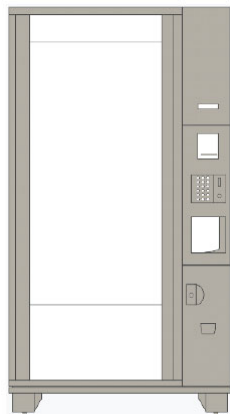# CRANE MERCHANDISING SYSTEMS

SERVICE INFORMATION

110778 r01 (M097.3)
Coca-Cola DN5800/3800 BevMax 4/3
Replacement Control Boards

Revised 08/8/19

Models Affected: All DN5800/3800 Coke BevMax 4/3 Venders.
Reason: To provide instruction for installing replacement control boards in all R134A Coca-Cola DN5800/3800 BevMax 4/3 Venders.

Control Board Replacement kits:

Kit 1 – 105424 (previous # 64700780) CC BevMax 4 Control Board Only Kit
Venders 8900 and higher manufactured beginning 5/1/09. When replacing an 80492870 board with an 80492972 red board.

Kit 2 – 105507 (previous #64709950) CC – BevMax 4 Service Replacement Control Board Kit (690 to 700) Venders prior to 8900 manufactured between 1/1/09 and 5/1/09. Replacing an 80492769 board with an 80492972 red board.

Kit 3 – 105425 (previous # 64700790) CC – BevMax 4 Service Replacement Control Board Kit (060 to 700) Venders manufactured prior to 1/1/09. Replacing an 80492506 board with an 80492972 red board.

Kit 4 – 105563 (previous # 65700390) CC Indonesia BevMax 4 Replacement Control Board Kit
All Coke Indonesia Venders. When replacing an 80492772 board or an 80493019 red board.

Part #	Description	BevMax 4 Service Kit 1 105424	BevMax 4 Service Kit 2 105507	BevMax 4 Service Kit 3 105425	BevMax 4 Service Kit 4 105563
		Quantity in kit			
104623 (previous #CR0005692)	Mounting Bracket Control Board	1	1	1	1
101171 (previous #80190380)	Stand off	5	5	5	5
104544 (previous #CR0001619)	Control Board Cover	1	1	1	1
101245 (previous #80492972)	Control Board	1	1	1	0
108884 (previous #80493019)	Indonesia Control Board	0	0	0	1
100514 (previous #90190201)	Wire Ties, 7.5"	5	5	5	5
100265 (previous #80030418)	Self Drilling Screws	4	4	5	4
100810 (previous #80492899)	Door Switch Harness with Coke Dongle	0	1	0	1
100860 (previous #80492795)	Dr. Switch Harness w/ 2 Pin Lock Sw Plug 40"	0	0	1	1
101160 (previous #CR0023212)	Encapsulated Temp Sensor	0	0	1	0
100802 (previous #80492836)	Door Bundle Harness	0	0	1	0
100771 (previous #80492338)	Interior Power Harness	0	0	1	0
108898 (previous #80541177)	ESD Static Bag	0	1	0	1
102793 (previous #80492021)	ESD Static bag	1	0	1	0
102128 (previous #80386715)	ESD Sensitive Label	1	1	1	1
100796 (previous #80492797)	Harness, Relay Extension	0	0	1	0
100970 (previous #80492827)	Harness, DEX	0	0	1	0
110778 r01	M097.3 Install Instructions	1	1	1	1

Part numbers and descriptions subject to change without notice.
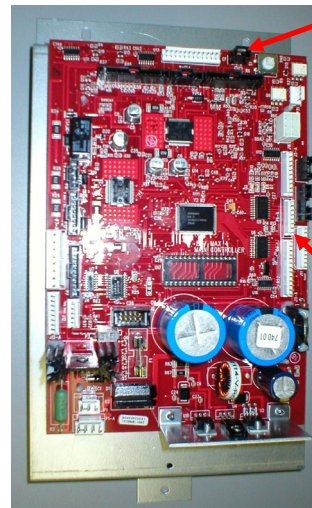
Board identification:
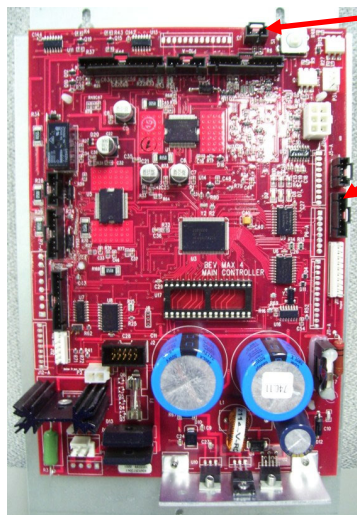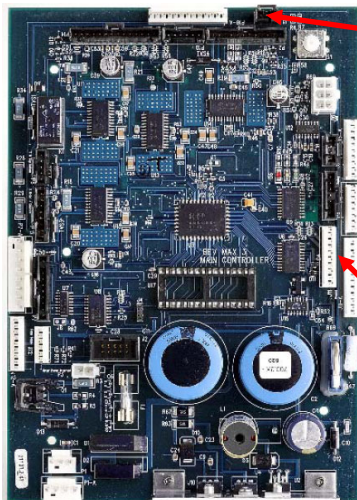

Dongle connector

Note 1 row of connectors

101245 (previous #80492972)
BM4 Control Board
Figure 1

Dongle connector
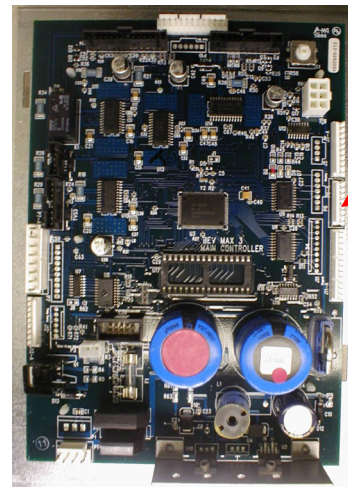
Note 2 rows of connectors

101249 (previous #80492870)
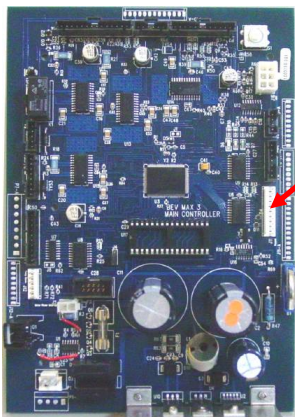BM4 Control Board
Figure 2

Dongle connector

Note 2 rows of connectors

101249 (previous #80492870)
BM4 Control Board
Figure 3

Note 1 row of connectors

80492769
BM3 Z Control Board
Figure 4

Note 1 row of connectors

80492772
BM3 Z Control Board
Figure 5

80492506
BM3 Non-Z Control Board
Figure 6

Coke BevMax 4 5800-4/3800-4 Board 101245 (previous #80492972) See Figure 1. Red Single row plugs.
Mounts on back wall of service area (board shown above). Factory installed in all Coke BevMax 4 Venders beginning **January 2014** and can be used in all older Coke BevMax 3 Venders.

