

**Servend**<sub>®</sub>

# Servend 3 & 4 Flavor Magic Module

for the Factory Integrated MDH302/402Module



Flavor Magic



Notice: DO NOT throw this manual away.

This manual contains important information regarding this product.

Keep this manual at the dispenser location.







**Manitowoc Beverage Equipment** 2100 Future Drive • Sellersburg, IN 47172-1868 Tel: 812.246.7000, 800.367.4233 • Fax: 812.246.9922

In accordance with our policy of continuous product development and improvement, this information is subject to change at any time without notice.

### **FOREWORD**

Manitowoc Beverage Equipment (MBE) developed this manual as a reference guide for the owner/operator, service agent, and installer of this equipment. Please read this manual before installation or operation of the machine. A qualified service technician should perform installation and start-up of this equipment. Consult the *Troubleshooting Guide* within this manual for service assistance.

If you cannot correct the service problem, call your MBE Service Agent or Distributor. Always have your model and serial number available when you call.

our Service Agent	
Service Agent Telephone Number	
our Local MBE Distributor	
Distributor Telephone Number	
Model Number	
Serial Number	
nstallation Date	

### **UNPACKING AND INSPECTION**

Note: The unit was thoroughly inspected before leaving the factory. Any damage or irregularities should be noted at the time of delivery.

### WARRANTY INFORMATION

Consult your local MBE Distributor for terms and conditions of your warranty. Your warranty specifically excludes all beverage valve brixing, general adjustments, cleaning, accessories, and related servicing.

Your warranty card must be returned to Manitowoc Beverage Equipment to activate the warranty on this equipment. If a warranty card is not returned, the warranty period can begin when the equipment leaves the MBE factory.

No equipment may be returned to Manitowoc Beverage Equipment without a written Return Materials Authorization (RMA). Equipment returned without an RMA will be refused at MBE's dock and returned to the sender at the sender's expense.

Please contact your local MBE distributor for return procedures.

# **TABLE OF CONTENTS**

FOREWORD	3
UNPACKING AND INSPECTION	3
WARRANTY INFORMATION	3
SAFETY	
IMPORTANT SAFETY INSTRUCTIONS	
CARBON DIOXIDE WARNING	
QUALIFIED SERVICE PERSONNEL	
SHIPPING, STORAGE, AND RELOCATION	5
ADDITIONAL WARNINGS	5
NSF CERTIFICATION	5
GROUNDING IN STRUCTIONS	6
INSTALLATION	7
ESSENTIAL TOOLS	
COMPONENT INSTALLATION	
PLUMBING DIAGRAM	11
OPERATION	12
CONNECTORS	12
SANITARY LEVERS	12
SERIAL PLATE	12
PROGRAMMING MODES	13
DISPENSING MODES	13
CHANGING NUMBER OF ACTIVE FLAVORS	14
STEADY OR FLASHING TOUCH PAD LED	15
TIME DELAY AFTER DISPENSE	15
CONTROL BOARD PROGRAMMING	16
USER MAINTENANCE	18
PREVENTATIVE MAINTENANCE	18
BEVCLEAN™ PROCESS	18
CONVENTIONAL CLEAN/SANITIZE METHOD	19
EXPLODED VIEWS, PARTS & DIAGRAMS	20
RETROFIT EXPLODED VIEW PARTS LIST	20
MODULE EXPLODED VIEW PARTS LIST	21
WIRING DIAGRAM	22
TROUBLESHOOTING	23
INDEX	27



# **SAFETY**

# **IMPORTANT SAFETY INSTRUCTIONS**

Carefully read all safety messages in this manual. Learn how to operate the unit properly. Do not allow anyone to operate the unit without proper training and keep it in proper working condition. Unauthorized modifications may impair function and/or safety and affect the life of the unit.

### **NSF CERTIFICATION**

For the revised Product to be considered certified, the certified field modification Flavor Magic shall be used only on the following certified products: Manitowoc Beverage Equipment, Servend Models MD-150, MD-175, MD-200, MD-250, MDH-302, MDH-402, SV-150, SV-175, SV-200 and SV-250.

### CARBON DIOXIDE WARNING



**DANGER:** Carbon Dioxide ( $CO_2$ ) displaces oxygen. Exposure to a high concentration of  $CO_2$  gas causes tremors, which are followed rapidly by loss of consciousness and suffocation. If a  $CO_2$  gas leak is suspected, particularly in a small area, immediately ventilate the area before repairing the leak.  $CO_2$  lines and pumps should not be installed in an enclosed space. An enclosed space can be a cooler or small room or closet. This may include convenience stores with glass door self serve coolers. If you suspect  $CO_2$  may build up in an area, venting of the B-I-B pumps and / or  $CO_2$  monitors should be utilized.

### QUALIFIED SERVICE PERSONNEL



**WARNING:** Only trained and certified electrical and plumbing technicians should service this unit. All wiring and plumbing must conform to national and local codes.

