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www.lancercorp.com

# INSTALLATION AND SERVICE MANUAL

# FOR THE

# MB-18, HIGH VOLUME FREE STANDING FOUNTAIN DRINK DISPENSER

## Part Number 85-10018-126, 115 Volts, 60 Hz

**SPECIFICATIONS**

**DIMENSIONS**

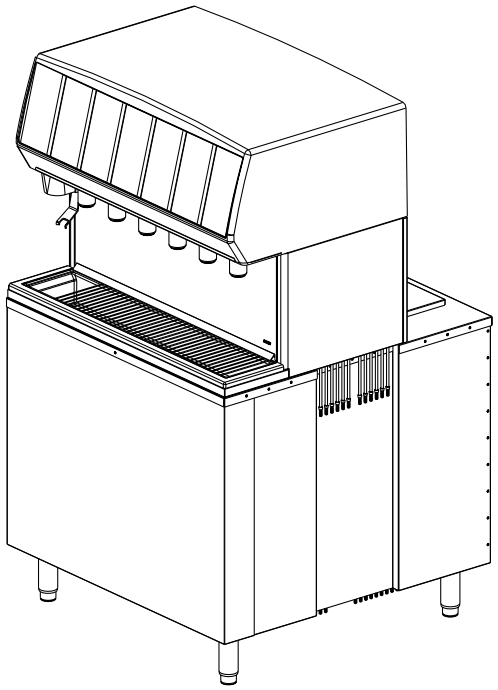
| | | |
|---|---|---|
| Width | | 36 inches (91.4 cm) |
| Depth | | 36 inches (91.4 cm) |
| Height | To Countertop | 36 inches (91.4 cm) |
| | To Top of Shroud | 61 inches (154.9 cm) |

**WEIGHT**

| | |
|---|---|
| Shipping | 600 pounds (272 kg) |
| Empty | 530 pounds (240 kg) |
| Operating | 800 pounds (363 kg) |

**ELECTRICAL**

| | |
|---|---|
| Operating Voltage | 115 |
| Hertz | 60 |
| Amps | 20 |



***This initial (draft) issue is released for field test purposes ONLY!!!***

LANCER 6655 LANCER BLVD. • SAN ANTONIO, TEXAS 78219 USA • (210) 310-7000

***FAX SALES***

• USA -CANADA – 210-310-7250 • LATIN AMERICA – 210-310-7245 • ASIA – 210-310-7242
• EUROPE – 32-2-755-2399 • PACIFIC – 61-8-8268-1978

FAX ENGINEERING: • 210-310-7096



DATE: 06/18/01
P.N. 28–0466

## TABLE OF CONTENTS



## MANUFACTURERS INTRODUCTION

**High Volume Free Standing Fountain Drink Dispenser**

The unit is designed with the highest quality components to be user and service friendly. Most set up parameters are easily set via a serial interface and an infrared wireless data port. All control is handled by the on board microprocessor controller. The **MB-18** is designed to seamlessly interface with the **Lancer IceLink** system to provide for a minimum of labor and maintenance by store personnel.

The MB-18 features multiple speed ice dispense from an under counter ice storage bin which is also used to chill the product utilizing a flexible, high performance cold plate system. Up to 18 independent brands may be dispensed through six (6) Lancer Multi-Flavor dispense nozzles. In addition, 12 ambient (non-chilled) "bonus" flavors may be added to the drink via the flavor injection system on four (4) nozzles. Up to three (3) flavors may be added to each of four (4) nozzle positions. ***The bonus flavors are plumbed independently to each of the nozzles allowing for a multitude of customer pleasing drink combinations.***

Supplier Name: Lancer
Address: 6655 Lancer Blvd
San Antonio, TX 78219
Phone: (800) 729-1500

**Local Service Name:** _____

**Local Service Phone #:** _____

## 1. INSTALLATION

### 1.1 RECEIVING

Each unit 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 units from the delivering carrier, carefully inspect carton for visible indication of damage. If damage exists, have carrier note same on bill of lading and file claim with carrier.

### 1.2 UNPACKING

A. Set shipping carton upright on the floor.
B. Cut band and remove.
C. Open top of carton and remove interior packing.
D. Lift carton up and off of the dispenser.
E. Remove wood shipping base from the bottom of the dispenser. (Support dispenser while removing shipping base to prevent damage to the dispenser.)

### 1.3 SELECTING LOCATION

A. Select a location close to a properly grounded 20 Amp electrical outlet, convenient to an open type drain, and access for soda, water, and syrup lines. If at all possible, location should be away from direct sunlight or other heat sources.