Coke BevMax 4 5800-4/3800-4 Board 101245 (previous #80492972) See Figure 2. Red Double row plugs.
Mounts on back wall of service area (board shown above). Factory installed in all Coke BevMax 4 Venders beginning 7/22/13 (serialized 9859-0008CL and higher) and can be used in all older Coke BevMax 3 Venders.

Coke BevMax 4 5800-4/3800-4 Board 101249 (previous #80492870) See Figure 3. Blue Double row plugs.
Mounts on back wall of service area (board shown above). Factory installed in all Coke BevMax 4 Venders beginning 5/1/09 (serialized 8900 and higher) and can be used in all older Coke BevMax 3 Venders.

Coke BevMax 3 Z Board 80492769 See Figure 4. Blue Single row plugs.
Mounts on back wall of service area (board shown above). Factory installed in all Coke BevMax 3 Venders from 1/1/09 to 5/1/09.

Coke BevMax 3 Z Board 80492772 See Figure 5. Blue Single row plugs.
Mounts on back wall of service area (board shown above). Factory installed in all Coke BevMax 3 Venders from 1/1/09 to 5/1/09. Used in Indonesia Coke Venders manufactured 11/1/08 and higher with special software revision installed.

Coke BevMax 3 Non Z Board 80492506 See Figure 6. Blue Single row plugs.
Mounts on right side wall of service area (board shown above). Factory installed in Domestic Coke BevMax 3 Venders prior to 1/1/09 and Export Coke BevMax 3 Venders prior to 11/1/08.

NOTE: SEE PAGE 1 FOR CONTROL BOARD FIELD SERVICE REPLACEMENT KITS.

Figure 7
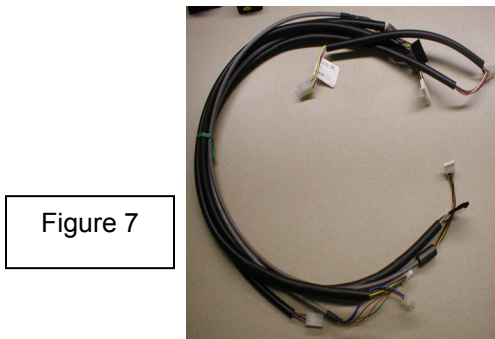
Door Bundle Harness
80492836

Figure 8

Temp Sensor
80492821

Kit 1 Installation instructions:
1. Remove power to the Vender by turning off the main power toggle switch and unplug the Power Supply Cord from the AC Distribution Box located in the service area.
2. Remove existing Control Board & install new Control Board.
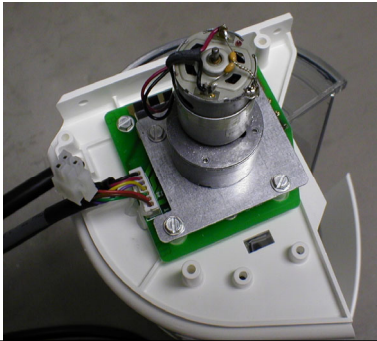
Kit 2 & 3 Installation instructions:
For BevMax 3 Venders with the Control Board 80492506 mounted on the right side wall of the Service area or the Control Board 80492769 mounted on the back wall of the Service area.
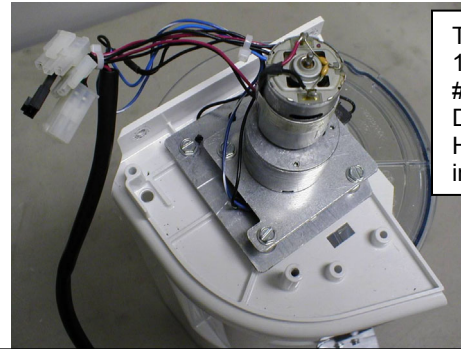1. Remove power to the Vender by turning off the main power toggle switch and unplug the Power Supply Cord from the AC Distribution Box located in the service area.
2. If you are installing:
   a. 101249 (previous #80492870) or 101245 (previous #80492972) Control Board in place of an 80492506 board remove the current Door Bundle Harness and Temp Sensor Harness and discard. These will be replaced by a new Door Bundle Harness and Temp Sensor Harness included in the Kit. Unplug the remaining harness connections from the existing Control Board.
3. Remove the existing failed Control Board from the cabinet.
4. Determine if the Door Bundle Harness (not included in kits) will need to be changed based on the Port Assembly in the Vender. Reference Installation Instructions M090.x for more detailed information.
   a. Delivery Port Assemblies used in Coke BevMax 4/3 and early BevMax 3 Venders differ. The following provides an explanation of the changes and a description to make you familiar with the differences (see photos). Beginning serial number 8631-0053 in the BevMax 3 Delivery Port Assembly the Motor mounting changed and the switches were replaced with a Circuit Board. These changes also created a

need for a new Door Bundle Harness. The Port Assemblies are not interchangeable unless you also change the Door Bundle Harness. NOTE: Coke BevMax 3 Venders serialized prior to 0053-8631 have the original Delivery Port Assembly with the revised Port Sensor.

This Port requires 100936 (previous #80492425 Coke Door Bundle Harness <u>not</u> included in Kits.

