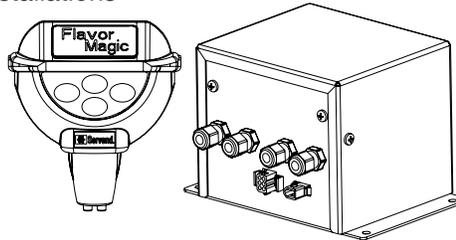




Servend®

Flavor Magic

Servend 3 & 4 Flavor Remote Box
SV150/175 & MDH302 with Crusher Aftermarket Installations



INSTALLATION & SERVICE GUIDE

Part Number 020001309



Notice: DO NOT throw this manual away.
This manual contains important information
regarding this product.
Keep this manual at the dispenser location.



ISO 9001:2000
Quality System Certified



Manitowoc
Foodservice Group

Manitowoc Beverage Equipment

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

January 29, 2007 REV0



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.

Your Service Agent _____

Service Agent Telephone Number _____

Your Local MBE Distributor _____

Distributor Telephone Number _____

Model Number _____

Serial Number _____

Installation 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.

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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 (CO₂) displaces oxygen. Exposure to a high concentration of CO₂ gas causes tremors, which are followed rapidly by loss of consciousness and suffocation. If a CO₂ gas leak is suspected, particularly in a small area, immediately ventilate the area before repairing the leak. CO₂ 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 CO₂ may build up in an area, venting of the B-I-B pumps and / or CO₂ monitors should be utilized.

QUALIFIED SERVICE PERSONNEL



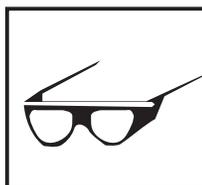
WARNING: Only trained and certified electrical and plumbing technicians should service this unit. All wiring and plumbing must conform to national and local codes.

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



⚠ WARNING

When using cleaning fluids or chemicals, rubber gloves and eye protection should be worn



WARNING

Flush sanitizing solution from syrup system
Residual sanitizing solution left in system could create a health hazard



⚠ WARNING

UNPLUG UNIT BEFORE
SERVICING OR
CLEANING

ELECTRIC SHOCK
HAZARD

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 INSTRUCTIONS



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 the 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

INSTALLATION

ESSENTIAL TOOLS

- Tubing Cutters
- Oetiker pliers
- Phillips and slotted screwdriver
- Power drill
- Six (6) inch adjustable wrench
- Tape Measure

MODULE INSTALLATION

The Flavor Magic Module is compatible with both SV and MDH units. See the appropriate section for instructions on attaching the module assembly to the unit. For SV units, also see SV merchandiser assembly instructions.

SV MODULE INSTALLATION



FIGURE 1



FIGURE 2



FIGURE 3

- 1 Disconnect electrical power to ice drink dispenser.
- 2 Remove merchandiser from dispenser. Remove light bulb in work area. Remove the splash panel from dispenser.
- 3 Remove “Push for Ice” lever from rocking chute where the Flavor Magic is to be installed
- 4 Remove the caps from the valves on either side of the rocking chute.
- 5 Hook the flanges on the module assembly, 020001154, over the valve mounting cap on either side of the rocking chute. Center the assembly, so there is clearance between the chute and brackets. **(see figure 1)**
- 6 Loosen, but do not remove, the thumb screws on either side of the module assembly. Pull the plastic module forward. **(see figure 2)**
- 7 Make sure the tubing is through the plastic clips and loops toward the bottom plate. Allowing the module to slide forward and back w/o straining the tubes. **(see figure 3)**
- 8 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.

INSTALLATION

MDH MODULE INSTALLATION



FIGURE 4



FIGURE 5

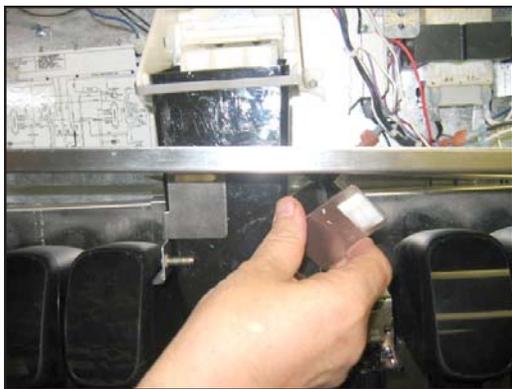


FIGURE 6



FIGURE 7

1. Measure The Merchandiser Depth from valve mount cap to the outside. **If the depth approximately 5 inches, STOP. This version of Flavor Magic is not compatible with the merchandiser frame. Contact the factory to order a compatible merchandiser frame.**
2. Disconnect electrical power to ice drink dispenser.
3. Remove translite and lamps in work area. Remove the splash panel from dispenser.
4. Remove “Push for Ice” lever from rocking chute where the Flavor Magic is to be installed.
5. Remove the caps from the valves on either side of the rocking chute.
6. Carefully lift up the merchandiser approximately 1 inch on the side where the Flavor Magic is to be installed.
7. Insert the LH mounting bracket, 020000896, under the merchandiser at a 45 degree angle. **(see figure 4)**
8. 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 5)**
9. Insert the RH mounting bracket, 020000897, under the merchandiser at a 45 degree angle. **(see figure 6)**
10. rotate the bracket verticality 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 7)**

INSTALLATION

MDH MODULE INSTALLATION



FIGURE 8



FIGURE 9



FIGURE 10

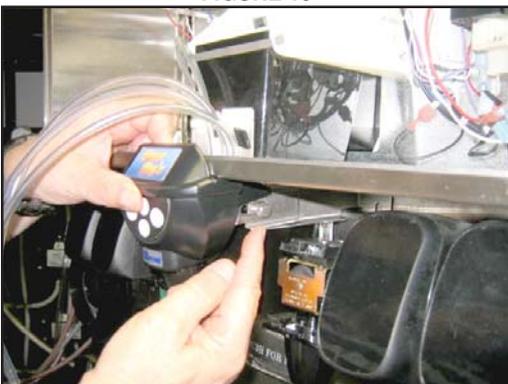


FIGURE 11

11. Carefully lower the merchandiser into place. **(see figure 8)**
12. Route the tubing and ribbon cables from the module assembly between the opening in the merchandiser and mounting brackets. **(see figure 9)**
13. Align the channels on the center bracket, 020000898, inside the channels on the LH and RH mounting brackets. **(see figure 10)**
14. Loosely fasten the thumbscrews on both sides of the bracket assembly
15. Push the plastic module housing against the merchandiser frame. Firmly tighten the thumb screws **(see figure 11)**
16. Secure the tubing through the plastic clips on the mounting brackets. **(see figure 12)**



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

17. 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.
18. 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.