B. *Location must insure sufficient clearance above unit to provide for servicing.*

### 1.4 PLUMBING

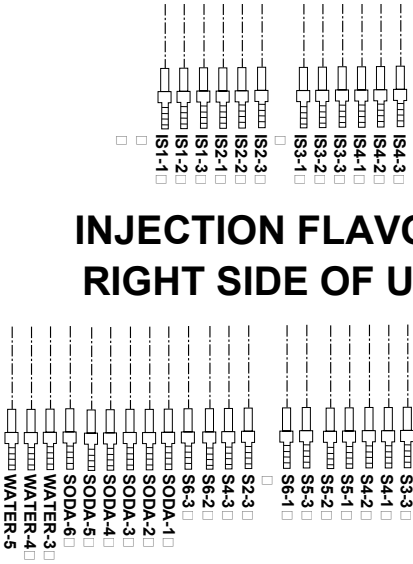
**NOTE**

Water pipe connections and fixtures directly connected to a potable water supply and drain plumbing connections 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 $CO_2$ 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.*

A. General Product Configuration

1. The MB-18 is equipped with nine (9) independent soda/water inlets (see Figure 1 for detail). An individual module that can be plumbed for either soda or still water supports each nozzle location. In addition, nozzles 3, 4 and 5 are provided with a second module that will also support soda or still water. This is to provide for maximum flexibility and performance from all circuits and products.
2. Depending on the specific use volume at the installation, the use of either one or two Lancer Turbo Carbonators is recommended. *Locations serving larger drink sizes and/or higher drink volume will require a second Turbo Carbonator.* In addition, the use of a high capacity plain water boost system is recommended if incoming water pressure is below 50 psi under demand conditions.




**Nozzle Inlets**
**Figure 1**

B. Drain Connections

The MB-18 Features two (2) 3/4" MPT connections on the left side (from the front) of the machine for the cold plate drain system and a third (3rd) 3/4" FPT fitting for the drip tray drain located on the right hand side of the machine. The cold plate drains should be plumbed independent from the drip tray drain and adequate slope and air gap should be provided to prevent back up and potential contamination. Drain lines should be insulated with a closed cell insulation to prevent condensation. *Use caution to prevent gaps in insulation that can cause condensation traps.*

C. Water/Soda and Syrup Connections

Connect plain and carbonated water lines as desired. Refer to Figure 1 for details. All water and chilled syrup (brands) are 3/8" barb. All ambient syrups (flavors) are 1/4" barb. Pressurize and test the system for leaks.

### 1.5 ELECTRIC POWER SUPPLY

**WARNING:**

**THIS APPLIANCE MUST BE EARTHED. THIS DISPENSER MUST BE ELECTRICALLY GROUNDED TO AVOID DANGER TO THE OPERATOR. THE POWER CORD PROVIDED HAS A THREE PRONG GROUNDED PLUG. IF A THREE HOLED GROUNDED ELECTRICAL OUTLET IS NOT AVAILABLE, USE AN APPROVED METHOD OF INSURING A PROPER GROUND TO THE DISPENSER.**

**NOTE**

Electrical connections must be installed and maintained in accordance with Federal, State, and Local requirements.

A. The electric power supply must be a 20 amp three prong, ground convenience outlet having the same configuration as the power cord.
B. Outlet must have proper voltage, cycles and ampere ratings. See Dispenser Name Plate for ratings.

**NOTE**

*Do not plug into electrical outlet unless ratings on name plate agree with local current available.*

### 1.6 SYSTEM CHECK

**WARNING:**

**ICE AUGER AND BIN AGITATION SYSTEM WILL OPERATE AUTOMATICALLY. DO NOT PLACE HANDS OR ANY BODY PARTS WITHIN THE BIN OR IN THE ICE CHUTE.**

A. With power connected, remove drip tray assembly and sanitary cover from ice bin. Raise the tower shroud by lifting at the front. Use the provided prop rod to secure the shroud in the raised position.
B. Push on ice cup lever to activate ice auger and bin agitation system. Verify auger rotation by viewing through the ice chute door. Verify bin agitator rotation inside ice bin.

## 2. START UP, PERIODIC MAINTENANCE, CHECKLIST, AND CLEANING GUIDE

### 2.1 CLEANING AND SANITIZING INSTRUCTIONS

A. GENERAL INFORMATION

1. Lancer equipment (new or reconditioned) is shipped from the factory cleaned and sanitized in accordance with NSF guidelines. This equipment must be cleaned and sanitized after installation is complete, and the operator of the equipment must provide continuous maintenance as required by this manual and/or state and local health department guidelines to ensure proper operation and sanitation requirements are maintained.

**NOTE**

The cleaning and sanitizing procedures provided herein pertain to the Lancer equipment identified by this manual. If other equipment is being cleaned, follow the guidelines

established for that equipment.