# SHIPPING, STORAGE, AND RELOCATION



**CAUTION:** Before shipping, storing, or relocating this unit, syrup systems must be sanitized. After sanitizing, all liquids (sanitizing solution and water) must be purged from the unit. A freezing environment causes residual sanitizing solution or water remaining inside the unit to freeze, resulting in damage to internal components.

### ADDITIONAL WARNINGS







Installation and start-up of this equipment should be done by a qualified service technician. Operation, maintenance, and cleaning information in this manual are provided for the user/operator of the equipment.



# **SAFETY**

### **GROUNDING IN STRUCTIONS**



WARNING: Risk of electrical shock. Connect to a properly grounded outlet only.

This appliance must be grounded. 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 conductor and a 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.

DANGER – 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 stripes 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 as to 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.

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

- a) Read all the instructions before using the appliance.
- b) To reduce he risk of injury, close supervision is necessary when an appliance is used near children.
- c) Do not contact moving parts.
- d) Only use attachments recommended or sold by the manufacturer.
- e) Do not use outdoors.
- f) For a cord-connected appliance, the following shall be included:
  - Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
  - Unplug from outlet when not in use and before servicing or cleaning.
  - Do not operate any appliance with a damaged cord or plug, or after the appliance malfunctions or is dropped or damaged in any manner. Return appliance to the nearest authorized service facility for examination, repair, or electrical or mechanical adjustment.
- g) For a permanently connected appliance Turn the power switch to the off position when the appliance is not in use and before servicing or cleaning.
- h) For an appliance with a replaceable lamp always unplug before replacing the lamp. Replace the bulb with the same type.
- i) For a grounded appliance Connect to a properly grounded outlet only. See Grounding Instructions.

### SAVE THESE INSTRUCTIONS



### **ESSENTIAL TOOLS**

- Tubing Cutters
- · Oetiker pliers
- · Phillips and slotted screwdriver

- Six (6) inch adjustable wrench
- Tape Measure

### **COMPONENT INSTALLATION**

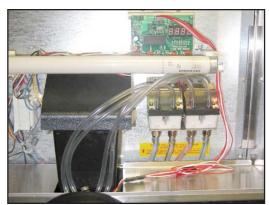


FIGURE 1

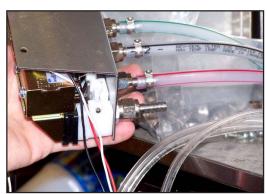


FIGURE 2



FIGURE 3

- 1. Additional components must be field installed and are found in a box shipped with the dispenser.
- 2. 0-30 CO<sub>2</sub> regulator, CO<sub>2</sub> and Flavor Magic syrup lines, fittings, and clamps must be field supplied.
- 3. Assure that power is disconnected from unit.
- 4. Remove translite, lamps in work area, and splash panel from dispenser. (For extended merchandisers)
- 5. Route ¼" (.635 cm) syrup lines (field supplied) from BIB rack containing Flavor Magic syrup in back room to dispenser. The number of lines will be determined by the number of flavors used.
- 6. If using Flavor Magic modules on both sides of two (2) rocking chute dispensers and the same flavors are used on both sides, use ¼" by ¼" by ¼" tees (.635 cm x .635cm x .635 cm) to deliver syrup to both sides.
- 7. Bring syrup lines up behind post mix valve plate. Use caution so wires that power post mix valves are not broken or dislodged. *(See Figure 1)*
- To facilitate connecting Flavor Magic syrup lines, remove Flavor Magic valve mounting plate(s) from dispenser by removing the two #10 x ¾" (.953 cm) screws securing the valve mounting plate to the dispenser bulkhead.
- Attach nuts, washers, and barbed fittings to the Flavor Magic valve inlets. Be sure NOT to over tighten nuts.

Note: ¼" white nylon washers are included in the fitting package and <u>must</u> be used to prevent syrup leaks in this area.



### **COMPONENT INSTALLATION**



FIGURE 4



FIGURE 5



FIGURE 6



FIGURE 7

- 10. Attach Flavor Magic syrup lines to barbed fittings and securely clamp with Oetiker clamps provided. (See Figure 2)
- 11. Reposition Flavor Magic valve mounting plate(s) and secure with the two #10 x ¾" (.953 cm) screws. Assure that nuts remain tight on outlets.
- 12. Remove the caps from the valves on either side of the rocking chute.
- 13. Remove the merchandiser or carefully lift up the merchandiser approximately 1 inch on the side where the Flavor Magic is to be installed.
- 14. Insert the LH mounting bracket, 020000896, under the merchandiser at a 45 deg. angle. (See Figure 3)
- 15. Rotate the bracket vertically hooking the back flange over the valve mounting cap and passing the front plate through the opening in the merchandiser in front of the rocking chute. (See Figure 4)
- 16. Insert the RH mounting bracket, 020000897, under the merchandiser at a 45 deg. angle. (See Figure 5)
- 17. Rotate the bracket vertically hooking the back flange over the valve mounting cap and passing the front plate through the opening in the merchandiser in front of the rocking chute. (See Figure 6)
- 18. Carefully lower the merchandiser into place. *(See Figure 7)*
- 19. Route the tubing and ribbon cables from the module assembly between the opening in the merchandiser and mounting brackets. *(See Figure 8)*

