INSTALLATION AND SERVICE MANUAL

FOR

MINUTE MAID JUICER

TWO VALVE DISPENSER

Part Number 85-3322 Two Valve, Push Control 115V/60 Hz
Part Number 85-3332 Two Valve, Portion Control 115V/60 Hz

This manual supersedes and replaces 28-0703/01, dated 08/23/06
# TABLE OF CONTENTS

TABLE OF CONTENTS ..........................................................................................................................i
ACCESSORIES FOR MINUTE MAID JUICER .......................................................................................... ii
SPECIFICATIONS ............................................................................................................................... ii

1. INSTALLATION .................................................................................................................................. 1
   1.1 RECEIVING......................................................................................................................................... 1
   1.2 UNPACKING ....................................................................................................................................... 1
   1.3 SELECTING COUNTER LOCATION ..................................................................................................... 1
   1.4 FILLING THE UNIT WITH WATER ...................................................................................................... 1
   1.5 CONNECTING THE WATER SUPPLY ................................................................................................ 2
   1.6 CONNECTING THE ELECTRICAL POWER ......................................................................................... 2
   1.7 KEY LOCK SWITCH ............................................................................................................................ 2
   1.8 INSTALLING THE CONCENTRATE PACKAGES ............................................................................... 2
   1.9 PURGING THE WATER SYSTEM OF AIR .......................................................................................... 2

2. OPERATING THE UNIT ....................................................................................................................... 3
   2.1 PRODUCT LOADING/UNLOADING ..................................................................................................... 3
   2.2 SOLD OUT OPERATIONS ................................................................................................................... 4
   2.3 SETTING RATIOS .............................................................................................................................. 4
   2.4 DISPENSING CONFIGURATIONS ...................................................................................................... 6
   2.5 OPERATION WITH “PUSH AND HOLD” ............................................................................................ 6
   2.6 OPERATION WITH “PORTION CONTROL” ....................................................................................... 6
   2.7 CLEANING AND SANITIZING INSTRUCTIONS .............................................................................. 7

3. OPERATING PRINCIPLES ................................................................................................................... 8
   3.1 WATER SYSTEM ............................................................................................................................... 8
   3.2 CONCENTRATE DELIVERY SYSTEM .............................................................................................. 8
   3.3 REFRIGERATION SYSTEM ................................................................................................................. 8
   3.4 ELECTRICAL SYSTEM ..................................................................................................................... 9
   3.5 ELECTRONIC SYSTEM ..................................................................................................................... 9

4. RELOCATING OR SHIPPING UNIT .................................................................................................. 10
   4.1 REMOVING AN OPERATING UNIT .................................................................................................. 10
   4.2 TRANSPORTING UNIT ...................................................................................................................... 10
   4.3 SHIPPING UNIT ............................................................................................................................. 10

5. REPAIR AND REPLACEMENT .......................................................................................................... 10
   5.1 LIGHTED FRONT DISPLAY .............................................................................................................. 10
   5.2 DOOR DISASSEMBLY ...................................................................................................................... 11
   5.2.1 DOOR REMOVAL .......................................................................................................................... 11
   5.2.2 DOOR BOARD REPLACEMENT .................................................................................................. 11
   5.2.3 ELECTRONIC LIGHT BOARD REPLACEMENT ......................................................................... 11
   5.2.4 DOOR LOCK SOLENOID .............................................................................................................. 11
   5.2.5 DOOR SEAL REPLACEMENT ...................................................................................................... 11
   5.2.6 GAS STRUT REPLACEMENT ........................................................................................................ 12
   5.3 CONDENSER FAN MOTOR REPLACEMENT .................................................................................... 12
   5.4 AGITATOR MOTOR REPLACEMENT ............................................................................................... 12
   5.5 ICE BANK CONTROLLER ............................................................................................................... 12
   5.6 TOP COVER REMOVAL .................................................................................................................... 12
   5.7 REFRIGERATION DECK REMOVAL .................................................................................................. 12
   5.8 PRODUCT RECOGNITION/SOLD OUT SENSORS REMOVAL ......................................................... 13
   5.9 PRODUCT CHAMBER CIRCULATION FAN REMOVAL ................................................................... 13
   5.10 WATER CALIBRATIONS VALVE/FLOW WASHER REMOVAL .................................................... 13
   5.11 NOZZLE REPLACEMENT .............................................................................................................. 14
   5.12 DOOR SPOUT SEAL REPLACEMENT ............................................................................................. 14
   5.13 CONTROL BOX REMOVAL ............................................................................................................ 14
   5.14 STEPPER MOTOR REMOVAL/REPLACEMENT .......................................................................... 14
   5.15 WRAPPER REMOVAL ................................................................................................................... 15

6. TROUBLESHOOTING ......................................................................................................................... 15
   REFRIGERATION SYSTEM .................................................................................................................... 15
   DISPENSING SYSTEM ........................................................................................................................ 16

7. ILLUSTRATIONS, PARTS LISTINGS, WIRING AND WATER FLOW DIAGRAMS ......................... 19
   7.1 FRAME/INSULATION, TANK ASSEMBLY ..................................................................................... 19
   7.2 INSULATED TANK ASSEMBLY ...................................................................................................... 20
   7.3 PUMP PLATFORMS/FAN PLATE ASSEMBLY .................................................................................. 21-22
TABLE OF CONTENTS (CONTINUED)

7.4 DOOR STRUTS/TRIM ASSEMBLY .................................................................23
7.5 ELECTRICAL COMPONENT, DETAIL .....................................................24
7.6 CABINET ASSEMBLY .................................................................................25
7.7 PERIPHERAL COMPONENTS/FINAL ASSEMBLY .....................................26
7.8 UNPACKING DETAIL ..................................................................................27
7.9 FLOW METER/SOLENOID ASSEMBLY .....................................................28
7.10 COMPRESSOR DECK ASSEMBLY ..........................................................29-30
7.11 LEFT DOOR ASSEMBLY (TYPICAL) .......................................................31-32
7.12 TOP COVER ASSEMBLY, DETAIL ..........................................................33
7.13 ASSEMBLED UNIT ..................................................................................34
7.14 WATER FLOW DIAGRAM ........................................................................35
7.15 WIRING DIAGRAM ..................................................................................36

ACCESSORIES FOR MINUTE MAID JUICER

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>82-3789</td>
<td>Drop Down Drip Tray</td>
</tr>
</tbody>
</table>

SPECIFICATIONS

DIMENSIONS:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIDTH</td>
<td>10 1/8 inches (257 mm)</td>
</tr>
<tr>
<td>DEPTH</td>
<td>25 1/2 inches (648 mm)</td>
</tr>
<tr>
<td>HEIGHT</td>
<td>33 inches (838 mm)</td>
</tr>
</tbody>
</table>

WEIGHT:

<table>
<thead>
<tr>
<th>State</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHIPPING</td>
<td>125 pounds (56.7 kg)</td>
</tr>
<tr>
<td>EMPTY</td>
<td>112 pounds (50.8 kg)</td>
</tr>
<tr>
<td>OPERATING</td>
<td>160 pounds (72.6 kg)</td>
</tr>
</tbody>
</table>

ELECTRICAL REQUIREMENTS (running): 115 VAC, 60 Hz 7 Amps

WATER REQUIREMENTS:

MINIMUM flowing pressure of 35 PSI, at a flow rate of six (6) ounces per second (177 ml/sec)
MAXIMUM operating pressure of 90 PSI

WATER CONNECTION: 3/8” (9.525 mm) barbed hose fitting

NOTE

Water pipe connections and fixtures directly connected to a potable water supply must all be sized, installed, and maintained according to Federal, State, and Local laws. The water supply must be protected by means of an air gap, a backflow prevention device (located upstream of the CO₂ injection system) or another approved method to comply with NSF standards. A backflow prevention device must comply with ASSE and local standards. It is the responsibility of the installer to ensure compliance.

REFRIGERATION:

1/4 Horsepower (HP) Compressor, using R134-A refrigerant
10.0 pounds (+/- 2.0 pounds) (4.54 kg) ice bank weight
6.5 gallon (24.6 liter) water bath capacity

DRINK CAPACITY:

More than 100 twelve (12) ounce drinks at three (3) per minute under 45°F at 75°F ambient.
More than 20 thirty-three (33) ounce drinks at one (1) per minute under 45°F at 75°F ambient.
More than 50 twelve (12) ounce drinks at two (2) per minute under 45°F at 90°F ambient.
More than 15 thirty-three (33) ounce drinks at one (1) per minute under 45°F at 90°F ambient.
1. INSTALLATION

1.1 RECEIVING

Each shipment is completely tested under operating conditions and thoroughly inspected before shipment. At time of shipment, the carrier accepts the Unit and any claim for damage must be made with the carrier. Upon receiving Unit from the delivering carrier, carefully inspect carton for visible indication(s) of damage. If damage exists, have carrier note same on bill of lading and file a claim with the carrier.

1.2 UNPACKING

A. Cut packing band and remove.
B. Lift and remove top portion of carton.
C. Remove inner packing.
D. Remove package containing installation kit.
E. Lift plywood shipping base, and remove lower portion of carton.
F. Slide a corner of unit (on plywood shipping base) over the edge of counter and remove the shipping screw and washer from unit.
G. Replace shipping screw and washer with a 3/8” x 16 stainless Phillips truss head from installation kit.
H. Repeat procedure for remaining corners.
I. Slide unit off of plywood shipping base.

