LANCER®

MINUTE MAID JUICE DISPENSER

Installation and Service Manual

PN 28-0586/03

2-Valve

4-Valve

85-3322	Two Valve, Push Button 115V/60 Hz
85-3332	Two Valve, Portion Control 115V/60 Hz
85-3324	Four Valve, Push Button 115V/60 Hz
85-3334	Four Valve, Portion Control 115V/60 Hz

Before Getting Started

Each dispenser is tested under operating conditions and is thoroughly inspected before shipment. At the time of shipment, the carrier accepts responsibility for the dispenser. Upon receiving the dispenser, carefully inspect the carton for visible damage. If damage exists, have the carrier note the damage on the freight bill and file a claim with carrier. Responsibility for damage to the dispenser lies with the carrier.

Your Service Agent:_____

Service Agent Telephone Number:_____

Serial Number:_____

LANCER CORP
6655 Lancer Blvd.
San Antonio, Texas 78219

To order parts, call
Canada
Customer Service: 800-218-2653
Warranty/Technical Suppor: 800-218-2653

United States
Customer Service: 800-729-1500
Warranty/Technical Support: 800-729-1550

Email: custserv@lancercorp.com
www.lancercorp.com

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SPECIFICATIONS FOR
2- and 4-Valve

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

WATER REQUIREMENTS:

MINIMUM flowing pressure of 35 PSIG (2.41 BAR), at a flow rate of six ounces per second (177 ml/sec)

MAXIMUM operating pressure of 90 PSIG (6.2 BAR)

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

2-Valve Specific

DIMENSIONS
WIDTH 10 1/8 inches (257 mm)
DEPTH 25 1/2 inches (648 mm)
HEIGHT 33 inches (838 mm)

WEIGHT
SHIPPING 125 pounds (56.7 kg)
EMPTY 112 pounds (50.8 kg)
OPERATING 160 pounds (72.6 kg)

REFRIGERATION
1/4 Horsepower (HP) Compressor, using R134-A refrigerant
10.0 pounds (+/- 2.0 pounds) (4.54 kg) ice bank weight
4.5 gallon (17.0 liter) water bath capacity

ACCESSORY
82-3789 Drop Down Drip Tray

4-Valve Specific

DIMENSIONS
WIDTH 18 1/16 inches (458 mm)
DEPTH 26 1/4 inches (667 mm)
HEIGHT w/o legs 29 5/8 inches (752 mm)
HEIGHT with legs 33 inches (838 mm)

WEIGHT
SHIPPING 170 pounds (77.270 kg)
EMPTY 140 pounds (109.09 kg)
OPERATING 305 pounds (138.64 kg)

REFRIGERATION
1/3 Horsepower (HP) Compressor, using R134-A refrigerant
21.0 pounds (+/- 2.0 pounds) (9.55 kg) ice bank weight
6.5 gallon (24.6 liter) water bath capacity

ACCESSORY
82-3751 Drop Down Drip Tray

1. INSTALLATION

1.1 SELECTING A LOCATION FOR THE DISPENSER
MAKE SURE THE LOCATION MEETS THESE REQUIREMENTS:

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

B. Ensure the location provides a minimum of four inches clearance on the sides and back of dispenser.

WARNING!
AVERTISSEMENT!

Ensure proper ventilation as follows:

2-Valve: Install on supplied legs. Do not seal to the countertop. Condenser air is drawn up through the bottom and exhausted out the back.

4-Valve: Install on supplied legs or sealed to the countertop using clear silicone R.T.V. sealant (not provided). Condenser air is drawn in through the back and exhausted out through the top.

Veiller à assurer la ventilation appropriée de la manière suivante:

2-Clapets: Fixer sur les pattes fournies. Ne jamais sceller au comptoir. L'air du condensateur est tiré vers le bas et évacué par l'arrière.

4-Clapets: Fixer sur les pattes fournies ou sceller au comptoir à l'aide de scellant de silicone résistant aux variations de température. L'air du condensateur est tiré vers l'arrière et évacué par le dessus.

1.2 UNPACKING

A. Remove outer packaging.

B. Slide a corner of the dispenser (on plywood shipping base) over the edge of the counter and remove shipping screw and washer.

C. Replace shipping screw and washer with a 3/8" x 16 stainless Phillips truss head from installation kit.

D. Repeat for remaining corners.

E. Slide dispenser off of plywood shipping base.

1.3 FILLING THE DISPENSER WITH WATER

The dispenser is fitted with a filling tube on the compressor deck. The 4-Valve dispenser (only) has a water bath drain located on the left side of the inner plate behind the splash plate. The water bath overflow is located in the back center of the product compartment, behind the front panel plate.

A. Remove the two screws securing the grill over the compressor deck.

B. Remove the grill.

C. Remove the filling tube plug from the filling tube.

D. Open the front doors to the product compartment

4-VALVE ONLY - Check that the drain is closed by gently turning the drain outlet clockwise. The drain fitting threads in and out, and seals with o-rings.

E. Use a funnel or tubing and add water through the filling tube until you observe a trickle from the overflow. You can see the overflow hole by looking through .. the peephole in the front panel plate with the aid of a flashlight. The overflow .. will drain to the drip tray.

F. Replace the plug on the filling tube.

G. Replace the grill on the compressor deck and secure with the two screws.

1.4 ALTERNATE METHOD: SIGHT TUBE (4-VALVE ONLY)

A. Connect a short length of the appropriate-sized clear tubing over the hose barbed end of the drain fitting (see Illustration 44 at end of manual).

B. Rotate the fitting counterclockwise to open the drain.

C. Open the doors, add water and hold the clear tube until the water level rises to the center of the hole on the pump platforms sheet metal.

D. Close drain by gently rotating the fitting clockwise. The drain fitting threads in and out and seals with o-rings.

E. Remove length of tubing.

1.5 CONNECTING THE WATER SUPPLY

Install the dispenser with adequate backflow protection to comply with applicable federal, state and local codes. This is an NSF requirement.

A. Install the dispenser with the water and electric supply entering through an access plate in the back of the wrapper, or through a hole in the countertop, directly into the dispenser.

B. Flush the water supply line thoroughly.

C. Remove drip tray by pulling up slightly, while lifting away from the dispenser.

D. Remove splash plate by pulling the bottom up slightly, then out from the dispenser.

E. The installation kit contains both a straight connector (for through the countertop) and an elbow connector (for through the back of the dispenser). Use the appropriate connector for the preferred set-up and securely attach to the included tubing with clamp.

F. Lubricate the o-rings on the fitting 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 dispenser and thread the tubing through the lower section of the machine and out the back.)

1.6 ELECTRICAL REQUIREMENTS

IMPORTANT SAFETY INSTRUCTIONS/CONSIGNES DE SÉCURITÉ IMPORTANTES

WARNING!
AVERTISSEMENT!

When using electric appliances, basic precautions should always be followed, including the following:

a) Read all the instructions before using the appliance.

b) Do not use outdoors.

c) Do not unplug by pulling on the cord.

d) For a grounded appliance, connect to properly grounded outlet only. See Grounding Instructions.

e) Unplug from outlet before servicing or cleaning.

Des précautions de base doivent toujours être suivies lorsque des appareils ménagers électriques sont utilisés, notamment :

a) Lire toutes les instructions avant d'utiliser l'appareil.

b) Ne pas utiliser à l'extérieur.

c) Ne jamais tirer sur le cordon pour débrancher l'appareil.

d) Brancher tout appareil devant être mis à la terre uniquement sur une prise avec mise à la terre. Voir les Instructions de mise à la terre.

e) Débrancher l'appareil de la prise avant de le réparer ou de le nettoyer.

1.7 GROUNDING INSTRUCTIONS/INSTRUCTIONS DE MISE à LA TERRE

For all grounded, cord-connected appliances/ Pour tout appareil à cordon avec mise à la terre:

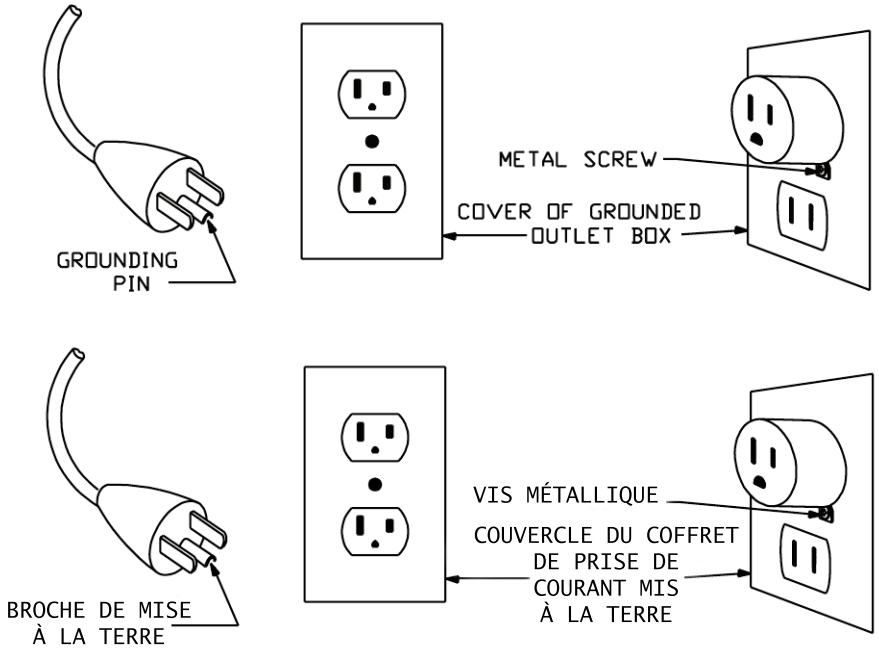
WARNING!
AVERTISSEMENT!

This appliance must be properly 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 electrical outlet is not available, use an approved method to ground the unit. In the event of malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

This appliance is for use on a nominal 120V (or 230V, as applicable) circuit, and has a grounding plug that looks like the plug illustrated below.

Cet appareil doit être mis à la terre de la manière appropriée afin d'éviter des chocs électriques mortels ou des blessures graves à l'opérateur. Le cordon d'alimentation est fourni avec une fiche à trois broches pour la mise à la terre. Utiliser une autre méthode approuvée pour mettre l'appareil à la terre lorsqu'une prise de courant de mise à la terre (trois trous) n'est pas disponible. Advenant une défaillance ou un bris, la mise à la terre fournit un trajet de moindre résistance pour le courant électrique afin de réduire le risque de choc électrique. Cet appareil est équipé d'un cordon ayant une fiche de mise à la terre. La fiche doit être branchée sur une prise appropriée correctement installée et mise à la terre conformément aux codes aux règlements locaux.

Cet appareil doit être utilisé sur un circuit de 120 V (ou 230V est d"application) nominal et comporte une fiche qui ressemble à la fiche illustrée ci-dessous.



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WARNING!
AVERTISSEMENT!

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green, with or without yellow strips, is the equipment-grounding conductor. If repair or replacement of the cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal. Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt whether the appliance is properly grounded. Do not modify the plug provided with the appliance. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

Un branchement inapproprié du conducteur de mise à la terre peut causer un risque de choc électrique. Le conducteur de mise à la terre est celui dont l'isolant a une surface extérieure verte (avec ou sans barres jaunes). S'il est nécessaire de réparer ou de remplacer le cordon ou la fiche, ne pas brancher le conducteur de mise à la terre sur un terminal sous tension. Faire appel à un électricien ou un réparateur qualifié si les instructions de mise à la terre ne sont pas complètement comprises ou si l'appareil ne semble pas être mis à la terre de la manière appropriée. Ne jamais modifier la fiche fournie avec l'appareil. Si elle ne s'insère pas dans la prise, demander à un électricien qualifié d'installer une prise appropriée.

A. Thread the power cord through the cutout in the back of the dispenser and plug the female end of the 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. There is a five minute delay timer on the compressor circuit. After that time, the compressor/ condenser fan will start and run continuously until a complete ice bank is built. This will take about two hours for the 2-Valve and four hours for the 4-Valve, depending on ambient air and the supplied water temperatures.

1.8 KEYLOCK SWITCH

The keylock switch, located on the lower right side of the dispenser, has three positions. These positions are:

OFF

The refrigeration system remains on but the door latch release solenoids are disabled. The merchandising panels are not lit and no product can be dispensed.

ON

The refrigeration system remains on, the door latch release solenoids are disabled, the front merchandising panels are lit, and product can be dispensed.

RINSE

The refrigeration system remains on, the door latch release solenoids are enabled, the front merchandising panels are lit, and product cannot dispense. Set-up and Diagnostics are performed in this position.

2. SERVICE MENU OVERVIEW

2.1 ACCESSING THE SERVICE MENU

The service menu is accessed by switching the DIP switch (found between the rear soldout indicator connector and the door connectors or on the bottom part of the board) from position 1 to **ON**. Normal operating mode is restored by switching DIP switch to **OFF**. When in service mode, the rightmost display will show the service menu, and the other displays will flash "**SERVICE MODE**".

2.2 SERVICE MENU CONTROLS

Navigate the service menu by pressing the * and # buttons to move up or down the list. Press the (**POUR/CANCEL)** button to accept the current selection. When presented with a **Yes/No** option, the * button will select No and the # button will select Yes.

2.3 CHANGING MENU LANUAGE

The “Change Language” item allows the user to change the active language. The selected language will be used for all text displayed on the LCDs.

2.4 SOLD OUT LOCK OUT OPTIONS

The **SOLD OUT LOCKOUT** item allows the user to change the sold out system features.

STOP DISPENSE	When sold out is detected, product cannot be dispensed.
ONLY DISPLAY SO	When sold out is detected, the operator is notified, but product can still be dispensed.
DISABLE ALL	Unit overrides and ignores when a sold out is detected.

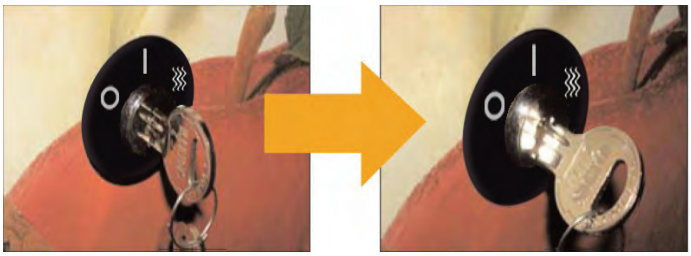
3. OPERATING INSTRUCTION

3.1 PRODUCT LOADING/UNLOADING

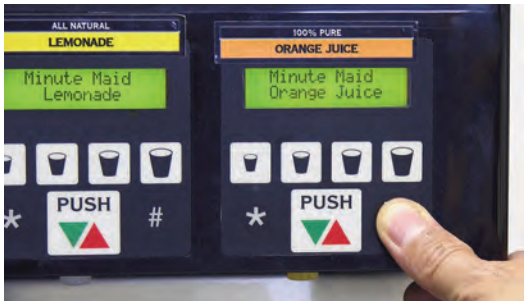
A. Thaw the Minute Pak® in a 40°F (4.4°C) cooler for 48-72 hours.

B. Shake the Minute Pak®.

C. Turn key to **FLUSH** mode.



D. Open dispenser door by pressing **#** button on door panel, then lifting door.



E. Install the Minute Pak® into the appropriate flavor slot. Insert check valve into the Minute Pak® opening.

F. Close door.

3.2 PRIMING THE UNIT

A. Prime pump using the ✱ key. Dispense concentrate juice until the product appears consistent.

B. Turn key to ▌(**ON)**.

3.3 PURGING THE WATER SYSTEM OF AIR

A. Turn key 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** button until a clear stream is observed.

C. Purge the remaining valves the same way, progressing to your right.

D. Turn the key back to the ▌(**ON)** position.

E. Dispense a small amount from each valve until product is visible in the stream. The dispenser is ready to operate.

3.4 SOLD OUT OPERATIONS

When the display shows **SOLD OUT** or **CHANGE PACKAGE**, follow the loading procedures to change the package.

Priming will reset the **SOLD OUT** feature. It is important to prime completely for the **SOLD OUT** feature to work correctly.

