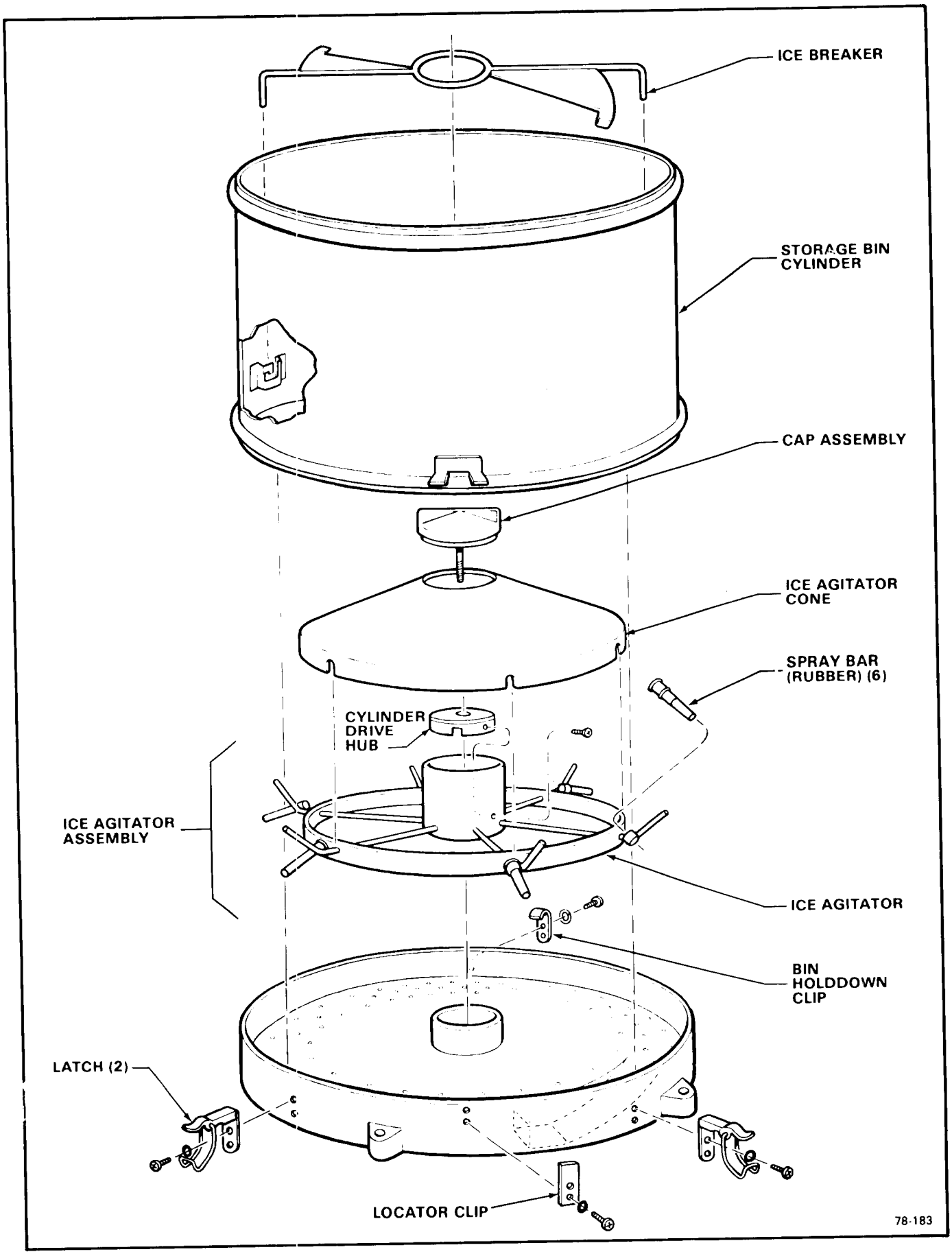


Figure 4-3. Ice Breaker, Agitator, Storage Bin - Exploded View

6. Remove screws and the Cover from the RPD100 Control Box; then, disconnect the two electrical leads from the Drivemotor, attached to the smaller of the two terminal boards in the Control Box
7. Remove screws and the two-clamp Shaft Collar from the Bin Shaft Assembly, just below the Bin Base Assembly; then, from inside the inner bin, grasp and pull the Hub Drive Assembly and attached Bin Shaft Assembly up and out of the bin, and the Bin Shaft Assembly uncouples from the Drivemotor splined shaft.
8. Remove and retain three screws and lockwashers from each end of the Gearmotor Motor Mounting Bracket, and lower the Bracket and Drivemotor Assembly and remove the assemblies from the Dispenser.

B. To replace the Drivemotor Assembly, reverse the removal procedure.

VI. REMOVAL AND REPLACEMENT OF THE ICE DISPENSER CHUTE ASSEMBLY

A. To remove the Ice Dispenser Chute Assembly:

1. Remove screws at each end of the Spout Cover Assembly, around the dispensing outlets, and remove the Cover from the Dispenser.
2. Pull the Sink Assembly forward and remove from the base of the Dispenser.
3. Remove two screws and pull the Splash Panel loose from the Dispenser and tilt the top of the Panel in, and lay the Panel down.
4. Move the Master ON-OFF toggle switches, on the RPD100 and EC900 Control Boxes, to the OFF positions.
5. Remove Hex Thumb Screw, see Figure 8-2, Index 13.
6. Slide the Dispenser Chute Bottom to the LEFT, to disengage from the Shoulder Screw.
7. Remove hose clamp and separate the drain hose from the Dispenser Chute Bottom.
8. Remove the Hair Pin Cotter and Pin from the movable arm of the Ice Dispenser Chute Assembly.
9. Slide the Ice Dispenser Chute Assembly, with the attached rubber Ice Chute Band, to the LEFT and off of the tracks.

B. To replace the Ice Dispensing Chute Assembly, reverse the removal procedure.

NOTE

IT IS IMPORTANT THE ICE DISPENSER BOX SLIDE FREELY IN THE TRACKS. With a clean cloth or rag, wipe the tracks clean of all old grease and any dirt; then, lubricate the tracks and all moving and sliding parts of the replacement Ice Dispenser Chute Assembly and connecting links, using a food grade grease, SCOTSMAN P/N 19-0569-01, or equivalent.

VII. REMOVAL AND REPLACEMENT OF THE ICE DISPENSER MOTOR ASSEMBLY

A. To remove the Ice Dispenser Motor Assembly:

1. Remove screws at each end of the Spout Cover Assembly, around the dispensing outlets, and remove the Cover from the Dispenser.
2. Pull the Sink Assembly forward and remove from the base of the Dispenser.
3. Remove two screws and pull the Splash Panel loose from the Dispenser and tilt the top of the Panel in, and lay the Panel Down.
4. Move the Master ON-OFF toggle switches, on the RPD100 and EC900 Control Boxes, to the OFF positions.
5. Remove screws and the Cover from the RPD100 Control Box; then, disconnect the two electrical leads from the Ice Dispenser Motor Assembly, attached to the smaller of the two terminal boards in the Control Box.
6. Remove and retain two bolts and lockwashers from each end of the Ice Dispenser Motor Assembly bracket and lower the assembly and remove from the Dispenser.

B. To replace the Ice Dispenser Motor Assembly, reverse the removal procedure.

SECTION V

MAINTENANCE & CLEANING INSTRUCTIONS

I. GENERAL

The periods and procedures for maintenance and cleaning are given as guides and are not to be construed as absolute or invariable. Cleaning especially will vary, depending upon local water conditions and ice volume produced; and, each Dispenser must be maintained individually, in accordance with its own particular location requirements.

II. DISPENSER

THE FOLLOWING MAINTENANCE SHOULD BE SCHEDULED AT LEAST TWO TIMES PER YEAR ON THIS DISPENSER. CALL YOUR AUTHORIZED SCOTSMAN SERVICE AGENCY.

1. Check and clean water line Strainer.
2. Check that the Dispenser is level, in the side-to-side and front-to-rear directions.
3. Clean the Ice Breaker, Agitator and Ice Storage Bin parts, using a solution of SCOTSMAN Ice Machine Cleaner. Refer to procedure V-III. CLEANING. Also; refer to EC900 instructions and perform cleaning and sanitizing in the EC900.

NOTE

Cleaning requirements vary according to local water conditions and individual user operation.

4. Check and tighten all bolts.
5. Check and tighten all electrical connections.
6. Check for water leaks and tighten drain line connections. Pour water down Bin drain line and Sink Assembly drain, to be sure that drain lines are open and clear.
7. Hold ice against the Bin Thermostat Control Bulb to test EC900 Icemaker shutoff. Less than one minute is about normal for the bulb to cause the EC900 icemaker to shut OFF.

NOTE

Within minutes after the ice is removed from the sensing bulb, the bulb will warm up and cause the EC900 to restart. This control is factory set and should not be reset until testing is performed. Normal setting is about 35-degrees F. CUT-OUT and 40-degrees F. CUT-IN.

III. CLEANING

1. Remove two screws and tilt the top of the Front Panel out slightly, then lift the Panel off of the two alignment pins on the front of the Dispenser.
2. Pull the Sink Assembly out and remove from the base of the Dispenser.
3. Remove screws at each end of the Spout Cover Assembly around the dispensing outlets and remove the Cover from the Dispenser.
4. Remove two screws and pull the Splash Panel loose from the Dispenser, and tilt the top of the Panel in and lay the Panel down to gain access to the Control Box.
5. Move the Master ON-OFF toggle switches, on the RPD100 and EC900 Control Boxes, to the OFF position.