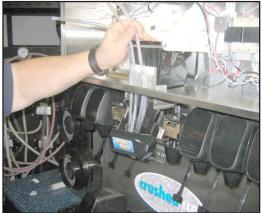


FIGURE 8



### **COMPONENT INSTALLATION**



FIGURE 9

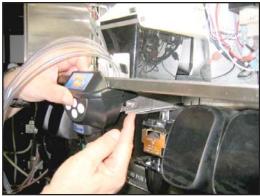


FIGURE 10



FIGURE 11

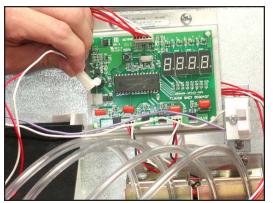


FIGURE 12

- 20. Align the channels on the center bracket, 020000898, inside the channels on the LH and RH mounting brackets. (See Figure 9)
- 21. Loosely fasten the thumbscrews and washers on both sides of the bracket assembly
- 22. Push the plastic module housing against the merchandiser frame. Firmly tighten the thumb screws. (See Figure 10)
- 23. Secure the tubing through the plastic clips on the mounting brackets. *(See Figure 11)*



**CAUTION:** DO NOT PINCH TUBING BETWEEN CHUTE PLATE AND MERCHANDISER.

- 24. Check that the mounting brackets are not rubbing the rocking chute. Lift the merchandiser and slide the bracket assembly left or right to allow the brackets to clear the chute.
- 25. Replace "Push for Ice" lever in lower position holes on rocking chute or replace with sanitary lever as required by local codes. Check to assure door lock is functioning properly.
- 26. Attach electrical connectors to control board(s) at J3 with harness provided. (See Figure 12)
- 27. **In back room**, turn off CO<sub>2</sub> supply at tank.
- 28. Route ¼" (.635) beverage tubing (field supplied) from CO<sub>2</sub> supply to 0-30 PSI regulator (field supplied) and secure with proper Oetiker clamp.
- 29. Place BIB syrup on BIB rack.
- 30. Connect inlet and outlet syrup lines to pumps.
- 31. Attach BIB connectors to flavor syrup boxes. NOTE: BIB connectors vary with syrup manufacturer. Assure that correct connector is used. (See CONNECTORS).
- 32. Turn on CO<sub>2</sub> supply and adjust 0-30 PSI regulator to twenty (20) PSI (1 bar). *(See Figure 13)*



### **COMPONENT INSTALLATION**





- 33. Check syrup and CO<sub>2</sub> connections for leaks. **Return to dispenser unit.**
- 34. Carefully position flavor decals on decal overlay.
- 35. Carefully position clear decal overlay over flavor decals to protect them from damage or removal.
- 36. Restore power to unit. Blue LED light(s) should be lit.
- 37. Assure that control board readout is in dispense mode ("- - -")
- 38. Purge air from syrup lines by utilizing the purge/sanitize mode until syrup is running freely.
- 39. Return control board to dispense mode by pressing the program button.
- 40. Place cup under nozzle and activate dispense by pressing each flavor icon. Dispense rate is preset at one-half (1/2) oz (15 ml) and dispense time is preset at one (1) second. Additional set up is normally not required for proper operation.
- 41. Neatly arrange and tie up wires.
- 42. Replace lamps and splash panel.
- 43. Carefully replace translite. (See Figure 14)
- 44. Review basic Flavor Magic operation, flavor BIB changing, periodic cleaning, and maintenance with customer. *(See Figure 15)*



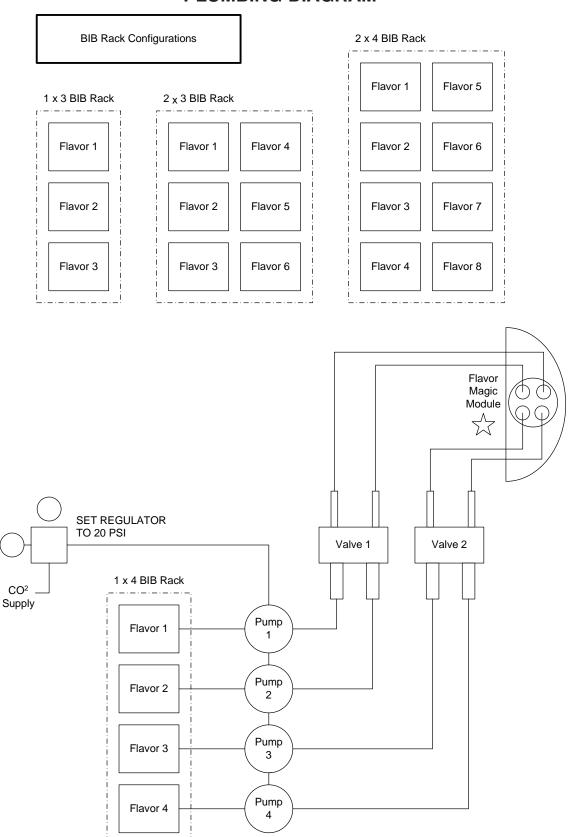




FIGURE 15



### **PLUMBING DIAGRAM**





### **CONNECTORS**

Use the following part numbers when ordering additional kits or replacement parts.