2. Cleaning and sanitizing should be accomplished only by trained personnel. Sanitary gloves are to be used during cleaning and sanitizing operations. Applicable safety precautions must be observed. Instruction warnings on the product being used must be followed.
3. Water lines are not to be disconnected during the cleaning and sanitizing of syrup lines to avoid contamination.
4. Do NOT use strong bleaches or detergents. They tend to discolor and/or corrode various materials.
5. Do NOT use metal scrapers, sharp objects, steel wool, scouring pads, abrasives, solvents, etc., on the dispenser.
6. Do NOT use hot water above 140°F (60°C). This may damage certain materials.

B. REQUIRED CLEANING EQUIPMENT

1. Cleansers (for example, Ivory Liquid, Calgon, etc.) mixed with clean, potable water at a temperature of 90 to 110 degrees Fahrenheit should be used to clean equipment. The mixture ratio, using Ivory Liquid, is one (1) ounce of cleanser to two (2) gallons of water. A minimum of five (5) gallons of cleaning mixture should be prepared. Any equivalent cleanser may be used as long as it provides a caustic based, non-perfumed, easily rinsed mixture containing at least two (2) percent sodium hydroxide (NaOH). Rinsing must be thorough and use clean, potable water which is also at a temperature of 90° to 110°F.

**NOTE**

Extended lengths of product lines may require that an additional volume of cleaning solution be prepared.

2. Sanitizing solutions should be prepared in accordance with the manufacturer's written recommendations and safety guidelines. The solution must provide 200 parts per million (PPM) available chlorine. A minimum of five (5) 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 200 parts per million (PPM) available chlorine. Sanitizing solution is to be purged from line(s) and equipment by flushing with product only until there is no after taste. *Do not rinse with water.*

**NOTE**

Please note that a fresh water rinse cannot follow sanitization of equipment. Purge only with the end use product until there is no after taste in the product. *This is an NSF requirement.*

Extended lengths of product lines may require that an additional volume of sanitizing solution be prepared.

3. Other:

   a. Clean cloth towels.
   b. Bucket.
   c. Small brush.
   d. Extra nozzle.
   e. Sanitary gloves.

## 2.2 PERIODIC MAINTENANCE, CHECKLIST AND CLEANING GUIDE

A. CLEANING AND SANITIZING THE LANCER MB-18

1. CLEANING PROCEDURE

**NOTE:**

***This procedure should be accomplished on a daily basis, or more often (if required).***

   a. Carefully remove the nozzle housings by turning counter-clockwise and pulling down from the nozzle body.
   b. Wash the nozzle housings in warm soapy water.
   c. Wet a clean cloth in warm soapy water.

d. While the nozzle housing is removed, wipe down the perimeter and end of the nozzle body.
e. Rinse nozzle body with clean warm water and towel dry.
f. Make certain that the nozzle o-ring is not torn or otherwise damaged. If necessary, replace damaged o-ring with LANCER PN 02-0232.
g. Reinstall the nozzle housing by sliding it over the nozzle body and turning clockwise to lock in position. Use an FDA approved silicon based lubricant (if necessary).
h. With warm soapy water, wipe down all exposed unit surfaces to include splash plate, cup rest, drip tray and bin front.
i. Pour remaining soapy water down drip tray drain.

2. ICE BIN CLEANING - START UP AND MONTHLY

a. Disconnect Dispenser from the power source
b. Melt out any remaining ice from the bin.
c. Remove Splash Plate, Drip Tray and front and rear bin covers.
d. Remove Agitator Motor Assembly by disconnecting the electrical connector from the harness and lifting the motor assembly straight up off of the alignment pins.
e. Remove the Upper Agitator Shaft, Agitator Assembly and Lower Agitator Shaft.
f. In a similar fashion, remove the auger assembly in the following manner.

(1) Disconnect the electrical connector from the control board and lift the motor assembly straight up and off of the alignment pins.
(2) Remove the four (4) screws holding the ice chute assembly to the faucet plate and lift the upper ice chute adapter off of the auger tube.
(3) Remove the auger by lifting it straight up and out of the bin. *Take care to carefully lift the tower shroud out of the way of the auger tube.*
(4) Remove the auger tube in a similar fashion by lifting it straight up and out of the bin.

g. Remove the Agitator Wheel Assembly and the Front and Rear Ice Wheel Shrouds from the dispenser.
h. Using cleaning solution, described in Section 2.1, and a clean cloth or soft brush, clean all removable parts, sides of Ice Bin, Ice Chute, and surface of aluminum casting.
i. Using hot water, thoroughly rinse away the cleaning solution.
j. Wearing sanitary gloves, soak a clean cloth towel in sanitizing solution, described in Section 2.1, and wash all surfaces of removable parts, sides of Ice Bin, Ice Chute, and surface of aluminum casting.