NOTE

Save the original carton, inner packing material, and plywood shipping base for future use in the event unit is to be returned or transported.

J. Inspect Unit for concealed damage and if evident notify delivering carrier and file a claim against same.

NOTE

If unit is to be transported to a different location for installation, it could be transported easier if the unit is left firmly mounted to the shipping base.

1.3 SELECTING COUNTER LOCATION

A. Select a location close to a properly grounded electrical outlet and water supply that meets the requirements listed on the Specification Page.

CAUTION

WITHOUT PROPER VENTILATION, THE UNIT’S COMPRESSOR WILL OVERHEAT, POSSIBLY TRIP THE OVERLOAD PROTECTOR, AND HAVE SIGNIFICANTLY SHORTER LIFE.

B. Condenser air is drawn in the back of the Unit and exhausted out the top. The Unit requires a minimum of four (4) inches between the wall, ceiling, and the back of the wrapper for proper ventilation.
C. Seal unit to countertop by applying a small bead of clear silicone R.T.V. sealant around the perimeter of the base platform. Use a sealant that is designated for countertop application.

1.4 FILLING THE UNIT WITH WATER

The water bath overflow is located in the back center of the product compartment, behind the pump platform sheet metal plate.

A. Remove the top cover.
B. Remove the yellow cap.
C. Insert water hose into exposed hole.
D. Open front door.
E. Use a flashlight to see the overflow hole through the two upper rectangular slots in the pump platform sheet metal plate.
F. Stop the water flow when water drips out from the overflow hole.
G. Shut the front door, and remove water hose.
H. Replace the yellow cap and replace the top cover.
1.5 CONNECTING THE WATER SUPPLY

**NOTE**
This unit is to be installed with adequate backflow protection to comply with applicable federal, state and local codes. This is an NSF requirement.

The unit can be installed with the water and electric supply entering the unit through an access plate in the back of the wrapper, or through a hole in the countertop, directly into the unit.

A. Flush the water supply line thoroughly.  
B. Remove drip tray by pulling up slightly, while lifting away from the Unit.  
C. Remove splash plate by pulling the bottom up slightly, then out from the Unit.  
D. The installation kit contains both a straight connector (for through the countertop) and an elbow connector (for through the back of the Unit). Use the appropriate connector and securely attach to the included tubing with clamp.  
E. Lubricate the O-rings on the fitting with Lancer Lube and insert into the 1/4 turn shutoff valve and secure with sliding clip. (On installations going through the back of the wrapper, remove the cover plate on the back of the Unit and thread the tubing through the lower section of the machine and out the back of the Unit.)

1.6 CONNECTING THE ELECTRICAL POWER

**WARNING**
THIS UNIT MUST BE ELECTRICALLY GROUNDED TO AVOID POSSIBLE FATAL ELECTRICAL SHOCK OR SERIOUS INJURY TO THE OPERATOR. THE POWER CORD IS PROVIDED WITH A THREE PRONG GROUNDED PLUG. IF A THREE HOLE GROUNDED OUTLET IS NOT AVAILABLE, USE AN APPROVED METHOD TO GROUND THE UNIT.

A. Thread the unit power cord, following the water connection routing, and plug the female end of the unit power cord into the outlet on the transformer box.  
B. Connect the other end to the appropriate grounded outlet. The agitator motor will start running immediately and will run continuously. The compressor and condenser fan are in parallel. There is a five minute delay timer in this circuit. After that time has elapsed, the compressor/condenser fan with start and run continuously until a complete ice bank is built. This will take about two (2) hours, depending on ambient and water temperature.

1.7 KEY LOCK SWITCH

The key lock switch, located on the lower right hand front of the unit, has three positions. These positions, taken clockwise, are:

A. **OFF.** In this position, the refrigeration system remains on but the door latch release solenoids are deactivated. The merchandising panel is not lighted and the unit will not dispense product.  
B. **ON.** In this position, the refrigeration system remains on, the door latch release solenoids are deactivated, the front merchandising panel is lit, and the unit dispenses product.  
C. **FLUSH.** In this position, the refrigeration system remains on, the door latch release solenoids are activated, the front merchandising panel is lighted, but only the water solenoid coils are activated. Set-up and Diagnostics are performed in this position.

1.8 INSTALLING THE CONCENTRATE PACKAGES

A. Turn key lock from the “ON” position to the “FLUSH” position.  
B. Place the concentrate package on the platform, ensuring that the cap faces front.  
C. Insert the “yellow” check valve “o-ring” side into the cap of the concentrate package.  

1.9 PURGING THE WATER SYSTEM OF AIR

A. Turn key lock from the “ON” position to the “FLUSH” position.  
B. Place a cup beneath the left most (when facing the machine) dispensing nozzle and press the PUSH or POUR/CANCEL buttons until a clear stream is observed.  
C. Purge the remaining valve the same way, moving progressively to your right.  
D. Rotate the key lock switch back to the “ON” position.  
E. Dispense a small amount from each valve until product is visible in the stream.  
F. The dispenser is ready to operate.
2. OPERATING THE UNIT

2.1 PRODUCT LOADING/UNLOADING

A. Thaw the Minute Pak® in a 40 degree F cooler for 48-72 hours.
B. Shake the Minute Pak® well (see Figure 1).

C. Turn unit to “Flush Mode” (key on right bottom side of dispenser) (see Figure 2).

D. Open dispenser door (press the # key) (see Figure 3). Then lift the door.

E. Install the Minute Pak® into the slot for the appropriate flavor.
F. Insert check valve into the Minute Pak® opening (see Figures 4 and 5).

G. Prime pump using the * key.
H. Dispense enough juice to prime the pump (see Figure 6), until the dispensed beverage appears consistent [dispense approximately two to four (2-4) ounces of product].
2.2 SOLD OUT OPERATIONS
A. When the display shows SOLD OUT or CHANGE PRODUCT, follow the loading procedures to change the package.
B. Once the package is changed, touch the * in the bottom left hand corner of each touch pad affected until concentrate pours (see Figure 7).
C. This will reset the sold out feature.
D. Continue with the loading procedures to prime the pump.

2.3 SETTING RATIOS
A. Enter juice selection programming mode by simultaneously pressing the * and # buttons.
B. Toggle up or down to select juice type (see Figure 8).
   1. Press left hidden button to scroll down.
   2. Press right hidden button to scroll.
C. Press pour/cancel (“PUSH” Button) when correct juice is identified.

NOTE:
For Other (non-standard brands), toggle to “Other Custom” and simultaneously press the * and # buttons again.
- Display will default to 5:1.
- The left button will decrease ratio by .25 ratio units.
- The right button will increase by .25.
D. Check/Adjust Ratios

1. To check and/or adjust the ratio you measure the amount of water dispensed and then the finished product dispensed into a graduated cylinder. You adjust the finished product to equal the volume of water dispensed.

2. Process
   a. Turn key switch to flush mode.
   b. Purge water line until clear by pressing pour cancel button.
   c. Press the * and # buttons on outside edge of door panel at the same time to access the RATIO MODE (see Figures 9 and 10).

E. To check ratio:
   1. Press and release pour cancel
      a. Water will pour automatically (use a 500 ml graduated cylinder, see Figures 11 and 12, to catch dispensed water - note level of water for use in step G below).
      b. 450 ML should pour into cylinder - Each band is 5 ml (if off more that two bands, then troubleshoot water sub-system).

F. Put cup under nozzle and press pour cancel. Throw first sample away.

G. Empty cylinder and place under nozzle assembly. Press and release pour cancel.
   1. Combined water and juice will dispense – Target is same as water only level in step 1.
   2. If within one band-width, return to operation.
H. If out of spec (finished product volume does not equal water volume), adjust the ratio by pushing the * and # buttons: For example:

1. If the ratio is 4 bands below, toggle down to -4 using the * and # buttons (see Figure 13). Press pour cancel and check volume again - Repeat until correct.
2. If the ratio is 3 bands above water level, toggle up to +3. Press pour cancel and check volume again.
3. When the volume of combined product equals the water level, turn key switch to run position and return unit to service.

**NOTE:**
This process should only be performed during startup, pump replacement or changing of brand.

2.4 DISPENSING CONFIGURATIONS
The dispenser has two (2) different dispensing configurations, depending on the model. These configurations are:

- **A. PUSH and HOLD.** The is the basic machine where the touch sensor switch is pushed to start dispensing and released to terminate the dispense.
- **B. PORTION CONTROL.** This option has a different touch sensor switch and switch control board. Each valve can be individually programmed to remember four (4) different dispense volumes and then to dispense those volumes when the individual sections of the touch sensor switch is activated.

2.5 OPERATION WITH “PUSH and HOLD”
A. Place a vessel on the target located on the Cup Rest.
B. Depress the “Push” area to start the flow of product.
C. Release the pressure on the switch to terminate the flow of product.

2.6 OPERATION WITH “PORTION CONTROL”
A. Place a vessel on the target located on the Cup Rest.
B. Activate the program mode for that valve by simultaneously depressing the “SMALL” and “EXTRA LARGE” buttons.
C. Place a glass of the proper size (i.e., small, medium, large, or extra large) on the target on the Cup Rest and depress the corresponding button.
D. Continue holding the button until the proper fill level is obtained.
E. Use the same procedure for setting the fill volume for the other sizes of glasses.
F. Push the “POUR/CANCEL” button to exit the program mode. The program will automatically store the last fill volume that was dispensed through that button size before you exited the program mode.