WARNING

SCOTSMAN Ice Machine Cleaner contains Phosphoric and Hydroxyacetic acids. These compounds are corrosive and may cause burns if swallowed. DO NOT induce vomiting. Give large amounts of water or milk. Call physician immediately. In case of external contact, flush with water. KEEP OUT OF REACH OF CHILDREN.

6. Refer to EC900 instructions and perform cleaning and sanitizing in the EC900 BEFORE cleaning and sanitizing the RPD100.
7. Add hot water to the Bin to melt the ice; or, remove and discard all ice.
8. Prepare cleaning solution; Mix six ounces of SCOTSMAN Ice Machine Cleaner with three quarts of hot water.
9. Remove the Ice Breaker, Ice Agitator, and Bin parts, including the Storage Bin Cylinder, shown in the exploded view illustration Figure 5-1.
10. Remove the hose clamp and tube from the Dispenser Chute Bottom.
11. Remove the three-inch long, hex-shaped thumb screw and slide to remove the slot end of the Dispenser Chute Bottom off of the single shoulder screw.

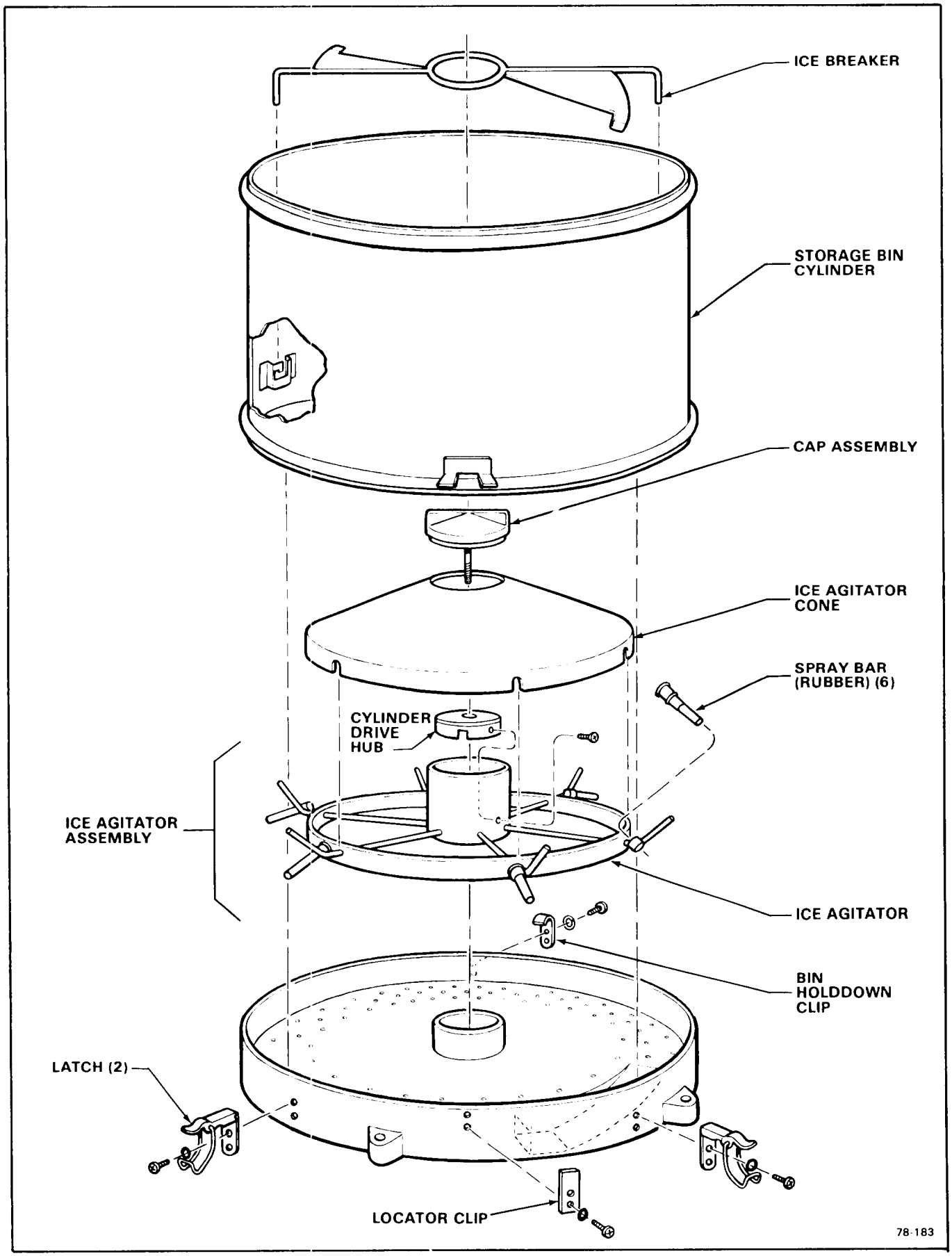


Figure 5-1. Ice Breaker, Agitator, Storage Bin Parts - Exploded View

12. Remove the hairpin cotter from the locking pin in the movable arm of the Ice Dispenser Portion Box Assembly.
13. Slide the Ice Dispenser Portion Box Assembly to the left and remove from the Dispenser.
14. Separate the rubber Ice Chute Band from the Ice Dispenser Portion Box Assembly.
15. Immerse all parts removed, in the cleaning solution; or, if too large for the container of cleaning solution, thoroughly wash the solution over all surfaces of all parts.
16. Rinse all parts with clear hot water, to flush away all cleaning solution. Drain parts.
17. Clean and rinse the Lower Ice Chute, the Spout Cover Assembly, the Sink and Grill and the Splash Panel Assembly.
18. Clean and rinse all panels and the Cabinet inner plastic surfaces.
19. Pour remainder of the hot cleaning solution into the Bin drain and Sink drain, to flush out any deposits of slime. Rinse with clean hot water.
20. Sanitize all Bin parts and ice contact parts. Refer to SANITIZING procedure V-IV.
21. Reassemble all air-dried Bin parts in the Dispenser. See Figure 5-1. Be sure rubber Ice Chute Band is installed on the Ice Dispenser Portion Box Assembly.
22. Move the Master ON-OFF toggle switch to the ON position.
23. Move both manual ON-OFF toggle switches on the EC900, to the ON position, to start the automatic icemaking operation.
24. Replace the Splash Panel and the Sink Assembly.
25. Fit the two holes, in the bottom of the Front Panel, over the two alignment pins on the front of the Dispenser, and push the Panel into place, securing with two screws.

IV. SANITIZING

Sanitizing is an important phase of the icemaking and dispensing operation. The following sanitizing procedure should be performed after every repair or replacement of parts in the Dispenser, in or through which ice is stored or dispensed and water is drained. Additional requirements for performing the sanitizing procedure should be followed in accordance with the requirements of the Local Health Authorities.

NOTE

Contact your Local Health Authorities and obtain their approval of the sanitizer you intend to use when sanitizing the Dispenser.

Prior to performing the sanitizing procedure, it is assumed the Front Panel, Sink Assembly and Splash Panels have been removed and the cleaning procedure performed up through step V-III-19.

WARNING

Read WARNING thoroughly BEFORE preparing sanitizing solution, in next step.

1. STERILEX 3-Q SANITIZING TABLETS.

DANGER: KEEP OUT OF REACH OF CHILDREN. Tablets may be harmful or fatal if swallowed. May cause skin irritation or eye damage. Avoid prolonged skin contact. Do not get in eyes. In case of contact, flush with plenty of water. If irritation persists get medical attention. Avoid contamination of food.

FIRST AID: If tablets are swallowed drink promptly a large quantity of milk, egg whites or gelatin solution. Avoid alcohol.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulator shock, respiratory depression and convulsion may be needed.

Rinse empty carton container thoroughly with water and discard. Always follow your health department regulations.

2. MIKRO-QUAT

DANGER: Causes high damage and skin irritation. Do not get into eyes, on skin, or on clothing. Protect eyes when handling concentrated product. Harmful if swallowed. Avoid contamination of food.

FIRST AID: In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. For eyes, call a physician. Remove and wash contaminated clothing before reuse. If swallowed, drink promptly a large quantity of milk, egg whites or gelatin solution, or if these are not available, drink a large quantity of water. Call physician immediately.

1. Prepare a sanitizing solution using a quaternary ammonium sanitizing compound.

NOTE

1. *Carefully follow directions and observe all precautions on the sanitizing compound container.*
2. *One *Sterilex 3-Q sanitizing tablet per three quarts of water yields 200 ppm active quaternary; or, one-third ounce of *Mikro-Quat to one gallon of water yields 235 ppm active quaternary.*

3. *The taste of ice and water will not be affected by the sanitizing solutions. Rinsing of parts is not required with this relatively mild solution, but air drying of the parts is suggested before reassembly.*

2. Immerse all parts, earlier removed and cleaned, in the sanitizing solution; or, if too large for the container of sanitizing solution, thoroughly wash the solution over all surfaces of all parts.
3. Drain all parts and allow to dry.
4. Pour some of the sanitizing solution into the Bin drain and the Sink Assembly drain.
5. Reassemble all air-dried Bin parts in the Dispenser. See Figure 5-1.
6. Move the Master ON-OFF toggle switch to the ON position.
7. Replace the Splash Panel, Sink Assembly and the Front Panel on the Dispenser.
8. Clean and sanitize the Interior Bin parts and surfaces each week.