3.5 SETTING RATIOS

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

B. Turn key to ⧛ **(FLUSH)**.

C. Enter juice selection programming mode by simultaneously pressing the ✱ and # buttons.

D. Toggle up or down to select juice type. Press ✱ to scroll up. Press # to scroll down.

E. Press **PUSH** button to set.

F. For non-standard brands, toggle to **"Other Custom"** (*see below) and simultaneously press the ✱ and # buttons.

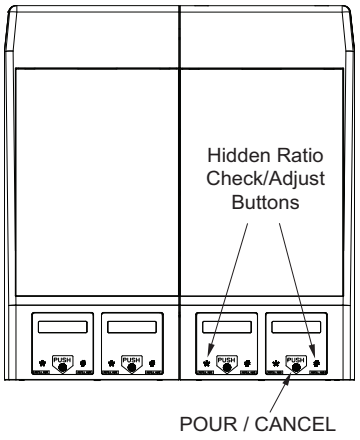
- **The display will default to 5:1.**
- **The left button will decrease ratio by .25 ratio units**
- **The right button will increase by .25.**

*** Other Custom**

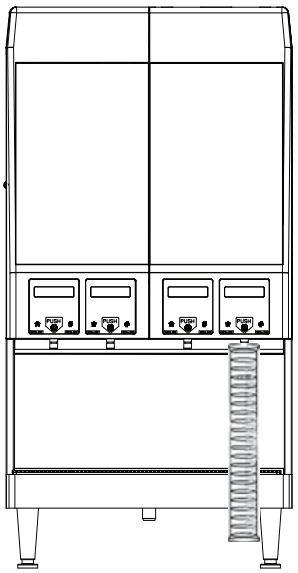
3.6 CHECK/ADJUST RATIOS

A. To check and/or adjust the ratio separately, measure the amount of water and finished product dispensed into a graduate cylinder. Adjust the finished product to equal the volume of water dispensed. To do this:

- Turn keyswitch to ≋ **(FLUSH)**.
- Press the * and # buttons on outside edge of door panel at the same time to access the Ratio Mode.



B. Press and release the PUSH button. Water will pour automatically. use a 500 ml graduate cylinder to collect dispensed water. Note level of water. 450 ml should pour into cylinder. Each band is 5 ml. If off more than two bands, troubleshoot water sub-system. Discard water sample.



C. Replace cylinder under nozzle and press **PUSH**. Discard first sample. Finished product will dispense. Discard finished product.

D. Replace cylinder under nozzle and press **PUSH**. Finished product will dispense - the target is the same as "water only" level in that was measured in Step B. If within 5 ml, return to operation.

E. If finished product volume does not qual water volume, adjust the ratio by pushing * and # buttons.

- Press **PUSH** and check volume again.
- Repeat until correct.

For example:

- If the ratio is four bands below, toggle down to -4 using the * and # buttons.

  If the ratio is three bands above water level, toggle up to +3. Press **PUSH** and check volume again.

  When the volume of finished product matches the water level, turn key to ▌ **(ON)** position to return dispenser to service.

3.7 DISPENSING CONFIGURATIONS

The dispenser has two different dispensing configurations, depending on the model. These configurations are:

PUSH and HOLD

The touch sensor switch is pressed to start dispensing and released to stop dispense.

- Place a vessel on the target located on the cup rest.
- Press and hold the **PUSH** (on select models)button to start the flow of product.
- Release the pressure on the button to stop the flow of product.

PORTION CONTROL

In this option, each valve can be individually programmed to dispense four different volumes. The valve will dispense the programmed volume amounts when the corresponding button on the touch sensor switch is activated.

- Place a vessel on the target located on the cup rest.
- Activate the program mode for that valve by simultaneously pressing the **"Small"** and **"Extra Large**" buttons.

- Place a glass on the target on the cup rest and press the corresponding button.
- Continue holding the button until the proper fill level is obtained.
- Use the same procedure to set the fill volume for other sizes.
- Push the **PUSH** button to exit the program mode.

(CONTINUED ON NEXT PAGE)

The program will automatically store the last fill volume that was dispensed through the selected button size before the program was exited.

- Follow the same procedures to set the fill volume for the remaining valves. Since the volume setting are unique to each valve, each valve can have four different dispense volumes. For example, Lemonade in valve position one could have a different dispense volume (i.e. **"Small", "Medium"**, etc) than Orange Juice in valve position two.

4. CLEANING AND SANITIZING

4.1 General Information

Lancer equipment is shipped from the factory cleaned and sanitized in accordance with NSF guidelines. After installation, it is the responsibility of the installer to clean and sanitize the dispenser again. The operator of the equipment must provide continuous maintenance as required by this manual and state and local health department guidelines to ensure proper operation and sanitation requirements are maintained.

For optimum dispenser performance and highest drink quality, follow the instructions listed for cleaning your dispenser. The instructions are also on the inside front cover of the dispenser. Cleaning and sanitizing should be accomplished only by trained personnel.

4.2 CLEANING AND SANITIZING SOLUTIONS

USE SANITARY GLOVES.
OBSERVE APPLICABLE SAFETY PRECAUTIONS.

TO AVOID CONTAMINATION AND DAMAGE TO UNIT

DO NOT disconnect water lines when cleaning and sanitizing syrup lines.

DO NOT use strong bleaches or detergents.

DO NOT use metal scrapers, sharp objects, steel wool, scouring pads, abrasives, or solvents on the dispenser.

DO NOT use hot water above 140°F (60°C).

If a powder sanitizer is used, dissolve it thoroughly with water prior to adding to the syrup system. The use of hot water will help dissolve powder sanitizers. Ensure sanitizing solution is removed from the dispenser as instructed. Residual sanitizing solution creates a health hazard.

WARNING!
AVERTISSEMENT!

Avoid getting sanitizing solution on circuit boards.
Ensure all sanitizing solution is removed from the system.

Avant l'injection dans le système, il faudra que la poudre septique soit dissolue entièrement dans l'eau. L'eau chaude permettra un meilleur procès de dissolution. Suivant les instructions jointes, il est impératif que la solution septique soit entièrement enlevée. Les restes de cette solution septique contiennent des risques pour la santé.

Evitez de mettre la solution en contact avec les circuits.
Enlevez la solution septique du système entier.

CLEANING SOLUTION: Mix a mild, non-abrasive detergent with clean, potable water at a temperature of 90 to 110°F (32 to 43°C). The mixture ratio is one ounce of cleaner to two gallons of water. Prepare a minimum of five gallons of cleaning solution. Do not use abrasive cleaners or solvents because they can cause permanent damage to the unit. Rinsing must be thorough, using clean, potable water at a temperature of 90 to 110°F (32 to 43°C). Extended lengths of product lines may require that an additional volume of cleaning solution be prepared.

SANITIZING SOLUTION: Prepare sanitizing solutions in accordance with the manufacturer's written recommendations and safety guidelines. The solution must provide 50 to 100 parts per million (PPM) chlorine. A minimum of five gallons of sanitizing solution should be prepared. Any sanitizing solution may be used as long as it is prepared in accordance with the manufacturer's written recommendations and safety guidelines, and provides 50 to 100 parts per million (PPM) chlorine. Extended lengths of product lines may require that an additional volume of sanitizing solution be prepared.

Other Supplies Needed:

- Sanitary gloves
- Clean cloth towels
- Extra nozzle
- Bucket
- Small brush (PN 22-0017), included with installation kit

4.3 DAILY - CLEANING

A. Turn the key to **(FLUSH)** position.

B. Flush each valve until only clear water is dispensed.

C. Remove and wash drip tray and cup rest in cleaning solution. Rinse thoroughly with warm water and reinstall drip tray and cup rest to dispenser.

D. Wipe down any areas where concentrate may have spilled or beverages splashed.

E. If doors were opened to wipe soiled areas, close the doors.

F. Ensure the drain tube into the drip tray is properly seated.

G. Follow the Product Loading procedures in the **(ON)** Mode.

4.4 EVERY TWO WEEKS - CLEANING AND SANITIZING

A. Turn key to **(FLUSH)** position. Flush each valve of dispenser until clear water flows from the nozzle.

B. Open door and lift up the check valve (yellow elbow) to remove it from the Minute Pak® container.

C. Remove Minute Pak® container from dispenser and refrigerate.

D. Remove Nozzles.

E. Wash thoroughly with cleaning solution.

CAUTION!
ATTENTION!

Do not soak nozzles in chlorine solution overnight. This will cause the nozzles to swell and the plastic to deteriorate.

Défense de tremper les nozzles dans une solution de chlore. Ce produit endommagera le plastic et fera gonfler les nozzles.

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F. Rinse thoroughly with warm water and replace.

G. Using a funnel, fill the specially-marked sanitizing container to the top with cool sanitizing solution. Place sanitizing container in dispenser.

H. Place check valve in sanitizing container.

I. Press ✱ button for two minutes ensuring concentrate lines are full of solution. Let solution stand for five minutes without dispensing.

J. For each valve, perform a second two-minute dispense and let stand for an additional five minutes.

K. Press ✱ button until the sanitizing solution empties from the sanitizing container.

L. Remove check valve from sanitizing container, remove sanitizing container, and pour out any sanitizing solution that remains in the container.

M. Repeat for each valve.

N. Reinstall Minute Paks®, and connect check valves in containers. Replace nozzles.

O. Using the ✱ button, run the pump until only concentrate is dispensed, to remove traces of sanitizing solution from the dispenser.

CAUTION!
ATTENTION!

A fresh water rinse cannot follow sanitization of equipment. Purge only with the end use product until there is no aftertaste. This is an NSF requirement. Residual sanitizing solution can cause health hazards.

Défense de rincer l'outil à l'eau fraiche immédiatement après un traitement septique. En cas de après-goût, ne purger avec le produit final; une exigence NSF. Les restes de cette solution septique contiennent des risques pour la santé.

P. Remove drip tray and cup rest. Wash thoroughly with cleaning solution. Rinse thoroughly with warm water.

Q. Wipe the dispenser with a clean, damp cloth, taking care to remove all product residue.

R. Replace drip tray, and cup rest.

S. Return key to ▌ (**ON)** position.

T. Pour approximately two ounces of finished drink product to fill nozzle.

5. RELOCATING OR SHIPPING DISPENSER

5.1 REMOVING AN OPERATING DISPENSER

A. Remove concentrate packages.

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.

D. Remove the inlet fitting from the valve, leaving the valve connected to the dispenser.

E. Remove the water inlet line either through the access plate in the back of the dispenser or through the bottom, depending on how the dispenser was installed.

F. Turn the key to O (OFF) and disconnect the power cord from the electrical outlet.

G. Attach a suitable length of drain tubing to the drain outlet.

H. Place the free end of the drain tubing in a suitable receptacle (i.e. a floor drain or a five gallon container) and rotate the barbed section counterclockwise approximately 2.5 turns. The fitting has a hexagonal section at the base to facilitate rotation.

I. Turn the barbed end clockwise approximately 2.5 turns to close drain and remove drain tubing.

J. The dispenser will have up to 21 pounds (9.5 kg) of ice attached to the evaporator coils. If the dispenser is to be shipped, remove the ice first by refilling the dispenser with moderately hot water through the filling tube on the compressor deck (to melt the ice). Then drain the water from the dispenser.

5.2 TRANSPORTING DISPENSER

If a dispenser is to be shipped, it must be secured to the plywood shipping base and repacked in the original carton with the inner packing material.

WARNING!
AVERTISSEMENT!

Do not lay dispenser on its side or back.

Défense de bouger l'outil vers le dos ou le côté.

6. REPAIR AND REPLACEMENT

6.1 LIGHTED FRONT DISPLAY

A. Turn key to **(FLUSH).**

B. Open dispenser door (press **#** button on each door to open left and right doors). Lift the door.

C. Turn the lens release handles on the lower part of the door liner 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. Rotate on the top edge until the locking tabs at the bottom clear the door shell and the hold tabs on the top edge can be disengaged.

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.

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.

6.2 DOOR REMOVAL/REPLACEMENT

A. Turn key to **(FLUSH)**. Press **#** key.

B. Open door. Turn key to (OFF) and disconnect the harness at the top of the door. Note: each door has an emergency release, in the event of a power outage or door malfunction, located in the bottom plate between the two product outlets. To release the latch, insert a small 5/16” diameter object into the release hole and gently push upward to open the door.

C. 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 the way.

D. 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.

E. Remove the door.

6.3 DOOR BOARD REMOVAL/REPLACEMENT

A. Follow Door Removal instructions above.

B. Remove the lens.

C. Remove the four screws on the back side of the door that secure the liner to the door shell. 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.

Door boards must be set prior to install for portion control or push button.

E. Replace the door board and secure the spiders.

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 dispenser.

G. Secure door shell to the door liner with the four screws.

H. Install the door lens.

6.4 ELECTRONIC LIGHT BOARD REMOVAL/REPLACEMENT

A. Turn key to ⧛ (**FLUSH)**. Press **#** key.

B. Remove the lens and door shell.

C. Remove the two 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 screws.

H. Replace lens assembly.

6.5 DOOR LATCH SOLENOID REMOVAL/REPLACEMENT

A. Turn key to ⧛ (**FLUSH)**. Press **#** key.

B. Open door and remove the four screws that secure the solenoid mounting bracket to the interior surface of the door liner.

C. Gently slide the bracket out of the door liner and unplug the connector.

D. Connect harness and slide door latch assembly into slots in back of door liner. Secure with mounting screws.

6.6 DOOR SEAL REMOVAL/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 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.

6.7 GAS STRUT REMOVAL/REPLACEMENT

A. Turn key to **FLUSH**. Press **#** key.

B. Open door.

C. 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 the way.

D. Remove the pin that secures the gas spring to the top clevis in a similar way.

E. Align the hole in the large end of the gas spring with the clevis that is mounted to the top of the dispenser's interior.

F. Insert the retaining pin.

G. 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.

6.8 CONDENSER FAN MOTOR REMOVAL/REPLACEMENT

2-VALVE

A. Unplug dispenser.

B. Remove drip tray, cup rest and splash plate.

C. Remove thumbscrew on control box and swing out of the way.

D. Disconnect fan from bulkhead connector.

E. Remove two screws that mount the fan to the condenser shroud and remove the finger guard and fan.

F. Replacement is the reverse of removal.

4-VALVE

A. Unplug dispenser.

B. Remove the two screws that secure the top grill to the top cover. 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. Remove the motor/fan assembly.

E. Replacement is the reverse of removal.

6.9 AGITATOR MOTOR REMOVAL/REPLACEMENT

A. Unplug dispenser and remove the grill from the top cover.

4-VALVE ONLY: Remove the four screws that mount the condenser fan to the deck, and move the motor/fan assembly out of the way.

B. Unplug harness connecting agitator motor to the ice bank control box.

C. Remove screws securing the motor bracket to the deck plate. Withdraw the agitator motor vertically until the propeller clears the deck.

D. Replacement is the reverse of removal.

6.10 ICE BANK CONTROLLER REMOVAL/REPLACEMENT

A. Unplug dispenser and remove the grill from the top cover.

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.

E. Push the card straight down, seating the board firmly in the edge connector.

F. 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.

6.11 TOP COVER REMOVAL/REPLACEMENT

A. Remove the doors.

B. Remove the two outer screws on the top face of each door frame.

C. **2-Valve only:** remove the three screws on the back of the top cover that secure the top cover to the frame.

   4-Valve only: there are six screws on the top face of the door frame; however, the middle screw above each door opening is not used to secure the top cover.

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.

6.12 REFRIGERATION DECK REMOVAL/REPLACEMENT
4-VALVE ONLY (2-VALVE IS NOT REMOVABLE)

A. Unplug dispenser.

B. Remove the top cover.

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.

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 the suitable location selected, resting it on the bottom surface of the ice.

Obtain assistance - if necessary - in order to lift the deck straight up. This will 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.

L. Replace the top cover.

6.13 SOLD OUT SENSOR REMOVAL/REPLACEMENT

A. There is one sensor for each valve.

B. Remove the concentrate packages.

C. Turn key to **(OFF).**

D. Remove nozzle from water fitting and concentrate delivery tube.

E. Remove the platform base(s).

F. Remove the screws that secure the pump assembly platform to the cabinet.

G. Tilt the pump assembly platform base forward.

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

I. Disconnect the waterproof connector.

J. Replacement is the reverse of removal. Lubricate o-rings on install to avoid air bubbles.

K. Calibrate the Sold Out using the following procedure:

- **Securely close both doors.**
- On the control box, switch position 1 of SW3 (found between the back soldout indicator and the door connectors) to **ON.**
- Turn key to **(FLUSH).** The right display will show the service menu. All others will flash “SERVICE MODE”.
- The display will show “**Calibrate SO”** to calibrate a sold out module. Make sure the soldout(s) are empty and contain only air.
- The display will ask if you want to calibrate all or an individual valve.
- The decision will be confirmed and **“Calibrating”** will show on the display.
- When calibration is complete, the results **“OK”** or **“Fail”** will show on the display.
- 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.
- Turn dispenser off.
- Switch position 1 of SW3 to **OFF.**
- Turn dispenser on.