**NOTE**

*Inspect all components for wear and/or damage prior to reassembly.*

k. Wearing sanitary gloves, reassemble all removable parts.
l. Fill Unit with ice and replace Top Cover.

**NOTE**

Lancer does not recommend the use of shaved, flake, nugget, or pellet ice in the dispenser. Dispenser will only operate properly with cube ice.

m. Reconnect Dispenser to power source and check for proper functioning.

## 2.3 CLEANING AND SANITIZING BEVERAGE COMPONENTS - FIGAL SYSTEMS

**NOTE**

Extended lengths of product lines may require more time for flushing and rinsing lines than stated below.

A. Disconnect syrup lines from syrup containers (for example, quick disconnects, figal containers, etc.).
B. Connect hose half of syrup line to a syrup tank filled with clean, potable, room temperature water. Connect $CO_2$ supply hose to tank and pressurize.
C. Activate valve until water is dispensed. Flush and rinse line and fittings for a minimum of 60 seconds to remove all traces of residual product.

**WARNING**

**TO AVOID POSSIBLE PERSONAL INJURY OR PROPERTY DAMAGE, DO NOT ATTEMPT TO REMOVE SYRUP TANK COVER UNTIL $CO_2$ PRESSURE HAS BEEN RELEASED FROM TANK.**

D. Disconnect $CO_2$ supply hose from the water filled syrup tank.
E. Following the instructions as described in Section 2.1 above, mix appropriate amount of cleaning solution. Fill a tank with this solution. Connect hose half of syrup line to the tank. Connect $CO_2$ supply hose to tank and pressurize.
F. Activate valve and draw cleaning solution through lines for a minimum of 60 seconds. This will ensure line is flushed and filled with cleaning solution. Allow line to stand for at least 30 minutes.
G. Disconnect $CO_2$ supply hose from the tank.
H. Connect hose half of syrup line to a tank filled with clean, potable, water at a temperature of 90° to 110°F. Connect $CO_2$ supply hose to tank and pressurize.
I. Activate valve to flush and rinse line and fittings for a minimum of 60 seconds to remove all traces of cleaning solution. Continue rinsing until testing with phenolpthalein shows that the rinse water is free of residual detergent.

**WARNING**

**TO AVOID POSSIBLE PERSONAL INJURY OR PROPERTY DAMAGE, DO NOT ATTEMPT TO REMOVE SYRUP TANK COVER UNTIL $CO_2$ PRESSURE HAS BEEN RELEASED FROM TANK.**

J. Disconnect $CO_2$ supply hose from the tank.
K. Following the instructions as described in 2.1 above, mix appropriate amount of sanitizing solution. Fill a tank with this solution. Connect hose half of syrup line to the tank. Connect $CO_2$ supply hose to tank and pressurize.
L. Activate valve and draw sanitizing solution through line for a minimum of 60 seconds. This will ensure line is flushed and filled with sanitizing solution. Allow line to stand for at least 30 minutes.
M. Disconnect $CO_2$ supply hose from the tank.
N. Reconnect syrup lines to syrup containers (for example, quick disconnects, figal containers, etc.) and ready unit for operation.
O. Draw drinks to refill lines and flush the 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 until there is no after taste in the product.

P. Test dispenser in normal manner for proper operation. Taste dispensed product to ensure there is no off-taste. If off-taste is found, additional flushing of syrup system may be required.
Q. Repeat cleaning, rinsing, and sanitizing procedures for each valve and each circuit.

## 2.4 CLEANING AND SANITIZING BEVERAGE COMPONENTS - BAG-IN-BOX SYSTEMS

**NOTE**

Extended lengths of product lines may require more time for flushing and rinsing lines than stated below.

A. Disconnect syrup quick disconnect coupling from syrup packages and connect coupling to a bag valve removed from an empty Bag-in-Box (BIB) package.
B. Place syrup inlet line in a clean container filled with clean, potable, room temperature water.
C. Activate valve until water is dispensed. Flush and rinse line and fittings for a minimum of 60 seconds to remove all traces of residual product.
D. Following the instructions as described in 2.1 above, mix appropriate amount of cleaning solution in a clean container. Place syrup inlet line in container filled with cleaning solution.
E. Activate valve and draw cleaning solution through lines for a minimum of 60 seconds. This will ensure line is flushed and filled with cleaning solution. Allow line to stand for at least 30 minutes.
F. Place syrup inlet line in a clean container filled with clean, potable, water at a temperature of 90° to 110°F.
G. Activate valve to flush and rinse line and fittings for a minimum of 60 seconds to remove all traces

of cleaning solution. Continue rinsing until testing with phenolpthalein shows that the rinse water is free of residual detergent.