PCS1 (Pepsi)

### **SANITARY LEVERS**

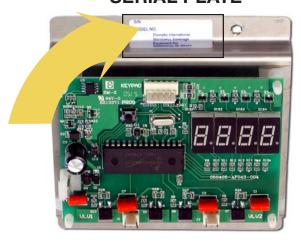




020000409 Narrow Lever is used on the following units: MD & SV-175, MD & SV-200/250 (10 valve), MDH-402 (20 valve)

020000410 Wide Lever is generally used on the following units: MD & SV-150, MD & SV-200/250 (8 valve), MDH-302/402 (16 valve)

### **SERIAL PLATE**

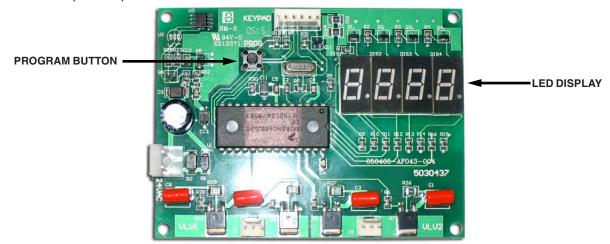


Location of the serial plate. On dual side installations only one serial number is used.



### PROGRAMMING MODES

To exit the program mode at any time hold the program button for >3 seconds and the controller will switch to the dispense mode. The program mode can only be accessed by pressing the program button during the first five seconds of initial power up.



### **PROGRAM DISPENSE TIME**

- The program mode is used to adjust the dispense time. To access the Program Mode, disconnect power to the control board, wait ten (10) seconds and reconnect power.
- 2. Press the program button one time on the control board during the first five (5) seconds after power is applied.
- 3. The LED display will show "P r o". To check the current dispense time, press the corresponding flavor button on the touchpad and the time will be displayed on the LED (Example "1.0"). a. To increase the time (+) by two-tenths (0.2) second increments press flavor button 1 (far left button). To decrease the time (-) by two-tenths (0.2) second increments press flavor button 3 (far right button). The default setting is one (1.0) second.

### **PURGE/SANITIZE**

Purge/Sanitize mode allows the user to purge air from the syrup lines during initial start-up. The second function of this mode is to energize the valves to move sanitizer through all syrup lines automatically.

Enter the Purge/Sanitize Mode by press the program button until "P – S" is displayed.

Pressing flavor button 1 (far left button) will activate a sequenced four (4) second dispense that starts with flavor 1 then to flavor 2 etc. The valves will continue to cycle for 15 minutes or until the program button is pressed once.

### **DISPENSING MODES**

### **NORMAL DISPENSE**

With power applied to the control board, it will automatically start in dispense mode after a five (5) second delay. The LED display will count down from four (4) to zero (0) and then show "- - - -" while in dispense mode. Simply pressing the desired flavor on the touchpad dispenses Flavor Magic.

### **FLAVOR COUNTER**

The flavor counter tracks the number of flavor shots dispensed per flavor. To access Flavor Counter Mode, press the program button on the control board once for at least three (3) seconds. The LED display will show "C n t". In the count mode the Flavor Magic module will not dispense. Check the number of dispenses for any flavor by pressing the corresponding touchpad button. To check another flavor press the program button once and then the corresponding flavor button on the touchpad. To return to dispense mode press the program button until the LED display shows "- - - -".



### **CHANGING NUMBER OF ACTIVE FLAVORS**

To line up flavors with valves, note that valve outlets number from left to right 1...2...3...4. Touch pad flavor tab is numbered as shown below. Connect vinyl tube from outlet 1 and dispense with flavor tab 1, etc..



The current Flavor Magic control board is set up in the 4 flavor default mode. This mode will handle all dispensing situations whether 3 or 4 flavors are used. Some early boards were set up as default in the 3 flavor mode. If the customer desires to add another flavor for a total of 4, proceed as follows:

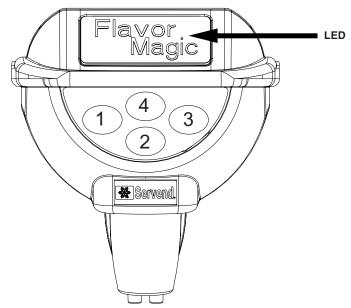
- Power down the circuit board by disconnecting the 24 volt connector in the lower left hand side of the board. "24VAC" is imprinted on the board next to the pin connection.
- 2. Wait a minimum of 10 seconds.
- 3. Power up the board by connecting the 24 volt connector.
- IMMEDIATELY (within 5 seconds) press and hold the "PROG" button down.
- 5. After a few seconds, the number "4" will appear on the display.
- 6. Release the "PROG" button. The board will cycle the display from "Pro" to "4.....3.....2.....1.....0" and then to "- - -".