(This section continued on next page)
G. Follow the same procedures to set the fill volume for the remaining valves.

**NOTE**

Since the volume settings are unique to each valve, each valve can have four different dispense volumes. Lemonade in valve position 1, for example, could have a different dispense volume (i.e., "SMALL", "MEDIUM", etc.) than Orange Juice in valve position 2.

2.7 CLEANING AND SANITIZING INSTRUCTIONS

For optimum dispenser performance and highest drink quality, please follow the instructions listed below for cleaning your dispenser. The instructions are also shown on the inside front cover of the Dispenser.

**CAUTION**

DO NOT USE ANY POWDERS OR ABRASIVE CLEANING COMPOUNDS THAT WILL DAMAGE FINISH.

A. Daily

1. Turn the dispenser to FLUSH Mode.
2. Flush each valve until clear water only is dispensed.
3. Remove and wash drip tray and cup rest in warm, soapy water using a mild detergent. Rinse thoroughly with clean, warm water and reinstall drip tray and cup rest to dispenser.
4. Wipe down any areas where concentrate may have spilled or beverages splashed.
5. If doors were opened to wipe soiled areas, close the doors.
6. Ensure the drain tube into the drip tray is properly seated.
7. Follow the Loading procedures in the ON Mode.

**WARNING**

REMOVE SANITIZING SOLUTION FROM DISPENSER AS INSTRUCTED. RESIDUAL SANITIZING SOLUTION LEFT IN SYSTEM COULD CREATE HEALTH HAZARD.

**CAUTION**

DO NOT SOAK NOZZLES IN CHLORINE SOLUTION OVERNIGHT. THIS WILL CAUSE NOZZLES TO SWELL AND PLASTIC WILL BEGIN TO DETERIORATE.

B. Every Two Weeks

1. Turn key switch to "FLUSH MODE", flush each valve of dispenser until clear water flows from the nozzle.
2. Open door and lift up on the check valve (yellow elbow) to remove it from the Minute Pak® container.
3. Remove Minute Pak container from dispenser and refrigerate.
4. Remove nozzles (see Figures 14 and 15). Wash thoroughly with warm, soapy water using a mild detergent (see Figure 16). Rinse thoroughly with clean, warm water and replace. DO NOT SOAK NOZZLES IN CHLORINE SOLUTION OVERNIGHT. THIS WILL CAUSE NOZZLES TO SWELL AND PLASTIC WILL BEGIN TO DETERIORATE.
5. Using a funnel, fill each specially marked sanitizing container up to the top with COOL chlorinated sanitizing solution (Diversol CX, or equivalent), minimum 100 PPM available chlorine, but not to exceed 200 PPM; place sanitizing container in dispenser.
6. Replace check valve in sanitizing container.
7. Activate “PURGE BUTTON” for two (2) minutes ensuring concentrate lines are full of solution. Let solution stand for five (5) minutes without dispensing.
8. For each valve, perform a second two (2) minute dispense and let stand for an additional five (5) minutes.
9. Activate “PURGE BUTTON” until the sanitizing solution empties from the sanitizing container.
10. Remove check valve from sanitizing container, remove sanitizing container, and pour out any sanitizing solution that remains in the container.
11. Repeat for each valve.
12. Reinstall Minute Paks®, and connect check valves in containers. Replace nozzles (see Figure 17)
13. Using the “PURGE BUTTON”, run the pump until only concentrate is dispensed, to remove traces of sanitizing solution from the dispenser.

**NOTE**

Please note that a fresh water rinse cannot follow sanitization of equipment. Purge only with the end use product. *This is an NSF requirement.*

14. Remove drip tray and cup rest. Wash thoroughly with warm, soapy water using a mild detergent. Rinse thoroughly with clean, warm water.
15. Wipe the dispenser with a clean damp cloth, taking care to remove all product residue.
16. Replace drip tray, and cup rest.
17. Return key switch to “ON” position
18. Pour approximately two (2) ounces of finished drink product to fill nozzle.

3. OPERATING PRINCIPLES

3.1 WATER SYSTEM

Inlet water is plumbed through a 1/4 turn ball valve, in the front of the dispenser, to a stainless steel tube (imbedded in the insulated tank assembly) where it connects to the copper Water Coil on the left side of the ice bath tank. The water is chilled to below 40°F and fed through a Vacuum Breaker to a distribution manifold. The manifold has four outlets that extend into the interior of the of the refrigerated compartment. Each outlet connects to a flow meter/solenoid valve which operates the water flow and measures the amount of water that was dispensed.

3.2 CONCENTRATE DELIVERY SYSTEM

When the dispensing valve is activated, concentrate is drawn from the bottom of the concentrate container, up the integral dip tube and through the check valve and concentrate tube, to the inlet of the concentrate pump.

It is metered by volume and pumped into the spout where it mixes with the water. The temperature of the concentrate does not effect the °Brix as long as it is above 32°F (0°C). The volume output of the concentrate pump is controlled electronically and can be adjusted to change the °Brix.

3.3 REFRIGERATION SYSTEM

The copper tube evaporator mounted to the compressor deck and located in the water bath compartment of the insulated tank assembly, forms a ring of ice that weighs approximately 21 pounds. Additional water in the compartment is continuously circulated in the compartment by the agitator motor to maintain a constant 32°F bath temperature. The copper water coil is mounted to the dispenser and is located directly below the ice bank.

The insulated tank assembly is substantially fabricated out of aluminum plate. Heat is removed from the concentrate compartment through conduction to the ice bath. Cool air is circulated in the container compartment by a small fan mounted to the back plate of the container compartment.

When product is dispensed, water is drawn through the water coil and chilled. As ice is depleted, the ice bank control senses that the ice is melting and turns the compressor and condenser fan on. When the ice bank is rebuilt, the ice bank control turns the compressor and condenser fan motor off. The compressor will periodically run to maintain the ice bank even though no drinks were dispensed. If power to the unit was disrupted while the compressor was running, the compressor
would not restart immediately when power is re-established. There is a restart delay circuit [approximately five (5) minutes] built into the ice bank control to prevent the compressor from starting under pressure. This feature protects the compressor from premature failure.

The unit has a “lift out” refrigeration deck. The compressor, condenser, fan and agitation motors, evaporator, and ice bank control system are mounted on a common deck plate. The deck is attached to the insulated tank assembly in the back of the unit above the water bath compartment. A removable grill mounted to the top cover provides access to the deck components. The refrigeration deck assembly can also be separated from the unit by first removing the two doors, followed by removing the top cover of the unit. After removing the mounting hardware, the deck can be lifted up and out of the unit.

3.4 ELECTRICAL SYSTEM

**WARNING**

THIS UNIT MUST BE ELECTRICALLY GROUNDED TO AVOID POSSIBLE FATAL ELECTRICAL SHOCK OR SERIOUS INJURY TO THE OPERATOR. THE POWER CORD IS PROVIDED WITH A THREE PRONG GROUNDED PLUG. IF A THREE HOLE GROUNDED OUTLET IS NOT AVAILABLE, USE AN APPROVED METHOD TO GROUND THE UNIT.

The unit’s power cord plugs directly into the transformer box located on the front, left corner of the dispenser, behind the splash plate. The transformer box contains the transformer. The transformer supplies 24 VDC power to the CPU (PN 52-2927). A jumper harness from the transformer box connects the supply line power to the compressor deck.

The transformer, compressor, agitator, and condenser fan motor have internal circuit protection. The 24 VDC transformer has a manual reset button located on the side of the transformer.

3.5 ELECTRONIC SYSTEM

The dispenser’s electronic systems control all of the dispenser functions. The refrigeration system is controlled by an electronic Ice Bank Controller located on the compressor deck. A printed circuit board, located in the doors, operates the front display panel light and relays membrane switch information to the electronics box. All other functions are controlled by the electronics box located behind the splash plate. Sensors located in the refrigerated product compartment feed status information to the electronics box which continuously monitors dispenser functions.

A. Water Solenoid/Flow Meter

1. Inlet water is controlled by a combination solenoid valve/flow meter. When the dispense mode is activated, the solenoid opens and water flows through the water coil, solenoid valve and integral flow meter until it exits at the front of the unit. Each package slot has a stainless nipple that connects to the mixer of the concentrate package when the package is installed.

2. The flow of water activates the integral digital flow meter which sends a pulse to the microprocessor. The microprocessor continuously monitors the flow rate and adjusts the concentrate drive motor to correct for any variations in flow rate due to pressure variations. There is a flow control washer in the connecting tube, downstream from the solenoid valve/flow meter that limits the flow rate to 1.5 ounces per second, in case there is excessive water pressure at the installation site.

B. Lighted Front Display

The front door display is illuminated by high intensity LEDs. The printed circuit board is located in the door below the light reflector.

C. Electronic Ice Bank Controller

The ice bank controller housing is mounted on the compressor deck. It connects to a probe that is mounted to the evaporator coil. The probe allows the controller to measure the difference in resistance between water and ice, and shuts the compressor off when the ice bank grows enough to cover the probe. The printed circuit board inside the housing uses an edge connector so that it can be easily serviced.
4. RELOCATING OR SHIPPING UNIT

4.1 REMOVING AN OPERATING UNIT

A. Remove concentrate packages (see Section 2.1).
B. Turn water supply OFF at the source. Activate one of the valves to drain the water from the system.
C. Remove the splash plate. Slide the locking clip on the Shut Off Valve to release the inlet fitting and remove the inlet fitting from the valve, leaving the valve connected to the unit.
D. Remove the water inlet line, either through the access plate in the rear of the unit or through the bottom, depending on how the unit was installed.