H. Following the instructions as described in Section 2.1 above, mix appropriate amount of sanitizing solution in a clean container. Place syrup inlet line in container filled with sanitizing solution.

I. Activate valve and draw sanitizing solution through line for a minimum of 60 seconds. This will ensure line is flushed and filled with sanitizing solution. Allow line to stand for at least 30 minutes.

J. Remove bag valve from quick disconnect coupling and reconnect syrup inlet line to syrup package. Ready unit for operation.

K. Draw drinks to refill lines and to flush the chlorine 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 until there is no after taste in the product. *This is an NSF requirement.*

L. Test dispenser in normal manner for proper operation. Taste dispensed product to ensure there is no off-taste. If off-taste is found, additional flushing of syrup system may be required.

M. Repeat cleaning, rinsing, and sanitizing procedures for each valve and each circuit.

## 3. HOW TO OPERATE THE LANCER MB-18

### 3.1 NORMAL OPERATION

A. Select the desired cup size from the cup holder.

B. Select ice dispense speed by pushing the desired rate on the ice speed select keypad on the left-hand side of machine (ice speed defaults to middle selection if not otherwise selected). Selection light will indicate choice.

C. Fill cup with desired amount of ice.

D. Place cup under nozzle below desired brand.

E. Select any two (2) desired bonus flavors from those available on the keypad by pushing the flavor label once. Selection indicator light will illuminate, acknowledging selection(s).

F. Push and hold brand label to fill cup.

G. Top off cup as desired

### 3.2 PROGRAMMING AND SETUP SOFTWARE

A. INTRODUCTION

**NOTE:**

The following descriptions reflect Firmware Version X.Y.Z And Palm Pilot™ software version U.V.W. *Lancer reserves the right to make changes and updates as required.* ***If you have any questions regarding the latest versions of programs, please contact your Lancer representative.***

1. The Lancer MB-18 is equipped with a serial communication port to facilitate set up, data retrieval and maintenance. In addition an infrared wireless port is available.
2. Access to the internal functions is available through the use of a Palm Pilot Hand Held computer along with software available from Lancer.

B. INSTRUCTIONS FOR USE OF PALM PILOT INTERFACE

1. General

The MB-18 Service Tool currently (Rev ) has four (4) basic sections. Each section addresses specific related features:

a. **ICE**

Deals with both ice storage bin and ice delivery auger settings including agitation and ice delivery speed

b. **VALVE**

Address carbonated/non-carbonated selection, end of pour soda delay settings, includes parameters for selecting syrup brand and bonus flavors as well as bonus flavor availability.

c. **DISPENSER**

Controls settings for maximum number of valves and maximum number of bonus flavors that can be simultaneously available. Includes settings for drink top off, flavor timeout and syrup start delay, and the beginning of the pour.

d. **TEST**

Includes three (3) modes: Normal, PC (portion control) Test, and Draw Test.

2. General Function

a. In all menus and sub-menus, either drop down selections are available by selecting the down arrow or square box icon next to the desired parameter.
b. All values on the Palm Pilot will be displayed as * until the data is retrieved from the machine.
c. Select the ***UPDATE*** button after changing the parameter to load the setting into the MB-18. You will be prompted to verify your change prior to the change becoming active. Select ***OK*** to accept the changes or ***CANCEL*** to return to the previous menu.

C. ADJUSTMENTS AND RECOMMENDED SETTINGS

1. **ICE MENU**

a. **AUGER SPEED MENU**

The MB-18 features three (3) pre-selected ice delivery speeds. This is to allow more flexibility to the customer with regard to filling very large cups more rapidly while not overfilling smaller cups.

Speed selection is via the three push buttons located on the front control panel. Speeds are pre-set by selecting a setting from 1 (slowest) to 10 (fastest) on the drop down menu for each of the three speeds (SLOW, MEDIUM AND FAST). The other speed adjustment (STIR) is for the auger stir speed and is also requires a setting of 1 through 10.

b. **AUGER SWITCH MENU**

The auger switch menu selects whether the cup lever or the push buttons initiate ice dispensing. Selection is via check box.

c. **MAX ON TIME MENU**

The max on time menu sets the maximum length of time that the auger can run. This is to prevent accidental locking or rigging of the switch. The switch must be momentarily released to reset.

The Ice Speed Switch Selection menu sets the time between the end of an ice dispense and the default (middle) ice speed setting being automatically selected.

d. **STIR TIME MENU**

Sets the on time (in seconds) and the off time (in minutes) for both the bin agitation and the auger.