- 7. The circuit board is now enabled to dispense the 4<sup>th</sup> flavor. The 4<sup>th</sup> flavor button is the top middle button.
- 8. A flavor tab for the 4<sup>th</sup> flavor will have to be added to the touch pad. To do this, obtain one (1) P/N 5030780 20 flavor decal pad. Remove the P/N 5031579 decal overlay and add the 4<sup>th</sup> flavor tab as well as replace any flavor tabs which came off when removing the decal overlay. Note position of 4<sup>th</sup> flavor on the touch pad in the picture and placed tab where indicated. Obtain a new P/N 5031579 decal overlay and place over the tabs.

If the customer decides to go back to 3 flavors, it will not be necessary to change the board back to 3 flavors. However, it can be done by following steps 1 through 6 above. The number "3" will appear on the display. Then disconnect the number "4" syrup from the system, remove the 5031579 decal overlay, remove the flavor tab "4" and replace the 5031579 decal overlay. It would be a good idea to have an additional P/N 5030780 in case flavor tabs are damaged in the process.



### STEADY OR FLASHING TOUCH PAD LED



The blue LED on the touch pad can be set to one (1) of two (2) display modes:

- Steady illumination. This is the default mode and the LED will remain on steady until dispense is activated. The light will flash only when product is being dispensed. In this mode, the control board display will read "Off".
- 2. Flash mode. The LED will turn on for ½ second and off for ½ second.

Enter the Flash mode by pressing the program button until a flashing "- - - -" is displayed. Pressing flavor button 1 (far left button) will switch from "Off" (default) to "On". The LED will now flash. To change back to the default simply press flavor button 1 again and the display should read "off". Press program button to exit to the next program function.

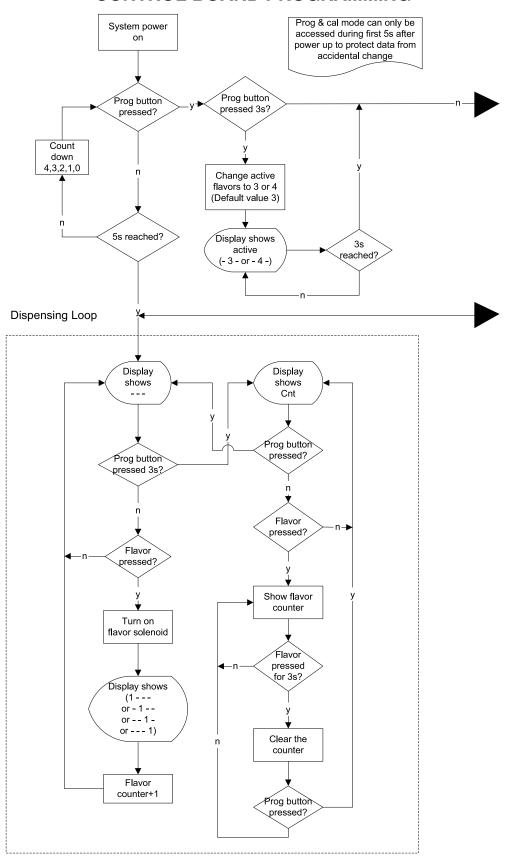
### TIME DELAY AFTER DISPENSE

A time delay can be programmed into the control board which will prevent the system from dispensing another flavor for a period of from 0 to 10 seconds following a dispense. The default is 0 seconds.

Enter the Time Delay mode by pressing the program button until "d L A Y" is displayed. To check the current delay time press any flavor button one time and the current value will be displayed. To increase the time (+) by 1.0 second increments press flavor button 1 (far left button). To decrease the time (-) by 1.0 second increments press flavor button 3 (far right button).