**WARNING**

THIS UNIT MUST BE ELECTRICALLY GROUNDED TO AVOID POSSIBLE FATAL ELECTRICAL SHOCK OR SERIOUS INJURY TO THE OPERATOR. THE POWER CORD IS PROVIDED WITH A THREE PRONG GROUNDED PLUG. IF A THREE HOLE GROUNDED OUTLET IS NOT AVAILABLE, USE AN APPROVED METHOD TO GROUND THE UNIT.

E. Turn the key switch OFF and disconnect the power cord from the electrical outlet.
F. Attach a suitable length of drain tubing to the drain outlet.
G. Place the free end of the drain tubing in a suitable receptacle [i.e., a floor drain or a five (5) gallon container] and rotate the barbed section counterclockwise approximately 2.5 turns. The fitting has a hexagonal section at the base to facilitate rotation.
H. Turn the barbed end clockwise approximately 2.5 turns to close drain and remove drain tubing.

**NOTE**

The unit will have up to 10 pounds of ice attached to the Evaporator Coils. If unit is to be shipped any distance, it is strongly recommended that the ice be removed.

The ice can easily be removed by refilling the unit with moderately hot water through the filling tube on the compressor deck to melt the ice, and then draining the water from the unit.

4.2 TRANSPORTING UNIT

**WARNING**

DO NOT LAY UNIT ON ITS SIDE OR BACK.

The best method for transporting the unit is to secure it to a plywood shipping base.

4.3 SHIPPING UNIT

If a unit is to be shipped by common carrier, it must be secured to the plywood shipping base and repacked in the original carton with the inner packing material. For this reason, it is wise to retain the original shipping materials.

5. REPAIR AND REPLACEMENT

5.1 LIGHTED FRONT DISPLAY

A. Turn unit to “Flush Mode” (key on right bottom side of dispenser) (see Figure 2).
B. Open dispenser door (press right # button on door panel to open door) (see Figure 3). Then lift the door.
C. Turn the lens release handles on the lower part of the door liner one fourth (1/4) turn from the “locked” position to the “open” position.
D. Lift front lens, graphic insert, and backing sheet out from the bottom edge of the lens, rotating on the top edge until the locking tabs at the bottom clear the door shell, and the holding tabs on the top edge can be disengaged from the door shell.
E. Place the graphic insert and backing sheet in the recess in the back of the door lens. Be sure that these pieces are properly seated in the lens.
F. Grasp the lens on the lower portion of both sides with the exterior surface of the lens closest to your body, while keeping the graphic insert and backing plate properly seated with your fingertips.
G. Insert the tabs on the top edge in their mating slots, and rotate the bottom edge until the locking tabs are seated in the door (this operation is easier if the door is closed). Be sure that
the graphic insert and backing plate are in position and have not slipped down. If this occurs, the lens will bind at the top and could break the top tabs.

H. Open door and turn lens release handles to the locked position.

5.2 DOOR DISASSEMBLY

5.2.1 DOOR REMOVAL

A. Open door. Turn key switch to OFF position and disconnect the harness at the top of the door.
B. Gently push upward on the door to relieve the door’s weight from the gas spring and slide the pin out of the clevis that anchors the gas spring to the door. Rotate the gas spring down and out of your way.
C. While supporting the door with one hand, lift the hinge pin tabs up out of the retaining slots and slide the tabs toward the center of the door.
D. Remove the door.

5.2.2 DOOR BOARD REPLACEMENT

A. Turn key switch to OFF position.
B. Remove the lens (see Section 5.1).
C. Remove the four (4) screws on the back side of the door, that secure the liner to the door shell, and lift the front door shell enough to disconnect the door board to light board harness. The door shell can now be removed.
D. Remove the screws that secure the spiders onto the door board. Remove the door board by lifting the back end up first, so it slips out of the front tabs holding it down.
E. Replace the door board and secure the spiders back on.
F. While supporting the bottom of the door shell with one hand, reconnect the door board to the light board harness. This is best accomplished with the door closed and the top of the door shell angled away from the unit.
G. Secure door shell to the door liner with the four (4) screws.

5.2.3 ELECTRONIC LIGHT BOARD REPLACEMENT

A. Turn key switch to OFF position.
B. Remove the lens (see Section 5.1) and door shell (see Section 5.2.2.A).
C. Remove the two (2) screws securing the light board to the inner door assembly.
D. Remove light board by unplugging the door board to light board harness.
E. Replace board and secure with screws.
F. Reconnect the light holder harness and secure the light holder/reflector assembly to the door liner with the four screws.
G. Replace the door shell and secure with four (4) screws.
H. Replace lens assembly (see Section 5.1).

5.2.4 DOOR LOCK SOLENOID

A. Open door and remove the four screws that secure the solenoid mounting bracket to the interior surface of the door liner.
B. Gently slide the bracket out of the door liner and unplug the connector.
C. Loosen the large nut the secures the solenoid coil to the bracket and slide the solenoid assembly out of the slot in the bracket. Orient the bracket with the hatch turned up to prevent the plunger from falling out once it clears the bracket.
D. Replace the solenoid assembly and secure with the large nut. Check to ensure the plunger lead-in angle faces the back side of the bracket, that the plunger moves freely, and does not bind. Adjust the position of the coil, if necessary.
E. Connect harness and slide door latch assembly into slots in back of door liner. Secure with mounting screws.

5.2.5 DOOR SEAL REPLACEMENT

A. Grasp lip of door seal and gently pull the seal from the retaining slot in the back of the door liner.
B. Lubricate the new seal with soapy water and insert of the retaining section of the seal (starting first at each corner) into the slot in the door liner.
C. Slowly work the remaining sections of the gasket until the gasket is completely seated.

5.2.6 GAS STRUT REPLACEMENT
A. Open door.
B. Gently push upward on the door to relieve the door’s weight from the gas spring and slide the pin out of the clevis that anchors the gas spring to the door. Rotate the gas spring down and out of your way.
C. Remove the pin that secures the gas spring to the top clevis in a similar way.
D. Align the hole in the large end of the gas spring with the clevis that is mounted to the top of the unit’s interior.
E. Insert the retaining pin.
F. Open the door fully to align the hole at the shaft end of the gas spring with the door mounted clevis and insert the retaining pin.

5.3 CONDENSER FAN MOTOR REPLACEMENT
A. Unplug unit.
B. Remove the two screws that secure the top grill to the top cover, and remove grill.
C. Unplug harness connecting condenser motor to the ice bank control box.
D. Remove the four screws that mount the condenser fan to the deck, and remove the motor/fan assembly.
E. Replacement is the reverse of removal.

5.4 AGITATOR MOTOR REPLACEMENT
A. Unplug unit and remove the grill from the top cover (see Section 5.3).
B. Remove the four screws that mount the condenser fan to the deck, and move the motor/fan assembly out of the way.
C. Unplug harness connecting agitator motor to the ice bank control box.
D. Remove screws securing the motor bracket to the deck plate and withdraw the agitator motor vertically until the propeller clears the deck.
E. Replacement is the reverse of removal.

5.5 ICE BANK CONTROLLER
A. Unplug Unit and remove the grill from the top cover (see Section 5.3).
B. Remove the screw that secures the cover of the ice bank controller box and remove the cover.
C. The ice bank controller is contained on the printed circuit board. To remove the board, grasp the top edge of the board and pull up.
D. Replace the printed circuit board by aligning the edges of the board with the slots in the guides. Push the card straight down, seating the board firmly in the edge connector.
E. Slide the cover into position on the controller box, with the bottom tabs engaged in the slots on the deck and secure with the screw.

5.6 TOP COVER REMOVAL
A. Remove the door (see Section 5.2.1).
B. Remove the two outer screws on the top face of door frame.

**NOTE**
There are three (3) screws on the top face of the door frame; however, the middle screw above the door opening is not used to secure the top cover.

C. Remove the three screws on the back of the top cover that secures the top cover to the frame.
D. Gently work the top cover up and off of the unit, starting at the front and alternating to the back, until the tabs holding the front of the top cover clear the top to the door frame.
E. Remove the top cover.
F. Replacement is the reverse of removal. Be careful to align the tabs in their respective slots and work the top cover down into position.

5.7 REFRIGERATION DECK REMOVAL
A. Unplug unit.
B. Remove the top cover (see Section 5.6).
C. Remove the four screws that secure the deck to the insulated tank assembly (a 3/8” socket and a long extension are required).

D. Unplug the main power harness from the ice bank control box.

E. Locate a suitable location to place the deck once it is removed, considering that the melting ice will allow the deck to slide easily and make a mess.

F. Position yourself on the counter, secure your weight lifting belt, and grasp the lifting handles on the deck.

G. Using proper lifting techniques, lift the deck straight up until the evaporator and ice bank clear the top of the wrapper. Place the deck on that suitable location, resting it on the bottom surface of the ice.

**NOTE**

*The help of an assistant would make this step easier, as the deck needs to be lifted up relatively straight to prevent the ice bank from wedging against the sides of the tank.*

H. Check that the main power harness is secured and out of the way, and replace the deck by lowering the assembly straight down into the water bath compartment. Check to ensure the guide pins on the tank line up with the holes in the deck.