2. **VALVE MENU**

a. Each nozzle position has individual controls to activate available bonus flavors and an "overall" end of pour soda delay. In addition, there are the beginnings of some rudimentary data collection functions. At this time it is not necessary to set bonus flavors to the actual installed flavor. They do need to be set to some flavor in order to be "on".
b. Nozzle positions 3, 4 and 5 have check boxes to select either/both plain or carbonated water for each position independently. Nozzle positions 1, 2 and 6 **each** must therefore be all carbonated water or all plain water.
c. Each brand position also has the option of an independent soda stop delay. This compensates for the varied dynamics (speeds) with which the syrup flows through the valve/nozzle system as compared to the soda/water. At this time, we would recommend

delays from 0.025 seconds for diet (thin) syrups to as much as 0.125 seconds or 0.150 seconds for very thick syrups (Big Red). The adjustment criteria are by visual inspection of the flow stream during a pour cycle.

### 4. MB-18 TROUBLE SHOOTING GUIDE

| TROUBLE | CAUSE | REMEDY |
|---|---|---|
| 4.1 Push Ice Lever/Chute/ Ice Button and nothing happens | A. Dispenser not connected to power source.<br>B. Microswitch defective.<br>C. Wiring Harness not plugged in at Interface Board.<br>D. Interface Board not properly connected to CPU board.<br>D. CPU Board defective. | A. Connect Dispenser to power source.*<br>B. Replace Microswitch.*<br>C. Plug in Wiring Harness.*<br>D. Verify connection.<br>D. Replace Board.* |
| 4.2 Push Chute Motor runs, but no ice dispenses. | A. Dispenser is out of ice.<br>B. Auger motor is not properly engaged to auger. | A. Fill unit with ice.<br>B Align and re-engage. |
| 4.3 Valves do not operate. | A. Transformer tripped.<br>B. Unit not plugged in. | A. Reset Transformer.<br>B. Plug in Dispenser.* |
| 4.4 Water in Ice Bin. | A. Coldplate Drain is obstructed.<br>B. Drain Hose is kinked. | A. Remove Drain Hose and 90 degree fitting to obtain access to Drain.<br>B. Replace Drain Hose. |
| * Light Emitting Diodes (LEDs) are provided on the PC Board to aid in troubleshooting electrical difficulties. Referring to the wiring diagram included in this manual (also affixed to the electrical box cover), the following information in Section 4 can be obtained from the LEDs. | | |

### 5. ILLUSTRATIONS, PARTS LISTINGS, AND WIRING DIAGRAMS

## MB18 SERVICE PARTS

| PART NO. | DESCRIPTION | QTY/UNIT | COMMENTS |
|---|---|---|---|
| **BIN ASSEMBLY** | | | |
| 01-1707 | FITTING, COLDPLATE DRAIN | 2 | |
| 04-1100 | NUT, JAM, 3/4-10 | 4 | CASTER ADJUSTMENT |
| 81-0475 | CASTER, W/ BRAKE | 2 | |
| 81-0476 | CASTER, W/O BRAKE | 2 | |
| 05-1961 | HOUSING, BEARING | 1 | |
| 05-1960 | BEARING, SPHERICAL | 1 | |
| 10-0443 | SHAFT, AGITATOR, LOWER | 1 | |
| 10-0445 | PIN, BEARING, SHAFT | 1 | |
| 05-1962 | CAP, BEARING HOUSING | 1 | |
| 82-1568 | WHEEL, DISPENSING | 1 | |
| 10-0362/01 | PIN, AGITATOR, IBD | 1 | PIN FOR DISP. WHEEL |
| 82-2961 | AGITATOR, MB18 | 1 | |
| 10-0471 | PIN, AGITATOR, MB18 | 3 | PIN FOR AGIT. AND MOTOR DRIVE |
| 10-0442 | SHAFT, AGITATOR, UPPER | 1 | |
| 52-2352 | BODY ASSY, EMITTER | 3 | O-RING 02-0155 X 2 EACH |
| 52-2353 | BODY ASSY, DETECTOR | 3 | O-RING 02-0155 X 2 EACH |
| **AGITATOR MOTOR ASSEMBLY** | | | |
| 91-0139 | MOTOR, AGITATOR, MB18 | 1 | COMES WITH START RELAY |
| 30-7827 | BRACKET, MOTOR RELAY | 1 | |
| 04-0251 | SCREW, 8-32 X .25 | 4 | MOUNT RELAY & BRACKET |
| 30-7961 | PLATE, MOUNTING, AGIT MTR | 1 | |
| 04-0233 | LOCK WASHER | 3 | MOUNT MOTOR |