FIGURE 12

INSTALLATION

REMOTE BOX INSTALLATION (APPLIES TO ALL UNITS)



FIGURE 13



FIGURE 14



FIGURE 15

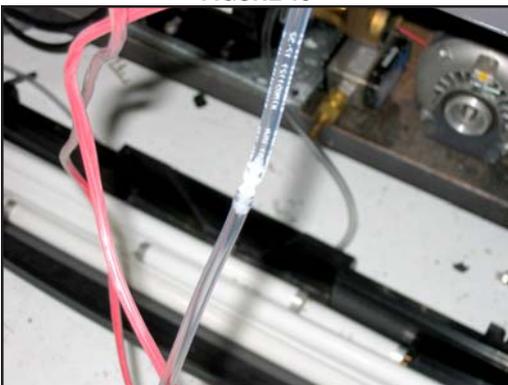


FIGURE 16

1. Confirm that power to the unit is disconnected.
2. Identify the remote box part# 020000508. Select a location for the box close to the dispenser, but away from patron access. The box must be within 6-8 feet of the back of the unit. Ideal locations include behind the unit, or in a cabinet below the unit. The box may be mounted in any orientation. **(see figure 13)**
3. Disconnect the valve harness from the load side of the transformer inside the unit's electrical box. Connect the 24V power harness, 020000590 to the load side of the transformer. Connect the valve harness to the connector on 020000590. **(see wiring diagram)**
4. Route the 24V power harness, 020000590, behind the splash panel and below the unit to the remote box. Plug the harness into the two pin connector on the box.
5. Connect the control harness, 020000585, to the connectors on the module for the LED and touch pad. **(see figure 14)**
6. Route the control harness, 020000585, behind the splash panel and below the unit to the remote box. Plug the harness into the six pin connector on the box. **(see figure 15)**
7. Check that the wiring length is sufficient to mount the box in the desired location.
8. Route the 4 vinyl tubes from the remote box under the unit, behind the splash panel, and under the valve mounting cap to the area near the tubing connected to the flavor magic.
9. Cut any excess length from the end of the tubing connected to the Flavor Magic module.
10. Place the 1/8" plastic tubing connectors, 020001327 firmly into the 4 tubes attached to the remote box.
11. Firmly connect the tubes attached to the module over the barbed end of the tubing connectors. **(see figure 16)**
12. Route the tubing and wiring away from the rocking chute mechanism. Secure the tubing and wiring using the peel and stick plastic clips, 0905403, provided. **(see figure 17)**
13. Remove the cover from the remote box by removing the two 8-32 screws and pulling upward on the cover.
14. Route the four (4) line bundle tubing from the backroom to dispenser behind the valve mounting plate.
15. Leave slack in tubing and route to approximate location where the remote box will be located.
16. Locate the valve inlets on the back of the box. Attach nuts, washers and barbed fittings to valve inlets, be sure not to over tighten. **(see figure 18)**

INSTALLATION

REMOTE BOX INSTALLATION (APPLIES TO ALL UNITS)



FIGURE 17

NOTE: 1/4" (.635 cm) white nylon washers are included in the fitting package and must be used.

17. Attach 4 line bundle syrup lines to valve assembly inlets.
18. Place the flavor labels on the cover pad according to the desired flavor line up. *(See Exploded View)*
19. Carefully position the clear adhesive decal overlay over the flavor labels and secure to pad. *(See Exploded View)*
20. Apply power to the dispenser and assure that circuit boards read "- - - -".

BACK ROOM TASKS



FIGURE 18

21. Turn off CO₂ supply in back room.
22. Route 1/4" (.673 cm) beverage tubing from CO₂ supply to CO₂ regulator on BIB rack and secure with proper Oetiker clamp.
23. Place BIB syrup on BIB rack.
24. Attach BIB connectors to flavor syrup boxes. NOTE: BIB connectors vary with syrup manufacturer. Assure that correct connector is used.
25. Turn on CO₂ supply and adjust to thirty (30) PSI (2.07 Bar). Reduce pressure if the syrup stream is producing too much spatter when hitting the drain pan. **(see figure 19)**
26. Check syrup and CO₂ connections for leaks. Return to dispenser unit.
27. Restore power to unit. (Blue LED light(s) should be lit).
28. Assure that control board readout is in dispense mode ("- - - -").



FIGURE 19



SET REGULATOR TO A MAXIMUM OF 30 PSI

29. Purge air from syrup lines by utilizing the purge/sanitize mode until syrup is running freely. Adjust dispense time if desired. *(See Control Board programming)*
30. Return control board to dispense mode by pressing the program button.
31. 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 setup is normally not required for proper operation.
32. Test Each Flavor For Proper Dispensing
33. Replace the cover on the remote box. Tighten the 2, #8 screws.

INSTALLATION

SV150 & 175 INSTALLATION COMPLETION



FIGURE 20



FIGURE 21

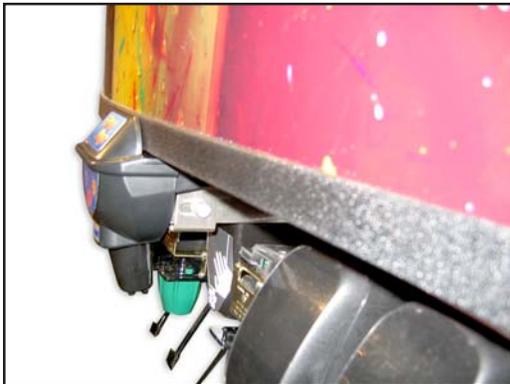


FIGURE 22



FIGURE 23

1. Remove the black, plastic bottom piece from the merchandiser assembly by removing the 3, #8 screws. **(See Figure 20)**
2. Assemble the black, plastic bottom piece with cut-out, 02000592, to the merchandiser assembly. Push the plastic piece all the way down onto the translite. Tighten the 3, #8 screws removed from the original merchandiser bottom. **(See Figure 21)**
3. Assemble the merchandiser assembly to the machine.
4. Push the flavor magic module inward against the merchandiser. Tighten the thumb screws on with either side of the module assembly. **(See Figure 22)**

Note: To remove the merchandiser, loosen but do not remove the thumbscrews and slide the module outward away from the merchandiser.