* *Sterilex 3-Q sanitizing tablets are distributed by Pittsburgh Chemical Laboratory, Inc., Pittsburgh, PA 15222, and may be obtained through most restaurant supply houses.*

* *Mikro-Quat, is manufactured by Economics Laboratory, Inc., Osborn Building, St. Paul, MN 55102, and may be obtained from them through their Magnus Division, the Klenzade Division or from restaurant supply houses.*

SECTION VI
SERVICE DIAGNOSIS

The Service Diagnosis Section is for use in aiding the serviceman in diagnosing a particular problem for pin-pointing the area in which the problem lies, thus an ever available reference for proper corrective action.

The following charts list corrective actions for the causes of known symptoms of certain problems that can occur.

I. ICE AGITATION AND DISPENSING SYSTEMS

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Ice in Bin stuck together.	Ice Breaker missing in Bin.	Install Ice Breaker in Bin.
No portions of ice dispensed.	Loose setscrew in drive cam of Ice Dispensing Motor Assembly.	Tighten setscrew.
	Defective Cam switch.	Replace switch.
	Cam switch out of adjustment.	Adjust Cam switch.
	Defective Ice switch.	Replace Ice switch.
	Defective Drivemotor or Ice Dispensing Motor.	Replace defective motor.
	Drivemotor or Ice Dispensing Motor is OUT on thermal overload: too hot.	Let motor cool.
	Master switch in OFF position.	Move switch to ON position.
	Ice Dispensing Motor cam switch connector contact incomplete.	Check all plug contacts mate and seat properly.
	Ice switch connector contact incomplete.	Check all plug contacts mate and seat properly.
Ice Dispenser box does not fully close.	Drive linkage not properly assembled.	Reassemble, see Figure 8-5.
	Dispenser Timing Cam on shaft upside down.	Re-install Cam, in reverse.
	Dispenser Timing Cam loose on shaft.	Ensure setscrew is on flat of shaft, then re-tighten setscrew.
	Dispenser Cam switch out of adjustment.	Adjust Cam switch.
	Drive Cam loose on motor shaft.	Tighten setscrew.
Ice dispensing mechanism will not shut OFF.	Faulty Cam switch (lower).	Replace Cam switch (lower).
	Dispenser Motor Cam switch out of adjustment.	Adjust Cam switch.
	Dispenser Motor brake fails.	Repair or replace brake.

SECTION VII

WIRING DIAGRAMS

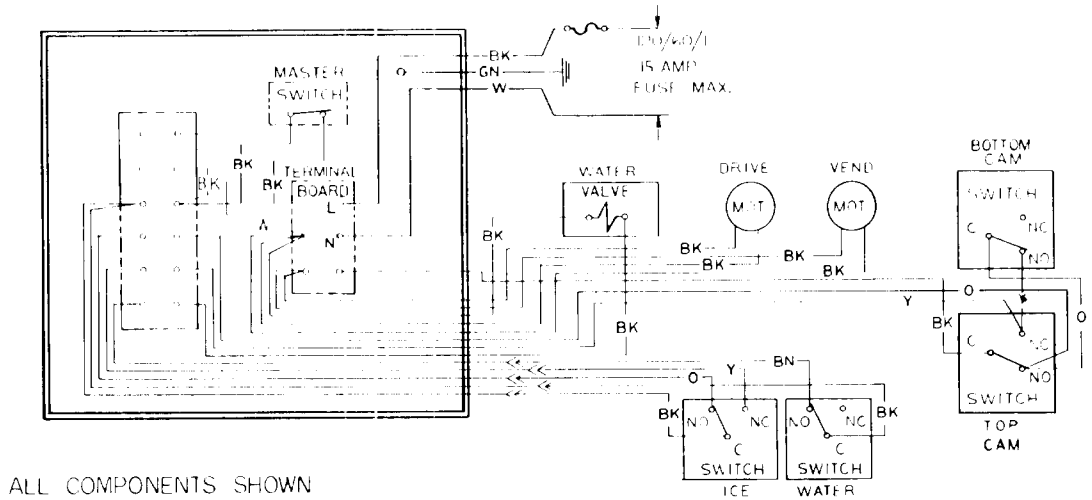
This Section is provided as an aid in understanding the electrical circuitry of the RPD100 Dispenser.

The Wiring Diagram in this Section is: Figure 7-1. Wiring Diagram RPD100 Dispenser.

WARNING

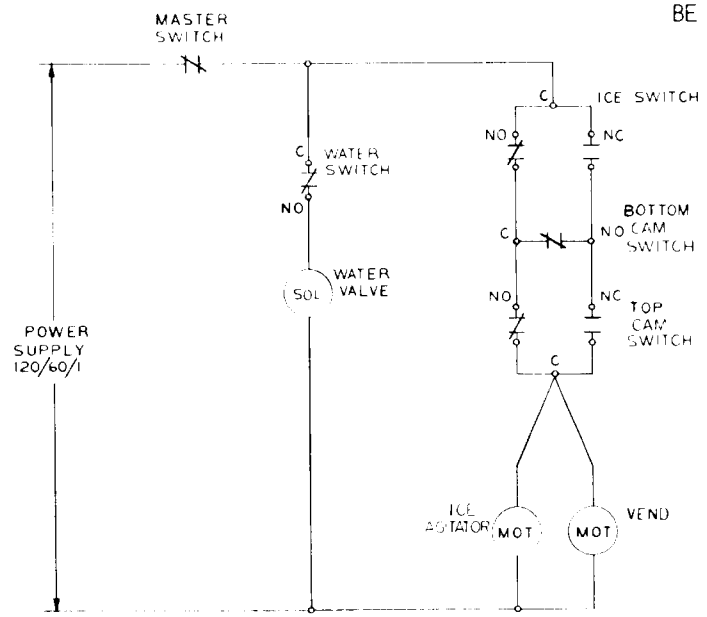
When conducting a continuity check of the Dispenser:

1. **Disconnect the main power source.**
2. **DO NOT use an incandescant lamp or jumper wire, conduct all tests with a volt-ohm-meter.**



ALL COMPONENTS SHOWN
IN VENDING MODE

THIS UNIT MUST
BE GROUNDED



A29246-001

Figure 7-1. Wiring Diagram RPD100 Dispenser.

SECTION VIII

THE PARTS ILLUSTRATIONS AND PARTS LISTS

I. GENERAL

This section contains the Parts Illustrations and the Parts List for each of the major assemblies in the RPD100 Dispenser.

Each Parts Illustration shows an assembly as an exploded view, with an Index Number for each part or sub-assembly, given in disassembly order. These Index Numbers key with the Parts List for the assembly and are found in the parts List Column headed Index Number. The Description Column gives the identifying nomenclature for the item indexed. The Part Number Column gives the number of item. The Number Required Column gives the number of items required per assembly, but not necessarily the total number of parts required per Dispenser.

All assemblies are cross-referenced both from the major assembly listing where they first appear in the Parts Listing to their break-down listing, and from the break-down listing, back to the major assembly (next higher assembly) listing.

A *No Number* designation, when used in the Part Number Column indicates the unit is not available from SCOTSMAN as an assembly. This designation is used only for the convenience and clarity of division in cataloging.

When an Index Number is followed by a letter (e.g. la, lb), the letter indicates the part listed is part of the assembly indexed by the basic Index Number. The number required of the part indexed by the number and letter combination is only one of the assemblies indexed by the basic Index Number and not necessarily the total number or parts used in the Dispenser. Where the notation *Ref* occurs in the Number Required Column the number of the assemblies or parts required for use in the Dispenser will be found under a previous Index Number or in the next higher assembly Parts Listing. The next higher listing Figure/Index number is shown in the Description Column immediately following the items description.

II. HOW TO USE THE ILLUSTRATIONS AND PARTS LIST

To find the part number of a required part or assembly, turn to the List of Illustrations and find the page number of the Parts Illustration of the major or sub-assembly containing the part. Turn to the indicated page and locate the part and its Index Number on the specific illustration. Find the Index Number on the required part in the Parts List to determine the complete description of the part.

III. HOW TO ORDER PARTS OR ASSEMBLIES

When ordering parts or assemblies, to avoid costly delays and errors in shipment, give the part number, the complete description shown in the list, and the quantities of each part or assembly required. Also include the Model name, the serial number of the Dispenser for which the part is required, and for parts which require color matching, the color of the Cabinet. See Figure 8-00, at the end of the Section for detailed ordering instructions.