***(Continued next page)***

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**AGITATOR MOTOR ASSEMBLY (CONTINUED)**

| PART NO. | DESCRIPTION | QTY/UNIT | COMMENTS |
|---|---|---|---|
| 04-0520 | SCREW, 1/4-20 X .50 | 3 | MOUNT MOTOR |
| 10-0463 | COUPLING, AGITATOR | 1 | |
| 10-0479 | PIN, AGITATOR COUP. | 1 | |
| **AUGER ASSEMBLY** | | | |
| 05-1805 | CAP, AUGER TUBE, BTM | 1 | |
| 05-0823 | BEARING, AUGER | 1 | |
| 04-0310 | SCREW, 8-16 X .62 | 3 | MOUNT BEARING TO CAP |
| 27-0073 | TUBE, AUGER | 1 | |
| 05-1834 | ADAPTER, ICE CHUTE | 1 | |
| 82-2799 | AUGER, 42", MB18 | 1 | |
| 10-0472 | COUPLING, AUGER MOTOR | 1 | |
| 10-0445 | PIN, BEARING SHAFT | 1 | |
| 91-0136 | MOTOR, AUGER, MB18 | 1 | |
| 03-0325 | PIN, ROLL, .188 X 1.25 | 1 | AUGER DRIVE PIN |
| 05-1803 | CAP, AUGER TUBE, TOP | 1 | |
| 04-1237 | SCREW, M6 X 16 | 4 | MOUNT CAP TO MOTOR |
| 10-0465 | SHAFT, AUGER DRIVE | 1 | |
| 03-0323 | KEY, SQUARE, 5MM | 1 | MOUNT SHAFT TO MOTOR |
| 03-0324 | RING, RETAINING, 1/2" | 1 | MOUNT SHAFT TO MOTOR |
| 04-0233 | WASHER, LOCK, 1/4" | 1 | MOUNT SHAFT TO MOTOR |
| 04-0033 | WASHER, FLAT, 1/4" | 1 | MOUNT SHAFT TO MOTOR |
| 04-0520 | SCREW, 1/4-20 X .50 | 1 | MOUNT SHAFT TO MOTOR |
| 30-8105 | BRACKET, AUGER MTR MNT | 1 | |
| 04-0124 | WASHER, #6 LOCK | 2 | MOUNT BRKT TO MOTOR |
| 04-0598 | SCREW, 6-32 X .375 | 2 | MOUNT BRKT TO MOTOR |
| **ICE CHUTE ASSEMBLY** | | | |
| 05-0925 | CHUTE, IBD | 1 | |
| 54-0191 | TUBE, PRINTED, IBD | 1 | |
| 05-0999 | LEVER, CHUTE, IBD | 1 | |
| 05-1488 | RESTRICTOR, CHUTE, IBD | 1 | |
| 12-0244 | SWITCH, CHUTE | 1 | |
| 04-0268 | SCREW, 6-19 X .625 | 1 | HOLDS SWITCH IN CHUTE |
| 03-0241 | SPRING, CHUTE, IBD | 1 | |
| 05-0948 | CHUTE, DOOR, IBD | 1 | |
| 05-0928 | DOOR, CHUTE, IBD | 1 | |
| 10-0234 | SHAFT, CHUTE DOOR | 1 | |
| 05-0359 | BUSHING | 2 | MOUNTS SHAFT IN CHUTE |
| 03-0113 | RING, RETAINING | 2 | MOUNTS SHAFT IN CHUTE |
| TBD | CHUTE MNT SCREW | 4 | MUST CHANGE PER NSF |
| **TOWER ASSEMBLY** | | | |
| 54-0289 | NOZZLE ASSY | 6 | |
| 04-0224 | SCREW, 6-32 X .25 | 24 | 4 PER NOZZLE |
| 05-1612 | FITTING ASSY, WATER | 30 | SYRUP FITTING IN NOZZLE |
| 05-1736 | PLUG, M/F NOZZLE | 18 | FOR UNUSED SYRUP INLETS |
| 02-0214 | O-RING | 96 | 2 PER SYRUP AND PLUG FITTINGS |
| 01-0012 | ADAPTER, 1/4BRB X DOLE | 6 | WATER/SODA FITTING IN NOZZLE |
| 02-0005 | O-RING | 12 | 2 PER WATER FITTING |
| 82-2713/01 | BLOCK, MNT, SINGLE | 39 | |
| 04-1089 | SCREW, 10-32 X 1 | 78 | 2 PER BLOCK |
| 19-0260 | VALVE ASSY, SYRUP | 18 | |
| 19-0261 | VALVE ASSY, WATER | 9 | |
| 19-0262 | VALVE ASSY, INJ. | 12 | |
| 05-1385 | FITTING, SODA/WATER OUT | 9 | SODA VALVE OUTLET ELL |
| 05-1866 | FITTING, OUTLET, SODA | 30 | SYRUP VALVE OUTLET ELL |
| 02-0089 | O-RING | 78 | 2 PER VALVE OUTLET |
| 01-1280 | FITTING, TEE, 1/4 BARB | 3 | TEE SODA & WATER ON 3,4 & 5 |