5. Replace the valve caps
6. Review operational procedure and basic maintenance with store personnel.

MDH 302 INSTALLATION COMPLETION

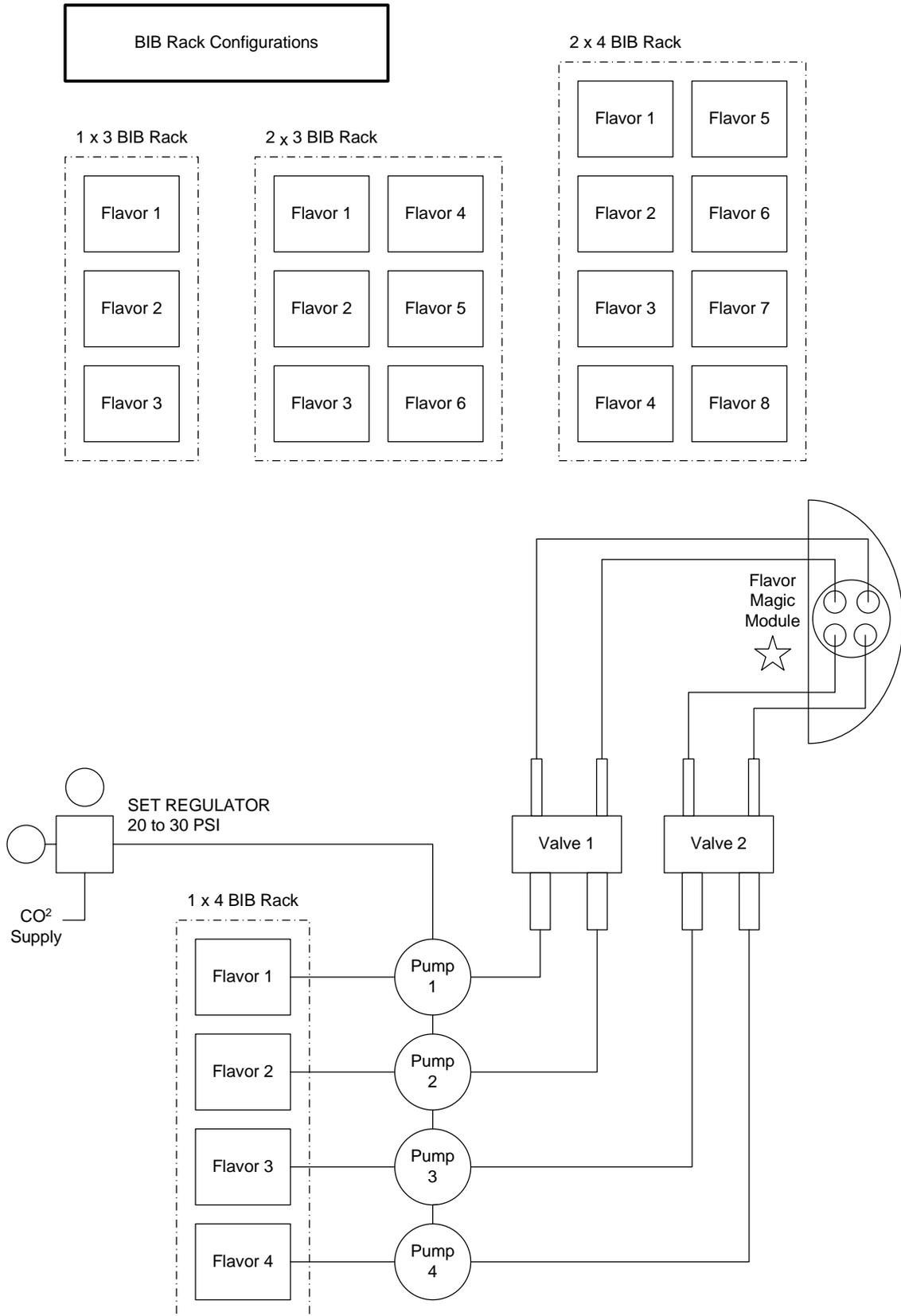
1. Carefully replace the translite.
2. Replace splash panel, lamps and merchandiser cover.
3. Review basic Flavor Magic operation, flavor BIB changing, and periodic cleaning and maintenance with customer.



FIGURE 24

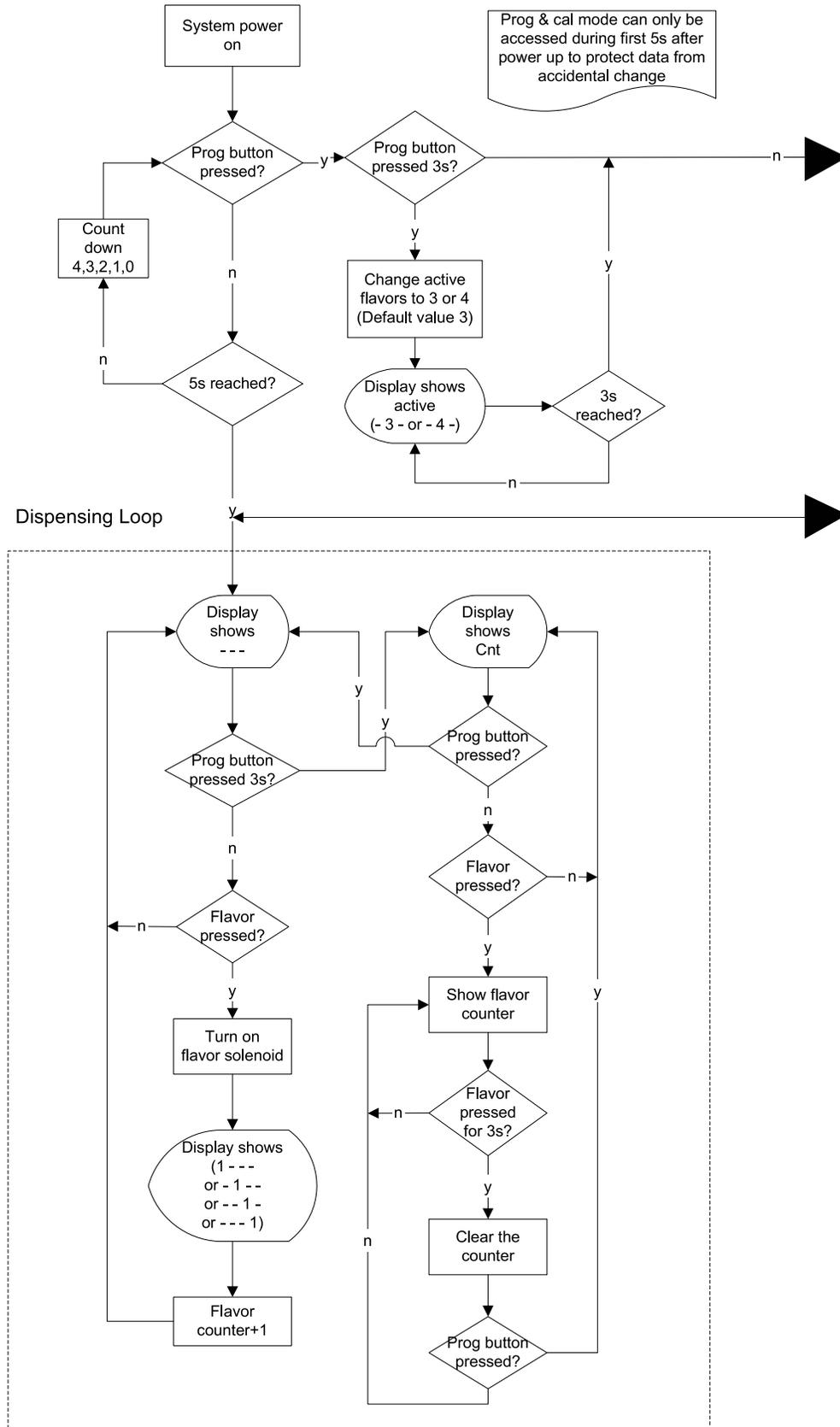
INSTALLATION

PLUMBING DIAGRAM



OPERATION

LOGIC MATRIX



OPERATION

The Flavor Magic Module is designed to be field installed as an option on a Servend Post Mix Beverage Dispenser. Flavor Magic is offered in a three (3) or four (4) flavor option. On Ice Drink Dispensers with dual dispensing chute assemblies, both sides can be fitted with Flavor Magic providing up to 8 (eight) flavor choices.