I. Secure the deck to the tank with the four screws.

J. Connect the main power harness to the ice bank control box.

K. Replace the top grid and secure with the two screws.

5.8 PRODUCT RECOGNITION/SOLD OUT SENSORS REMOVAL

There are two (2) sold out sensors; one for each valve.

A. Remove the concentrate product (see Section 2.1).

B. Turn key switch to OFF position.

C. Remove nozzle by “wiggling” it out of the water fitting and concentrate delivery tube.

D. Remove both the left and right platform base.

E. Remove the thumb screws that secure the pump assembly platform base to the cabinet.

F. Tilt the pump assembly platform base forward.

G. Remove the screws that secure the sold out sensor to the pump assembly platform base.

H. Unplug the waterproof connector.

I. Replacement is accomplished in the reverse order of removal.

j. Calibrate The sold out using the following procedure:

1. On the control box switch position 1 of SW# (found between the rear soldout indicator and the door connectors) to ON.
2. Turn key to “Flush Mode”. The right display will show the service menu, all others will flash “SERVICE MODE”.
3. The display will show “Calibrate SO” to calibrate a sold out module. Make sure the sold out(s) are empty and contain only air.
4. The display will ask you if you want to calibrate all or an individual valve.
5. The decision will then be confirmed and “Calibrating” will show on the display.
6. When calibration is complete the results, “OK” or “Fail”, will show on the display.
7. If any of the modules fail, make sure the sold out is empty and properly connected, then repeat calibration for that module. If it fails a second time replace the sold out.
8. Turn unit off.
9. Switch position 1 of SW3 to OFF.
10. Turn unit on.

5.9 PRODUCT CHAMBER CIRCULATION FAN REMOVAL

A. Remove the concentrate product (see Section 2.1).

B. Turn key switch to OFF position.

C. Remove nozzle by “wiggling” it out of the water fitting and concentrate delivery tube.

D. Remove both the left and right platform base.

E. Remove the thumb screws that secure the pump assembly platform base to the cabinet.

F. Tilt the pump assembly platform base forward.

G. Remove the two screws that secure the back plate to the back wall of the unit.
H. Lift the plate up slightly, while tipping the top edge toward you, to disengage the bottom edge from the tabs on the bottom of the base.
I. Rotate the assembly to provide access to the connector. Unplug the connector and remove the assembly.
J. Remove the four screws that secure the fan assembly to the back plate.
K. Replacement is the reverse of removal.

5.10 WATER CALIBRATIONS VALVE/FLOW WASHER REMOVAL
A. Remove the concentrate product (see Section 2.1).
B. Turn key switch to OFF position.
C. Remove nozzle by “wiggling” it out of the water fitting and concentrate delivery tube.
D. Remove both the left and right platform base.
E. Remove the thumb screws that secure the pump assembly platform base to the cabinet.
F. Tilt the pump assembly platform base forward.
G. Remove back plate/fan assembly (see Section 5.8).
H. Disconnect waterproof connectors on solenoid and flowmeter.
I. Slide the two retainers on the top and bottom of the water calibrations valve assembly to the “disengage” position.
J. Push the water calibrations valve assembly down until the outlet connector tube telescopes into the base of the unit.
K. While holding the outlet connector tube, lift up on the water calibrations valve assembly to disengage it from the outlet connector tube.
L. Remove the water calibrations valve assembly, being careful not to lose the flow washer that is fitted in the top end of the outlet connector tube.
M. Replacement is as follows:
   (1) Place the flow washer in the end of the connector tube, being careful to place the concave side of the flow washer down.
   (2) Position the outlet end of the water calibrations valve assembly on the outlet connector tube and fasten secure, by sliding the retainer on the water calibrations valve assembly to the locked position.
   (3) Lift up on the water calibrations valve assembly to withdraw the outlet connector tube from the base of the unit, and fit the assembly to the manifold outlet.
   (4) Secure the water calibrations valve assembly to the manifold outlet by sliding the retainer to the locked position.
   (5) Reconnect the waterproof connectors.
   (6) Replace the back plate/fan assembly making sure that the wire leads are not pinched between the back plate and the base of the unit and that the bottom edge of the back plate fits between the pairs of standing ribs of the base. Secure the back plate with the two screws.

5.11 NOZZLE REPLACEMENT
A. Remove nozzle by “wiggling” it out of the water fitting and concentrate delivery tube.

**CAUTION**
DO NOT OVER TIGHTEN WATER INLET NOZZLE, AS SERIOUS DAMAGE TO THE UNIT MAY RESULT.
B. Install the nozzle in the unit, being careful not to nick the o-ring, and tighten until snug, slightly more than finger tight.

5.12 DOOR SPOUT SEAL REPLACEMENT
A. Remove the center screw that secures the door spout seal to the the unit, and remove the seal assembly.
B. Carefully clean any residue that may be present on the base tank.
C. Install new door spout seal assembly and secure with screw.

5.13 CONTROL BOX REMOVAL
A. Remove the drip tray by gently lifting the drip tray up and away from the unit.
B. Remove the splash plate by pulling the bottom up slightly, then out from the unit. If there is a drop down drip tray, remove the two screws holding the drip tray to remove the drop down drip tray.
C. Remove the drain tube from the bracket (mounted on the side of the control box) by pulling up until it clears the bracket.

**WARNING:**

**DISCONNECT POWER BEFORE ATTEMPTING TO REMOVE THE CONTROL BOX.**

D. Remove the three (3) thumbscrews holding the control box. Remove the control box and place it front face down.
E. Disconnect all harnesses leading from the control box.
F. Replacement is the reverse of removal.

5.14 STEPPER MOTOR REMOVAL/REPLACEMENT

There are two (2) stepper motors; one for each valve.
A. Remove the concentrate product (see Section 2.1).
B. Turn key switch to OFF position.
C. Remove nozzle by "wiggling" it out of the water fitting and concentrate delivery tube.
D. Remove both the left and right platform base.
E. Remove the thumb screws that secure the pump assembly platform base to the cabinet.
F. Tilt the pump assembly platform base forward.
G. Remove the four (4) screws that secure the stepper motor to the pump assembly platform base.
H. Unplug the waterproof connector.
I. Remove the motor by pulling out the pump assembly
J. Replacement is the reverse of removal.

5.15 WRAPPER REMOVAL

A. Unplug unit.
B. Remove drip tray and splashplate.
C. If unit is plumbed through wrapper hole at the back of the unit, turn water supply OFF. Turn water ball valve, located behind drive motors, to OFF position. Remove water supply, including ball valve (this will prevent water from draining from the water supply), from the unit. Remove power cord from unit.
D. Remove door (see Section 5.2.1).
E. Remove top cover (see Section 5.6).
F. Unplug keyschuss from electrical box.
G. All wrapper screws are located on the left and right vertical faces on the front of the unit.
   1. Splash plate area: Remove all six (6) screws.
   2. Door area: There are five (5) screws on each side. Loosen the second (2nd) and fourth (4th) screws.
H. Spread the wrapper apart at the front of the unit, and then carefully remove wrapper.
I. Replacement is reverse of removal.

6. TROUBLESHOOTING

**REFRIGERATION SYSTEM**

**WARNING:**

THE COMPRESSOR DECK IS FED BY LINE VOLTAGE. DISCONNECT POWER BEFORE ATTEMPTING TO REPAIR ANY COMPONENTS ON THE DECK.

The refrigeration system basically consists of a compressor, condenser, evaporator, fan, and control box. The components are mounted on a common base or deck. The fan and compressor are electrically connected in parallel. The ice bank control module, located in the control box, is connected to a probe that is mounted to the evaporator coils. The probe senses the presence of ice and signals the controller to turn the compressor/fan off. The probe has to be in water for the compressor to run. The module also has a delay (approximately 5 minutes) to prevent the motor
from starting under load. This would occur if the power were interrupted, as well as on initial start-up.

The ice bank control module (inside the control box) has a red and a green LED mounted on the board. The green light indicates that line voltage is being supplied to the module. The red LED will be on when the controller instructs the compressor to run.