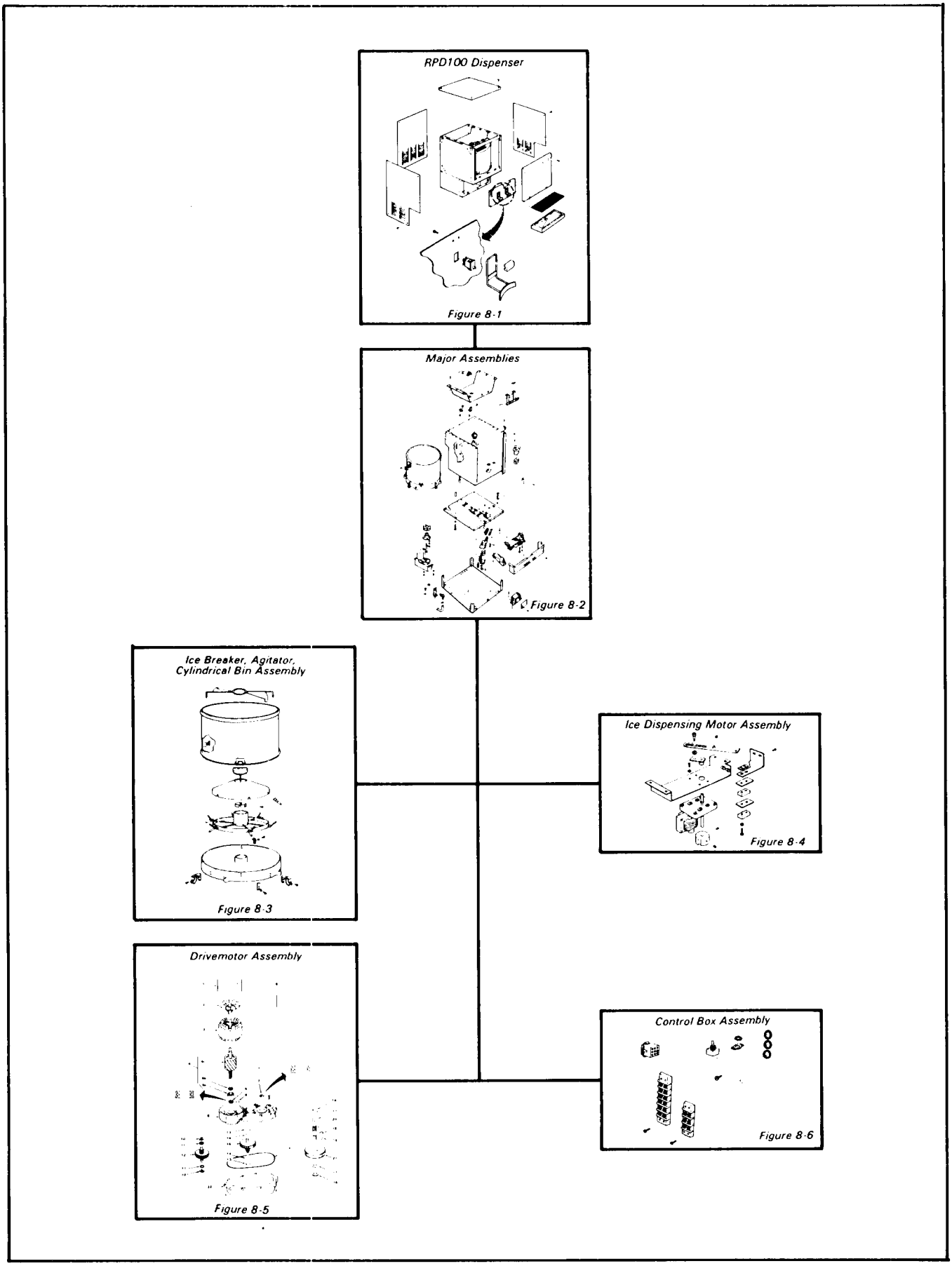


Figure 8-A. Model RPD100 Dispenser Flow Chart.

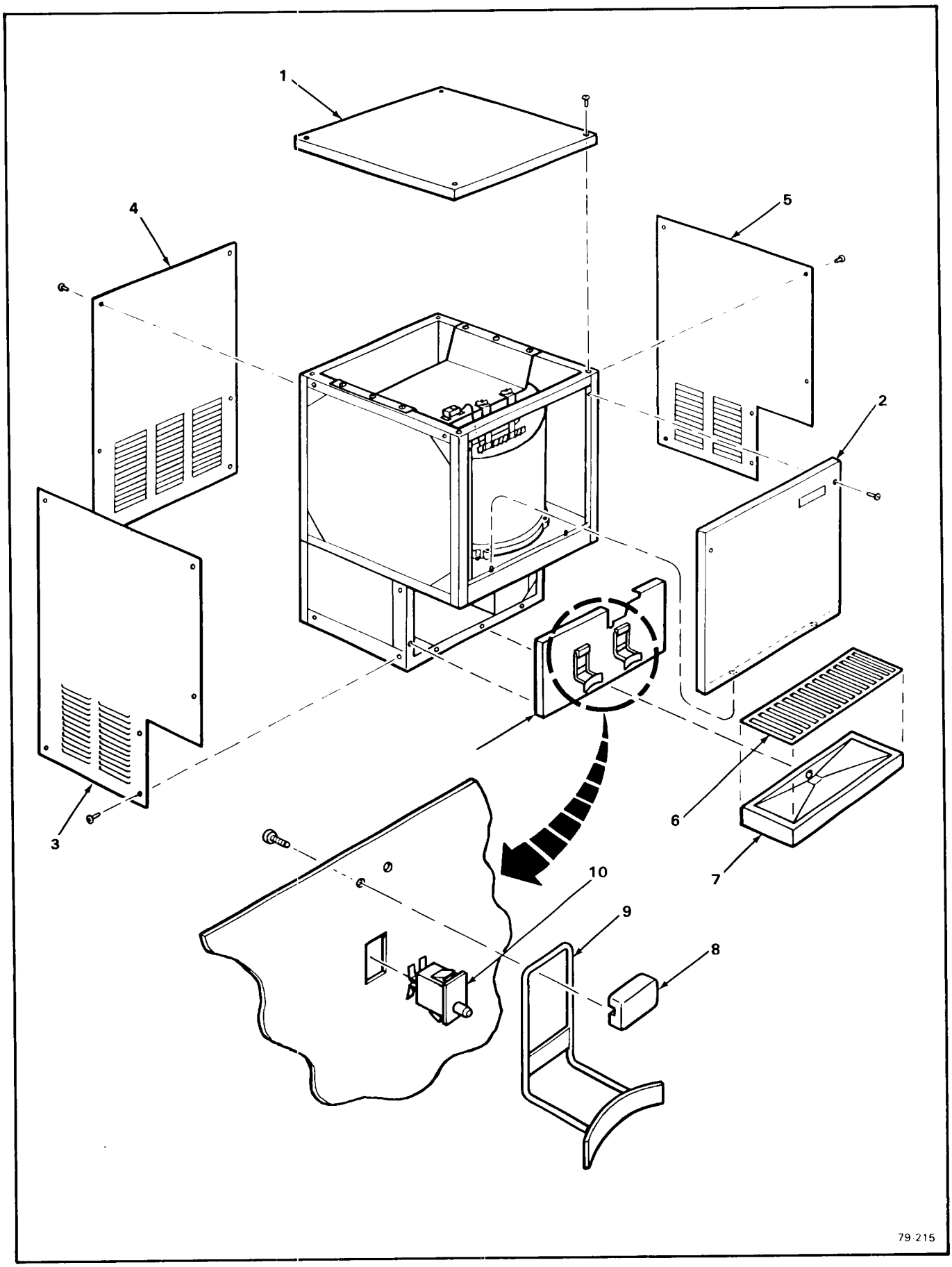


Figure 8-1. RPD100 Dispenser

Figure 8-1. RPD100 Dispenser

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	RPD100 Dispenser	No Number	1
	* * *		
1	Panel, Top (Cover Assembly) (C.R.S. Painted)	A27633-001	1
	Panel, Top (Cover Assembly) (Stainless Steel)	A27633-002	1
	attaching parts, Index 1		
	Screw, No. 1/4-20 x 2-1/2 Phil Recess Pan Hd	03-1403-55	4
	* * *		
2	Panel Assembly, Front (C.R.S. Painted)	A27619-001	1
	Panel Assembly, Front (Stainless Steel)	A27619-002	1
	attaching parts, Index 2		
	Screw, No. 8 x 1-1/4 S/T Tap	03-1419-24	2
	* * *		
3	Panel, Left Side (C.R.S. Painted)	A27617-001	1
	Panel, Left Side (Stainless Steel)	A27617-002	1
	attaching parts, Index 3		
	Screw, No. 8 x 1-1/4 S/T Tap	03-1419-24	5
	* * *		
4	Panel, Cabinet Rear (C.R.S. Painted)	A27618-001	1
	Panel, Cabinet Rear (Stainless Steel)	A27618-002	1
	attaching parts, Index 4		
	Screw, No. 8 x 1-1/4 S/T Tap	03-1419-24	6
	* * *		
5	Panel, Right side (C.R.S. Painted)	A27616-001	1
	Panel, Right Side (Stainless Steel)	A27616-002	1
	attaching parts, Index 5		
	Screw, No. 8 x 1-1/4 S/T Tap	03-1419-24	5
	* * *		
6	Grill	02-2399-01	1
	* * *		
7	Sink Assembly	A27908-000	1

Figure 8-1. RPD100 Dispenser (cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	O-Ring	13-0617-02	1
	* * *		
8	Bracket, Lever Mounting	02-2429-01	1
	* * *		
9	Lever Assembly, Glass Filler	02-2470-01	1
	attaching parts, Index 8 & 9		
	Screw, No. 10-24 x 1/4 Phil Recess Pan Hd	03-1403-24	4
	* * *		
10	Switch	12-1376-00	1
	* * *		
11	Panel, Splash	A27644-001	1
	* * *		