The Flavor Magic System consists of a Retrofit Package and a Back Room Package for use with Servend Ice and Beverage Dispensers. Installation components are included in the packages.

CONNECTORS

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



P37SBBKHN (Coca Cola)



QCD-II (General Bottler)



PCS1 (Pepsi)

SANITARY LEVERS

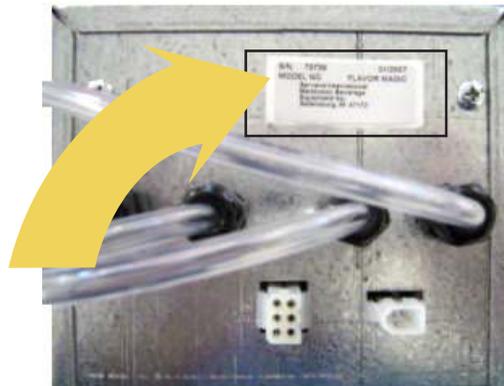


020000409 Narrow Lever is used on the following units:
MD & SV-175, MD & SV-200/250 (10 valve), MDH-402 (20 valve)



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

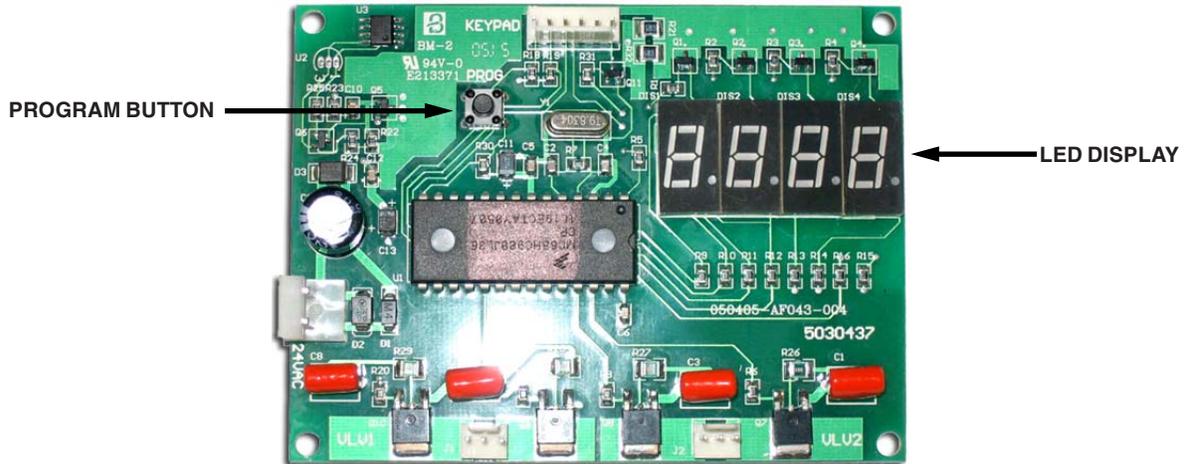


The serial plate is located on the back of the remote box. On dual side installations only one serial number is used.

OPERATION

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

1. 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 "- - -".

OPERATION

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..



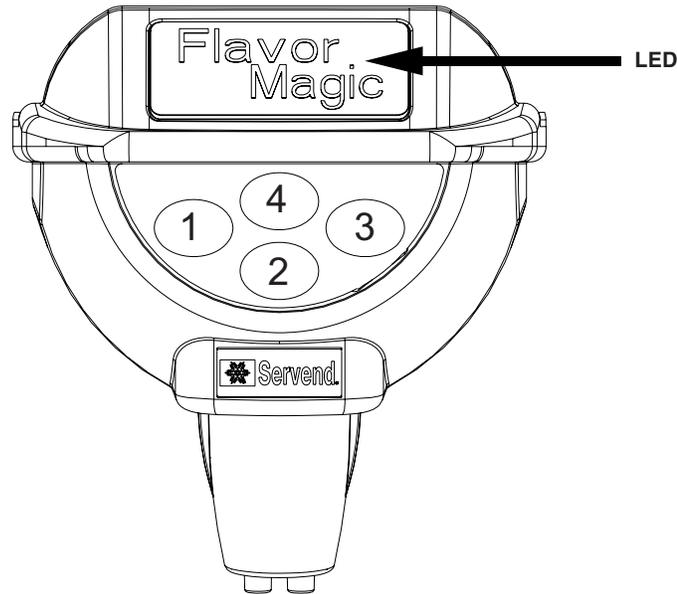
The current Flavor Magic control board is set up in the 4 flavor default mode. This mode will handle all dispensing situations whether 3 or 4 flavors are used. Some early boards were set up as default in the 3 flavor mode. If the customer desires to add another flavor for a total of 4, proceed as follows:

1. 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.
4. 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 4th flavor. The 4th flavor button is the top middle button.
8. A flavor tab for the 4th 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 4th flavor tab as well as replace any flavor tabs which came off when removing the decal overlay. Note position of 4th 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.

OPERATION

STEADY OR FLASHING TOUCH PAD LED



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

1. 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".
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.
2. Flash mode. The LED will turn on for ½ second and off for ½ second.

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).

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



WARNING

When using cleaning
fluids or chemicals,
rubber gloves and eye
protection should
be worn

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.
 - c. 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.
 - b. 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:

1. Hook up BevClean™ system per BevClean™ instructions.
2. 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.
3. Disconnect BevClean™ system and reconnect disconnects to BIB's.
4. 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.
6. 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



WARNING



When using cleaning fluids or chemicals, rubber gloves and eye protection should be worn