6.14 PRODUCT CHAMBER CIRCULATION FAN REMOVAL/ REPLACEMENT

A. Remove the concentrate product.

B. Turn key to **O (OFF).**

C. Remove nozzle from the water fitting and concentrate delivery tube.

D. Remove the platform base(s).

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

F. Tilt the pump assembly platform base forward.

G. Rotate the assembly to provide access to the connector. Unplug the connector and remove the assembly.

H. Remove the four screws that secure the fan assembly to the back plate.

I. Replacement is the reverse of removal.

6.15 WATER CALIBRATIONS VALVE/FLOW WASHER REMOVAL/ REPLACEMENT

A. Remove the concentrate product.

B. Turn key to **O (OFF).**

C. Remove nozzle from the water fitting and concentrate delivery tube.

D. Remove the platform base(s).

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

F. Tilt the pump assembly platform base forward.

G. Disconnect waterproof connectors on solenoid and flowmeter.

H. Slide the two retainers on the top and bottom of the water calibrations valve assembly to the “disengage” position.

I. Push the water calibrations valve assembly down until the outlet connector tube telescopes into the base of the unit.

J. While holding the outlet connector tube, lift up on the water calibrations valve assembly to disengage it from the outlet connector tube.

K. 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.

(CONTINUED ON NEXT PAGE)

L. Replacement is as follows:

- Place the flow washer in the end of the connector tube, being careful to place the concave side of the flow washer down.
- 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.
- Lift up on the water calibrations valve assembly to withdraw the outlet connector tube from the base of the dispenser, and fit the assembly to the manifold outlet.
- Secure the water calibrations valve assembly to the manifold outlet by sliding the retainer to the locked position.
- Replacement is the reverse of removal.

6.16 NOZZLE REMOVAL/REPLACEMENT

A. Remove nozzle from water fitting and concentrate delivery tube.

B. Install the nozzle in the dispenser, use caution to avoid damaging the o-ring.

6.17 ELECTRONICS REMOVAL/REPLACEMENT

When removing or replacing control box power supply, electronic board, refer to **STEP 6.13 K** to calibrate **SOLD OUT** feature.

WARNING!
AVERTISSEMENT!

Disconnect power before removing power box.

Débranchez l'électricité avant le démontage de la boîte électrique ainsi que pour l'enlèvement des circuits électroniques.

2-Valve Control Box Removal/Replacement

A. Remove drip tray, splash plate and thumb screw.

B. Disconnect power cord.

C. Lift control box of studs and remove.

D. Replacement is the reverse of removal.

(CONTINUED ON NEXT PAGE)

4-Valve Power Supply Removal/Replacement

A. Remove the drip tray by gently lifting the drip tray up and away from the dispenser.

B. Remove the splash plate by pulling the bottom up slightly, then out from the dispenser. If there is a drop down drip tray, first remove the two screws holding the drip tray.

C. Remove the drain tube from the bracket (mounted on the side of the power supply box) by pulling up until it clears the bracket.

D. Disconnect the main power feed lead and the harness to the compressor deck from the transformer box.

E. Disconnect the power feed harness at the electronics box screws that exit from the power supply box.

F. Remove the two screws that secure the power supply box to the power supply bracket and remove the power box.

G. Replacement is the reverse of removal.

4-Valve Electronics Board Removal/Replacement

A. Remove drip tray, splash plate and thumb screw.

B. Unplug the power harness from the power supply, the two door harnesses, the keyswitch, and the back LED harness from the CPU.

C. Remove pin.

6.18 STEPPER MOTOR REMOVAL/REPLACEMENT

There is one stepper motor for each valve.

A. Remove the concentrate product.

B. Turn key to **O (OFF)**.

C. Remove nozzle from the water fitting and concentrate delivery tube.

D. Remove the platform base(s).

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

F. Tilt the pump assembly platform base forward.

G. Remove the four 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.

6.19 WRAPPER REMOVAL/REPLACEMENT

A. Unplug dispenser.

B. Remove drip tray and splashplate.

C. If dispenser is plumbed through wrapper hole at the back of the unit, turn water supply **OFF.**

D. Turn water ball valve to **OFF** position. Remove water supply, including ball valve (this will prevent water from draining from the water supply), from the dispenser. Remove power cord from dispenser.

E. Remove doors.

F. Remove top cover.

G. Unplug keyswitch from electrical box.

H. All wrapper screws are located on the left and right vertical faces on the front of the dispenser.

- Splash plate area: Remove all six screws.
- Door area: There are five screws on each side. Loosen the second and fourth screws.

I. Spread the wrapper apart at the front of the dispenser, and then carefully remove wrapper.

J. Replacement is reverse of removal.

7. TROUBLESHOOTING

7.1 REFRIGERATION SYSTEM

WARNING!
AVERTISSEMENT!

The compressor deck is fed by line voltage. Disconnect power before attempting to repair any components on the deck.

Le compresseur est alimenté en direct par un voltage en ligne. Débranchez l'électricité avant la réparation d'un des composants du deck.

The refrigeration system 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 must be in water for the compressor to run. The module also has a delay (approximately five 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.

7.2 RESET TO FACTORY DEFAULTS

The **"Factory Defaults"** item will restore the settings to the defaults. You will be asked to confirm this action. When you select **YES**, the dispenser will reset and start up with the defaults. On older units, if the unit is a **2-Valve** unit, you will need to set it back to **2-Valve**, as the default setting is **4-Valve**.

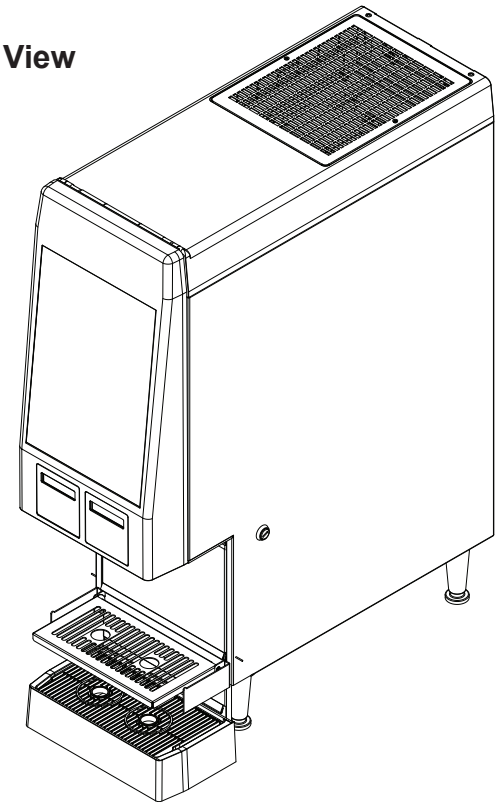
7.3 TROUBLESHOOTING GUIDE

TROUBLE	CAUSE	REMEDY
Compressor does not turn off. Dispenser “frozen” up.	Possible relay failure on ice bank control board.	Check LEDs on PCB. If Green light is on and red light is off, replace printed circuit board.
	Probe moved out of proper location. Faulty probe.	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.
Compressor will not run. *Note:* *The ice bank controller has a delay on start of initial power up or after interruption of power. Wait at least five minutes before troubleshooting.*	Dispenser not connected to electrical outlet.	Connect dispenser power cord to electrical outlet.
	Power supply electrical breaker tripped or fuse blown.	Reset circuit breaker or replace fuse. If problem persists: - check dispenser for electrical short. - electrical circuit overloaded.
	No water in water bath.	Check water bath and add until over-flow is observed.
	Faulty thermal overload on compressor.	Check overload on compressor. Replace if required.
	Compressor deck not plugged into power supply.	Plug compressor deck in.
	Ice bank not plugged in to ice bank control PCB.	Plug probe in to ice bank control PCB.
	Faulty ice bank control PCB.	Replace ice bank control PCB.
	Faulty compressor.	Replace compressor deck.