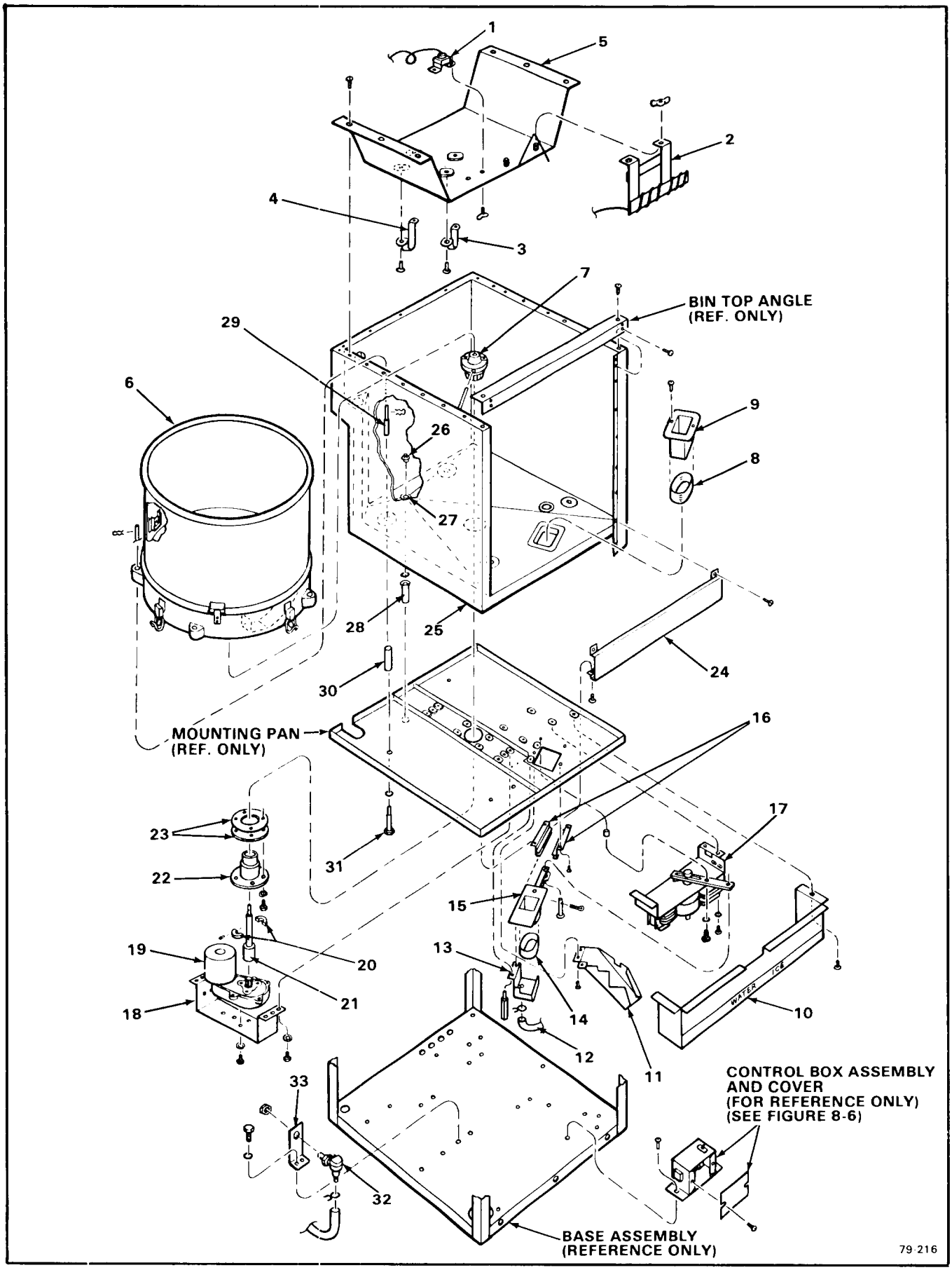


Figure 8-2. Major Assemblies

Figure 8-2. Major Assemblies

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Major Assemblies	No Number	Ref.
	* * *		
1	Control, Temperature (Bin Thermostat)	11-0353-02	1
	attaching part, Index 1		
	Thumbscrew	03-1279-01	2
	* * *		
2	Holder Assembly, Bulb	A28846-001	1
	attaching part, Index 2		
	Wingnut	03-0255-01	2
	* * *		
3	Clamp, Hose - Front	No Number	1
	* * *		
4	Clamp, Hose - Back	No Number	1
	attaching parts, Index 3 & 4		
	Screw, No. 1/4-20 x 1/2 Phil Recess Pan Hd	03-1403-48	4
	* * *		
5	Saddle	No Number	1
	attaching part, Index 5		
	Screw, No. 6-32 x 1/2 T/C Pan Hd	03-1613-01	2
	* * *		
6	Ice Breaker, Agitator, Cylindrical Bin Assembly	No Number	1
	(See Figure 8-3)		
	attaching part, Index 6		
	Clip, Hairpin (See Index 29)	03-1600-01	4
	* * *		
7	Drive Assembly, Hub	A26384-001	1
	attaching part, Index 7		
	Pin, Drive	A24094-001	1
	* * *		
8	Band, Ice Chute - (Rubber)	02-2471-01	1
	* * *		

Figure 8-2. Major Assemblies (cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
9	Chute, Ice Dispenser	A27946-001	1
	attaching parts, Index 8 & 9		
	Screw, No. 8 x 1/2 T/F Tap	03-1404-10	2
	* * *		
10	Cover Assembly, Spout	A28966-001	1
	attaching part, Index 10		
	Screw, No. 10-24 x 3/8 Phil Recess Pan Hd	03-1403-27	2
	* * *		
11	Chute, Lower Ice	A27948-001	1
	attaching part, Index 11		
	Screw, No. 8-32 x 3/8 Phil Recess Pan Hd	03-1403-16	3
	* * *		
12	Tube, Tygon (32-inch long) (order by the foot)	13-0674-02	1
	attaching part, Index 12		
	Clamp, Hose	02-0538-00	1
	* * *		
13	Bottom, Dispenser Chute	A28041-001	1
	attaching part, Index 13		
	Thumbscrew	A26375-001	1
	* * *		
14	Band, Ice Chute — (Rubber)	02-2471-02	1
	* * *		
15	Dispenser Assembly, Ice — (Box & movable arm)	A28835-001	1
	attaching part, Index 15 (connects to Index 17)		
	Pin	S07973-000	1
	Cotter, Hair Pin	03-1604-01	1
	* * *		
16	Track	15-0631-01	2
	attaching parts, Index 16		
	Screw, No. 8 x 1/2 T/F Tap	03-1404-09	6
	* * *		

Figure 8-2. Major Assemblies (cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
17	Ice Dispenser Motor Assembly	No Number	1
	(See Figure 8-4)		
	attaching parts, Index 17		
	Lockwasher, No. 1/4 Helical Spring	03-1410-03	4
	Screw, No. 1/4-20 x 3/8 Hex Cap	03-1405-01	4
	* * *		
18	Mounting Bracket, Gear Motor	No Number	1
	attaching part, Index 18		
	Lockwasher, No. 5/16 External Tooth	03-1417-12	5
	Screw, No. 5/16-18 x 1/2 Hex Cap	03-1405-15	6
	* * *		
19	Drivemotor Assembly	A28154-021	1
	(See Figure 8-5)		
	attaching part, Index 19		
	Lockwasher, No. 1/4 Helical Spring	03-1410-03	4
	Screw, No. 1/4-20 x 1/2 Hex Cap	03-1405-03	4
	* * *		
20	Collar, Shaft	02-2436-01	1
	(Two-piece clamp with two 10-32 screws)		
	* * *		
21	Shaft Assembly	A27546-001	1
	* * *		
22	Mounting Assembly, Bearing	A27427-001	1
	* * *		
23	Spacer	02-2397-01	2
	attaching parts, Index 22 & 23		
	Lockwasher, No. 5/16 Helical Spring	03-1410-04	4
	Screw, No. 5/16-18 x 1 Hex Cap	03-1405-18	4
	* * *		
24	Panel, Front Cover	A27623-002	1

Figure 8-2. Major Assemblies (cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	attaching part, Index 24		
	Screw, No. 6-32 x 1/2 T/C Pan Hd (at ends)	03-1613-01	2
	Screw, No. 6 x 1/4 T/F Tap (use underneath)	03-1404-08	6
	* * *		
25	Liner Assembly, Bin (Foamed)	A27542-020	1
	attaching parts, Index 25 to Mounting Pan		
26	Fitting, Drain	02-1751-00	1
	* * *		
27	O-Ring	13-0617-13	1
28	Tube, Drain	02-1957-00	1
	* * *		
29	Spacer, Bin Bottom	A28068-001	4
	* * *		
30	Spacer, Bin Support	A27541-001	4
	Clip, Hairpin (See Index 6)	03-1600-01	Ref.
	Lockwasher, No. 5/16 Helical Spring	03-1410-04	4
	* * *		
31	Screw, No. 5/16 - 18 x 2-1/2 Hex Cap	03-1405-22	4
	* * *		
32	Valve Assembly, Water	12-1900-07	1
	attaching part, Index 32 to 33		
	Pal Nut	03-1394-01	1
	* * *		
33	Bracket, Water Valve	A25805-001	1
	attaching part, Index 33		
	Screw, No. 8 x 1/2 T/F Tap	03-1404-10	2
	* * *		