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

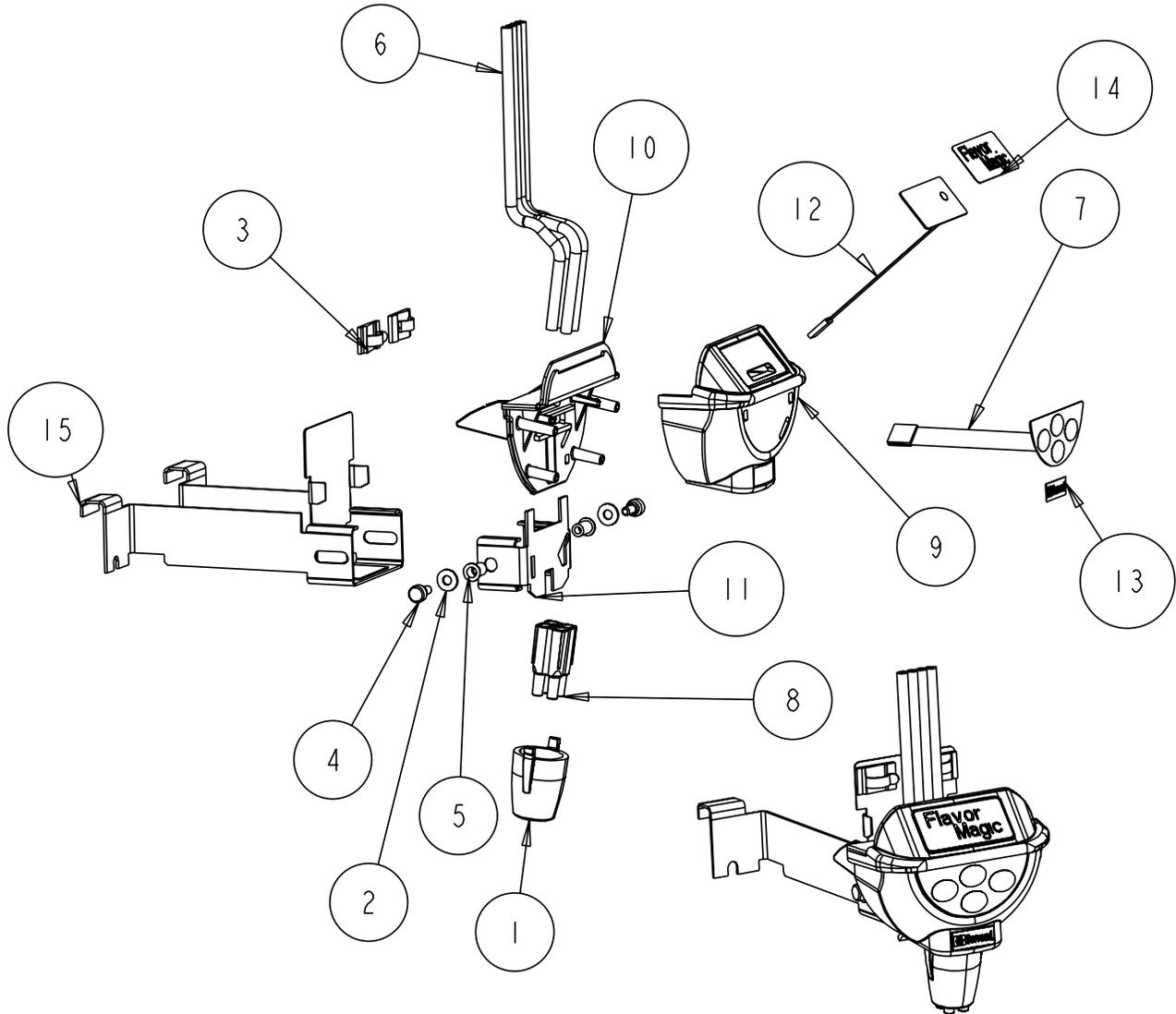
- Three (3) clean buckets
- Unscented bleach (5% NA CL O) or commercial sanitizer
- Plastic brush or soft cloth
- Bag-in-Box (BIB) connector
- Mild detergent

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

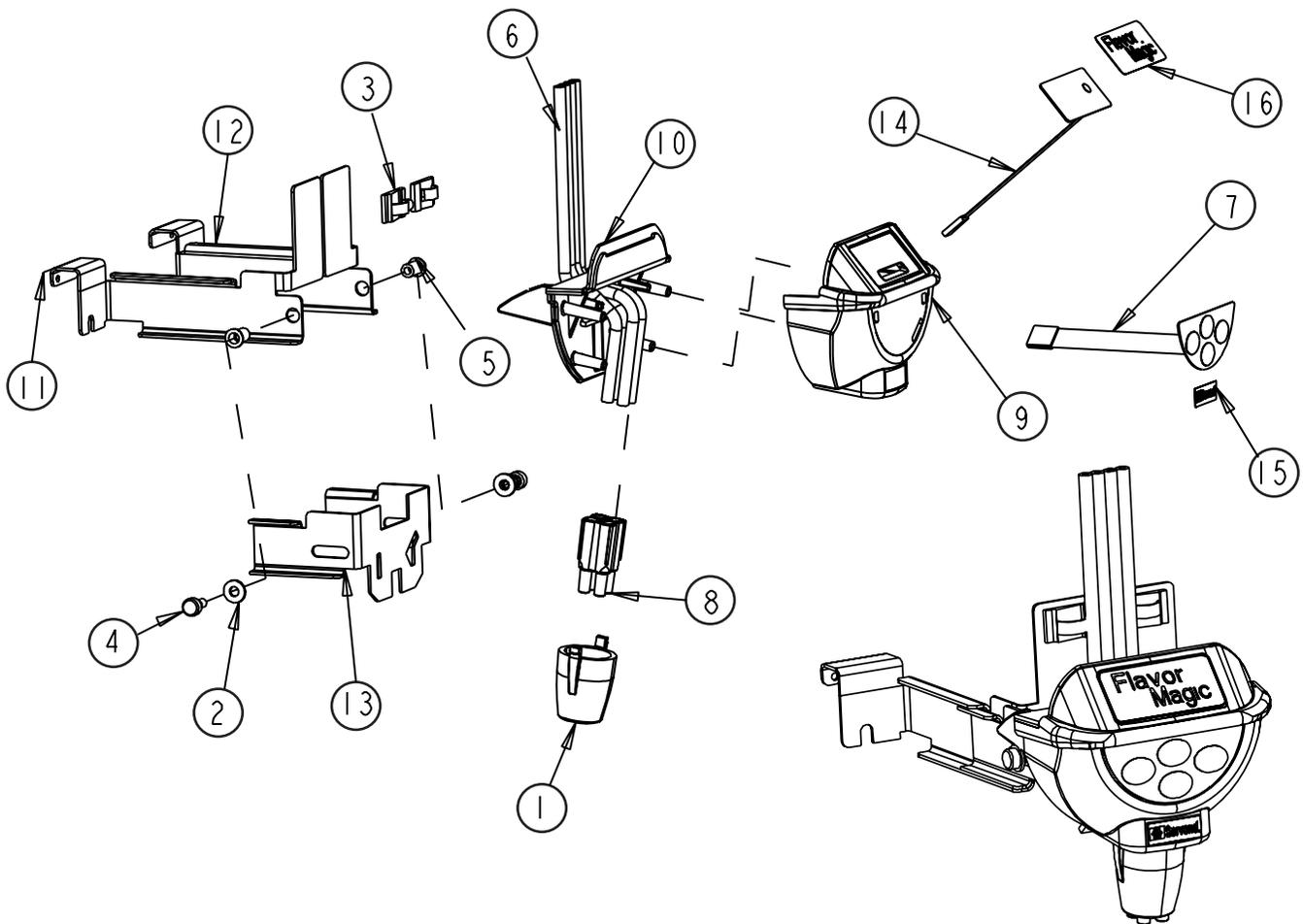
SV MODULE EXPLODED VIEW PARTS LIST



| NO. | Part Number | Description |
|-----|-------------|---------------------------|
| 1 | 501-25 | NOZZLE SOFTPOUR BLK |
| 2 | 00850350 | FLAT WASHER 0.218ID X |
| 3 | 0905403 | CLIP PLAS WIRE & CORD |
| 4 | 5012790 | SCR 10-32X3/8 KNURL UNSLT |
| 5 | 5029806 | RIVNUT 10-32 .020-.130 |
| 6 | 5030446 | TUBING 1/4IN OD X 4FT |
| 7 | 5031193 | KEYPAD 4 BUTTON 5 PIN FM |
| 8 | 5031453 | RETAINER QUAD TUBE FM |
| 9 | 020000473 | CVR FRONT FM ICEPIC |
| 10 | 020000493 | CVR REAR FM ICEPIC |
| 11 | 020000846 | BRKT MNTG CENTER |
| 12 | 020001033 | PAD LED FM |
| 13 | 020001034 | LABEL LOGO SERVENH HORZ |
| 14 | 020001035 | LABEL FM GRAPHIC |
| 15 | 20001153 | BRKT WELDED FM |