Used on Coke BevMax 3 serialized 8631-0053 & higher.
114963 (previous #64705440 (new with printed Circuit Board).

Used on Coke BevMax 3 prior to 8631-0053. 647,053,90x.x3 (original with LED & Switch Assembly).

5. The new Control Board 101249 (previous #80492870) or 101245 (previous #80492972) will be mounted on the rear wall of the service area. **Do not secure to rear wall at this time.**
6. It is necessary to plug all wiring to the new Control Board and then determine where the Control Board will be able to mount on the back wall.
7. Inspect the Interior Power Harness Connection at the Control Board connection. 80492870, 80492972 and 80492769 Control Boards require a ground wire that connects to the Vender cabinet.

Figure 9
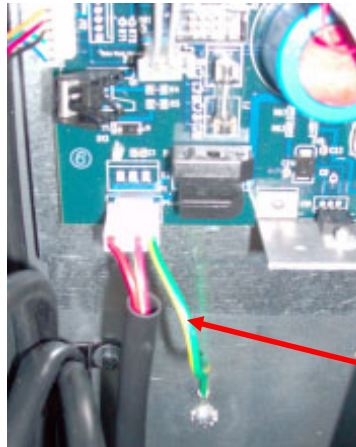
Interior Power Harness with Ground Wire.

8. If the existing Interior Power Harness Connection at the Control Board is missing the Ground Wire, install a new Interior Power Harness 100771 (previous #80492338) with a Ground Wire.
9. Remove the existing Door Bundle Harness and Door Switch Harness.
10. Remove the existing Temp Sensor Harness by:

1 – 100783 (previous #80492493)   Temp Sensor (62" long) connects to a 9 pin plug at J1 on the 80492506 Control Board.

Or

1 – 101157 (previous #80492781)   Temp Sensor (52" long) connects to a 9 pin plug at J12-A on the 80492769 or 101249 (previous #80492870) Control Board. Note: It is not necessary to replace the 80492781 Temp Sensor when installing the 101249 or 101245 Control Boards. If the 101157 Temp Sensor fails, replace it with the current 101164 (previous #80492821) Temp Sensor.

Figure 10

a. Remove the Temp Sensor Harness from any P Clamps or Twist Ties securing it in the Service Area.
b. Identify where the Harness goes through the Service Panel to the Evaporator through the Rear Service Wall (see figure 11).

Figure 11

Hole in Rear Service Wall
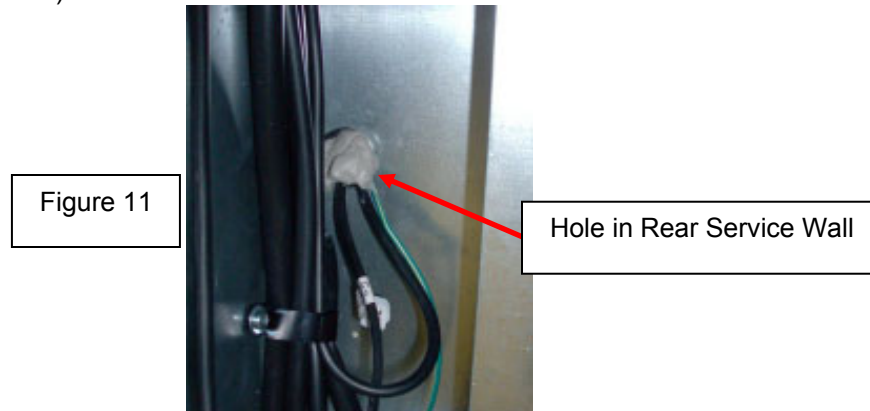
c. Remove the Pergamum from the access hole. See Figure 11.
d. Open the Glass Door and locate the encapsulated end of the Temp Sensor attached to the Evaporator. Note the position of the Temp Sensor in the Evaporator. See figure 12.

Figure 12
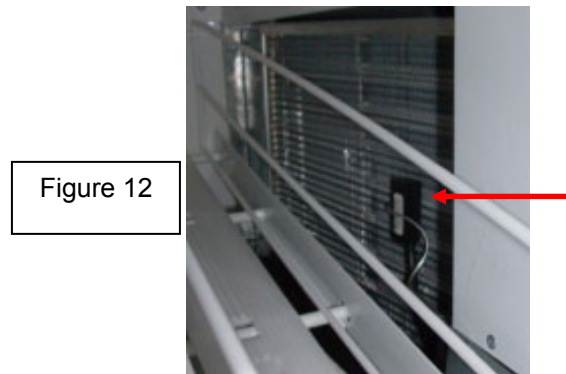
e. Pull the Temp Sensor from the Evaporator. Important: Do not remove the Defrost Control Bulb.
f. Cut the Sensor Wires near the Plastic Encapsulated Temp Sensor box.

Figure 13

Cut harness near box.

g. Go to the Service Area and carefully pull the old Temp Sensor Harness through the hole in the Rear Service Panel and discard old Temp Sensor Harness.
h. Install the Permagum removed in step 10c back in the hole in the Rear Service Panel.

11. Install the new Temp Sensor.

1 – 101164 (previous #80492821)   Temp Sensor (87" long) connects to a 5 pin plug at J12 on the 80492870 Control Board. Note: Some 80492870 Control Boards have 6 pins at the J12 connector. The 80492821 will plug to either 5 pins or 6 pins.
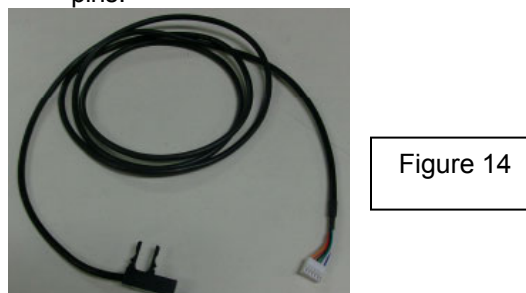
Figure 14

a. Identify where the X Motor Harness goes through the bottom Left Service Wall (see figure 15).