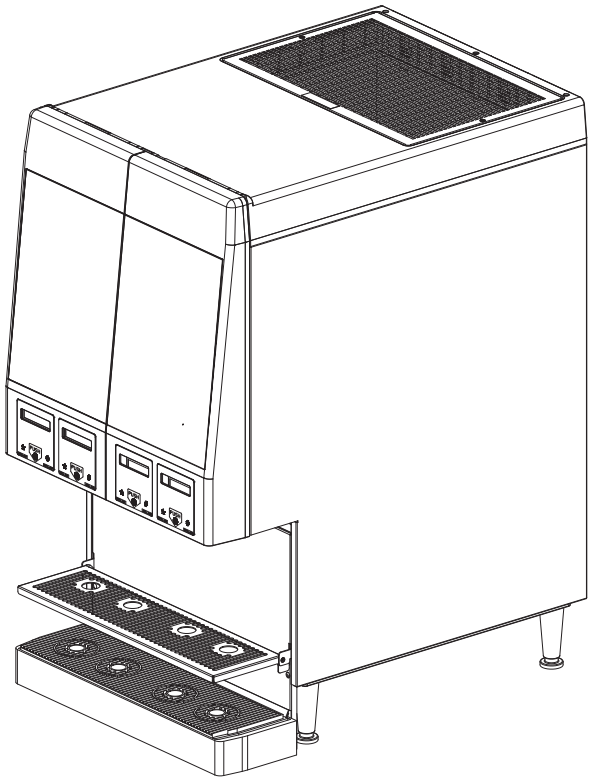
NOTES

8. ILLUSTRATIONS, PARTS LISTINGS, WIRING AND WATER FLOW DIAGRAMS

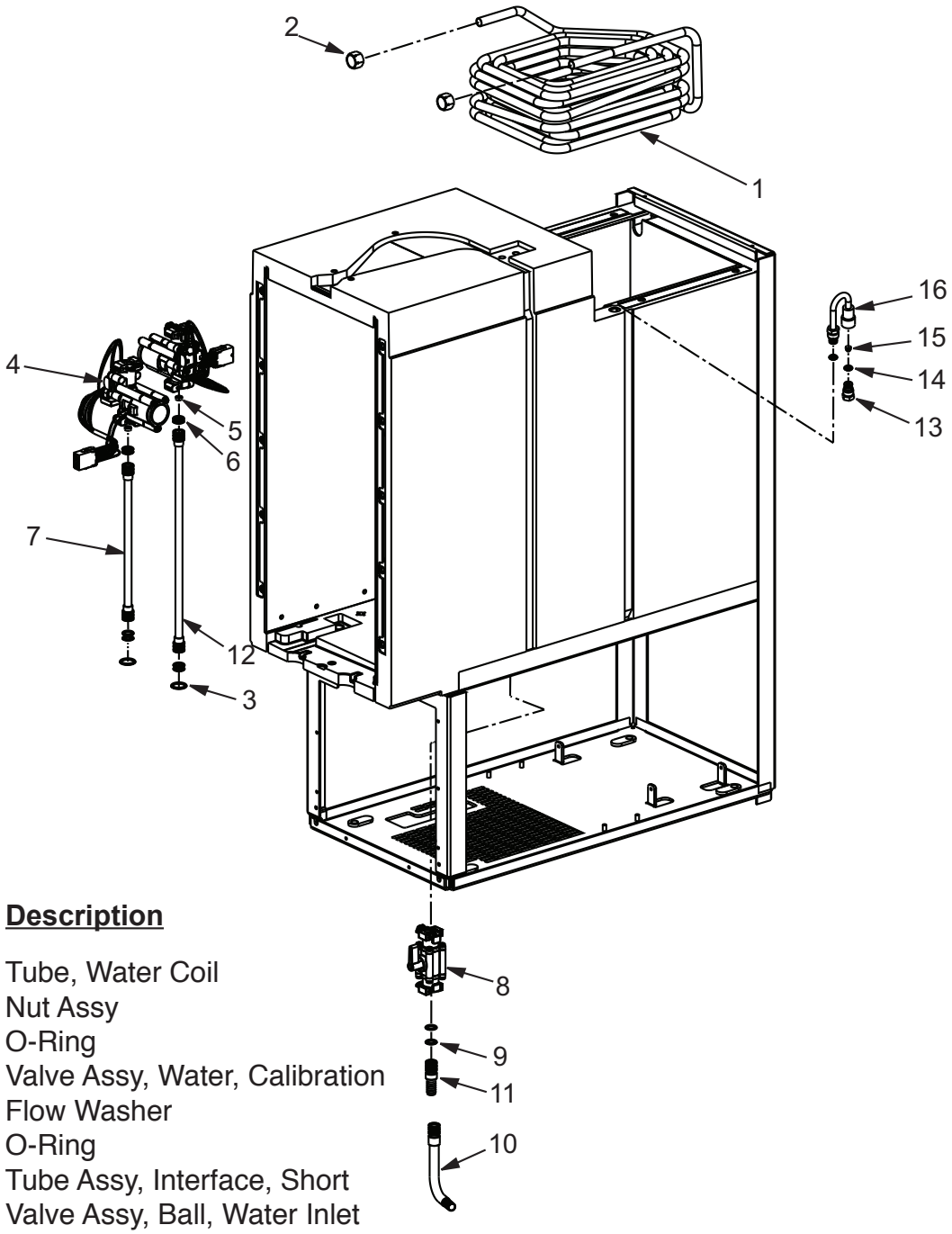
8.1 2-Valve Assembled View



8.2 4-Valve Assembled View



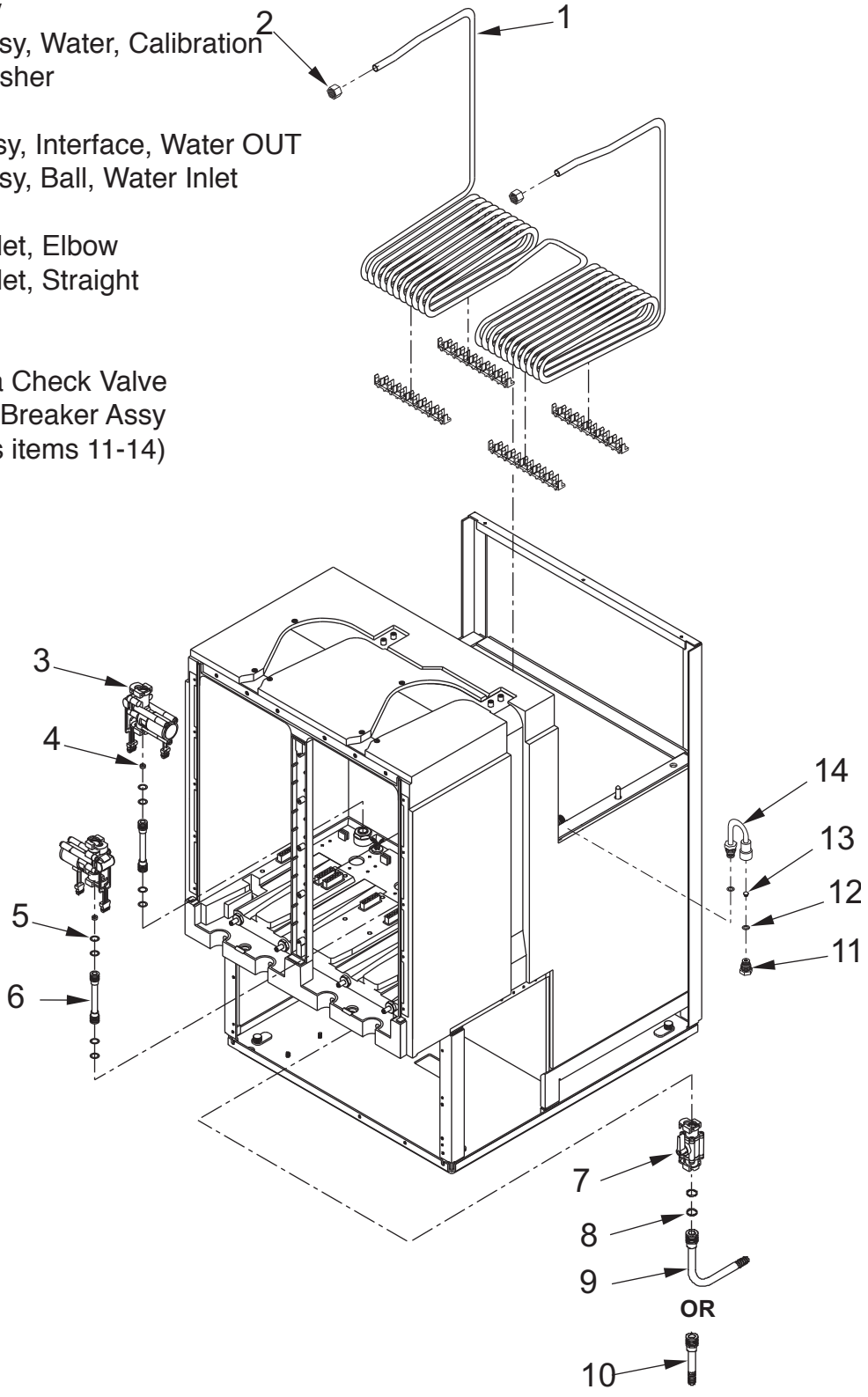
8.3 2-Valve Insulated Tank Assembly



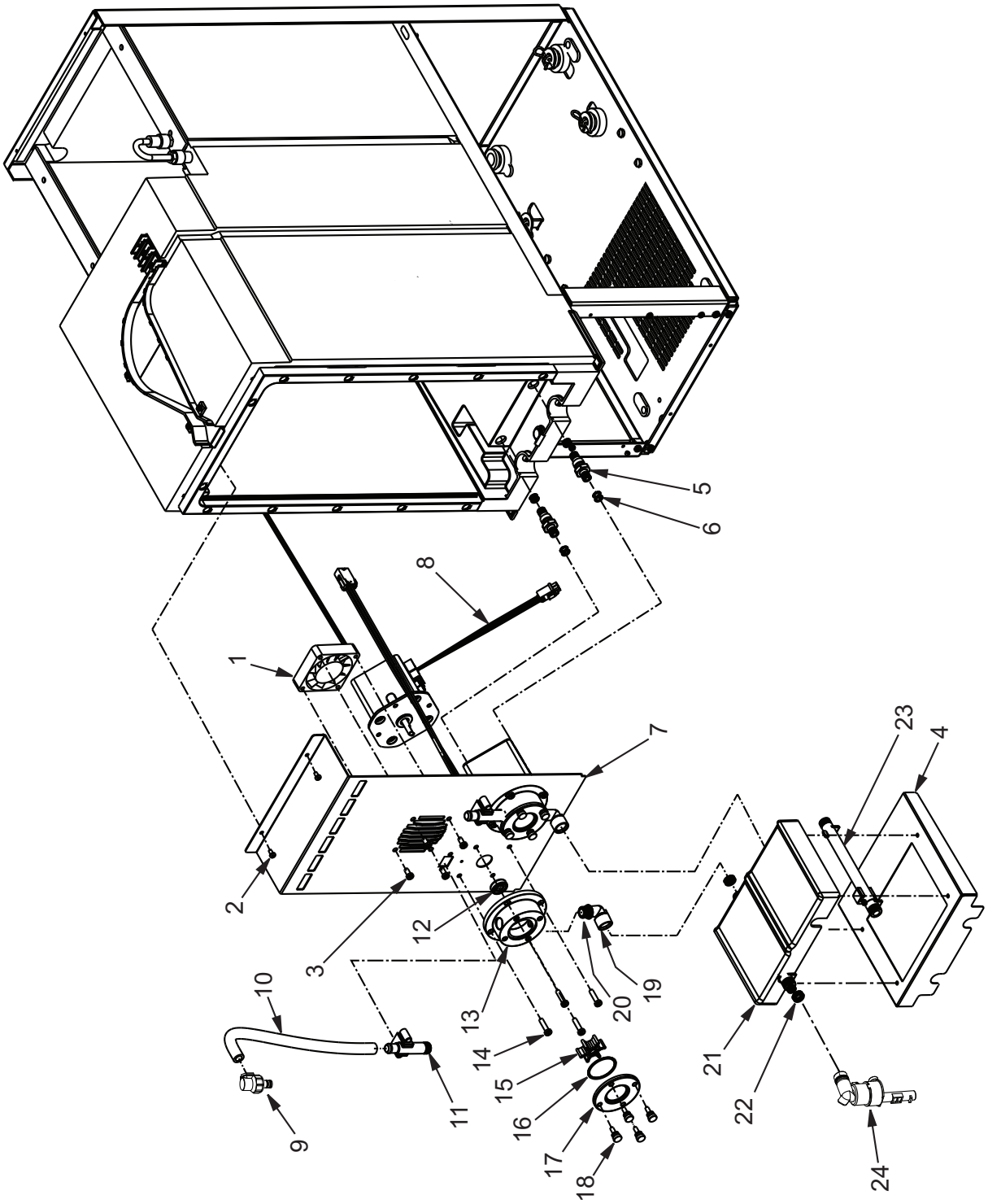
Item	Part No.	Description
1	47-1539	Tube, Water Coil
2	01-0797	Nut Assy
3	02-0155	O-Ring
4	19-0422	Valve Assy, Water, Calibration
5	02-0371	Flow Washer
6	02-0089	O-Ring
7	48-1162	Tube Assy, Interface, Short
8	17-0512	Valve Assy, Ball, Water Inlet
9	02-0089	O-Ring
10	48-1053	Water Inlet, Elbow
11	01-1589	Water Inlet, Straight
12	48-1163	Tube Assy, Interface, Long
13	01-0789	Cap
14	02-0005	O-Ring
15	02-0110	Umbrella Check Valve
16	17-0408	Vacuum Breaker Assy (includes items 13-16)

8.4 4-Valve Insulated Tank Assembly

Item	Part No.	Description
1	47-1288	Tube, Water Coil
2	01-0797	Nut Assy
3	19-0422	Valve Assy, Water, Calibration
4	02-0371	Flow Washer
5	02-0089	O-Ring
6	48-1062	Tube Assy, Interface, Water OUT
7	17-0512	Valve Assy, Ball, Water Inlet
8	02-0089	O-Ring
9	48-1053	Water Inlet, Elbow
10	01-1589	Water Inlet, Straight
11	01-0789	Cap
12	02-0005	O-Ring
13	02-0110	Umbrella Check Valve
14	17-0408	Vacuum Breaker Assy (includes items 11-14)



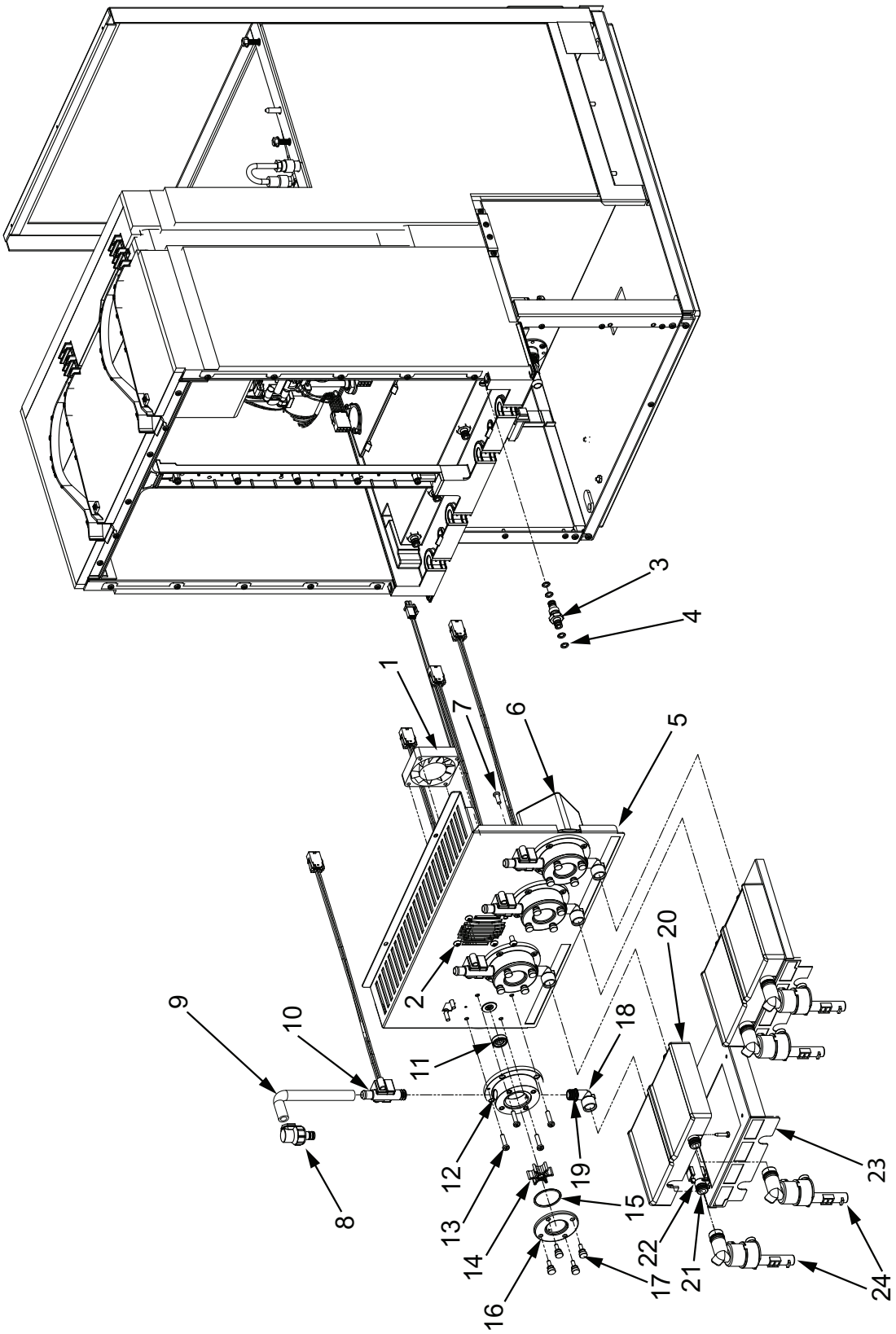
8.5 2-Valve Pump Platforms/Fan Plate Assembly



8.5 2-Valve Pump Platforms/Fan Plate Assembly Continued

Item	Part No.	Description
1	81-0650	Fan Assy, Pump Housing, FCOJ
2	04-0741	Screw, 6-32 x .375, PHP, Pan HD
3	04-1290	Screw, 10-14 x .375, PH, PH, PL, SS
4	30-9658	Plate, Product Support, FCOJ
5	01-2042	Water Connector, Compass
6	02-0005	O-Ring, 2-010
7	30-9654/01	Platform, Base, Pump Assy
8	91-0167	Motor Assy
9	17-0370	Check Valve Assy
10	08-0004	Concentrate Tube
11	52-3092-01	Sold Out Assy
12	04-0166	Seal, Radial, Lip, 0.250 Shaft, SS
13	82-0179	Body Assy, Pump, Juice (Complete)
14	04-0548	Screw, 8 - 16 x 0.750, PHP, PH
15	05-0132	Impeller, Pump, Juice Assy
16	02-0090	O-Ring, 2-026
17	05-0134	Cap, End, Pump, Juice
18	04-1557	Screw, 8 - 32 x 0.375, THMB, BR, BT NI
19	05-2403	Fitting, Base, Pump
20	02-0089	O-Ring, 2-012
21	05-2402	Base, Package
22	02-0047	O-Ring, 2-110
23	05-2404	Tube Delivery
24	54-0414	Nozzle Assy

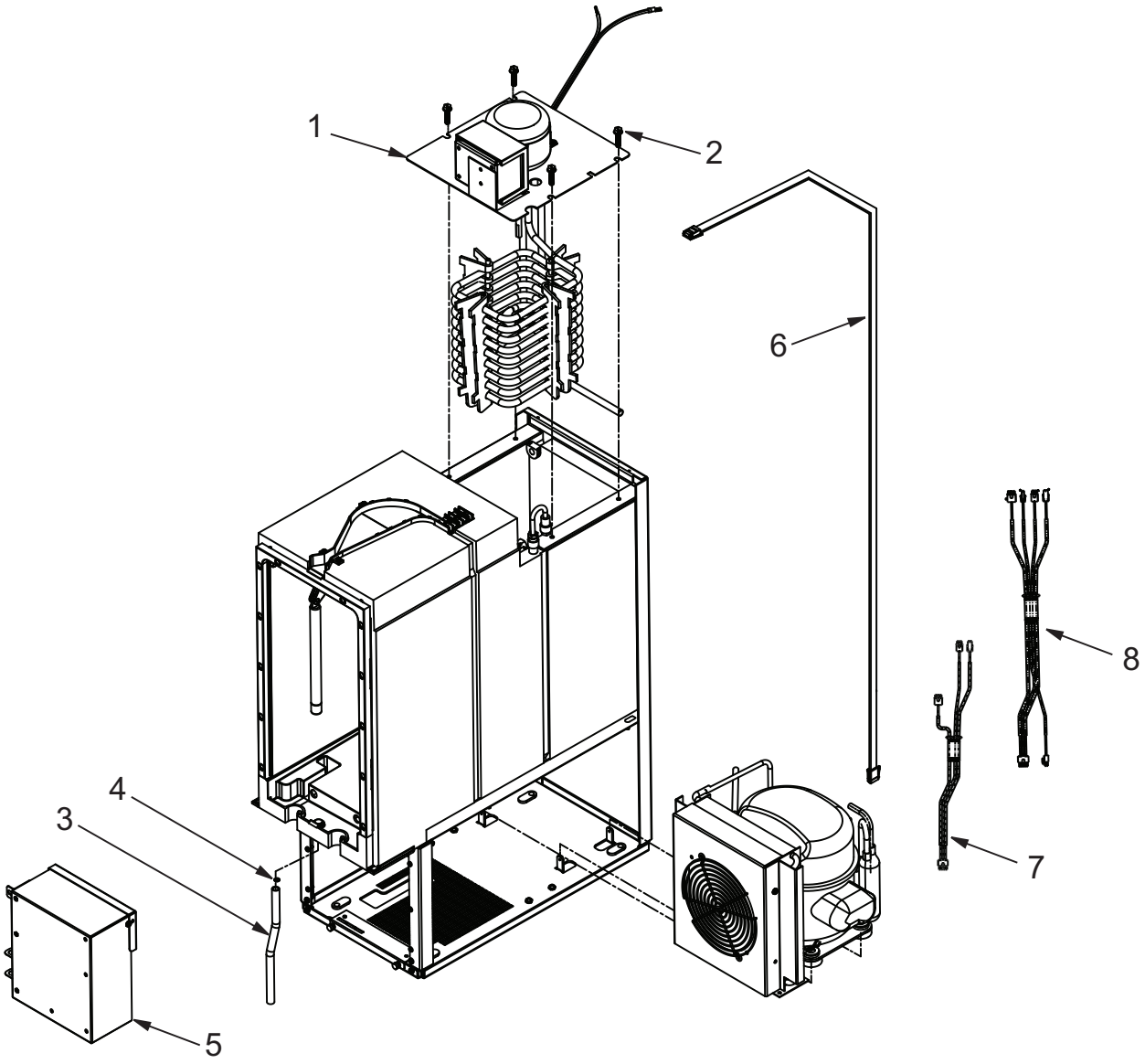
8.6 4-Valve Pump Platforms/Fan Plate Assembly