*Causes are listed in order of probability.*

<table>
<thead>
<tr>
<th>TROUBLE</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
</table>
| 6.1 Compressor does not shut off. Unit frozen up. | A. Possible relay failure on ice bank control board.  
B. Probe moved out of proper location. Faulty probe. | A. Check LEDs on PCB. If Green light is on and red light is off, replace printed circuit board.  
B. Check LEDs on PCB. If both lights are on, disconnect probe harness from board. If red light turns off and compressor stops running, pull deck and check probe. |
| 6.2 Compressor will not run. | A. Unit not connected to electrical outlet.  
B. Power supply electrical breaker tripped or fuse blown.  
C. No water in water bath.  
D. Faulty thermal overload on compressor.  
E. Compressor deck not plugged into power supply.  
F. Ice bank not plugged in to ice bank control PCB.  
G. Defective ice bank control PCB.  
H. Defective compressor. | A. Connect unit power cord to electrical outlet.  
B. Reset circuit breaker or replace fuse. If problem persists:  
1. Check unit for electrical short.  
2. Electrical circuit overloaded. Switch to another circuit.  
C. Check water bath and add until overflow is observed.  
D. Check overload on compressor. Replace if required.  
E. Plug compressor deck IN.  
F. Plug probe IN to ice bank. control PCB  
G. Replace ice bank control PCB.  
H. Replace compressor deck. |
| 6.3 Compressor does NOT start, but hums. | A. Improper or loose wiring.  
B. Low voltage.  
C. Starting relay defective.  
D. Defective compressor. | A. Correct wiring. Refer to wiring diagram.  
B. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage.  
C. Replace compressor relay.  
D. Replace compressor deck. |
| 6.4 Compressor starts and runs a short time, but shuts off on overload. | A. Improper or loose wiring.  
B. Low voltage.  
C. Excessively high refrigerant pressure on high side.  
D. Incorrect relay or overload. | A. Correct wiring. Refer to wiring diagram.  
B. Measure voltage across common and run terminal on compressor. Voltage must not drop below 90% of rated voltage.  
C. 1. Defective fan motor. Replace.  
3. Inadequate ventilation. Check for obstructions at intake/exhaust grills.  
D. Replace relay or overload, as required. |
| 6.5 Warm drinks, compressor runs. | A. Hot incoming water supply (from hot water supply).  
B. Low refrigerant supply.  
C. Defective condenser fan | A. Switch to cold water supply.  
B. Replace compressor deck.  
C. Replace condenser fan motor. |
**DISPENSING SYSTEM**

**WARNING:**

**TURN OFF THE POWER AT THE KEY SWITCH BEFORE ATTEMPTING TO REMOVING ANY OF THE CIRCUIT BOARDS.**

The Dispensing System is controlled by the main CPU located in the main electronics box, behind the splash plate.

The dispensing system is a duplex system, in that each door independently controls the two valves in that particular half of the dispenser. Troubleshooting can be greatly simplified by swapping working parts, such as driver boards, from one side of the dispenser to the other side of the dispenser. Similarly, the right and left door harnesses can be swapped at the electronic control box to aid in trouble-shooting door problems.

Before troubleshooting a problem with the Electronic Control System, first perform a few initial tests to aid in diagnosing the problem.

1. Be sure that the unit is plugged in.
2. Remove the splash plate and check all harness connections to the Electronic Control Box.
3. Turn the key switch to the ON position, and observe if the door lights illuminate.
4. Open the door and verify that the circulation fan is operating.
5. Check the harnesses at the top of the door to be sure they are completely engaged and latched.
6. Check the status of the LEDs on the front of the control box to be sure that all boards are powered up properly to indicate the status of the machine.
7. Install a package in all of the valve positions. If packages are already installed, remove them and reinstall to reset the SOLD OUT status.

*Causes are listed in order of probability.*

<table>
<thead>
<tr>
<th>TROUBLE</th>
<th>CAUSE</th>
<th>REMEDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.6</td>
<td>Packages load properly but dispenser does not function on <em>all</em> valves. Low water pressure signs come on the door Board LCD.</td>
<td>A. No water supply.</td>
</tr>
<tr>
<td>6.7</td>
<td>Packages load properly, but dispenser does not function on <em>some</em> valves.</td>
<td>A. Product sold out.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. Sold out feature malfunction.</td>
</tr>
<tr>
<td>TROUBLE</td>
<td>CAUSE</td>
<td>REMEDY</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>--------</td>
</tr>
</tbody>
</table>
| **C. No signal from the water calibration valve. Low water pressure sign comes on.** | | **C.**

1. Inspect connections of harnesses from insulated tank assembly to Electronic Control Box. Rectify if necessary.
2. Remove Fan plate and check connections at water calibration valve. Rectify if necessary.
3. Swap suspect water calibration valve with a known working assembly and retest. If suspect valve now functions, replace water calibration valve assembly (see Sec. 5.9). |

---

| 6.8 Packages load properly but dispenser only dispenses water from all valves. | A. Key switch in rinse mode. | A. Turn key switch to the dispense position. |
| B. Faulty key switch. | B. Replace key switch assembly. |

---

| 6.9 Brix too low. | A. Pump Cavitator. | A. Probably caused by inserting a frozen solid package. *Although temperature of the product does not have to be 40°F, for the dispenser to operate properly, the product must at least be in liquid form.)* |
| B. Faulty flow meter/calibration board. | B. Possible foreign material in flow meter causing inaccurate readings or bad water calibration valve. Replace water calibration valve and retest. |

---

| 6.10 Product temperature seems warm. | A. Faulty circulation fan. | A. Check that fan is operating. Examine to see if grill is dented, preventing fan from turning. Repair or replace as required. |

---

**NOTES**
7. ILLUSTRATIONS, PARTS LISTINGS, WIRING, AND WATER FLOW DIAGRAMS

7.1 FRAME/INSULATION TANK ASSEMBLY

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50-0453</td>
<td>Insulation, Tank, Strip</td>
</tr>
<tr>
<td>2</td>
<td>82-3662</td>
<td>Tank Assy</td>
</tr>
<tr>
<td>3</td>
<td>04-0590</td>
<td>Nut, Lock 10-24</td>
</tr>
<tr>
<td>4</td>
<td>51-6102/01</td>
<td>Frame Assy</td>
</tr>
<tr>
<td>5</td>
<td>01-0789</td>
<td>Cap</td>
</tr>
<tr>
<td>6</td>
<td>02-0005</td>
<td>O-Ring</td>
</tr>
<tr>
<td>7</td>
<td>02-0110</td>
<td>Umbrella Check Valve</td>
</tr>
<tr>
<td>8</td>
<td>17-0408</td>
<td>Vacuum Breaker Assy (Includes Items 5-8)</td>
</tr>
<tr>
<td>Item</td>
<td>Part No.</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>47-1539</td>
<td>Tube, Water Coil</td>
</tr>
<tr>
<td>2</td>
<td>01-0797</td>
<td>Nut Assy</td>
</tr>
<tr>
<td>3</td>
<td>48-1161</td>
<td>Tube Assy, Manifold, Water</td>
</tr>
<tr>
<td>4</td>
<td>02-0155</td>
<td>O-Ring</td>
</tr>
<tr>
<td>5</td>
<td>48-1058</td>
<td>Tube Assy, Interface, Water OUT</td>
</tr>
<tr>
<td>6</td>
<td>48-1166</td>
<td>Tube Assy, Water IN</td>
</tr>
<tr>
<td>7</td>
<td>19-0422</td>
<td>Valve Assy, Water, Calibration</td>
</tr>
<tr>
<td>8</td>
<td>02-0371</td>
<td>Flow Washer</td>
</tr>
<tr>
<td>9</td>
<td>02-0089</td>
<td>O-Ring</td>
</tr>
<tr>
<td>10</td>
<td>48-1162</td>
<td>Tube Assy, Interface, Short</td>
</tr>
<tr>
<td>11</td>
<td>17-0512</td>
<td>Valve Assy, Ball, Water Inlet</td>
</tr>
<tr>
<td>12</td>
<td>02-0089</td>
<td>O-Ring</td>
</tr>
<tr>
<td>13</td>
<td>48-1053</td>
<td>Water Inlet, Elbow</td>
</tr>
<tr>
<td>14</td>
<td>01-1589</td>
<td>Water Inlet, Straight</td>
</tr>
<tr>
<td>15</td>
<td>48-1163</td>
<td>Tube Assy, Interface, Long</td>
</tr>
</tbody>
</table>
### 7.3 PUMP PLATFORMS/FAN PLATE ASSEMBLY (CONTINUED)