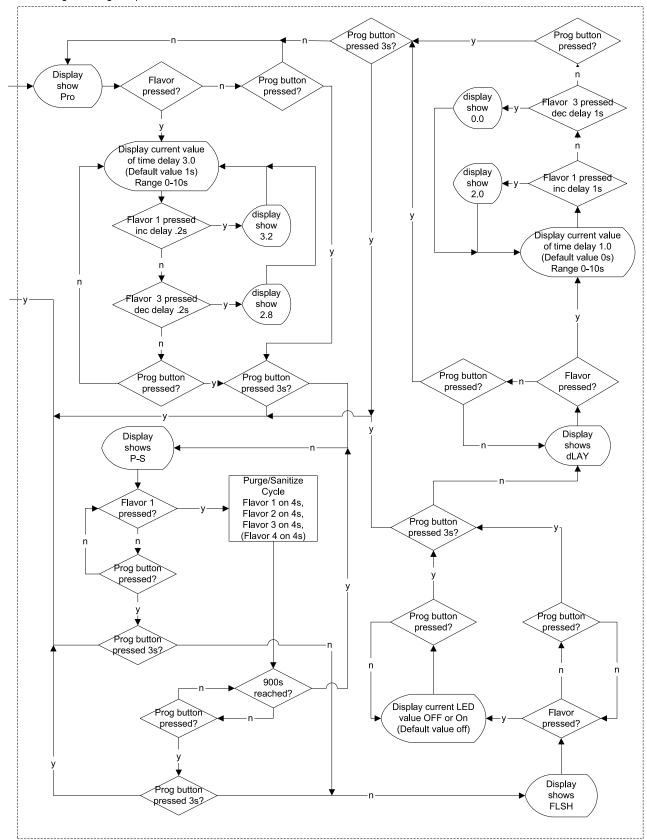
### **CONTROL BOARD PROGRAMMING**





### **CONTROL BOARD PROGRAMMING**

### **Programming Loop**





### **USER MAINTENANCE**

### PREVENTATIVE MAINTENANCE



**NOTICE:** Under normal operating conditions, periodic cleaning is minimal but absolutely necessary.

### **▲** WARNING

Flush sanitizing solution from syrup system

Residual sanitizing solution left in system could create a health hazard



Proper care of the Flavor Magic is a vital part of keeping your unit in top condition. Following the guidelines below will assist you in continued trouble free operation. Contact MBE at 1-800-367-4233 for more information about our **ProActive Maintenance** Program.

- 1. Conduct daily maintenance of the unit. Clean the nozzle and retainer area in order to prevent syrup buildup in this area by doing the following:
  - a. Fill a small cup with warm to hot water.
  - b. Immerse the nozzle area fully by drawing the cup up and around the nozzle.
  - Allow syrup to dissolve into the water. Change the water several times to assure the syrup is adequately removed.
  - d. Discard water.

- 2. After each removal from an empty bag and prior to placing connector on new bag clean BIB connectors to prevent syrup residue by doing the following:
  - a. Prepare a bucket of warm to hot water.
  - Submerge connector in water until syrup residue is dissolved.
  - c. Place connector on new bag.
  - d. Discard water.

### **BEVCLEAN™ PROCESS**

To efficiently clean entire dispensing circuit:

- Hook up BevClean<sup>™</sup> system per BevClean<sup>™</sup> instructions.
- Set Control Board to "Purge" mode. Press Flavor 1 tab to initiate "Purge" Cycle to draw BevClean™ into system. Allow cleaner to remain in system for five (5) minutes.
- Disconnect BevClean<sup>™</sup> system and reconnect disconnects to BIB's.
- Set Control Board to "Purge" mode. Press Flavor 1 tab to initiate "Purge cycle to completely remove BevClean™ from syrup lines and vinyl tubing. (See PURGE/SANITIZE in the Programming Modes section)
- 5. Set Control Board to "Purge" mode. Press Flavor 1 tab to initiate "Purge cycle completely fill system with syrup.
- Restore Control Board to "DISPENSE" mode. Dispense and discard sufficient samples to assure all BevClean™ is removed from system.



### **USER MAINTENANCE**

### **CONVENTIONAL CLEAN/SANITIZE METHOD**



**NOTICE:** When changing syrup boxes, immerse connector in warm water (100° F, 38° C - maximum temperature) to remove syrup residue.

• RECOMMENDED SANITATION INTERVAL IS EVERY 90 DAYS

### **▲** WARNING

Flush sanitizing solution from syrup system

Residual sanitizing solution left in system
could create a health hazard



The following is needed to clean and sanitize the Bag-in-Box (BIB) system:

- Three (3) clean buckets
- · Plastic brush or soft cloth
- Mild detergent

- Unscented bleach (5% NA CL O) or commercial sanitizer
- Bag-in-Box (BIB) connector

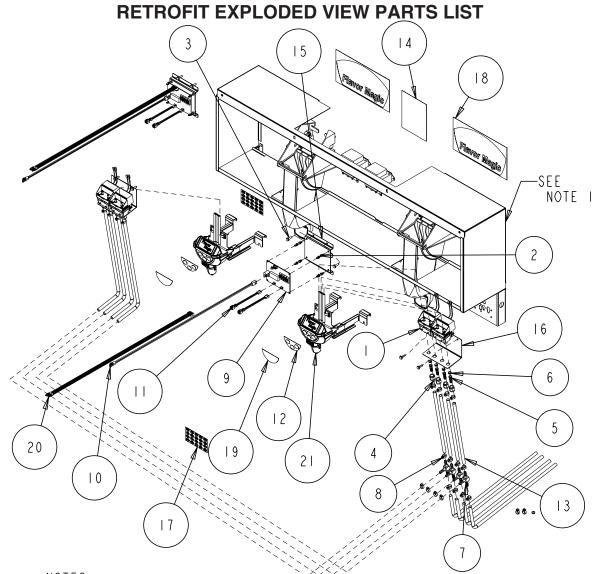
### To Clean:

- 1. Prepare the following in the buckets:
  - Bucket 1 warm (100° F/38° C) tap water for rinsing
  - Bucket 2 mild detergent and warm (100° F/38° C) water
  - Bucket 3 mix a solution of unscented bleach (5% NA CL O) or commercial sanitizer and warm 100° F/38° C) water. Mixture should supply 100-PPM available chlorine 1/4 oz. (30ml) bleach to 1-gallon (3.8 liters) water.
- 2. Disconnect the "syrup-line side" of the BIB connector.
- 3. Rinse connector in warm (100° F/38° C) water.
- 4. Connect syrup connector to BIB connector and immerse both into Bucket 1. A "bag side" connector can be created by cutting the connector from an empty disposable syrup bag.
- 5. Set the Control Board to the "Purge" mode by pressing flavor button 1 (far left button) to activate a sequenced four (4) second dispense that starts with flavor 1 goes to flavor 2 etc. (The valves will continue to cycle for 15 minutes or until the program button is pressed once).
  - (See PURGE/SANITIZE in the Programming Modes section)
- 6. Draw rinse water through system until clean water is dispensed.
- 7. Connect Bucket 2 to system.
- 8. Draw detergent solution by activating "Purge" mode as described in step 5 and operating valves until detergent solution is dispensed.

- 9. Allow detergent solution to remain in system for five (5) minutes.
- 10. Connect Bucket 3 to system.
- 11. Draw sanitizing solution by activating "Purge" mode as described in step 5 and operating valves until sanitizing solution is dispensed.
- 12. Allow sanitizer to remain in system for fifteen (15) minutes.
- 13. Remove the nozzle(s) and retainer(s) from the Flavor Magic Module(s) and scrub them with a plastic brush or cloth using the detergent solution.
- 14. Soak plastic tubing ends at retainer in sanitizing solution for fifteen (15) minutes.
- 15. Soak nozzle(s) and retainer(s) in sanitizer for fifteen (15) minutes.
- 16. Replace nozzle(s) and retainer(s).
- 17. Connect Bucket 1 to system.
- 18. Draw rinse solution by activating "Purge" mode as described in step 5 and operating valves until rinse water is dispensed.
- 19. Attach syrup connectors to BIB's.
- 20. Draw syrup by activating "Purge" mode as described in step 5 and operate valves until only syrup is dispensed.
- 21. Place Control Board in dispense ("- - -") mode and operate each flavor three (3) times into a disposable cup.
- 22. Discard the cup and contents.



# **EXPLODED VIEWS, PARTS & DIAGRAMS**



NOTES:

I. FLAVOR MAGIC MODULE NOT COMPATIBLE WITH 5 INCH DEEP (VALVE CAP TO OUTSIDE) MERCHANDISERS. FOR 5 INCH DEEP STANDARD MERCHANDISERS: 020000546 REQUIRED FOR MDH302. 020000544 REQUIRED FOR MDH 402.

NO	Part Number	Description
1	202-FN-D22	VLV ELEC PL BLK
2	00212539	STANDOFF 7/16 HIGH
3	00216417	SCR #10 X 3/4 HEX HD
4	1701108	NUT 1/4 x 3/8 SWIVEL FITTING
5	1701109	FITTING 1/4" SWIVEL HOSE
6	1701113	WASHER 1/4" WHITE NYLON
7	1701117	FITTING 1/4" BARBED HOSE TEE
8	10.5-505R	CLAMP STEPLESS SS 10.5-505R
9	5030437	BOARD CTRL 4 FLAVOR
10	5030439	HARNESS POWER 24V FM
11	020001228	HARNESS 2VLV FM LONG

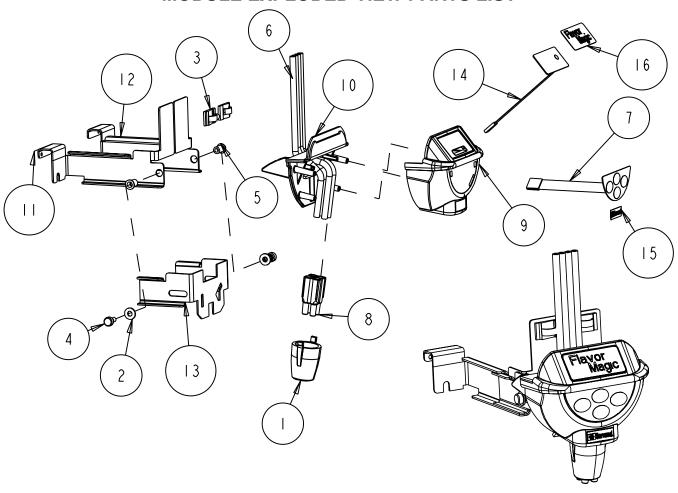
	NO	Part Number	Description
**	12	5030443	DECAL OVRLAY 3 BUTTON FM
	13	5030445	TUBING BUNDLE 4-1/4" 50'
	14	5030678	LABEL WIRING 24V FM
	15	5030766	PLATE CTRL BRD FM
	16	5030767	PLATE 2 VLV FM
	17	5030780	DECAL 20 FLAVOR FM
	18	5031219	SIGN FLAVOR MAGIC POS
	19	5031579	DECAL OVRLAY CLR FM
	20	020001030	HARNESS CTRL BRD POL FM
	21	020001155	MODULE FM MDH