8.6 4-Valve Pump Platforms/Fan Plate Assembly Continued

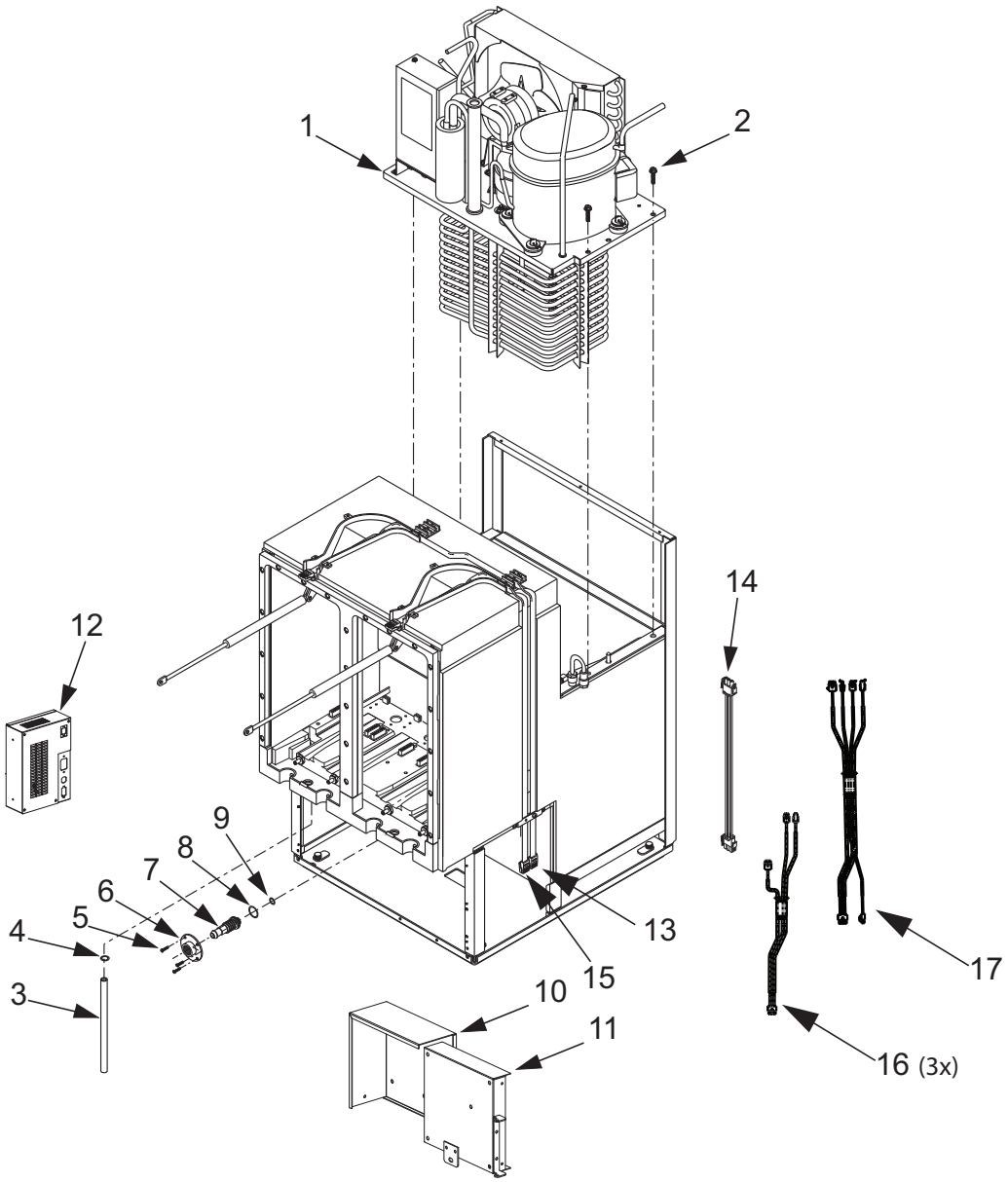
Item	Part No.	Description
1	81-0650	Fan, Pancake, 24VDC, 14.1 CFM
2	04-1290	Screw, 10-14 x .375, PH, PH, PL, SS
3	01-2042	Water Connector, Compass
4	02-0005	O-Ring, 2-010
5	30-9637/01	Platform, Base, Pump Assy
6	91-0167	Motor Assy
7	04-0397	Screw, 8 - 16 x 0.500, PHP, PH, SS
8	17-0370	Check Valve Assy
9	08-0004	Concentrate Tube
10	52-3092-01	Sold Out Assy, Calib. CPU
11	04-0166	Seal, Radial, Lip, 0.250 Shaft, SS
12	82-0179	Body Assy, Pump, Juice (Complete)
13	04-0548	Screw, 8 - 16 x 0.750, PHP, PH
14	05-0132	Impeller, Pump, Juice Assy
15	02-0090	O-Ring, 2-026
16	05-0134	Cap, End, Pump, Juice
17	04-0207	Screw, 8 - 32 x 0.375, THMB, BR, BT NI
18	05-2403	Fitting, Base, Pump
19	02-0089	O-Ring, 2-012
20	05-2402	Base, Package
21	02-0047	O-Ring, 2-110
22	05-2404	Tube Delivery
23	30-9639	Platform, Base, Package, LFT
24	54-0414	Nozzle Assy

8.7 2-Valve Electrical Component Detail



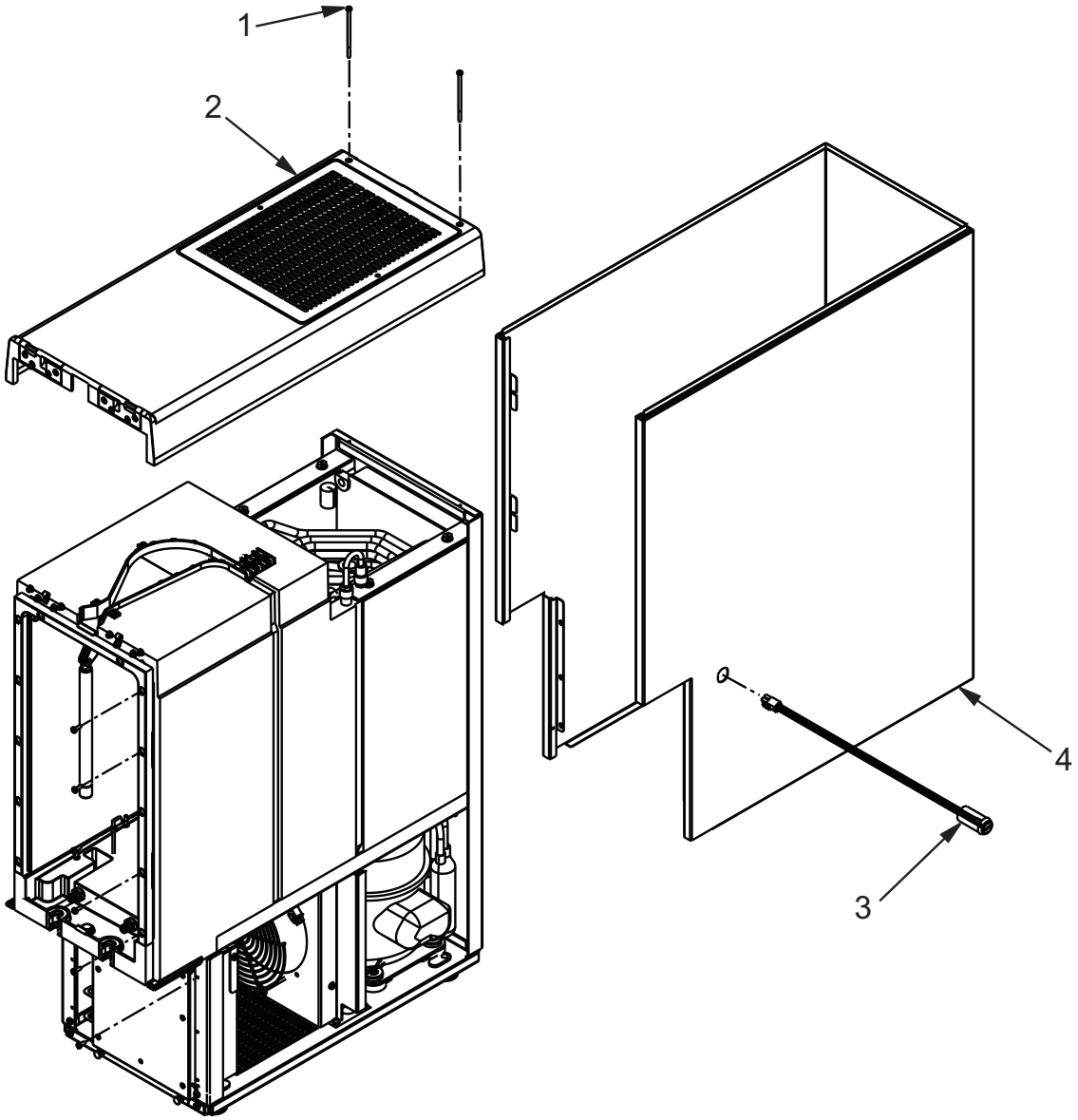
Item	Part No.	Description
1	82-3706	Deck Assy, Refrig., 115V/60Hz
2	04-0740	Screw, 1/4 - 20 x 1.000, Hex Hd with Washer
3	08-0315	Tube, Drain, Front
4	02-0047	O-Ring
5	82-3717/02	Control Box Assy, CPU, FCOJ
6	52-1738	Door Harness Assy
7	52-3087	Assy, Harness, Product
8	52-2963	Harness

8.8 4-Valve Electrical Component Detail



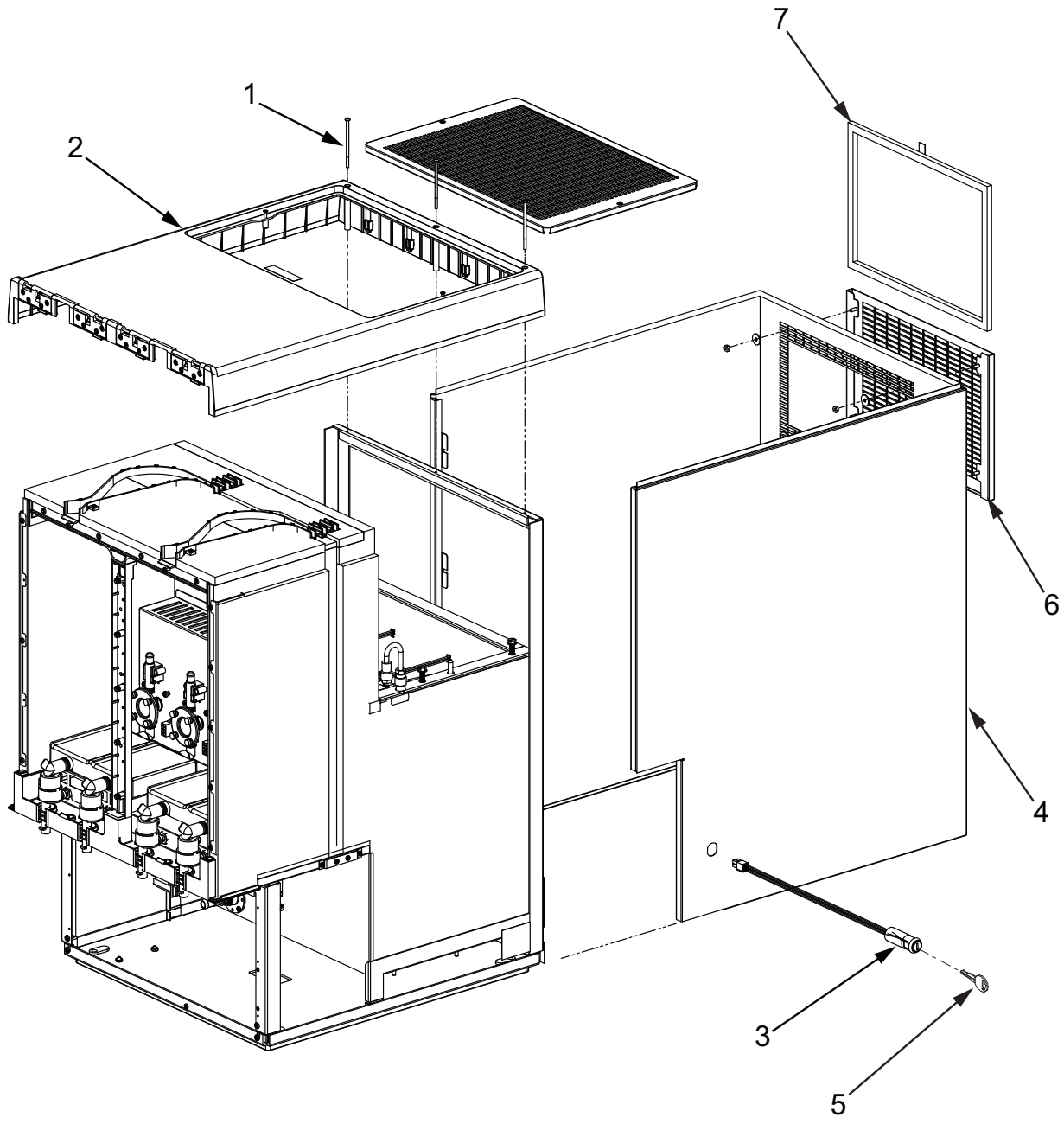
Item	Part No.	Description	Item	Part No.	Description
1	82-1542	Deck Assy, Refrig., 115V/60Hz	8	02-0221	O-Ring
			9	02-0089	O-Ring
-	82-1827	Kit, Deck Assy, Refrig., 115V/60Hz	10	30-9570	Cover, Control Box, CPU, FCOJ
2	04-0740	Screw, 1/4 - 20 x 1.000, Hex Hd with Washer	11	52-2950	Control Box Assy, CPU, FCOJ
			12	52-2981	Power Supply Assy, FCOJ
3	08-0315	Tube, Drain, Front	13	52-1664	Wire Harness Assy
4	02-0047	O-Ring	14	52-1478	Wiring Harness, Compressor Deck
5	04-0470	Screw, 6 -19 x 0.500, Pan Hd			
6	05-0679	Retainer, Drain	15	52-1738	Door Harness, Right
7	05-0677	Plug, Drain	16	52-3087	Assy, Harness, Product
			17	52-2963	Harness

8.9 2-Valve Cabinet Assembly



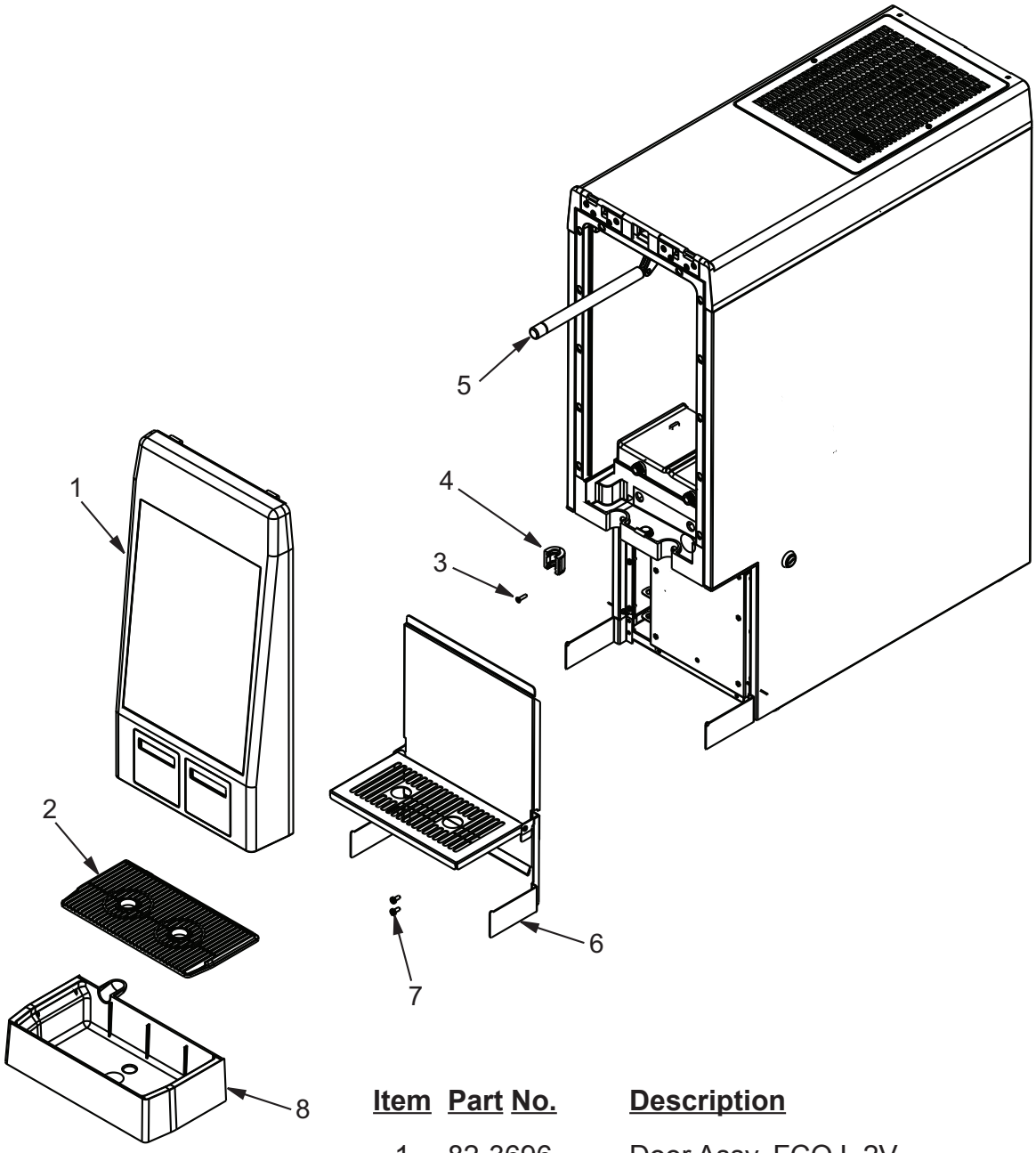
Item	Part No.	Description
1	04-0750	Screw, 6 - 32 x 2.812, Pan Hd
2	82-3707	Top Cover Assy
3	52-1668	Key Switch Assy
4	82-3762	Wrapper Assy