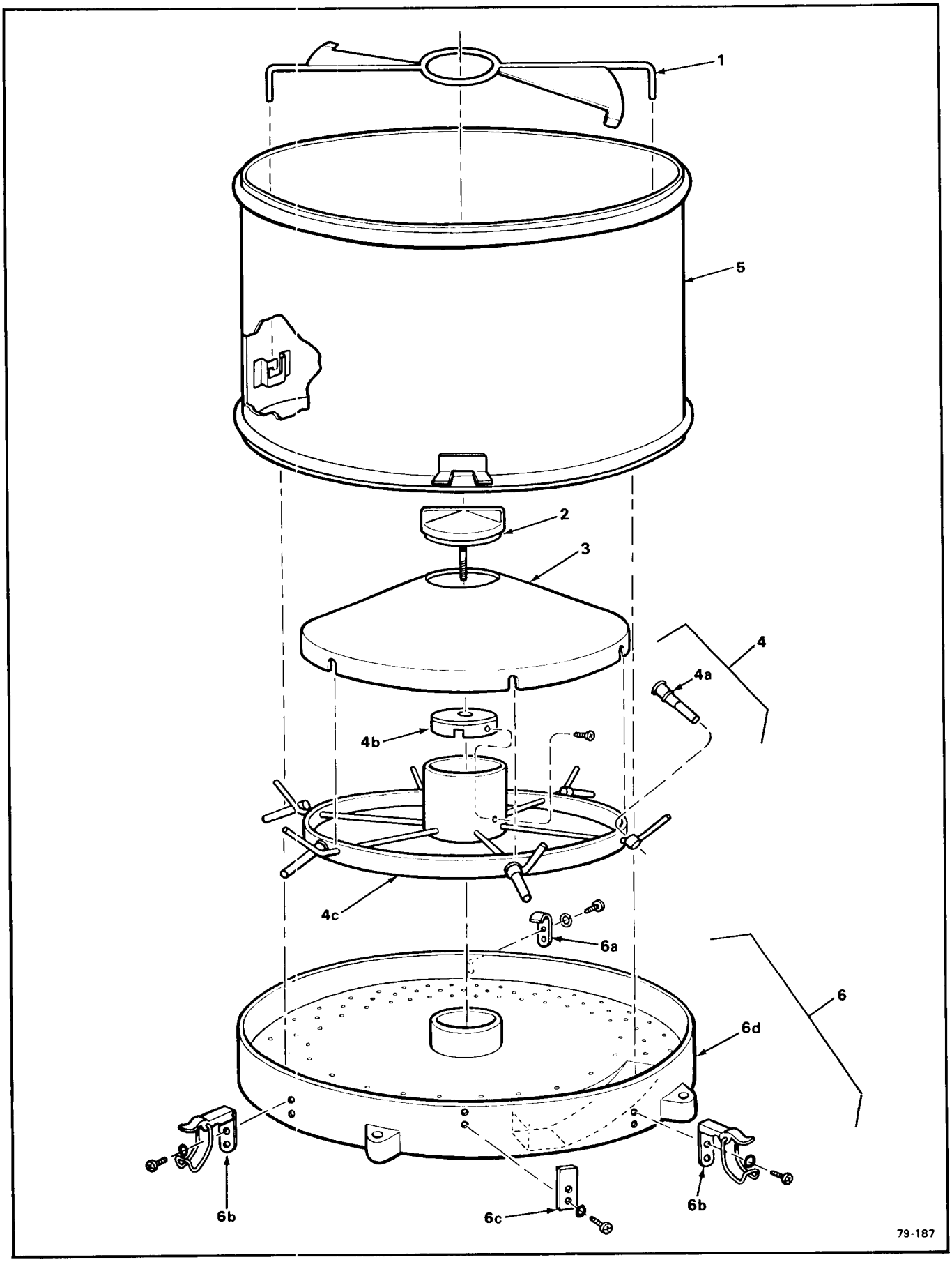


Figure 8-3. Ice Breaker, Agitator, Cylindrical Bin Assembly

Figure 8-3. Ice Breaker, Agitator, Cylindrical Bin Assembly

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Ice Breaker, Agitator, Cylindrical Bin Assembly	No Number	Ref.
	See Figure/Index 8-2/6		
	for next higher Assembly		
	* * *		
1	Breaker Assembly, Ice	A27566-001	1
	* * *		
2	Cap Assembly	02-2400-01	1
	* * *		
3	Cone, Ice Agitator	02-2409-01	1
	* * *		
4	Agitator Assembly, Ice	A27560-001	1
4a	Rubber - (Spray Bar)	13-0653-00	6
4b	Hub, Cylinder Drive	A14656-000	1
4c	Agitator, Ice	No Number	1
	attaching parts, Index 4b to 4c		
	Screw, No. 1/4-20 x 3/8 Phil Recess Flat Hd	03-1418-14	3
	* * *		
5	Cylinder, Storage Bin	A27584-001	1
	* * *		
6	Bottom Assembly — Clip, Latch and Stationary Bin	No Number	1
6a	Clip, Bin Holddown	A27189-001	1
	attaching part, Index 6a		
	Lockwasher, No. 6 Internal Tooth		2
	Screw, No. 6 x 3/8 T/F Tap	03-1531-04	2
6b	Latch	03-1596-01	2
	attaching parts, Index 6b		
	Lockwasher, No. 6 Internal Tooth	03-1417-14	4
	Screw, No. 8 x 3/8 T/F Tap	03-1531-04	4
	* * *		
6c	Clip, Locator	A29108-001	1

Figure 8-3. Ice Breaker, Agitator, Cylindrical Bin Assembly Cont'd.

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	attaching part, Index 6c		
	Lockwasher, No. 6 Internal Tooth	03-1417-14	2
	Screw, No. 6 x 3/8 T/F Tap	03-1531-04	2
	* * *		
6d	Bottom, Stationary Bin	02-2431-01	1
	* * *		

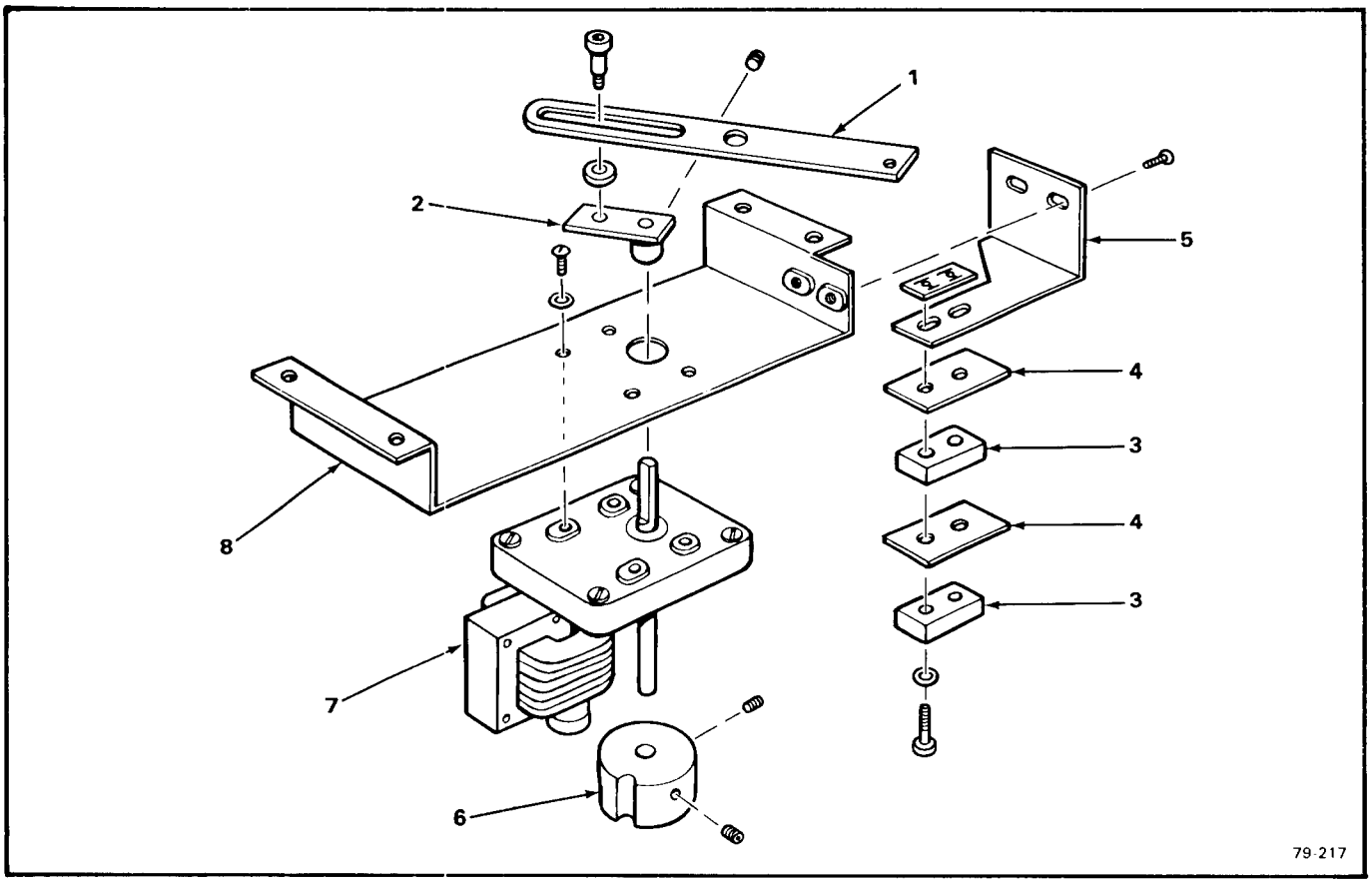


Figure 8-4. Ice Dispenser Motor Assembly

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Ice Dispenser Motor Assembly	No Number	Ref.
	(See Figure/Index 8-2/17		
	for next higher Assembly)		
	* * *		
1	Link, Drive	A28811-001	1
	* * *		
2	Hub, Drive	A28816-001	1
	attaching parts, Index 1 & 2 to 8		
	Setscrew	03-0431-08	1
	Washer, Special — Brass	03-1408-42	1
	Bolt, Shoulder	03-1598-02	1
	* * *		
3	Switch	12-0876-00	2
	* * *		