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>81-0650</td>
<td>Fan Assy, Pump Housing, FCOJ</td>
</tr>
<tr>
<td>2</td>
<td>04-0741</td>
<td>Screw, 6-32 x .375, PHP, Pan HD</td>
</tr>
<tr>
<td>3</td>
<td>04-1290</td>
<td>Screw, 10-14 x .375, PH, PH, PL, SS</td>
</tr>
<tr>
<td>4</td>
<td>30-9658</td>
<td>Plate, Product Support, FCOJ</td>
</tr>
<tr>
<td>5</td>
<td>01-2042</td>
<td>Water Connector, Compass</td>
</tr>
<tr>
<td>6</td>
<td>02-0005</td>
<td>O-Ring, 2-010</td>
</tr>
<tr>
<td>7</td>
<td>30-9654/01</td>
<td>Platform, Base, Pump Assy</td>
</tr>
<tr>
<td>8</td>
<td>91-0167</td>
<td>Motor Assy</td>
</tr>
<tr>
<td>9</td>
<td>04-0470</td>
<td>Screw, 6 - 19 x 0.500, PHP, PH, SS</td>
</tr>
<tr>
<td>10</td>
<td>17-0370</td>
<td>Check Valve Assy</td>
</tr>
<tr>
<td>10A</td>
<td>02-0089</td>
<td>O-Ring</td>
</tr>
<tr>
<td>10B</td>
<td>05-0456</td>
<td>Body Fitting</td>
</tr>
<tr>
<td>10C</td>
<td>02-0115</td>
<td>O-Ring</td>
</tr>
<tr>
<td>10D</td>
<td>14-0004</td>
<td>Ball</td>
</tr>
<tr>
<td>10E</td>
<td>02-0103</td>
<td>O-Ring</td>
</tr>
<tr>
<td>10F</td>
<td>05-0425</td>
<td>Check Valve Cap</td>
</tr>
<tr>
<td>11</td>
<td>08-0004</td>
<td>Concentrate Tube</td>
</tr>
<tr>
<td>12</td>
<td>52-3092-01</td>
<td>Sold Out Assy</td>
</tr>
<tr>
<td>13</td>
<td>04-0166</td>
<td>Seal, Radial, Lip, 0.250 Shaft, SS</td>
</tr>
<tr>
<td>14</td>
<td>82-0179</td>
<td>Body Assy, Pump, Juice (Complete)</td>
</tr>
<tr>
<td>15</td>
<td>04-0548</td>
<td>Screw, 8 - 16 x 0.750, PHP, PH</td>
</tr>
<tr>
<td>16</td>
<td>05-0132</td>
<td>Impeller, Pump, Juice Assy</td>
</tr>
<tr>
<td>17</td>
<td>02-0090</td>
<td>O-Ring, 2-026</td>
</tr>
<tr>
<td>18</td>
<td>05-0134</td>
<td>Cap, End, Pump, Juice</td>
</tr>
<tr>
<td>19</td>
<td>04-1557</td>
<td>Screw, 8 - 32 x 0.375, THMB, BR, BT NI</td>
</tr>
<tr>
<td>20</td>
<td>05-2403</td>
<td>Fitting, Base, Pump</td>
</tr>
<tr>
<td>21</td>
<td>02-0089</td>
<td>O-Ring, 2-012</td>
</tr>
<tr>
<td>22</td>
<td>05-2402</td>
<td>Base, Package</td>
</tr>
<tr>
<td>23</td>
<td>02-0047</td>
<td>O-Ring, 2-110</td>
</tr>
<tr>
<td>24</td>
<td>05-2404</td>
<td>Tube Delivery</td>
</tr>
<tr>
<td>25</td>
<td>54-0414</td>
<td>Nozzle Assy</td>
</tr>
<tr>
<td>25A</td>
<td>05-2424</td>
<td>Body, Lower, Nozzle, FCOJ</td>
</tr>
<tr>
<td>25B</td>
<td>05-2422</td>
<td>Float, Nozzle, FCOJ</td>
</tr>
<tr>
<td>25C</td>
<td>05-2423</td>
<td>Body, Upper, Nozzle, FCOJ</td>
</tr>
<tr>
<td>Item</td>
<td>Part No.</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>05-1035</td>
<td>Funnel, Wire</td>
</tr>
<tr>
<td>2</td>
<td>04-0470</td>
<td>Screw, 6 - 19 x 0.500, Pan Hd</td>
</tr>
<tr>
<td>3</td>
<td>05-1058</td>
<td>Bracket, Upper</td>
</tr>
<tr>
<td>4</td>
<td>81-0307</td>
<td>Pin, Door, Clevis</td>
</tr>
<tr>
<td>5</td>
<td>81-0405</td>
<td>Gas Spring, 30 Pound</td>
</tr>
<tr>
<td>6</td>
<td>04-0788</td>
<td>Screw, 6 - 32 x 0.438, Binder Hd</td>
</tr>
<tr>
<td>7</td>
<td>05-1224</td>
<td>Door Frame</td>
</tr>
<tr>
<td>8</td>
<td>05-2416</td>
<td>Plate, Bottom</td>
</tr>
<tr>
<td>9</td>
<td>04-0470</td>
<td>Screw, 6 - 19 x 0.500, Pan Hd</td>
</tr>
<tr>
<td>10</td>
<td>05-1012</td>
<td>Stem, Door Release</td>
</tr>
<tr>
<td>11</td>
<td>52-3021</td>
<td>Door Harness Assy</td>
</tr>
<tr>
<td>12</td>
<td>02-0214</td>
<td>O-Ring</td>
</tr>
</tbody>
</table>
### 7.5 ELECTRICAL COMPONENT, DETAIL

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>82-3706</td>
<td>Deck Assy, Refrig., 115V/60Hz</td>
</tr>
<tr>
<td>2</td>
<td>04-0740</td>
<td>Screw, 1/4 - 20 x 1.000, Hex Hd with Washer</td>
</tr>
<tr>
<td>3</td>
<td>08-0315</td>
<td>Tube, Drain, Front</td>
</tr>
<tr>
<td>4</td>
<td>02-0047</td>
<td>O-Ring</td>
</tr>
<tr>
<td>5</td>
<td>82-3717/02</td>
<td>Control Box Assy, CPU, FCOJ</td>
</tr>
<tr>
<td>6</td>
<td>82-1832</td>
<td>Evaporator Coil Assy</td>
</tr>
</tbody>
</table>

![Diagram of electrical components](image-url)
<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>04-0750</td>
<td>Screw, 6 - 32 x 2.812, Pan Hd</td>
</tr>
<tr>
<td>2</td>
<td>82-3707</td>
<td>Top Cover Assy</td>
</tr>
<tr>
<td>3</td>
<td>04-0788</td>
<td>Screw, 6 - 32 x 0.438, Binder Hd</td>
</tr>
<tr>
<td>4</td>
<td>04-0741</td>
<td>Screw, 6 - 32 x 0.375, Pan Hd</td>
</tr>
<tr>
<td>5</td>
<td>52-1668</td>
<td>Key Switch Assy</td>
</tr>
<tr>
<td>6</td>
<td>82-3762</td>
<td>Wrapper Assy</td>
</tr>
<tr>
<td>7</td>
<td>04-0792</td>
<td>Screw, 6 - 32 x 0.875, Binder Hd</td>
</tr>
<tr>
<td>Item</td>
<td>Part No.</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>82-3696</td>
<td>Door Assy, FCOJ, 2V</td>
</tr>
<tr>
<td>2</td>
<td>54-0420</td>
<td>Grill, Drip Tray</td>
</tr>
<tr>
<td>3</td>
<td>04-0591</td>
<td>Screw, 6 - 19 x 0.563, Flat Hd, Plastite</td>
</tr>
<tr>
<td>4</td>
<td>02-0409</td>
<td>Seal, Spout</td>
</tr>
<tr>
<td>5</td>
<td>81-0405</td>
<td>Spring, Gas, 30#</td>
</tr>
<tr>
<td>6</td>
<td>82-3789</td>
<td>Drop-Cup-Rest Assy</td>
</tr>
<tr>
<td>7</td>
<td>04-0477</td>
<td>Screw, 8 - 32 x 0.375, Pan Hd, ROLOK</td>
</tr>
<tr>
<td>8</td>
<td>05-1284</td>
<td>Drip Tray with Drain</td>
</tr>
<tr>
<td></td>
<td>05-1284-01</td>
<td>Drip Tray without Drain</td>
</tr>
</tbody>
</table>
### 7.8 UNPACKING DETAIL