Figure 15

Hole in Bottom Left Service Wall
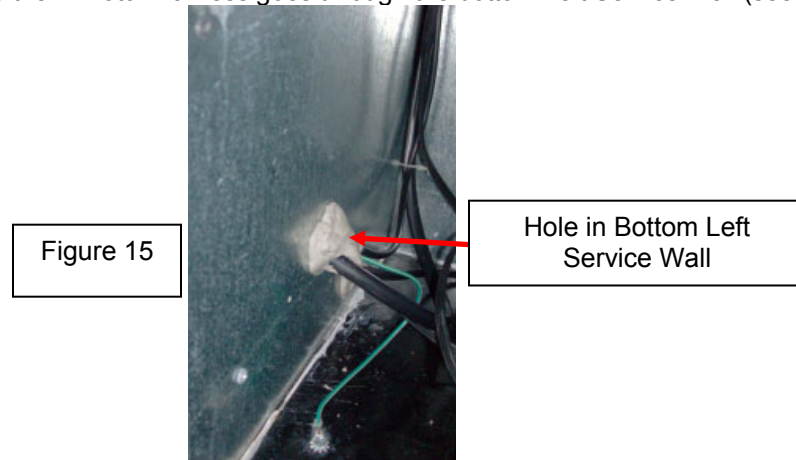
b. Remove the Pergamum from the access hole. See Figure 15.

c. Take the new Temp Sensor Harness and go to the Evaporator and insert the legs of the Encapsulated Temp Sensor Box in the Evaporator in the same position noted in step 10d.

d. Route the Temp Sensor Harness below Shelf E along the right side of the Refrigeration Panels and through the hole in the bottom Left Service Wall.

e. Ensure the Temp Sensor Harness will not interfere with products in the E9 Column.

f. Route the Harness to the Control Board and plug in to Temp Sensor Connector on Control Board.

g. Secure Temp Sensor Harness to any P Clamps or Twist Ties in the Service Area.

h. Install the Pergamum removed in step 11b in the hole in the bottom Left Service Wall. See figure 15.

12. Install new Interior Power Harness.

13. Install new Door Bundle Harness.

14. Install new Door Switch Harness with added Dongle connector.

15. Plug in all harnessing to Control Board. Reference illustration on page 8 to verify all Wiring Connections to the Control Board being used are correct.

16. After connecting all Harnessing to the Control Board and determining the location for the new Control Board, secure the Control Board Assembly to the Rear Service Wall with self-drilling screws.

17. Dress the Harnessing using the Wire Ties included in the Kit and P Clamps and Twist Ties in the Service Area. Be sure to secure the Door Bundle Harness to the Service Door as shown.
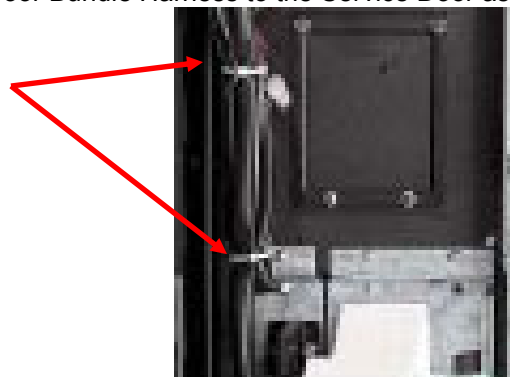
18. Plug Power Supply Cord in AC Distribution Box.

19. Turn the main power toggle switch to the on position.

20. Now you will need to enter the BevMax Set Up programming section to set the following listed settings. Refer to programming for steps to set these modes to ensure proper Vender operation beginning on page 13.
    a. <u>Set Coke Factory Setup Set Shelf Offset</u> starting with the setting recorded on the Factory Settings Label for Swipe & Shelf Offset on the Service Door.
    b. <u>Set Coke Factory Setup Set Hook Offset</u> starting with the swipe setting recorded on the Factory Settings Label for Swipe & Shelf Offset on the Service Door.
    c. <u>Set Coke Factory Setup (Delivery) Cup Sensor On or Off</u> depending on Delivery Cup in Vender to On or Set Extended Cup 1.
    d. <u>Set Coke Factory Setup Set Shelf Config</u> depending on your vintage Vender and the setting it left the factory on.

21. Once all settings are correct, close Service Door and test for proper operation.

101245 (previous #80492972) BM4 Red Control Board (Single Row Connectors)
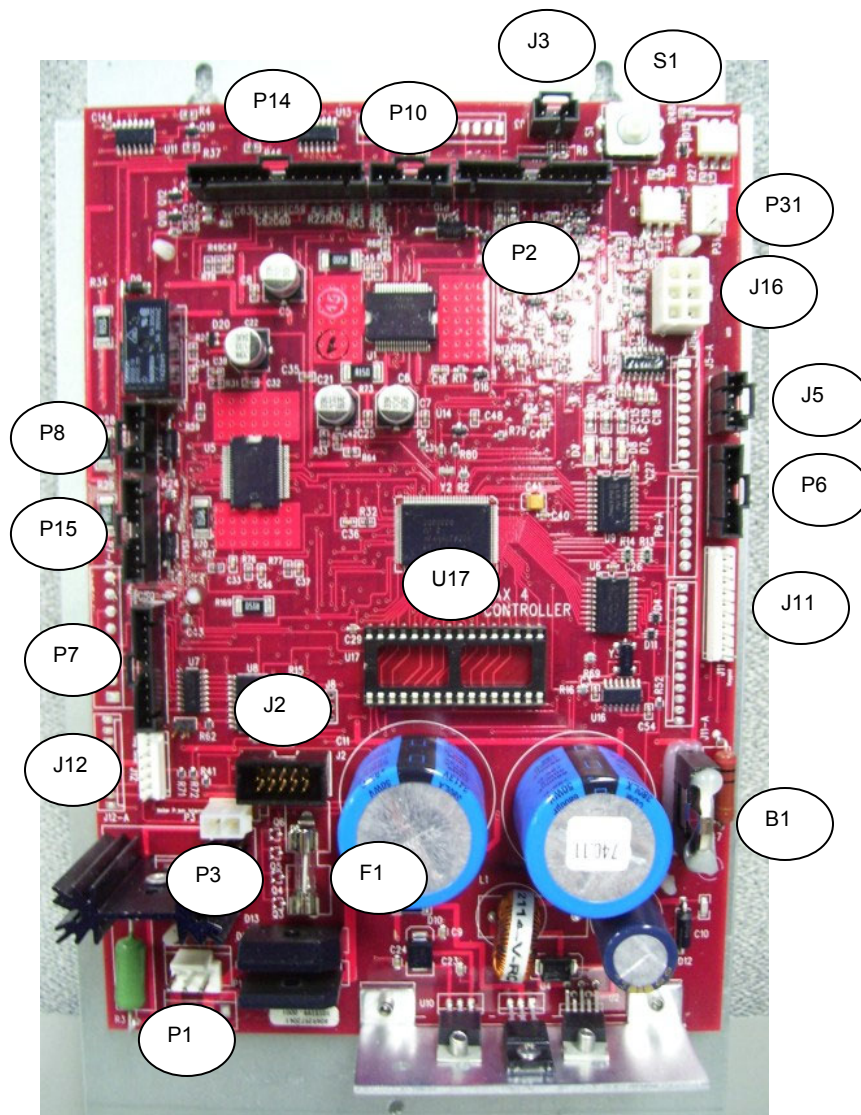
BEVMAX 4 5800-4/3800-4 MDB "720" CONTROLLER CONNECTIONS