EXPLODED VIEWS, PARTS & DIAGRAMS

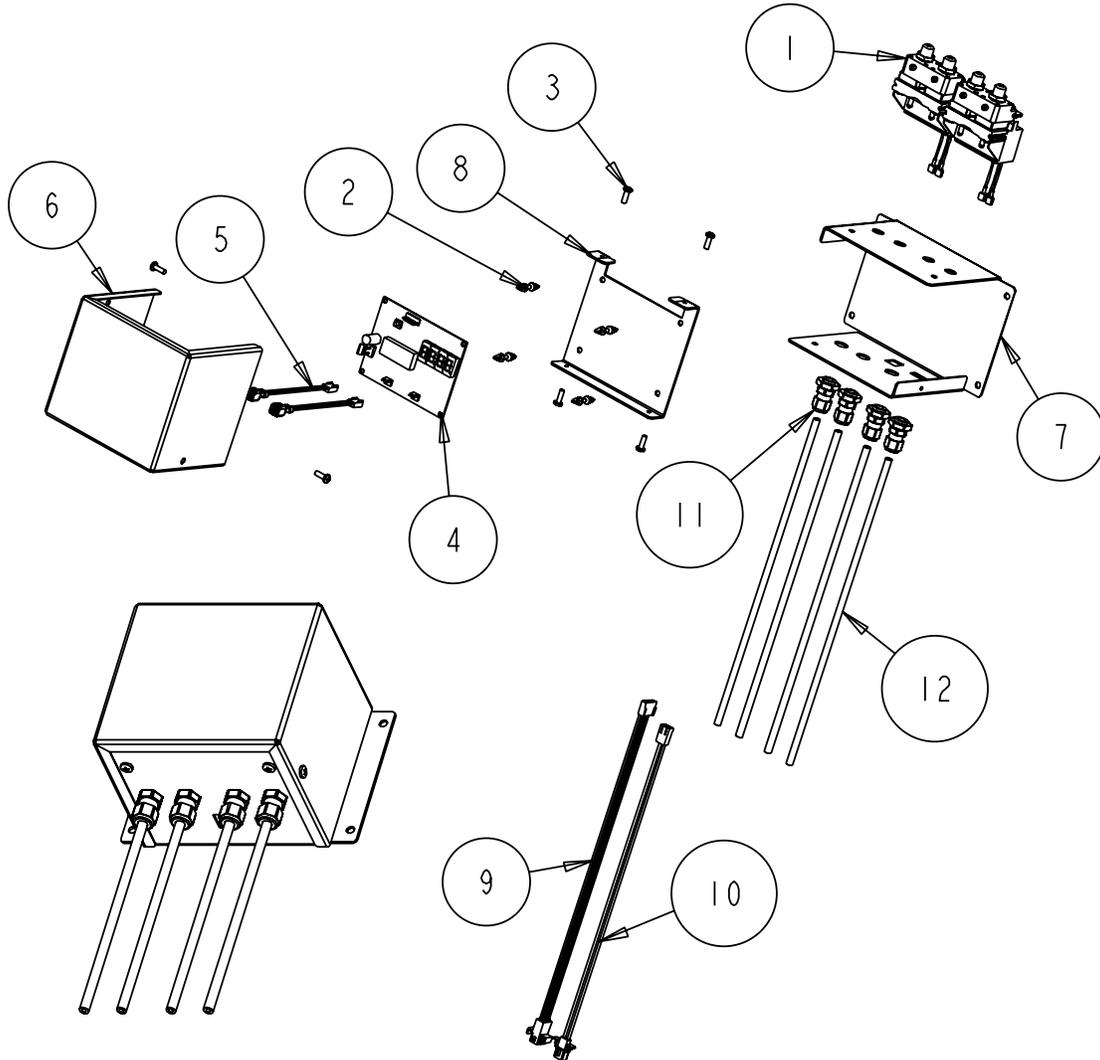
MDH MODULE EXPLODED VIEW PARTS LIST



| 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, SERPEND, HRZ |
| 16 | 020001035 | LABEL FM GRAPHIC |