8.10 4-Valve Cabinet Assembly



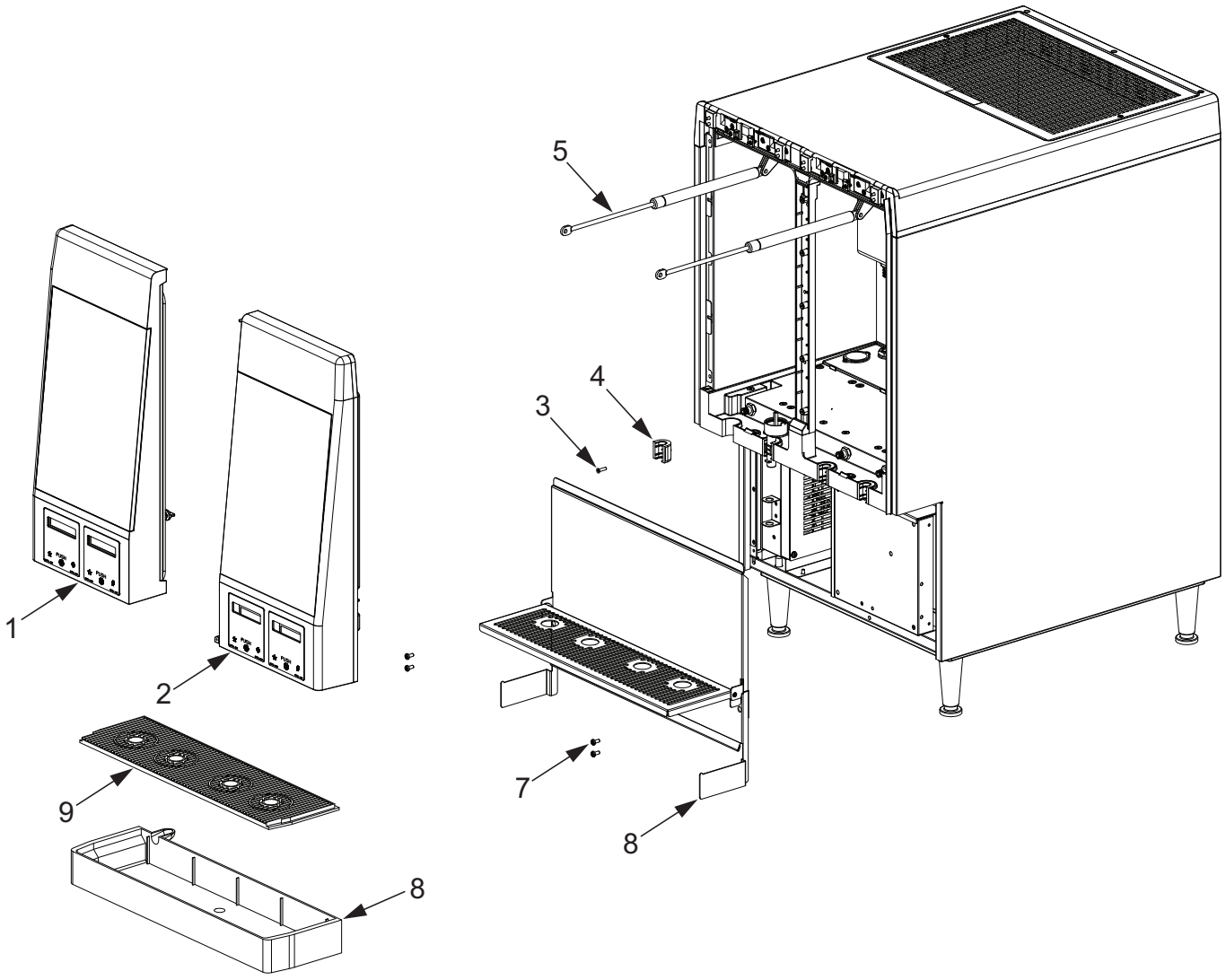
Item	Part No.	Description
1	04-0750	Screw, 6 - 32 x 2.812, Pan Hd
2	82-1726	Top Cover Assy
3	52-1668	Key Switch Assy
4	82-1503	Wrapper Assy
5	81-0415	Keyset
6	30-10019	Mount, Filter
7	23-1456	Filter

8.11 2-Valve Peripheral Components/Final Assembly



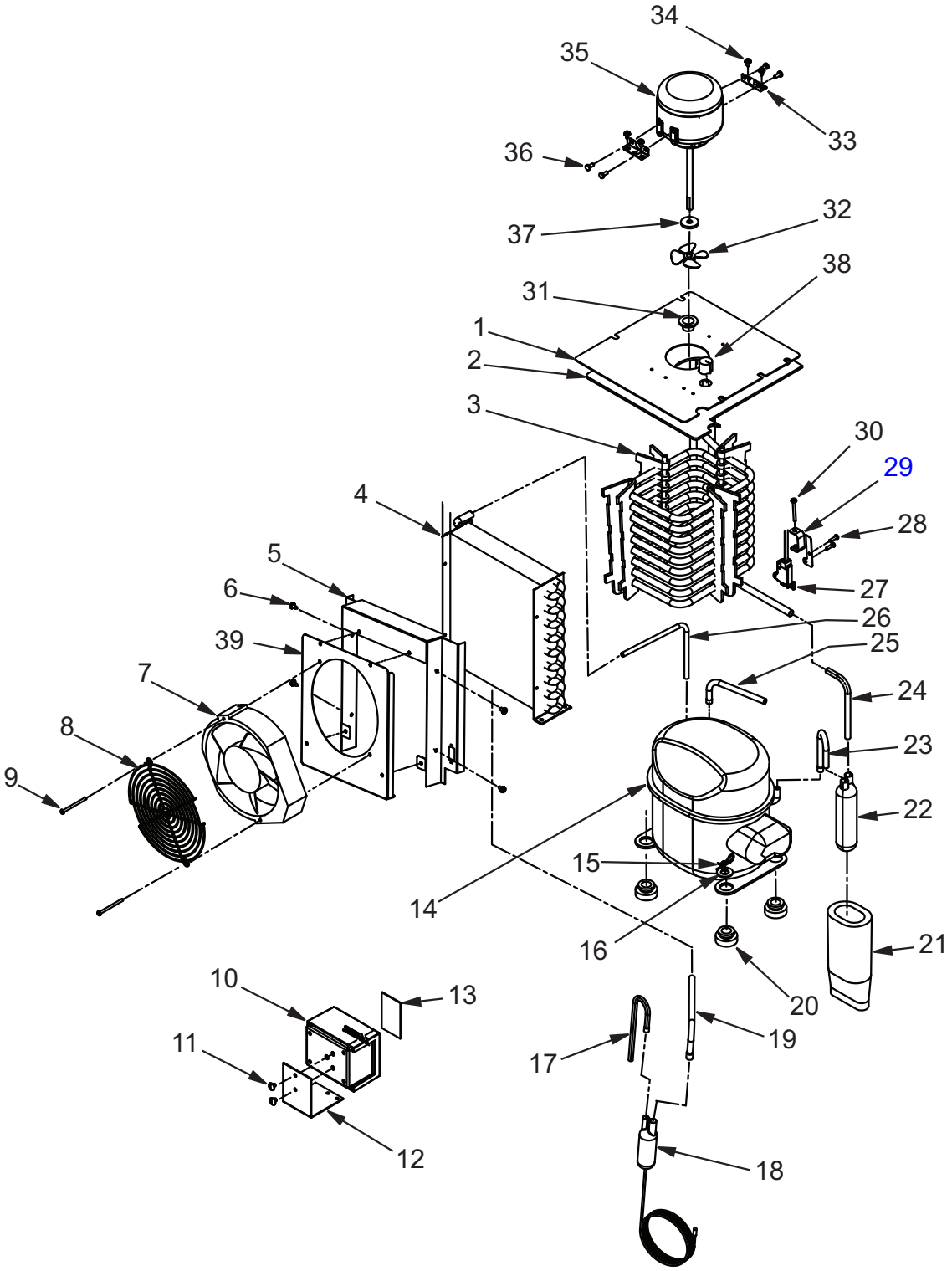
Item	Part No.	Description
1	82-3696	Door Assy, FCOJ, 2V
2	54-0420	Grill, Drip Tray
3	04-0591	Screw, 6 - 19 x 0.563, Flat Hd, Plastite
4	02-0409	Seal, Spout
5	81-0405	Spring, Gas, 30#
6	82-3789	Drop-Cup-Rest Assy
7	04-0477	Screw, 8 - 32 x 0.375, Pan Hd, ROLOK
8	05-1284	Drip Tray with Drain
-	05-1284-01	Drip Tray without Drain

8.12 4-Valve Peripheral Components/Final Assembly



Item	Part No.	Description
1	82-3677	Door Assy, Left, Retro, Push, FCOJ
2	82-3678	Door Assy, Right, Retro, Push, FCOJ
3	04-0591	Screw, 6 - 19 x 0.563, Flat Hd, Plastite
4	02-0409	Seal, Spout
5	81-0405	Spring, Gas, 30#
6	82-3751	Drop-Cup-Rest Assy
7	04-0477	Screw, 8 - 32 x 0.375, Pan Hd, ROLOK
8	05-1028	Drip Tray with Drain
-	05-1038	Drip Tray without Drain
9	05-1032	Grill, Drip Tray

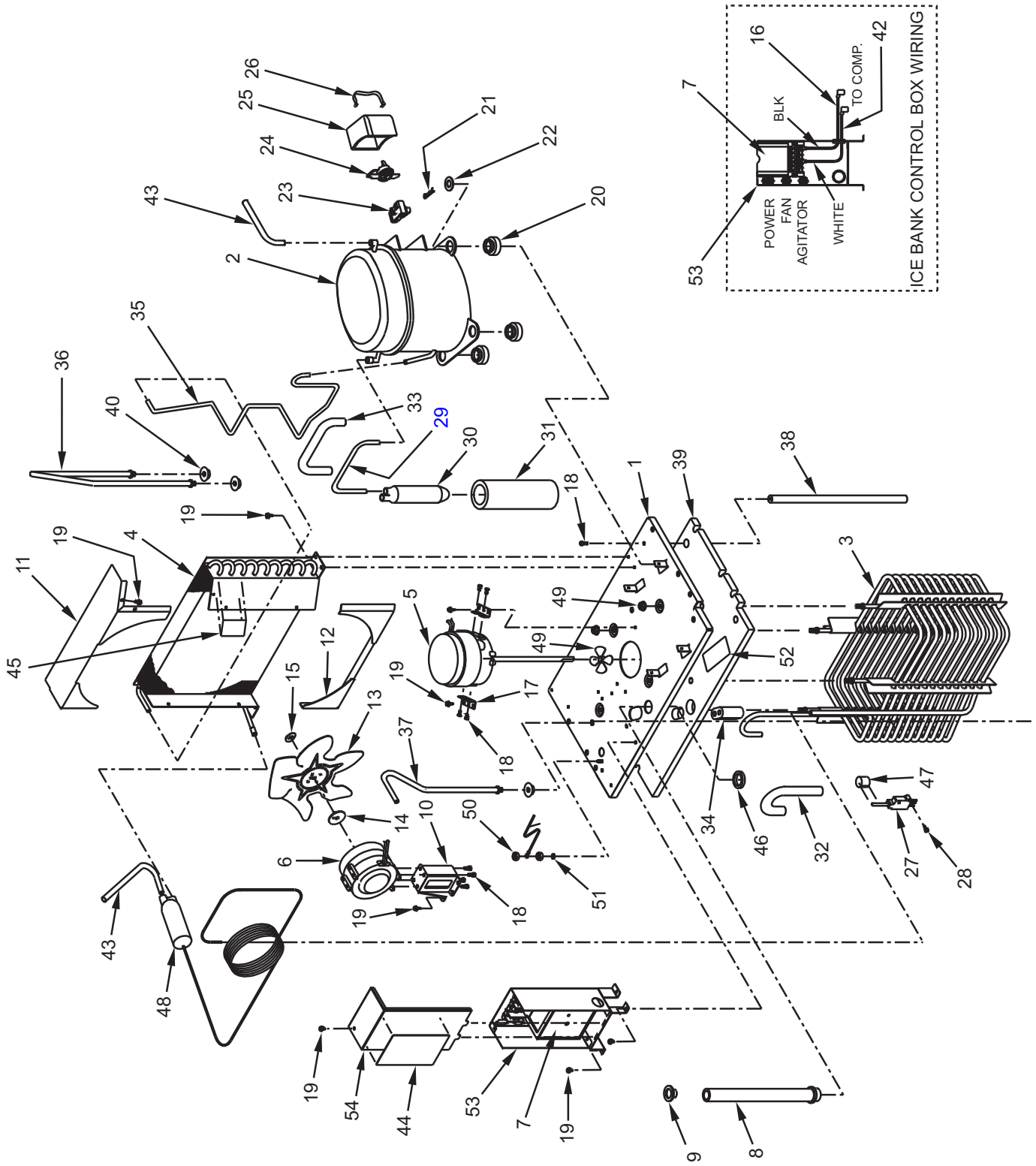
8.13 2-Valve Compressor Deck Assembly



8.13 2-Valve Compressor Deck Assembly Continued

Item	Part No.	Description
1	30-9580	Plate, Agitator, Premia
2	50-0454	Insulation, Refrigeration Deck
3	82-1832	Evaporator Coil Assy
4	23-1052	Condenser
5	30-10014	Shroud, Fan
6	04-0504	Screw, 8 - 18 x 0.375
7	52-3020	Motor, Fan, 115V
8	23-1406	Grill, Condensor Fan
9	04-1512	Screw, 6 - 32 x 1.875, Pan Head
10	52-1882-01	Control Housing Assy, EIBC III
11	04-0148	Screw, 10 - 32 x 0.250, SS
12	30-8656	Bracket, EIBC
13	06-2991	Label, Wiring Diagram
14	83-0045	Compressor
15	03-0150	Retainer Clip
16	04-0537	Washer, Flat, 0.467 ID
17	47-3985	Tube, Comp, Long
18	23-0982	Dryer Cap Assy
19	47-4103	Tube, Process, 0.375, OD
20	02-0114	Grommet
21	50-0211	Boot
22	51-0543	Accumulator
23	47-3984	Tube, Compressor, Short
24	47-0344	Tube Process, 950
25	47-0725	Tube Process
26	47-4105	Tube, Discharge
27	52-1897	Probe, Ice Bank Control
28	04-0394	Screw, 6 - 32 x 0.500, SS
29	30-8241	Bracket, Probe Assy
30	04-1261	Screw, 6 - 32, Pan Head, SS
31	04-0062	Plug, Fill Cap
32	05-0377	Propeller
33	30-5113/01	Bracket, Agitator Motor
34	04-0504	Screw, 8 - 18 x 0.375, Pan Head
35	91-0175	Motor, Agitator, 115V
36	04-0059	Screw, 8 - 36 x 0.375, Pan Head
37	02-0032	Washer, Rubber
38	02-0426	Seal, Probe
39	30-10012	Fan, Mount, Condenser