NOTE: Only 1 Row of Connectors on Board

CONNECTION Coke BevMax 4	DESCRIPTION	CONNECTION Coke BevMax 4	DESCRIPTION
P1	Power from AC Distribution Box	F1	Fuse
P14	Cup Signal & Y Encoder	J5	DEX
P15	X Motor & Encoder	J11	Keypad
P2	Product Port	J12	Temp Sensor
P6	Display	J16	Multi Drop Bus
P7	Relays	U17	EPROM Socket
P8	Y & Cup Motors	P3	Motor Power Interrupt
P10	Door Switch	B1	Battery
J2	Supplier Programming Connector	S1	Service Switch
P31	Executive Interface	J3	Dongle Harness
		J4	Not Used

BEVMAX 4 5800-4/3800-4 MDB "720" CONTROLLER CONNECTIONS
NOTE: 2 Rows of Connectors on Board same as Blue Board on page 10

CONNECTION Coke BevMax 3	CONNECTION Coke BevMax 4	DESCRIPTION	CONNECTION Coke BevMax 3	CONNECTION Coke BevMax 4	DESCRIPTION
P1A	P1	Power from AC Distribution Box		F1	Fuse
	P14	Cup Signal & Y Encoder	J5A	J5	DEX
	P15	X Motor & Encoder	J11A	J11	Keypad
	P2	Product Port	J12A	J12	Temp Sensor
P6A	P6	Display		J16	Multi Drop Bus
P7A	P7	Relays		U17	EPROM Socket
	P8	Y & Cup Motors		P3	Motor Power Interrupt
P10A	P10	Door Switch		B1	Battery
	J2	Supplier Programming Connector		S1	Service Switch
	P31	Executive Interface		J3	Dongle Harness
				J4	Not Used

101249 (previous #80492870) Control Board Connections

Dongle jumper harness must be plugged in for machine to program.

BevMax 4
DN5800-4/3800-4

BEVMAX 4 5800-4/3800-4 MDB "700" CONTROLLER CONNECTIONS

CONNECTION Coke BevMax 3	CONNECTION Coke BevMax 4	DESCRIPTION	CONNECTION Coke BevMax 3	CONNECTION Coke BevMax 4	DESCRIPTION
P1A	P1	Power from AC Distribution Box		F1	Fuse
	P14	Cup Signal & Y Encoder	J5A	J5	DEX
	P15	X Motor & Encoder	J11A	J11	Keypad
	P2	Product Port	J12A	J12	Temp Sensor
P6A	P6	Display		J16	Multi Drop Bus
P7A	P7	Relays		U17	EPROM Socket
	P8	Y & Cup Motors		P3	Door Switch XY
P10A	P10	Door Switch		B1	Battery
	J2	Supplier Programming Connector		S1	Service Switch
				J3	Dongle Harness

Coca-Cola BevMax 4 & BevMax 3
Programming Method Quick Reference Menu Prompts

Select Button 1: Abort/Cancel (will return to previous menu prompt or to normal door open mode).	
Select Button 2: Scroll Up (forward in menu).	
Select Button 3: Scroll down (backward in menu).	
Select Button 4: Enter/Save/Clear (allows you to enter a specific prompt, save what you have programmed, or clear the error).	

Basic Programming

Error Codes	Vend Mechanism	HORZ	Errors con't.	Card Reader	Card Reader Comm	Sts Programming	Option 1	1 to 1
		VERT			Card Reader #		Option 2	Tray
		PICKI		OLM (On line module)	On line network		Option 3	Half Tray
		PICKO			On line internal		Option 4	Groups of 3
		PORT		Remote Vend Mech	Remote Vend Comm #		Option 5	1,2; 3,4; 5,6; 7,8,9
		VS			Remote Vend #		Option 6	1,2,3; 4,5; 6,7; 8,9
		XHOME		SAT (Satellite)	SATC		Custom StS	
		YHOME			BADM	*Config Switches	Config 1	Multi Price
		MOTOR			MISM		Config 2	Optional features
		PICKRS		Select/Display	Select/Display Comm		Config 3	POS Message
	Control System	Door Switch		Refrigeration	Temp Sense Err		Config 4	Auto View Counts
		RAM Checksum			Temp Too Cold		Config 5	Dr Sw Reset
		Scale Factor			Temp Too Hot		Config 6	Not Used
		FRAM			Not Cooling		Config 7	Save Credit
		RTC			Health Code		Config 8	Force Vend
		Low Battery			Recheck Failed		Config 9	Multi Vend
		PWROUT	Coin Pay Out	5¢, 10 ¢, 25¢, etc			Config 10	Bill Escrow
	Changer	Changer Comm	Tube Fill	5¢, 10 ¢, 25¢, etc		*Correct Change	Consumer Overpay #	
		Tube Sense	Test Modes	Test Vend	Column A1, etc		Corr Chg Value	##.##
		Changer Inlet		Test Sel Switch	Selection 4, etc		Uncond Accept	##.##
		Tube Jam		Test Display	a thru t & A thru T	*Preview Password		
		Changer ROM		Test Relays	Compressor #	*Language Select		
		Excessive Escrow			Fan #	*Time Programming		
		Coin Jam			Light #	*Lighting Control		
		Low Acceptance	Password Entry	4,2,3,1,4		*Refrigeration		
		Acceptor Disconnected	*Cash Counters	Cash Tot/###.##		*Select Block 1		
		Coin Routing Err		Card Tot/###.##		*Select Block 2		
	Bill Validator	Bill Val Comm		Cash Sel A1 ###.##		*Select Discount		
		Bill Stack Full	*Sales Counters	Sales Tot/###		Health Safety		
		Bill Motor Error		Drink Sales #	(if Snack Vender used)	Over-ride Switch		
		Bill Jam		Snack Sales #	(if Snack Vender used)	Remote Vend Mech		
		Bill Val ROM		Sales Sel A1/###		Combo Vend Discount	(only available when Snack enabled)	
		Bill Stack Open	*Price Program	All Selections	##.##	Return to Sales		
		Bill Sense Err				* require password to enter		