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>04-0783/01</td>
<td>Screw, 0.375-16 x 1.250, Flat Hd</td>
</tr>
<tr>
<td>2</td>
<td>90-1310</td>
<td>Shipping Board</td>
</tr>
<tr>
<td>3</td>
<td>07-0211</td>
<td>Washer</td>
</tr>
<tr>
<td>Item</td>
<td>Part No.</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>04-0716</td>
<td>Screw, 6 - 19 x 1.862, Pan Head</td>
</tr>
<tr>
<td>2</td>
<td>05-0707</td>
<td>Retainer, Soda Solenoid</td>
</tr>
<tr>
<td>3</td>
<td>10-0269</td>
<td>Plug, Nut, Solenoid</td>
</tr>
<tr>
<td>4</td>
<td>02-0089</td>
<td>O-Ring</td>
</tr>
<tr>
<td>5</td>
<td>81-0407</td>
<td>Bonnet, Solenoid, Nickel Plated</td>
</tr>
<tr>
<td>6</td>
<td>04-0820</td>
<td>Washer, Solenoid</td>
</tr>
<tr>
<td>7</td>
<td>02-0354</td>
<td>O-Ring</td>
</tr>
<tr>
<td>8</td>
<td>04-0549</td>
<td>Screw, 6 - 19 x 0.625, Pan Head</td>
</tr>
<tr>
<td>9</td>
<td>04-0270</td>
<td>Screw, 6 - 19 x 0.910, PHD, PH/SL. PLT</td>
</tr>
<tr>
<td>10</td>
<td>05-0959/01</td>
<td>Body, Solenoid Valve</td>
</tr>
<tr>
<td>11</td>
<td>05-0967/02</td>
<td>Retainer, Solenoid Valve</td>
</tr>
<tr>
<td>12</td>
<td>52-2994</td>
<td>Wire Assy, Flow Meter, with Coil, FCOJ</td>
</tr>
<tr>
<td>Item</td>
<td>Part No.</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>30-9580</td>
<td>Plate, Agitator, Premia</td>
</tr>
<tr>
<td>2</td>
<td>50-0454</td>
<td>Insulation, Refrigeration Deck</td>
</tr>
<tr>
<td>3</td>
<td>82-1832</td>
<td>Evaporator Coil Assy</td>
</tr>
<tr>
<td>4</td>
<td>23-1052</td>
<td>Condenser</td>
</tr>
<tr>
<td>5</td>
<td>30-10014</td>
<td>Shroud, Fan</td>
</tr>
<tr>
<td>6</td>
<td>04-0504</td>
<td>Screw, 8 - 18 x 0.375</td>
</tr>
<tr>
<td>7</td>
<td>52-3020</td>
<td>Motor, Fan, 115V</td>
</tr>
<tr>
<td>8</td>
<td>23-1406</td>
<td>Grill, Condensor Fan</td>
</tr>
<tr>
<td>9</td>
<td>04-1512</td>
<td>Screw, 6 - 32 x 1.875, Pan Head</td>
</tr>
<tr>
<td>10</td>
<td>52-1882-01</td>
<td>Control Housing Assy, EIBC III</td>
</tr>
<tr>
<td>11</td>
<td>04-0148</td>
<td>Screw, 10 - 32 x 0.250, SS</td>
</tr>
<tr>
<td>12</td>
<td>30-8656</td>
<td>Bracket, EIBC</td>
</tr>
<tr>
<td>13</td>
<td>06-2991</td>
<td>Label, Wiring Diagram</td>
</tr>
<tr>
<td>14</td>
<td>83-0045</td>
<td>Compressor</td>
</tr>
<tr>
<td>15</td>
<td>03-0150</td>
<td>Retainer Clip</td>
</tr>
<tr>
<td>16</td>
<td>04-0537</td>
<td>Washer, Flat, 0.467 ID</td>
</tr>
<tr>
<td>17</td>
<td>47-3985</td>
<td>Tube, Comp, Long</td>
</tr>
<tr>
<td>18</td>
<td>23-0982</td>
<td>Dryer Cap Assy</td>
</tr>
<tr>
<td>19</td>
<td>47-4103</td>
<td>Tube, Process, 0.375, OD</td>
</tr>
<tr>
<td>20</td>
<td>02-0114</td>
<td>Grommet</td>
</tr>
<tr>
<td>21</td>
<td>50-0211</td>
<td>Boot</td>
</tr>
<tr>
<td>22</td>
<td>51-0543</td>
<td>Accumulator</td>
</tr>
<tr>
<td>23</td>
<td>47-3984</td>
<td>Tube, Compressor, Short</td>
</tr>
<tr>
<td>24</td>
<td>47-0344</td>
<td>Tube Process, 950</td>
</tr>
<tr>
<td>25</td>
<td>47-0725</td>
<td>Tube Process</td>
</tr>
<tr>
<td>26</td>
<td>47-4105</td>
<td>Tube, Discharge</td>
</tr>
<tr>
<td>27</td>
<td>52-1897</td>
<td>Probe, Ice Bank Control</td>
</tr>
<tr>
<td>28</td>
<td>04-0394</td>
<td>Screw, 6 - 32 x 0.500, SS</td>
</tr>
<tr>
<td>29</td>
<td>30-8241</td>
<td>Bracket, Probe Assy</td>
</tr>
<tr>
<td>30</td>
<td>04-1261</td>
<td>Screw, 6 - 32, Pan Head, SS</td>
</tr>
<tr>
<td>31</td>
<td>04-0062</td>
<td>Plug, Fill Cap</td>
</tr>
<tr>
<td>32</td>
<td>05-0377</td>
<td>Propeller</td>
</tr>
<tr>
<td>33</td>
<td>30-5113/01</td>
<td>Bracket, Agitator Motor</td>
</tr>
<tr>
<td>34</td>
<td>04-0504</td>
<td>Screw, 8 - 18 x 0.375, Pan Head</td>
</tr>
<tr>
<td>35</td>
<td>91-0175</td>
<td>Motor, Agitator, 115V</td>
</tr>
<tr>
<td>36</td>
<td>04-0059</td>
<td>Screw, 8 - 36 x 0.375, Pan Head</td>
</tr>
<tr>
<td>37</td>
<td>02-0032</td>
<td>Washer, Rubber</td>
</tr>
<tr>
<td>38</td>
<td>02-0426</td>
<td>Seal, Probe</td>
</tr>
<tr>
<td>39</td>
<td>30-10012</td>
<td>Fan, Mount, Condenser</td>
</tr>
</tbody>
</table>
## 7.11 DOOR ASSEMBLY (CONTINUED)

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>02-0417</td>
<td>Seal, Door, Premia</td>
</tr>
<tr>
<td>2</td>
<td>04-0470</td>
<td>Screw, 6 - 19 x 0.500, PH</td>
</tr>
<tr>
<td>3</td>
<td>04-0135</td>
<td>Screw, 6 - 32 x 0.312, PH</td>
</tr>
<tr>
<td>4</td>
<td>05-1021/01</td>
<td>Hinge, Door, Premia</td>
</tr>
<tr>
<td>5</td>
<td>24-0031</td>
<td>Latch Assy, Door</td>
</tr>
<tr>
<td>6</td>
<td>05-0716/01</td>
<td>Clevis, Door, ITA, Premia</td>
</tr>
<tr>
<td>7</td>
<td>04-0789</td>
<td>Screw, 6 - 32 x 0.500, BH</td>
</tr>
<tr>
<td>8</td>
<td>04-0746/01</td>
<td>Washer, Spring, Wave Shape</td>
</tr>
<tr>
<td>9</td>
<td>05-1046</td>
<td>Stem, Lock, Lens, Door</td>
</tr>
<tr>
<td>10</td>
<td>04-0633/01</td>
<td>Screw, 6 - 19 x 0.437, PH</td>
</tr>
<tr>
<td>11</td>
<td>05-1027</td>
<td>Bracket, Solenoid</td>
</tr>
<tr>
<td>12</td>
<td>82-3695</td>
<td>Liner Assy, Door</td>
</tr>
<tr>
<td>13</td>
<td>05-1140/01</td>
<td>Cap, Lock, Lens, Door</td>
</tr>
<tr>
<td>14</td>
<td>52-2321</td>
<td>Harness Assy, Door, Juice</td>
</tr>
<tr>
<td>15</td>
<td>04-0618</td>
<td>Screw, 4 - 20 x 0.750, PH</td>
</tr>
<tr>
<td>16</td>
<td>05-2464</td>
<td>Spider, Door, BD Mount</td>
</tr>
<tr>
<td>17</td>
<td>52-2647/02</td>
<td>PCB Assy, FCOJ Door BD</td>
</tr>
<tr>
<td>18</td>
<td>52-2646</td>
<td>PCB Assy, Light Bd, FCOJ</td>
</tr>
<tr>
<td>19</td>
<td>52-1644</td>
<td>Harness Assy, Lamp, Solenoid, PCB</td>
</tr>
<tr>
<td>20</td>
<td>04-0477</td>
<td>Screw, 8 - 32 x 0.375, PH</td>
</tr>
<tr>
<td>21</td>
<td>06-2955</td>
<td>Graphic, Panel, PU</td>
</tr>
<tr>
<td>22</td>
<td>05-1045</td>
<td>Lens, Door, Premia</td>
</tr>
<tr>
<td>23</td>
<td>06-3030</td>
<td>Graphics, Film, Door, FCOJ</td>
</tr>
<tr>
<td>24</td>
<td>27-0031</td>
<td>Lens, Inner, Premia</td>
</tr>
<tr>
<td>25</td>
<td>54-0416</td>
<td>Shell Assy, Door, Juice</td>
</tr>
<tr>
<td>26</td>
<td>30-7886/01</td>
<td>Reflector, Light, Juice</td>
</tr>
<tr>
<td>27</td>
<td>52-2664</td>
<td>Harness, Door, PCB, Light, BD</td>
</tr>
<tr>
<td>28</td>
<td>04-0158/01</td>
<td>Screw, 4 - 20 x 0.375, PH</td>
</tr>
<tr>
<td>29</td>
<td>05-1151</td>
<td>Bracket, Connector, Premia</td>
</tr>
<tr>
<td>30</td>
<td>52-1458</td>
<td>PCB Assy, Connect</td>
</tr>
</tbody>
</table>
### 7.12 TOP COVER ASSEMBLY, DETAIL

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>54-0226</td>
<td>Top Cover, Sub-Assy</td>
</tr>
<tr>
<td>2</td>
<td>05-1019</td>
<td>Cover, Hinge, LH</td>
</tr>
<tr>
<td>3</td>
<td>05-1018</td>
<td>Cover, Hinge, RH</td>
</tr>
<tr>
<td>4</td>
<td>82-1523</td>
<td>Hinge Pin Assy, Left</td>
</tr>
<tr>
<td>5</td>
<td>82-1524</td>
<td>Hinge Pin Assy, Right</td>
</tr>
<tr>
<td>6</td>
<td>04-0135</td>
<td>Screw, 6 - 32 x 0.312, Pan Head</td>
</tr>
<tr>
<td>7</td>
<td>30-6346</td>
<td>Grid, Cover, Top</td>
</tr>
<tr>
<td>8</td>
<td>04-0747</td>
<td>Screw, 6 - 19 x 0.900, Flat Head</td>
</tr>
<tr>
<td>9</td>
<td>03-0245</td>
<td>Spring, Sold Out Light</td>
</tr>
<tr>
<td>10</td>
<td>05-1057</td>
<td>Retainer, Spring</td>
</tr>
<tr>
<td>11</td>
<td>52-2984</td>
<td>PCB, Back Panel, LED</td>
</tr>
<tr>
<td>12</td>
<td>52-1674</td>
<td>Wire Harness, Rear</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Back Panel, LED</td>
</tr>
</tbody>
</table>

![Top Cover Assembly Diagram](image_url)
7.13 ASSEMBLED UNIT
**NOTE:**

1. *•* DENOTES SLIP FIT O-RING CONNECTION POINT.
NOTES

Please refer to the Lancer web site (www.lancercorp.com) for information relating to Lancer Installation and Service Manuals, Instruction Sheets, Technical Bulletins, Service Bulletins, etc.