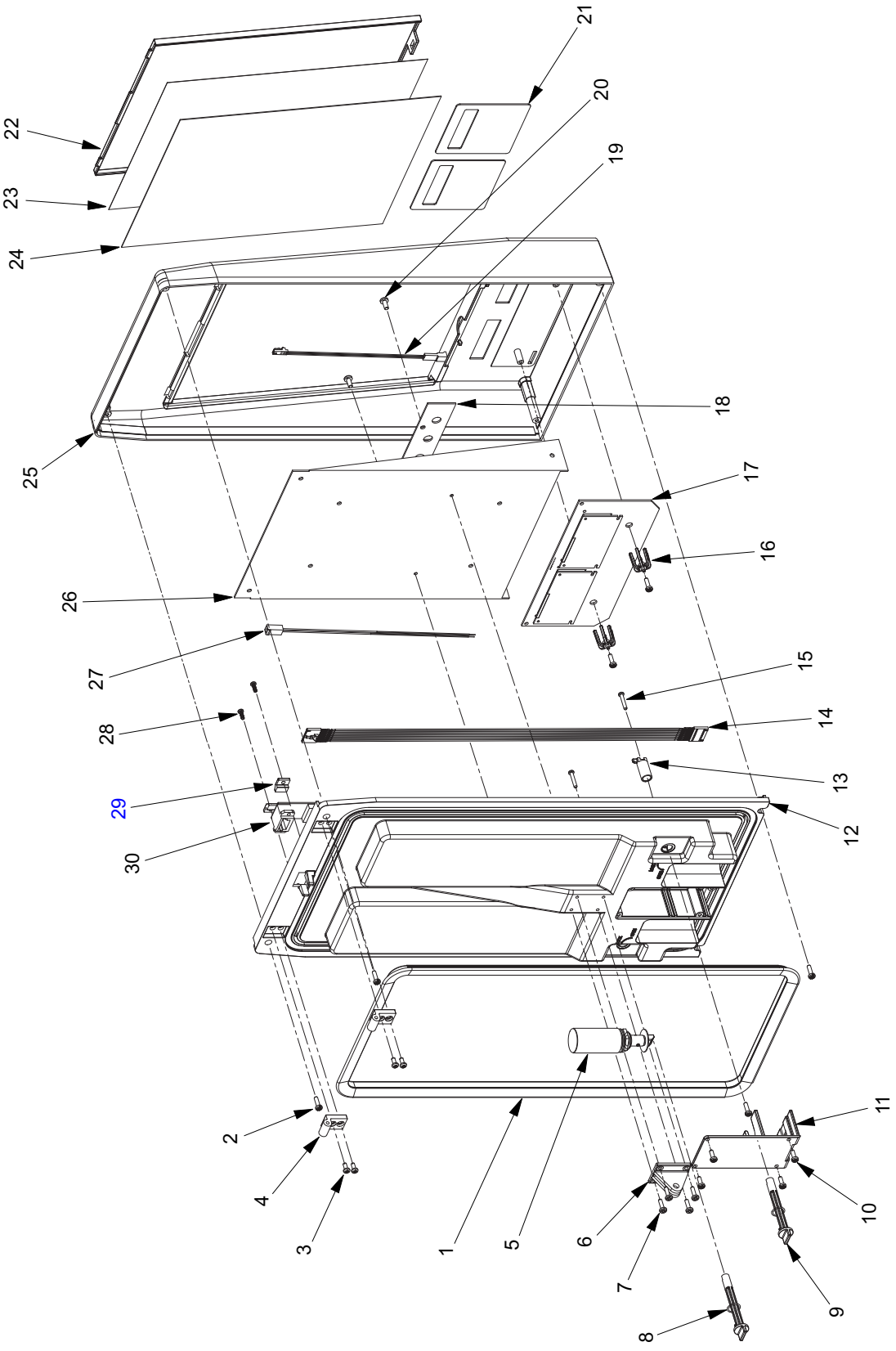
8.14 4-Valve Compressor Deck Assembly



8.14 4-Valve Compressor Deck Assembly Continued

Item	Part No.	Description
1	30-6000/01	Plate Assy, Refrigeration. Deck
2	83-0040	Compressor
3	82-1406	Evaporator Coil Assy
4	23-1008	Condenser
5	91-0094	Motor, Agitator, 115V
6	91-0093	Motor, Fan, 115V
7	52-1882	Control Housing Assy, EIBC III
8	05-0990	Fill Tube, Water
9	04-0062	Protector Closure
10	30-6026	Bracket, Fan Motor
11	30-6010	Shroud, Fan, Top
12	30-6011	Shroud, Fan, Bottom
13	07-0354	Fan Blade
14	02-0034	Silencer
15	04-0060	Nut
16	52-1632	Wire Harness Assy, Hot
17	30-5113/01	Bracket, Agitator Motor
18	04-0059	Screw, 8 - 32 x 0.375, PHD, PH/SL
19	04-0504	Screw, 8 - 18 x 0.375
20	02-0114	Grommet
21	03-0150	Retainer Clip
22	04-0537	Washer, Flat, 0.467 ID
23	12-0005	Relay
24	12-0004	Overload
25	13-0006	Cover, Terminal
26	03-0040	Bail Strap
27	54-0245	Probe, EIBC
28	04-0394	Screw, 6-32 x .500, PH, PH, MS, SS
29	47-1408	Tube, Suction
30	51-0061	Accumulator
31	50-0211	Boot
32	50-0082	Insulation, Tube
33	50-0268	Insulation, Tube
34	02-0040	Seal, Extrusion
35	47-1406	Tube, Discharge
36	09-0127	Handle, Compressor Side
37	09-0126	Handle, Fan Side
38	50-0262	Insulation, Refrigeration Deck
39	04-0754	Nut, Torq-Patch, 5/16
40	04-0753	Nut, Torq-Patch, 1/4
41	52-1631	Wire Harness Assy, Neu.
42	47-0344	Tube Process, 950
43	06-2972	Label, Wiring Diagram
44	06-0211	Nameplate, Vinyl, Refrigeration Deck
45	05-0141	Retainer
46	02-0426	Seal, IBC Probe Cord
47	23-0982	Dryer Cap Assy
48	05-0502	Propeller, 2.250 Dia.
49	04-0110	Nut, 8 - 32
50	04-0576	Washer, Int. Tooth
51	89-0014	Cover, Hole
52	82-3710	Control Box Assy, 4V, FCOJ
53	30-6256/01	Cover, Ice Bank Control

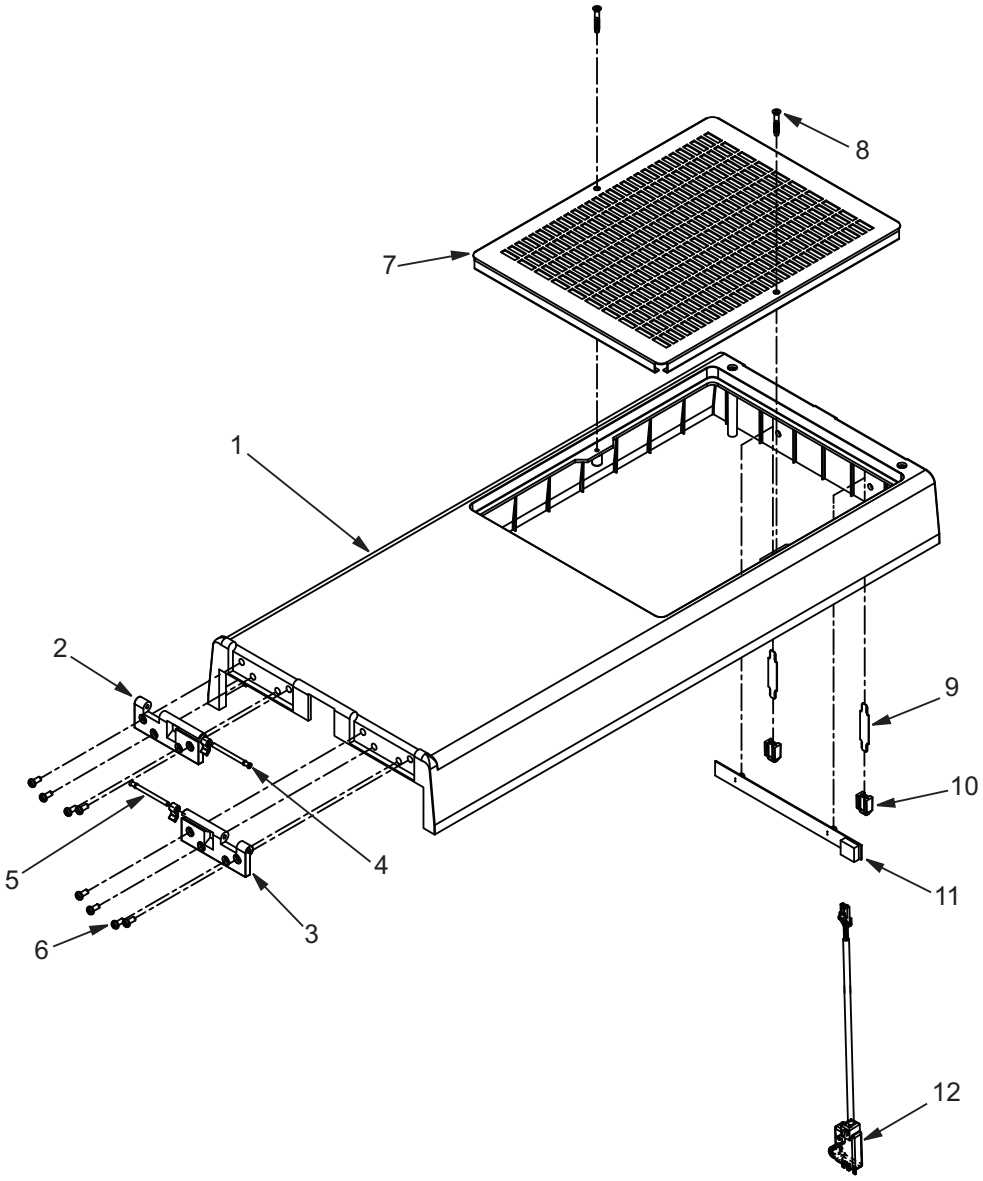
8.15 2-Valve and 4-Valve Door Assembly



8.15 2-Valve and 4-Valve Door Assembly Continued

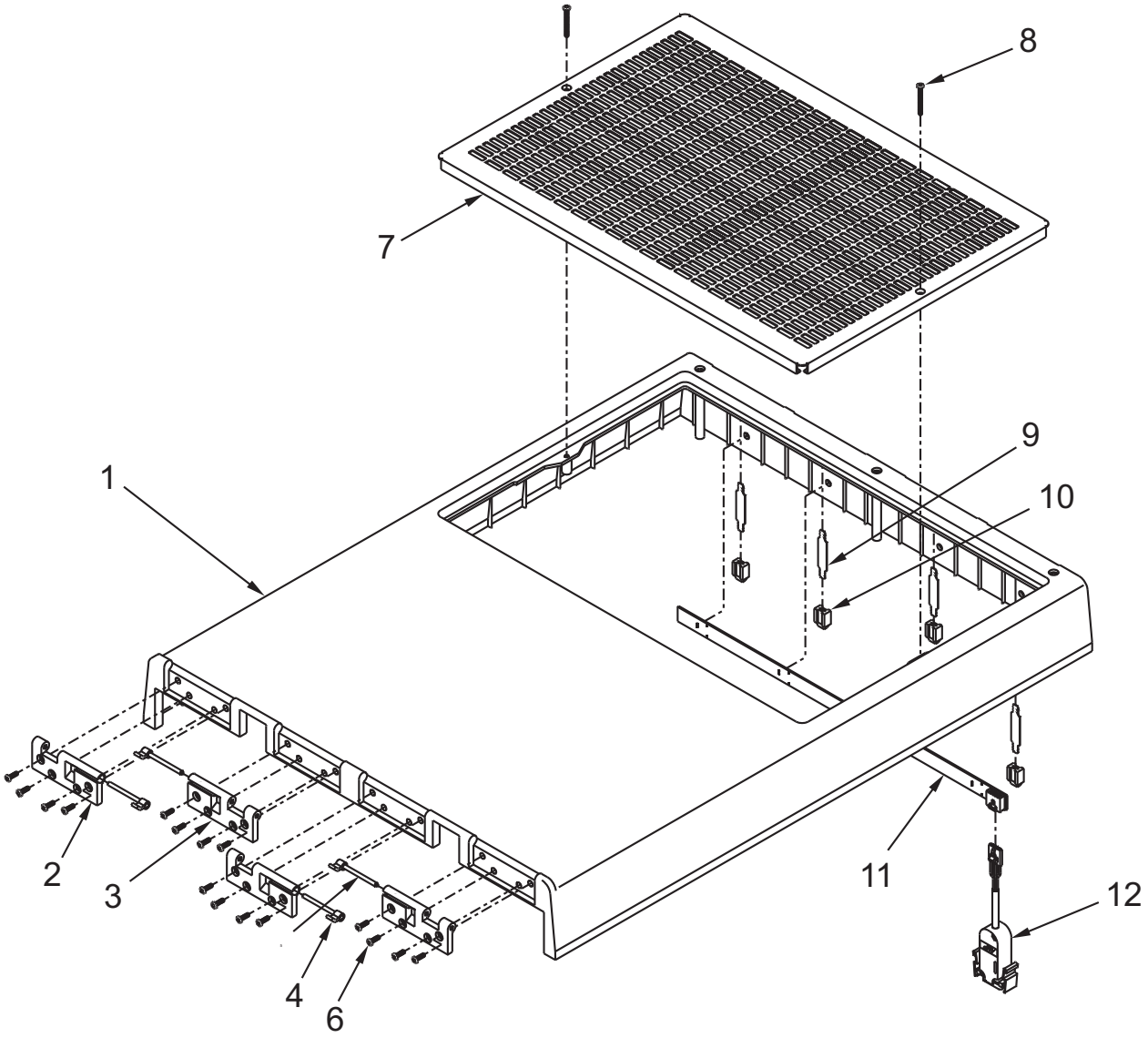
Item	Part No.	Description
1	02-0417	Seal, Door, Premia
2	04-0470	Screw, 6 - 19 x 0.500, PH
3	04-0135	Screw, 6 - 32 x 0.312, PH
4	05-1021/01	Hinge, Door, Premia
5	24-0031/01	Latch Assy, Door
6	05-0716/01	Clevis, Door, ITA, Premia
7	04-0789	Screw, 6 - 32 x 0.500, BH
8	04-0746/01	Washer, Spring, Wave Shape
9	05-1046/01	Stem, Lock, Lens, Door
10	04-0633/01	Screw, 6 - 19 x 0.437, PH
11	05-1027	Bracket, Solenoid
12	82-3695	Liner Assy, Door,
13	05-1140/01	Cap, Lock, Lens, Door
14	52-2321	Harness Assy, Door, Juice
15	04-0618	Screw, 4 - 20 x 0.750, PH
16	05-2464	Spider, Door, BD Mount
17	64-2647/05	PCB Assy, FCOJ Door BD
18	52-2646/01	PCB Assy, Light Bd, FCOJ
19	52-1644	Harness Assy, Lamp, Solenoid, PCB
20	04-0477	Screw, 8 - 32 x 0.375, PH
21	06-2955	Graphic, Panel, PU
22	05-1045	Lens, Door, Premia
23	06-3030/01	Graphics, Film, Door, FCOJ
24	27-0031/01	Lens, Inner, Premia
25	54-0416	Shell Assy, Door, Juice
26	54-0382	Door Assy, Left
27	54-0383	Door Assy, Right
28	52-2664	Harness, Door, PCB, Light, BD
29	30-7886/01	Reflector, Light, Juice
30	52-2664	Harness, Door, PCB, Light, BD
31	04-0158/01	Screw, 4 - 20 x 0.375, PH
32	05-1151	Bracket, Connector, Premia
33	52-1458	PCB Assy, Connect