Coca-Cola BevMax 4 & BevMax 3
Programming Method Quick Reference Menu Prompts

BevMax Setup	Coke Factory Set Up Set Model Number	5800-4, 5800-E4, 3800-4, 3800-E4	Multimate Setup		
	Coke Factory Setup Set Prc/Tmpr 4 Test	(factory testing only)		Multimate Setup Enable Snack Vender	Snack Vender Enable:# (0-1)
	Coke Factory Setup Set Prc/Tmpr Default	(factory testing only)		*Multimate Setup Golden-Eye Policy	Golden Eye Policy Drop (Home)
	Coke Factory Setup Set Shelf Offset			*Multimate Setup Set Golden-Eye Sel	Set Golden Eye Sel Sel:210 # (0-1)
	Coke Factory Setup Position Test			*Multimate Setup Snack MotorScan	Snack Motor Scan Execute Motor Scan?
	Coke Factory Setup Set Hook Offset			*Multimate Setup Combo Vend Discnt En	Combo Vend Discount Enable # (0-1)
	Coke Factory Setup Cup Sensor On/Off?		**Return to Sales**		
	Coke Factory Setup Cup Test		*only available when Snack Vender enabled or connected to a Snack Vender.		
	Coke Factory Setup Port Test				
	Coke Factory Setup Set Shelf Config				
	Coke Factory Setup Master Reset				
	Coke Factory Setup Update Software				
	Coke Factory Setup Double Talk				
	Coke Factory Setup Build Number ###				
	Coke Factory Setup Sold Out Enable				
	Coke Factory Setup $ Enable				
	Coke Factory Setup Enable EXE				
Test Modes	Test Vend				
	Test Sel Switch				
	Test Display				
	Test Relays				

Key Programming Steps when replacing a Control Board.

(For a complete set of programming instructions please refer to the Technical Manual for the Vender.)

COCA-COLA BevMax 4/3 (74x.x1, 70x.01 Software) PROGRAMMING METHOD
NORMAL MODE:
SERVICE MODE:
If configuration switch 4 is set to "Config 4 0", when the Service Door is opened, "No Error Codes" or a list of Error codes will show on the Display. If Configuration Switch 4 is set to "Config 4 1", when the Service Door is opened, "Cash - ####-##.##", "Card - ######.##", "Sale - ####-####", " Error Codes", or "No Errors" will show on the Display. NOTE: Card is only shown if a Card Reader is present. The Service Mode is entered when the Service Door is open and the Service Switch on the Control Board is pressed. The operator can now use the Keypad to move through the Main Routine Menu.

Key number 1: Abort/Cancel - will return to previous Menu prompt.
Key number 2: Scroll Up - forward in Menu.
Key number 3: Scroll Down - backward in Menu.
Key number 4: Enter/Save/Clear - Allows you to enter a specific routine, save what you have programmed, or clear the Error prompts.
Note: Routines with * are password protected. They can only be viewed and entered after the password is entered at the "Password Entry" prompt.

"Error Codes" - ERROR ROUTINE
This function allows you to enter the Error Readout Routine. "Error Codes" will appear when you press the Service Switch on the Control Board. Press Key number 4, if there have been no Error Codes since the last reset, the Display will read "No Errors". If one or more Error Codes have occurred, the Display will show the first Error Code that occurred. The following are Error Codes that may be displayed and detailed information accessed: "No Errors", "Vend Mechanism", "Control System", "Selection Switch", "Changer", "Bill Validator", "Card Reader", "Remote Vend Mech", "Selection/Display", "Refrigeration", "Health Timer".

Press Key number 2 or 3 to scroll through any Error Codes that are present.
Important: If there is only one problem, it will be the only Error Code shown when you enter the Error Code Submenus.
With an Error Code showing on the Display, press Key number 4 to access detailed information.
After making repairs with an Error Code showing on the Display, press and hold Key number 4 for 2 seconds will clear the Error. Press Key number 1 to return to "Error Codes".

*"Password Entry" - PASSWORD ROUTINE
This function allows you to enter the following routines which are not accessible until the operator enters a password, which is set as 4-2-3-1. To enter the password, press Key number 4 until the Display goes blank. Then press Key number 2, then 3, then 1, and then 4, and "Cash Counters" should appear on the Display. If not entered properly, the Display will return to "Password Entry" after approximately 16 seconds. If entered correctly, the Display will go to the next function "Cash".