Figure 8-4. Ice Dispenser Motor Assembly (cont'd)

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
4	Insulator	No Number	2
	attaching parts, Index 3 & 4 to 5		
	Screw, No. 6-32 x 1-3/4 Phil Recess Pan Hd	03-1403-11	2
	Washer, Special	No Number	2
	Speednut, Double	03-0886-00	1
	* * *		
5	Bracket, Switch	No Number	1
	attaching part, Index 5		
	Screw, No. 8-32 x 3/8 Phil Recess Pan Hd	03-1403-16	2
	* * *		
6	Cam	02-2469-01	1
	attaching part, Index 6		
	Setscrew	03-0431-08	2
	* * *		
7	Motor, Gear	12-2117-01	1
	attaching part		
	Washer, No. 8 External Tooth	03-1417-03	4
	Screw, No. 8-32 x 3/8 Phil Recess Pan Hd	03-1403-16	4
	* * *		
8	Bracket, Mounting	No Number	1
	* * *		

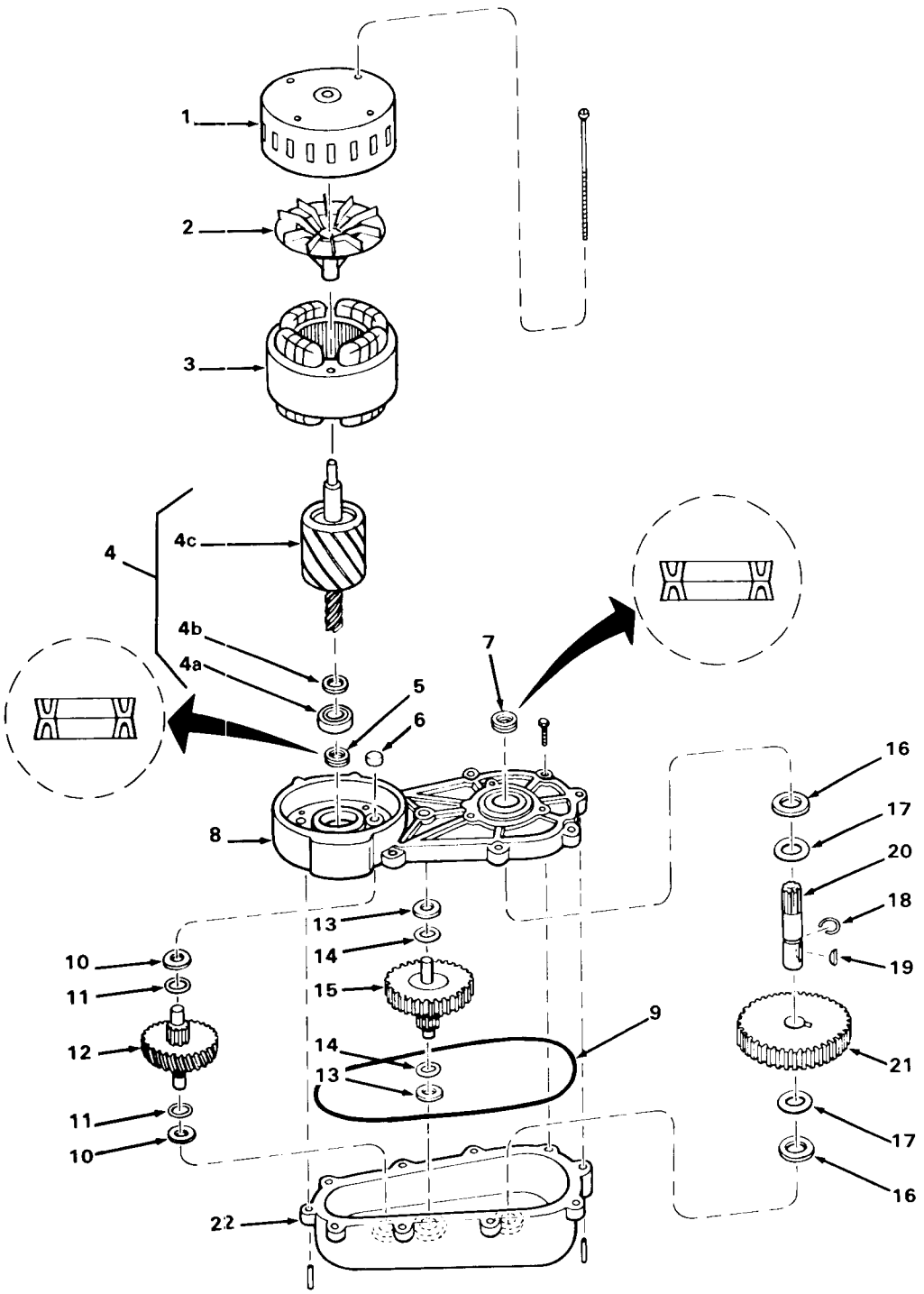


Figure 8-5. Drivemotor Assembly — 1/10 H.P.

Figure 8-5. Drivemotor Assembly — 1/10 H.P.

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Drivemotor Assembly -- (1/10 H.P.) (6.96 RPM)	A28154-021	Ref.
	(See Figure/Index 8-2/19		
	for next higher Assembly)		
	* * *		
1	Housing Assembly	A17047-001	1
	attaching part, Index 1 to 8		
	Screw, No. 10-32 x 5-1/4 Phil Hd Mach	03-1403-82	4
	* * *		
2	Fan, Boring	A28168-001	1
	* * *		
3	Stator Assembly (115/60/1)	12-1400-01	1
	* * *		
4	Rotor Assembly	A28160-001	1
4a	Bearing	02-1501-00	1
4b	Washer, Special	03-1408-08	1
4c	Rotor (Order P/N A28160-001)	No Number	1
	* * *		
5	Seal, Grease (Install back-to-back)	02-1504-00	2
	* * *		
6	Cap, Insulating	02-2459-01	1
	* * *		
7	Seal, Grease (Install back-to-back)	02-1503-00	2
	* * *		
8	Cover Assembly, Gear Case	A28165-001	1
	attaching parts, Index 8 to 22		
	Pin, Roll	03-0774-11	2
	Screw, No. 1/4-20 x 3/4 Flange	03-1252-00	2
	Screw, No. 1/4-20 x 5/8 Flange	03-1251-00	6
	* * *		
9	O-Ring	02-1505-00	1
	* * *		

Figure 8-5. Drivemotor Assembly — 1/10 H.P. (cont'd)

INDEX NO	DESCRIPTION	PART NUMBER	REQ'D NUMBER
10	Washer, Special (Thick)	03-1408-41	2
	* * *		
11	Washer, Special (Thin/Shim)	03-1408-38	A/R
	* * *		
12	Second Pinion Assembly, First Gear and	02-2443-01	1
	* * *		
13	Washer, Special (Thick)	03-1408-39	2
	* * *		
14	Washer, Special (Thin/Shim)	03-1408-40	A/R
	* * *		
15	Third Pinion Assembly, Second Gear and	02-2441-01	1
	* * *		
16	Washer, Special (Thick)	03-1408-21	2
	* * *		
17	Washer, Special (Thin/Shim)	03-1408-04	A/R
	* * *		
18	Ring, Retaining	03-1515-03	1
	* * *		
19	Key, Woodruff	03-1602-01	1
	* * *		
20	Shaft, Output	03-2445-01	1
	* * *		
21	Gear, Output	02-2444-01	1
	* * *		
22	Case Assembly, Gear	A28166-001	1
	* * *		