EXPLODED VIEWS, PARTS & DIAGRAMS

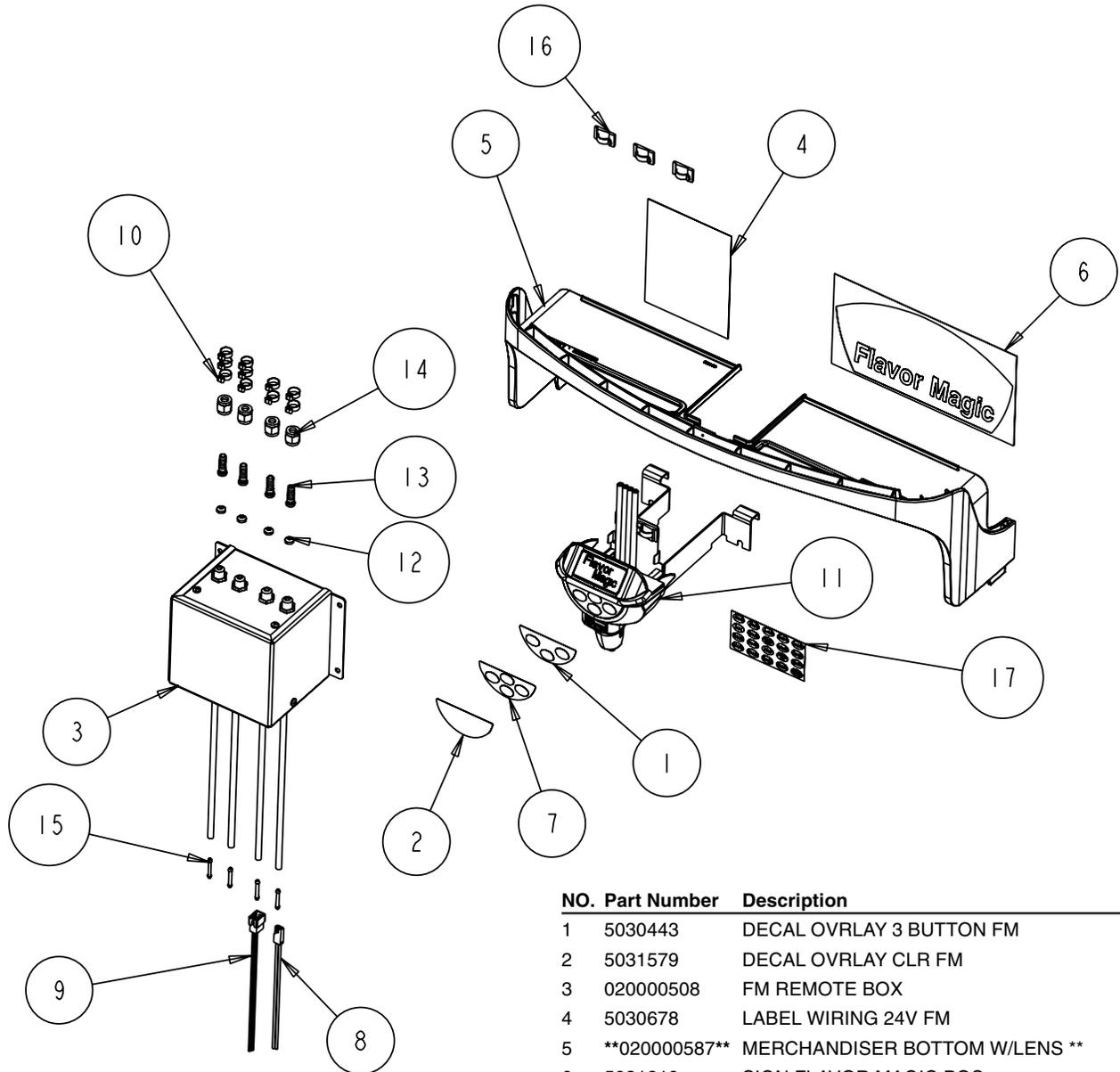
REMOTE BOX ASSEMBLY



| NO. | Part Number | Description |
|-----|-------------|-----------------------------|
| 1 | 202-FN-D22 | VLV ELEC PL BLK |
| 2 | 00212539 | STANDOFF 7/16 HIGH |
| 3 | 5011940 | SCREW 8-32 X 1/2 |
| 4 | 5030437 | BOARD CTRL 4 FLAVOR FM |
| 5 | 5030441 | HARNESS 2VLV FM |
| 6 | 020000500 | CVR FM ELEC BOX |
| 7 | 020000501 | HOUSING FM ELEC BOX |
| 8 | 020000512 | MNT FM CIRCUIT BOARD |
| 9 | 020000586 | HARNESS CTRL BRD POL FM INT |
| 10 | 020000589 | HARNESS POWER 24V FM |
| 11 | 020001297 | CORD GRIP |
| 12 | 020001303 | Tubing 1/4 x 12FT |

EXPLODED VIEWS, PARTS & DIAGRAMS

SV150/175 REMOTE BOX KIT

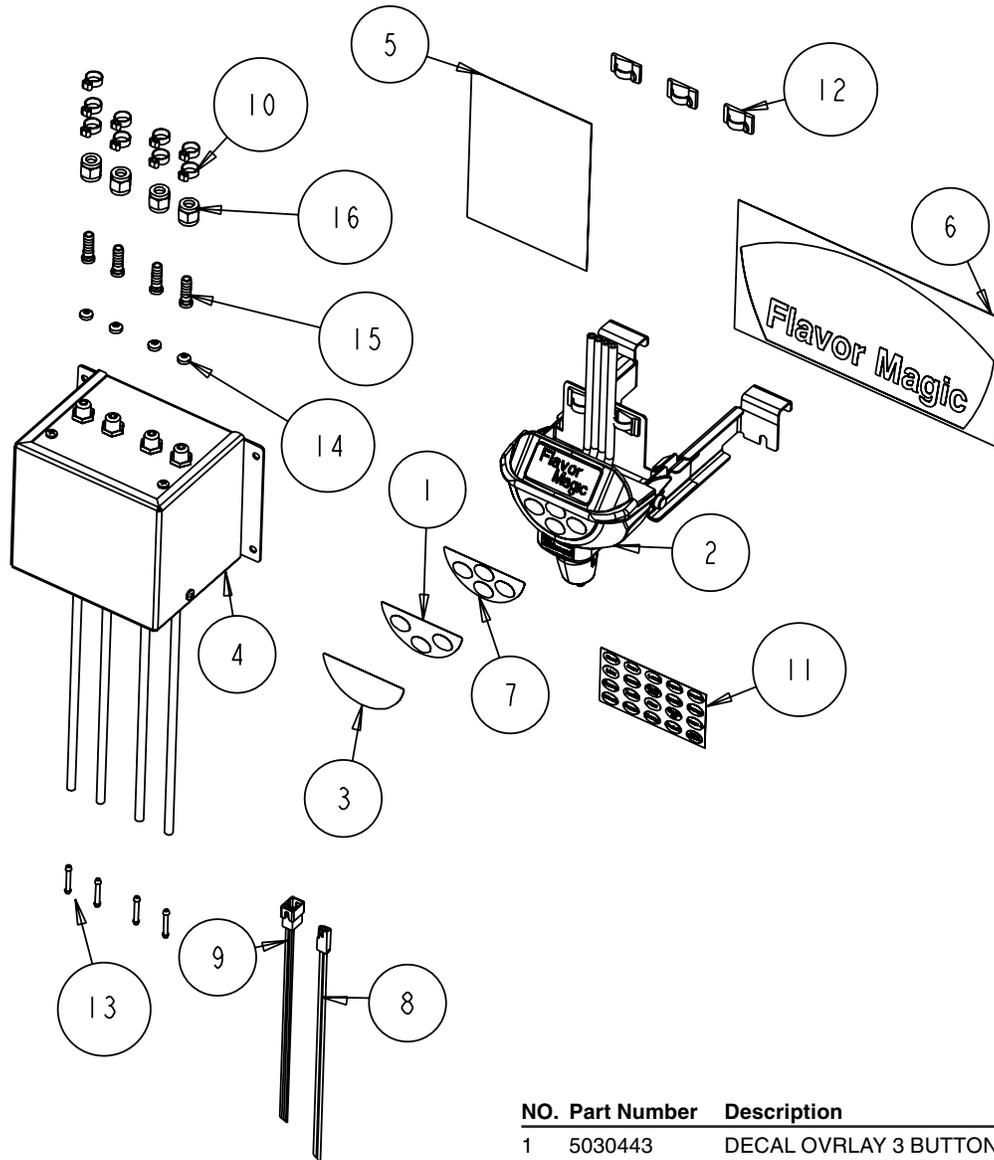


| NO. | Part Number | Description |
|-----|---------------|-------------------------------|
| 1 | 5030443 | DECAL OVRLAY 3 BUTTON FM |
| 2 | 5031579 | DECAL OVRLAY CLR FM |
| 3 | 020000508 | FM REMOTE BOX |
| 4 | 5030678 | LABEL WIRING 24V FM |
| 5 | **020000587** | MERCHANDISER BOTTOM W/LENS ** |
| 6 | 5031219 | SIGN FLAVOR MAGIC POS |
| 7 | 5030771 | DECAL FS OVRLAY 4 BUTTON |
| 8 | 020000590 | HARNES POWER 24V FM |
| 9 | 020000585 | HARNES CTRL BRD POL FM |
| 10 | 10.5-505R | CLAMP STEPLESS SS 10.5-505R |
| 11 | 020001154 | MODULE FM SV |
| 12 | 1701113 | Washer 1/4" White Nylon |
| 13 | 1701109 | FITTING 1/4" SWIVEL HOSE |
| 14 | 1701108 | NUT 1/4 x 3/8 SWIVEL FITTING |
| 15 | 020001327 | FTTG SPLICER 1/8 TO 1/8 |
| 16 | 0905403 | CLIP PLASTIC WIRE & CORD |
| 17 | 5030780 | DECAL 20 FLAVOR FM |