* "Price Program" - PRICE SETTING ROUTINE
This function allows the user to Set Pricing. When Configuration Code 1 is programmed to "Config 1 0" the Vender is set for Single Price Vending. When Configure Code 1 is set to "Config 1 1", the Vender is set for Multi-pricing (or a price for each selection needs to be set). Note: This routine is lockable when using a Data Collection Device.
<u>Single Price - Price Setting:</u>
Press Key number 4 "Single Price" will show on Display. Press the "4" Key and "Price Sel #.##" will show on Display.
Press Key "2" to increase the Vend Price or Key "3" to decrease the Vend Price. With the Display showing the Vend Price you require, press Key "4" to save. All Selections will be set to vend at the saved Vend Price.
<u>Multi-price - Price Setting:</u>
Press Key 4 and Display will show "All Selections". Press Key 2 to scroll from "All Selections" to individual Tray Selections "A, B, C, D, E". With the Display showing the All Settings of the Tray you wish to Set Price in press the Key 4 to enter.   At "All Selections" when you press Key 4 and enter the Display will show "#.##" or current Price set. Press Key "2" to increase the Vend Price or Key "3" to decrease the Vend Price. With the Display showing the Vend Price you require, press Key "4" to save. If you select an individual Tray letter to Set Price in, when you press Key 4 and enter the Display will show "All Selections (for tray A only)". Press Key 2 to scroll to A1 thru A9 then back to All Selections (for A tray only)". At the position you wish to Set Price when you press Key 4 and enter the Display will show "#.##" or current Price Set. Press Key "2" to increase the Vend Price or Key "3" to decrease the Vend Price. With the Display showing the Vend Price you require, press Key "4" to save.
Factory default setting is "Single Price". Press Key number 1 to return to "Price Program". Press Key number 2 to scroll to the next Routine.

IMPORTANT: If Enable Snack Vender is set to "1" or On, the Vender must be set for Multi-price Price Setting. When scrolling through to select where to Set Prices you will see the following; "All Drink Selections, A, B, C, D, E, and then All Snack Selections. At "All' Snack Selections" Press Key 2 to scroll from "All Snack Selections" to individual Tray selections "21, 22, 23, 24,25, 26". With the Display showing the setting of the Tray you wish to Set Price in press the Key 4 to enter. At "All' Selections" when you press Key 4 and enter the Display will show "#.##" or current Price Set. Press Key "2" to increase the Vend Price or Key "3" to decrease the Vend Price. With the Display showing the Vend Price you require, press Key "4" to save. If you select an individual Tray Number to Set Price in, when you press Key 4 and enter the Display will show "All Selections (for Tray 21 only)". Press Key 2 to scroll to 211 thru 21# then back to All Selections (for 21 Tray only)". At the position you wish to Set Price when you press Key 4 and enter the Display will show "#.##" or current Price Set. Press Key "2" to increase the Vend Price or Key "3" to decrease the Vend Price. With the Display showing the Vend Price you require, press Key "4" to save.

"Test Modes" - TEST ROUTINE

This function allows you to diagnose different functions of the Vender. Press Key number 4 and the Display will show "Test Vend". For additional Dixie-Narco Factory Diagnostics refer to Technical Manual. Press Key number 2 or 3 to scroll through the Test Routines available. Press Key number 1 to return to "Test Modes".

"Test Vend" - Vend Testing
This function allows you to Test Vend each Column.
Press Key number 4 and the Display will show "Column A1". Press Key numbers 2 or 3 to scroll through the Columns available to run in Motor Test. Press and hold the Power Interrupt (PI) switch.   Press Key number 4 to Vend from the Column Displayed.   Press Key number 1 will return to "Test Vend". Press Key number 2 to scroll to next Test Mode.

Dixie-Narco Factory Setup Menus
BevMax Setup/Test Modes/Multimate Setup

The below diagnostic features are used for aligning the XY Assembly and providing pertinent information that is unique to the Coca-Cola BevMax 4 Vender and is not found in the standard programming of the Vender. These include menus for "BevMax Setup", "Test Modes", and "Multimate Setup". The Menus include the following Sub-menus. In BevMax Setup you have "Set Price/Temperature 4 Test", "Set Price/Temperature Default", "Set Shelf Offset", "Position Test", "Set Hook Offset", "Cup Sensor On/Off", "Cup Test", "Port Test", "Set Shelf Configuration", "Master Reset", "Update Software", "Double Talk", and "Build Number ###". In Test Modes you have "Test Vend", "Test Sel Switch", "Test Display", and "Test Relays". In Multimate Setup you have "Enable Snack Vender", "Golden-Eye Policy", Set Golden-Eye Sel", Snack Motor Scan", and "Combo Vend Discount En".

To enter "BevMax Setup" sub menus:

Press the Service Switch on the Control Board. When the Display reads "Error Codes" press and let go of the following Keys in order; "1" "5" "1" "5" "1". If the Keys were actuated correctly, the VMC will enter the Factory Diagnostic Mode and the Display will read "BevMax Setup". Press the number 2 Key to scroll to Test Modes or press the number "4" Key one time will cause the VMC to enter the BevMax Setup Sub-menu or press and hold the number "1" Key for 1 second to exit the "BevMax Setup" Sub-menu and return to the "Error Codes" Service Menu prompt.   Once you enter the "BevMax Setup" Mode press Key 4 to enter Sub-menu and Coke Factory Setup Set Prc/Tmpr 4 Test will show on Display, press and hold the number "2" Key and the VMC will begin to cycle forward through the available options or press and hold the number "3" Key to cycle backwards through the available options. Press Key 4 one time at any option for the VMC to enter that option.