<sup>\*\* 4</sup> Flavor Installations Use: 5030771 - Decal Overlay 4 Button FM



# **EXPLODED VIEWS, PARTS & DIAGRAMS**

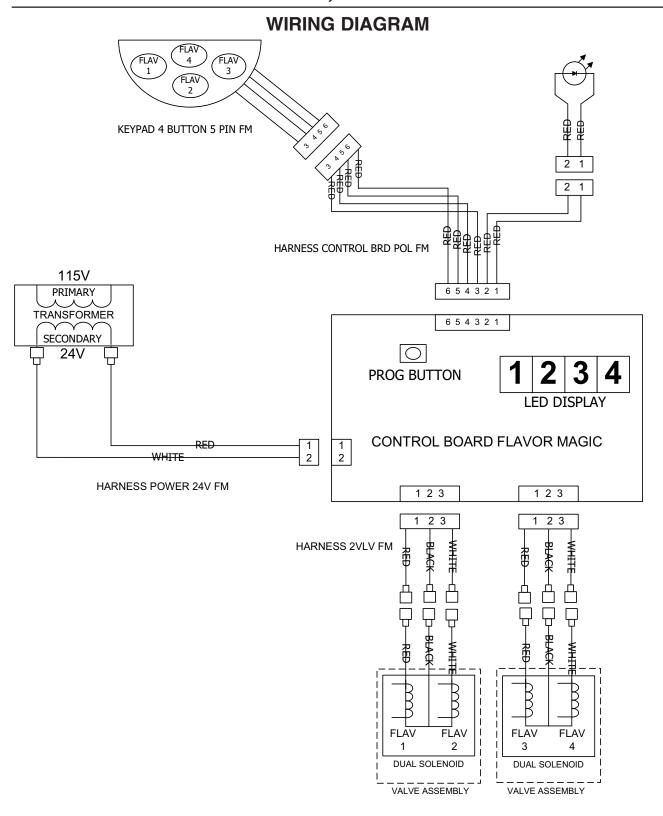
# **MODULE EXPLODED VIEW PARTS LIST**



NO.	Part Number	Description
1	501-25	NOZZLE SOFTPOUR BLK
2	00850350	Washer, Flat, .219 ID X .50D x .05
3	0905403	CLIP PLASTIC WIRE & CORD
4	5012790	SCR 10-32X1/2 KNURL UNSLT
5	5029806	RIVNUT 10-32
6	5030446	TUBING 1/4X4'
7	5031193	KEYPAD 4 BUTTON FM
8	5031453	RETAINER QUAD TUBE FM
9	020000473	COVER, FRNT, FM, ICEPIC
10	020000493	COVER, REAR, FM, ICEPIC
11	020000896	BRACKET, MNTG, LH
12	020000897	BRACKET, MNTG, RH
13	020000898	BRACKET, MNTG, CENTER
14	020001033	PAD LED FM
15	020001034	LABEL, LOGO, SERVEND, HRZ
16	020001035	LABEL FM GRAPHIC



# **EXPLODED VIEWS, PARTS & DIAGRAMS**





# **TROUBLESHOOTING**

PROBLEM	CAUSE	
Flavor Magic syrup does not dispense when flavor button is depressed.	Syrup supply depleted.	
liavoi bullottis depressed.	CO <sub>2</sub> supply depleted.	
	BIB disconnect loose or packed with dried syrup residue.	
	Check CO <sub>2</sub> regulator for proper setting — 20 PSI (1 Bar).	
	Check CO <sub>2</sub> lines for kinks.	
	Check syrup line for kinks.	
	BIB pump inoperative.	
	Valve solenoid inoperative.	
	Vinyl tubing off at nozzle or at solenoid.	
	Vinyl tubing plugged with syrup at nozzle or at solenoid.	
No power to control board.	Check power supply at transformer — 24 VAC.	
	Check connector to transformer and Control Board Flavor Shot.	
	Check wiring for loose connections or open wires.	
Control board inoperative .	Assure that Control Board is set to dispense – " – – – " ·	
	Check for damage to Control Board.	
If flavor syrup does not shut off.	Check for stuck solenoid.	

# DO NOT USE

# Under Preventative Maintenance

Please post this page in front of dispenser when cleaning system.



# **INDEX**

В	F	P	
brixing 3	FOREWORD 3	Parts 20, 21, 22	
С	1	Q	start-up
		Qualified Service Personnel 5	Т
	Installation Date 3	R	TROUBLESHOOTING 23
CO2 monitors 4	irregularities 3	Relocation 5	U
D	M	return procedures 3	UNPACKING 3
damage	MBE		W
Diagrams	Model Number 3 modifications 5	SAFETY 5, 6 sanitizing 4	Warning 5
	0	Serial Number 3	WARRANTY INFORMATION 3 water-to-syrup ratio. <i>See</i> brixing
E	Operation 5	service assistance	water-to-syrup ratio. See brixing
Exploded Views 20, 21, 22		Shipping 5	





Manitowoc Beverage Equipment 2100 Future Drive • Sellersburg, IN 47172-1868 Tel: 812.246.7000, 800.367.4233 • Fax: 812.246.9922 www.manitowocbeverage.com

In accordance with our policy of continuous product development and improvement, this information is subject to change at any time without notice.