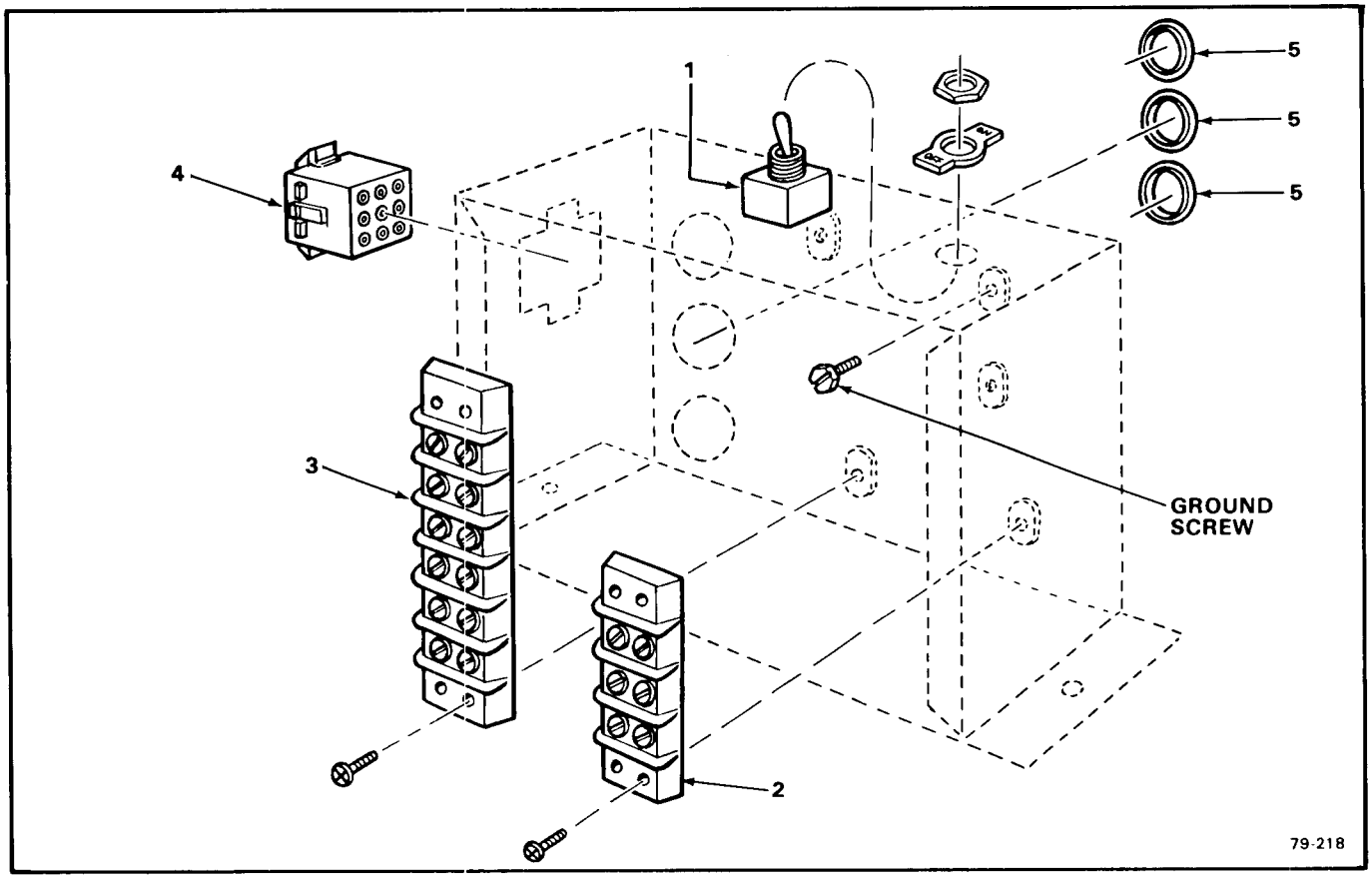
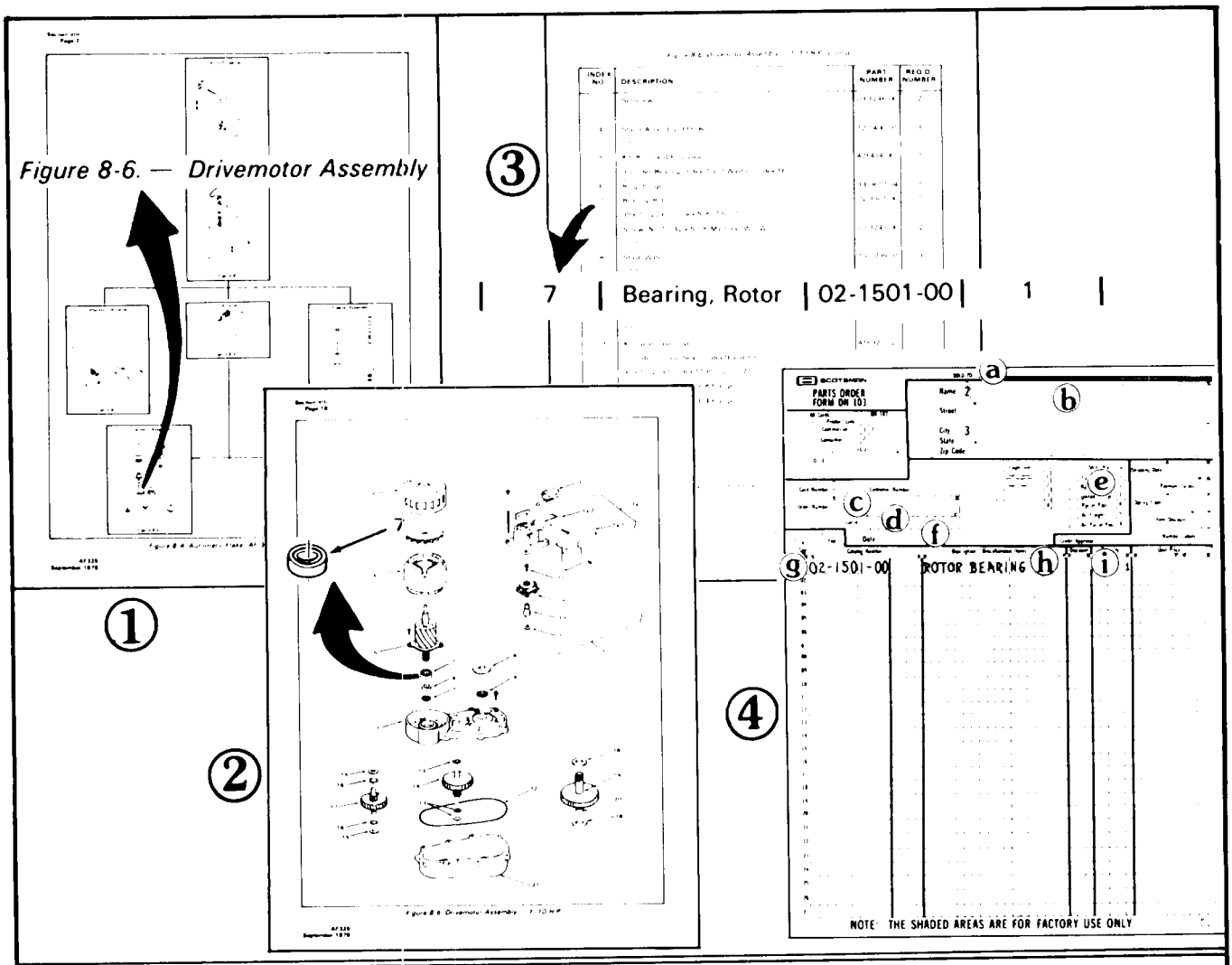


Figure 8-6. Control Box Assembly.

INDEX NO.	DESCRIPTION	PART NUMBER	REQ'D NUMBER
	Control Box Assembly	No Number	1
	(See Figure 8-2 for		
	next higher Assembly)		
	* * *		
1	Switch, Toggle	12-0426-01	1
	* * *		
2	Block, Terminal (short)	12-0813-00	1
	* * *		
3	Block, Terminal (long)	12-0813-03	1
	attaching parts, Index 2 & 3		
	Screw, No. 8-32 x 1/2 Phil Recess Pan Hd	03-1403-18	4
	* * *		
4	Housing, Connector — (Cap)	No Number	1
	* * *		

Figure 8-6. Control Box Assembly (cont'd)

INDEX NO	DESCRIPTION	PART NUMBER	REQ'D NUMBER
5	Bushing * * *	12-1213-10	3



HOW TO USE A SCOTSMAN PARTS MANUAL WHEN ORDERING PARTS FOR ICE SYSTEMS PRODUCTS

IMPORTANT A. All Part Numbers have TEN DIGITS (spaces), required for use in the Computer System. BE SURE to fill in **ALL SPACES** in the CATALOG NUMBER column, on the Parts Order form as shown above.

B. Enter the QUANTITY of the Parts ordered, in the last digit column under the QUANTITY column heading, the one under the small 55 number, for parts from 1 thru 9. For 10 or more parts use two columns.

To be sure you receive the proper parts in the proper quantities, ALWAYS use the PART NUMBERS and DESCRIPTIONS given in the Parts Manuals.

The figures above illustrate the way a Parts Manual would be used, if the Part being ordered were the ROTOR BEARING that is used in the DRIVEMOTOR ASSEMBLY of an AF325 Automatic Flaker, for example.

PROCEDURE:

1. At the beginning of Section VIII, THE PARTS ILLUSTRATIONS AND PARTS LISTS, in each Parts and Service Manual, is Figure 8-A; which, is a flow chart prepared from exploded views in Section VIII. Use the flow chart to quickly determine which Figure contains the Assembly, Component or Part.

FIGURE 1: Since the Part required in the above example is in the DRIVEMOTOR ASSEMBLY, shown as FIGURE 8-6.

2. Open the Manual to page showing FIGURE 8-6.

3. Locate the PART and its INDEX NUMBER on the exploded view illustration.

FIGURE 2: The INDEX NUMBER for the PART is 7.

4. Check the numerical sequence in the associated Parts List following the illustration.

5. LOCATE the INDEX NUMBER 7, in the INDEX NO. column, the first column on the left side of the Parts List page.

FIGURE 3: INDEX NO. 7 is listed as a BEARING, ROTOR in the DESCRIPTION column. The Part Number for the Rotor Bearing is 02-1501-00 as listed in the PART NUMBER column on the right side of the Parts List page. And, one Rotor Bearing is listed in the REQ'D NUMBER column, or that ONLY one of those parts is required for one Drivemotor Assembly.

6. Write an order for the Part. (Use SCOTSMAN Parts Order Form DN103)

FIGURE 4: a. Distributor Name.
b. (Use for DROP-SHIP order ONLY).
c. Distributor Purchase Order Number.
d. Carrier
e. How shipped (Truck, Rail, UPS, etc.)
f. Date ordered
g. Part Catalog Number
(use full TEN digits (spaces) listed in Parts Manual, including dashes between numbers.
h. Description - as listed in Parts Manual.
i. Quantity - number of parts ordered.
(use far right column)

Figure 8-00. How To Use The Illustrated Parts List.