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**TOWER ASSEMBLY (CONTINUED)**

| PART NO. | DESCRIPTION | QTY/UNIT | COMMENTS |
|---|---|---|---|
| 08-0105 | TUBING, TYGON, 1/4" | 1.8FT | SODA/WATER LINES |
| 08-0391 | TUBING, TYGON, 3/16" | 3.5FT | SYRUP/INJ LINES |
| 07-0445 | OETIKER, 10.0 | 15 | FOR 1/4" TUBING |
| 07-0443 | OETIKER, 8.7 | 60 | FOR 3/16" TUBING |
| 12-0303 | SOCKET, POWER RELAY | 1 | |
| 12-0363 | RELAY, POWER | 1 | |
| 10-0473 | PROP ROD | 1 | |
| 04-1259 | EYBOLT | 1 | |
| 05-1280 | BUMPER | 2 | |
| **SHROUD ASSY** | | | |
| 52-2349 | PCB ASSY, INTERCONNECT | 2 | |
| 05-1535 | SUPPORT, PCB | 16 | |
| 12-0413 | SWITCH, 6 PROD, MB18 | 4 | |
| 12-0414 | SWITCH, 3 PROD, MB18 | 3 | |
| 81-0542 | HINGE, EURO/HIDDEN | 2 | |
| 04-0238 | SCREW, 8-16 X .375 | 6 | HINGE TO SHROUD |
| 04-0543 | SCREW, 10-32 X .5 | 4 | HINGE TO TWR FRAME |
| **FINAL ASSY** | | | |
| 52-2351 | PCB ASSY, CPU | 1 | |
| 30-8060 | PLATE, MOUNTING, CPU | 1 | |
| 05-1535 | SUPPORT, PCB | | |
| 52-2519 | JUMPER, INTERLOCK | 2 | |
| 52-2518 | JUMPER, KEYSWITCH | 1 | |
| 52-2380 | WIRE ASSY, SYRUP, J1 | 1 | VALVES 1 THRU 16 |
| 52-2381 | WIRE ASSY, SYRUP, J2 | 1 | VALVES 17 THRU 32 |
| 52-2382 | WIRE ASSY, SYRUP, J3 | 1 | VALVES 33 THRU 39 |
| 52-2383 | WIRE ASSY, RIBBON | 2 | INTERCONNECT TO CPU |
| 52-2384 | WIRE ASSY, POWER SUPPLY | 1 | POWER TO CPU |
| 52-2385 | WIRE ASSY, ICE DISPENSE | 1 | ICE CHUTE SWITCH TO INTERCONNECT |
| 52-2386 | WIRE ASSY, POWER RELAY | 1 | CPU TO POWER RELAY |
| 52-2399 | WIRE ASSY, RELAY/AGIT | 1 | POWER TO RELAY & MOTOR |
| 52-1499 | HRNS ASSY, WYE ICE LVL | 3 | SENSORS TO CPU |
| 30-8036 | PANEL, TOWER, RIGHT | 1 | |
| 30-8037 | PANEL, TOWER, LEFT | 1 | |
| 30-8038 | PANEL, TOWER, REAR | 1 | |
| 05-1843 | BACK, SHROUD | 1 | |
| 04-0175 | SCREW, 10-24 X .375 | 12 | ATTACH TOWER PANELS |
| 30-7871 | COVER, ICE BIN, FRONT | 1 | LID UNDER DRIP TRAY |
| 82-3044 | DRIP TRAY ASSY, FOAMED | 1 | |
| 23-1191 | CUP REST | 1 | |
| 51-5765 | PANEL, SPLASH | 1 | |
| 05-1857 | SHIELD, SPLASH, LEFT | 1 | |
| 05-1918 | SHIELD, SPLASH, RIGHT | 1 | |
| 21-0879 | CORD, EXTENSION | 1 | |
| 82-3052 | COVER ASSY, REAR, W/LIL | 1 | WITH ICE LINK |
| 82-3053 | COVER ASSY, REAR, W/OLIL | 1 | WITHOUT ICE LINK |
| 28-0466 | MANUAL, INST. & SERVICE | 1 | |
| **82-2947** | **POWER SUPPLY ASSY** | **1** | |
| 12-0420 | BLOCK, TERMINAL | 1 | |
| 21-0867 | CORD, PWR SPLY | 1 | |
| 12-0370 | LAMP, 24VAC, GRN | 1 | |
| 12-0419 | BREAKER, 3.5A | 1 | |
| 12-0449 | BREAKER, 15A | 1 | |
| 25-0072 | TRANSFORMER, 115/24VAC | 1 | |

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