8.16 2-Valve Top Cover Assembly, Detail



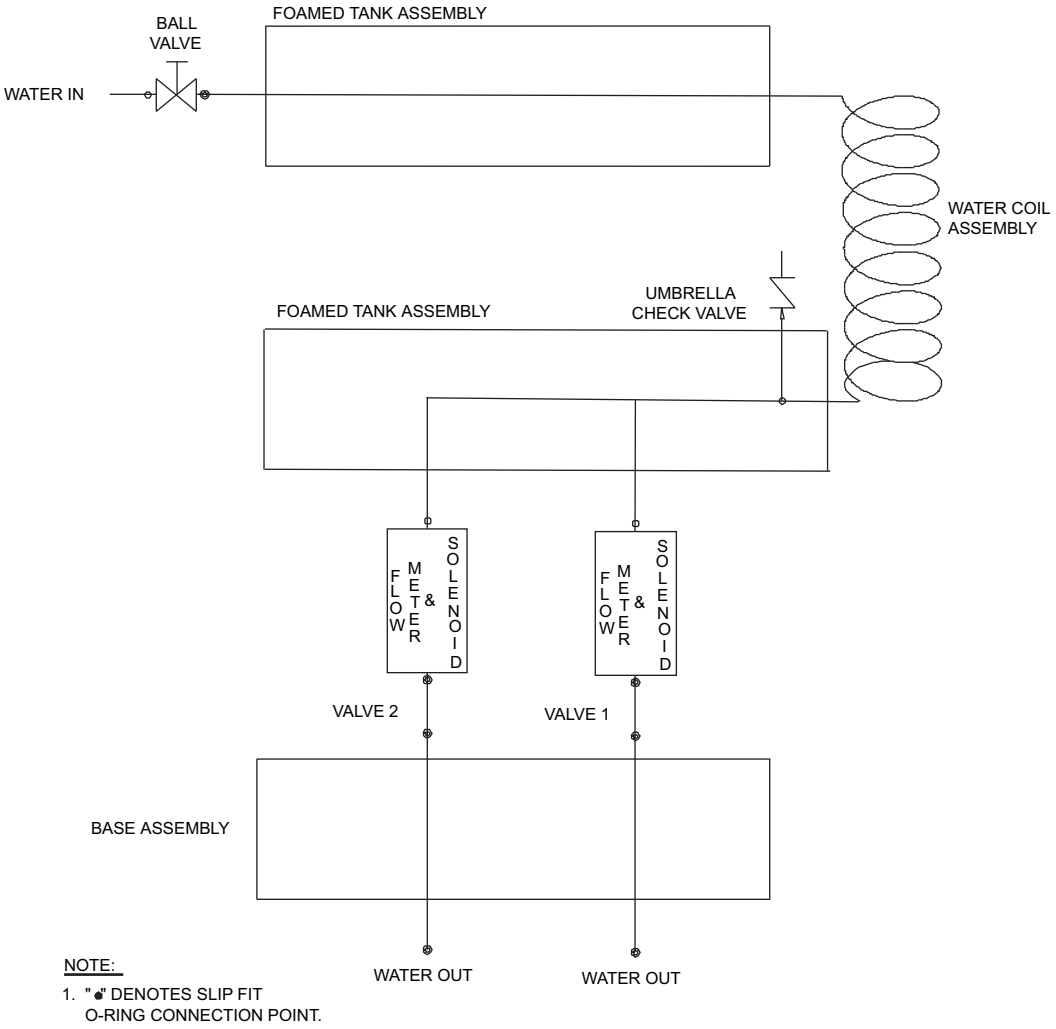
Item	Part No.	Description
1	54-0226	Top Cover, Sub-Assy
2	05-1019	Cover, Hinge, LH
3	05-1018	Cover, Hinge, RH
4	82-1523	Hinge Pin Assy, Left
5	82-1524	Hinge Pin Assy, Right
6	04-0135	Screw, 6 - 32 x 0.312, Pan Head
7	30-6346	Grid, Cover, Top
8	04-0747	Screw, 6 - 19 x 0.900, Flat Head
9	03-0245	Spring,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

8.17 4-Valve Top Cover Assembly, Detail

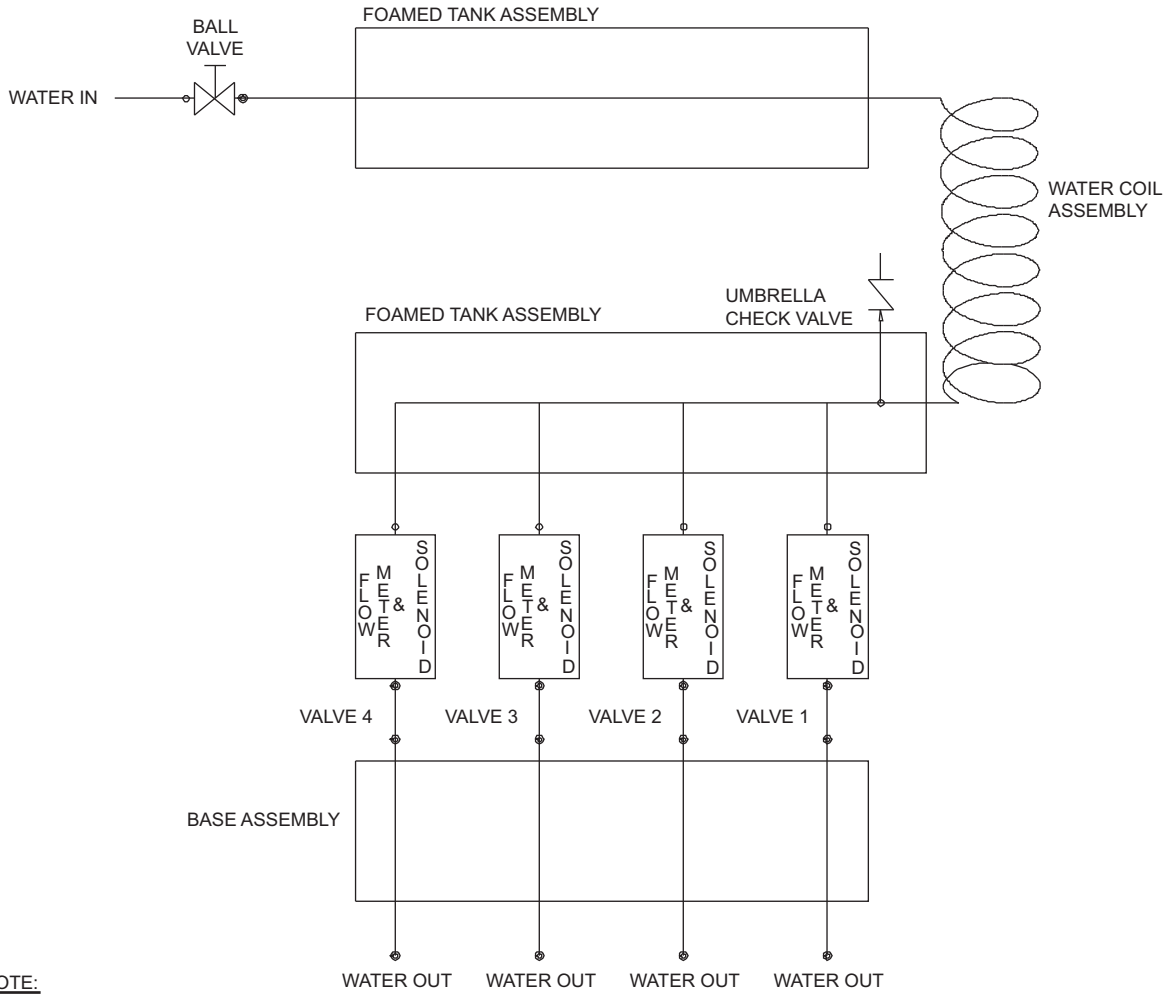


Item	Part No.	Description
1	54-0205	Top Cover, Sub-Assy
2	05-1019/01	Cover, Hinge, LH
3	05-1018/01	Cover, Hinge, RH
4	82-1523	Hinge Pin Assy, Left
5	82-1524	Hinge Pin Assy, Right
6	04-0135	Screw, 6 - 32 x 0.312, Pan Head
7	30-6158	Grid, Cover, Top
8	04-0747	Screw, 6 - 19 x 0.900, Flat Head
9	03-0245	Spring, Sold Out Light
10	05-1057	Retainer, Spring
11	52-1462	PCB, Back Panel, LED
12	52-1674	Wire Harness, Rear Panel, LED

8.18 2-Valve Water Flow Diagram



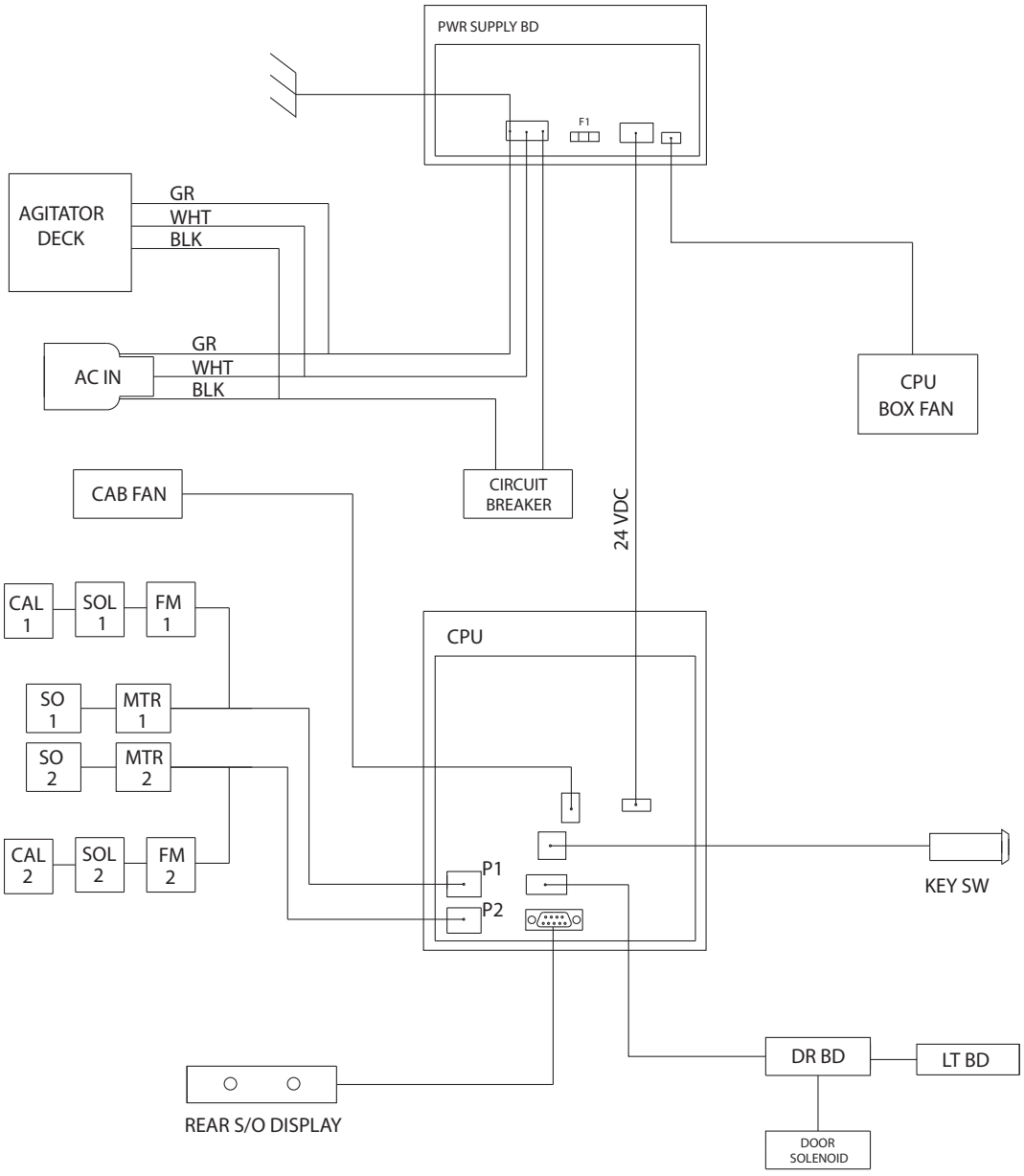
8.19 4-Valve Water Flow Diagram



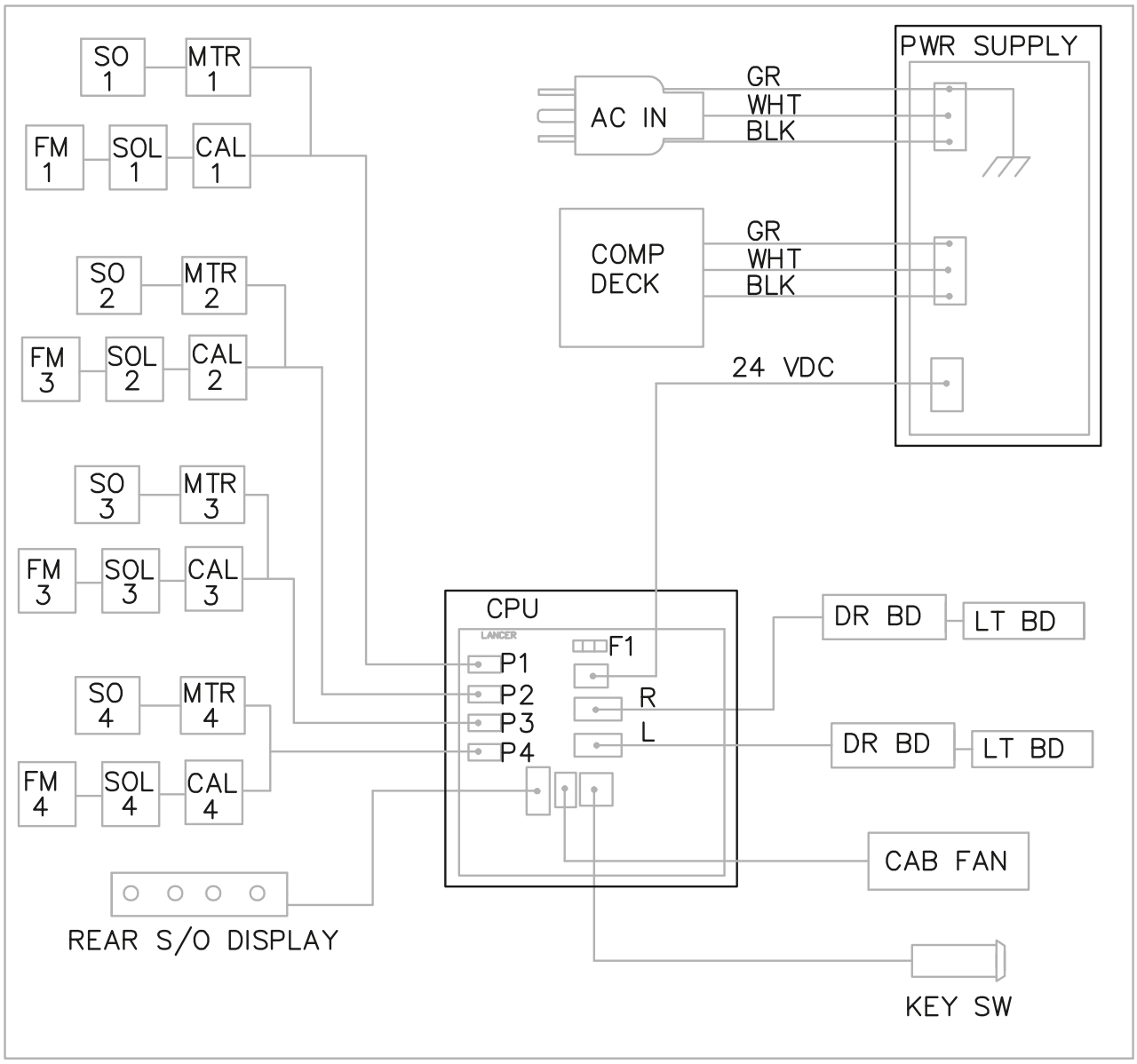
NOTE:

1. "●" DENOTES SLIP FIT O-RING CONNECTION POINT.

8.20 2-Valve Wiring Diagram



8.21 4-Valve Wiring Diagram



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