** Item 5 For SV150 020000587
For SV175 020000591

EXPLODED VIEWS, PARTS & DIAGRAMS

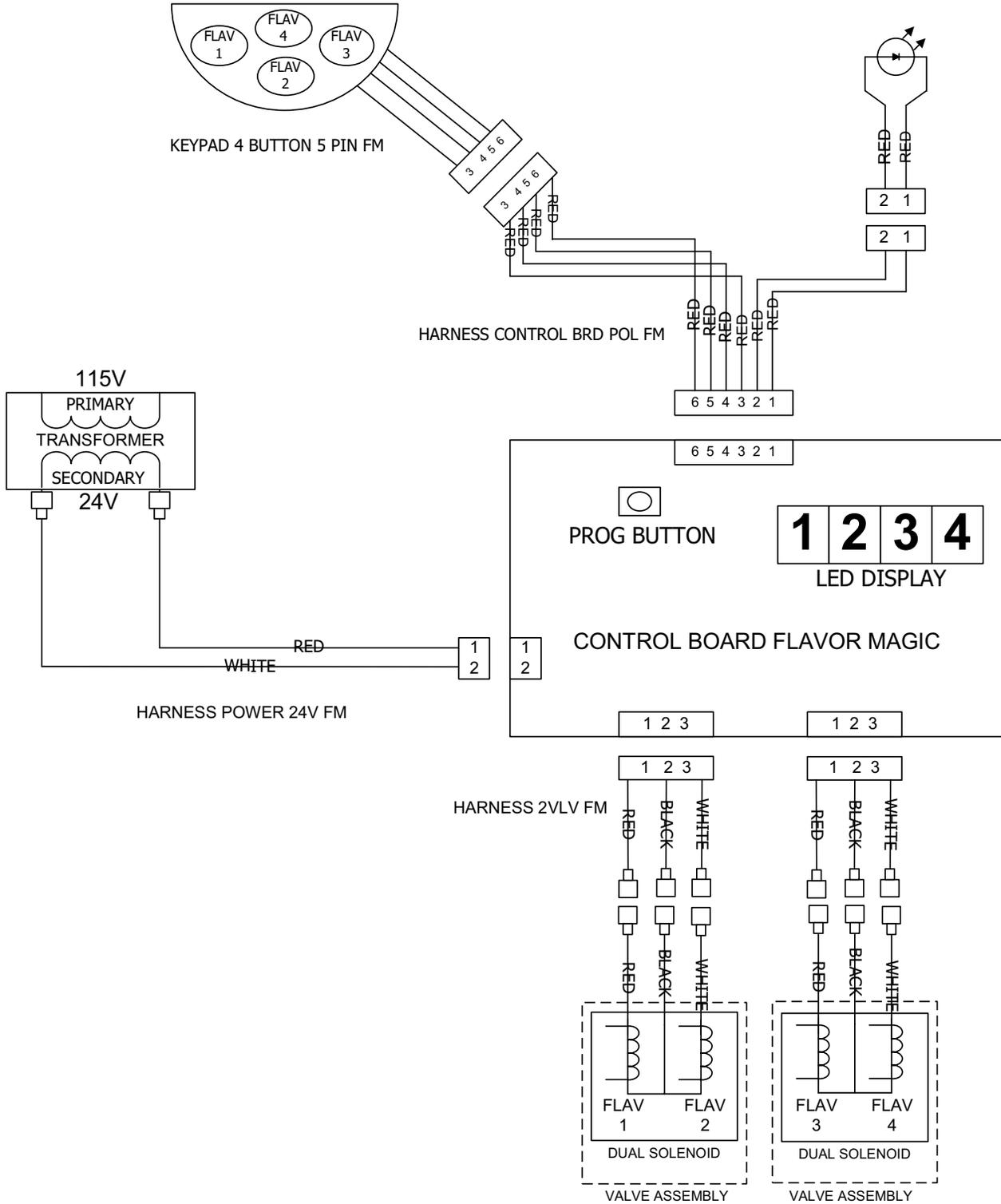
MDH REMOTE BOX KIT



| NO. | Part Number | Description |
|-----|-------------|------------------------------|
| 1 | 5030443 | DECAL OVRLAY 3 BUTTON FM |
| 2 | 020001155 | MODULE FM MDH |
| 3 | 5031579 | DECAL OVRLAY CLR FM |
| 4 | 020000508 | FM REMOTE BOX |
| 5 | 5030678 | LABEL WIRING 24V FM |
| 6 | 5031219 | SIGN FLAVOR MAGIC POS |
| 7 | 5030771 | DECAL FS OVRLAY 4 BUTTON |
| 8 | 020000590 | HARNESS POWER 24V FM |
| 9 | 020000585 | HARNESS CTRL BRD POL FM |
| 10 | 5009859 | CLAMP STEPLESS SS 10.5-505R |
| 11 | 5030780 | DECAL 20 FLAVOR FM |
| 12 | 0905403 | CLIP PLASTIC WIRE & CORD |
| 13 | 020001327 | FTTG SPLICER 1/8 TO 1/8 |
| 14 | 1701113 | Washer 1/4" White Nylon |
| 15 | 1701109 | FITTING 1/4" SWIVEL HOSE |
| 16 | 1701108 | NUT 1/4 x 3/8 SWIVEL FITTING |

EXPLODED VIEWS, PARTS & DIAGRAMS

WIRING DIAGRAM



TROUBLESHOOTING

| PROBLEM | CAUSE |
|---|--|
| Flavor Magic syrup does not dispense when flavor button is depressed. | <p>Syrup supply depleted.</p> <p>CO₂ supply depleted.</p> <p>BIB disconnect loose or packed with dried syrup residue.</p> <p>Check CO₂ regulator for proper setting — 20 PSI (1 Bar).</p> <p>Check CO₂ lines for kinks.</p> <p>Check syrup line for kinks.</p> <p>BIB pump inoperative.</p> <p>Valve solenoid inoperative.</p> <p>Vinyl tubing off at nozzle or at solenoid.</p> <p>Vinyl tubing plugged with syrup at nozzle or at solenoid.</p> |
| No power to control board. | <p>Check power supply at transformer — 24 VAC.</p> <p>Check connector to transformer and Control Board Flavor Shot.</p> <p>Check wiring for loose connections or open wires.</p> |
| Control board inoperative . | <p>Assure that Control Board is set to dispense – “ _ _ _ _ ” .</p> <p>Check for damage to Control Board.</p> |
| 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.



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