BevMax Setup
Coke Factory Setup
Set Model Number

This Sub-menu will be used to set the Model Number of the Vender in the Control Board so it knows the Vender configuration. Press Key number "4" to enter the Menu and the Display will show "Reset Model? Continue? 4 = Y (yes) 1 = N (no).   If you select Key 4 (yes) the Display will show a Model Number (example 5800-4) Save? A = ^, ❋ = Y (yes), CLR = N (no). Press the Key "A" to scroll through all the available Models: 5800-4, 3800-4, 5800-E4, 3800-E4. With the Display showing the Vender Model Number you wish to save press the ❋ Key. Note: program Model Number 5800-4 for all BevMax 3/2 Venders with 9 columns on each Tray. There is not a 5800 Model Number available for the BevMax 3/2 Venders.
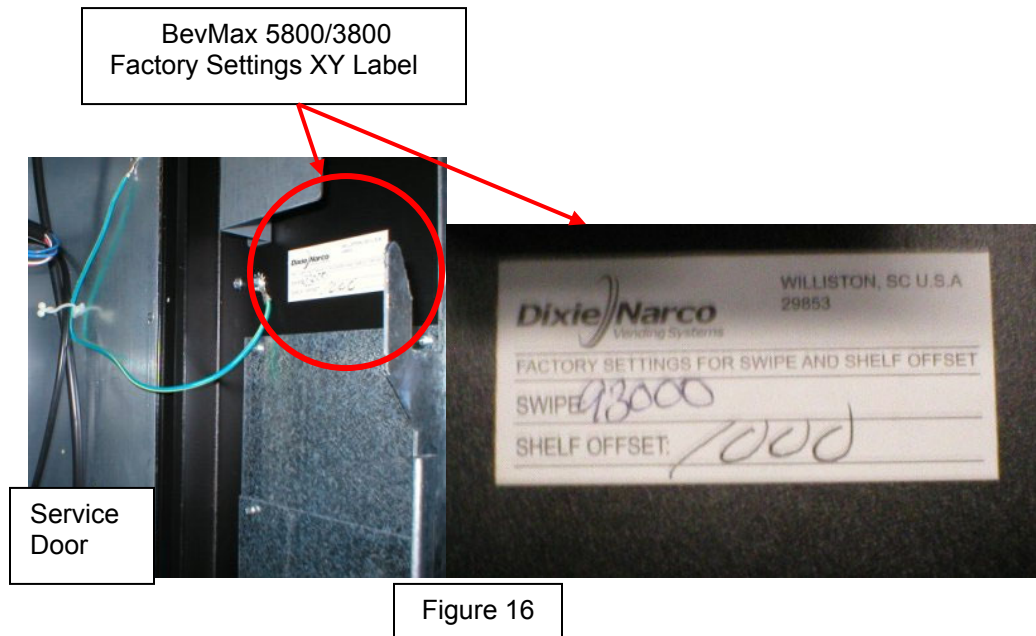
Coke Factory Setup
Set Shelf Offset – Test Delivery Cup to Shelf Alignment**:**
This Sub-menu will be used to set the XY to the proper Shelf height. Press Key number "4" one time at the "Shelf Offset" prompt. The VMC will enter the Shelf adjust option and Display the current Shelf Offset position as "Shelf Offset: 900 3310 counts = 1 inch". To adjust Shelf (Y) Offset (up and down), enter a new number and press the "⁕" Key to save and Display will show "#### Offset recorded".   Then press "CLR Key to go back to "Shelf Offset". Go to Position Test and check the Delivery Cup Plunger is contacting the Gate Targets correctly.

   a. The default on BevMax 4 is 4310; default for BevMax 3 (run #8487 & higher) is 2500. Clear this by pressing the "CLR" Key until this number is gone. Then enter new number by pressing the Keys on the Keypad. Then press the "⁕" Key to save. On BevMax 4's start with 900 or check the inside of the Service Door for the original setting written on the Factory Settings XY Label. Remember the higher the number, the higher the Delivery Cup goes up.
   b. Test Delivery Cup height in Position Test. If the Delivery Cup hits too high or too low return to "Shelf Offset" Menu to adjust.
   c. The higher the number the higher the Delivery Cup will go, and the lower the number the lower the Delivery Cup will go.

Note: If the Machine has the Factory Settings XY Label below on the Service Door, use it as your starting point when setting the Shelf Offset and Swipe.

BevMax 5800/3800 Factory Settings XY Label

Service Door

Figure 16

Coke Factory Setup
Position Test –Test Delivery Cup to Column selected**:**
This Sub-menu will be used to test the Vend Mechanism alignment to specific Columns confirming the proper X Belt tension. Note: The left Door Switch must be pulled to the out position to perform this test. **Caution: XY needs to be in the home position before performing this test.** If you look at the Control Board the green, amber (yellow), and red lights should be on at this time. If not please check the following: Green light is for Y Home Switch on bottom of Delivery Port Cup, amber (yellow) light is for X Home Switch on left side of Y Motor Assembly, red light is for Picker Home Switch for Delivery Cup plunger. Press the number 4 Key and the Display will show a set of numbers (ie ###### # ###### #). To Position Test press the following:

   a. Shelf letter (A,B,C,D,E) to travel to selected Shelf/Tray.
   b. Column Number (1,2,3,4,5,6,7,8, & 9) to travel to selected Column.
   c. Key "0" to cycle Delivery Cup plunger to hit Column Gate Target.
   d. Key "F" to return Delivery Cup to Home position.
   e. Key "⁕" is "All Stop".
   f. Press "CLR" Key to return to "Position Test".

Coke Factory Setup
Set Hook Offset – Test Delivery Cup to Port Alignment:
This Sub-menu will be used to test the Vend Mechanism alignment to the Port Area confirming the proper X Belt tension. Adjust Hook Swipe "X" Offset (left to right). Press the number "4" Key and the Display will show "Hook Swipe ####, 3310 counts = 1 inch". For Factory Default Setting see Factory Settings XY Label listed on Service Door. To change the Offset, pull the top left (white) Door Switch in the out position to power the XY Motors. Press the "✳" Key once will automatically run the Delivery Cup Assembly to the swipe position and allow specific Vender coordinates to be changed and saved in the Control Board memory. Use the numbers on the Key pad to change the coordinates. Press the "✳" Key to save the new setting and the Delivery Cup Assembly will automatically go to the "Home" position, then move back to the Swipe position again. Press the "✳" Key to send the Delivery Cup Assembly back to the "Home" position and the programming will return to "Set Hook Offset". Press Key 2 to go to next Menu item.

Coke Factory Setup
Cup Sensor On/Off – Turns Delivery Cup Sensor On & Off:
This Sub-menu will be used to set the Cup Sensor On or Off. Press Key 4 and the Display will show "Cup Sensor On". Press the "4" Key to toggle the Extended Cup to the On setting. Factory Default Setting beginning with software revision 700.21 is On. Note: Cup Sensor Off setting is used in BevMax 4 with non Z Cup Coke Venders manufactured prior to run 8843AH. Cup Sensor On is used in all BevMax 4 Venders produced on run 8843AH & higher or if there is a problem in the Delivery Cup the Sensor can be turned Off. Press Key 1 to return to "Cup Sensor On/Off".

Coke Factory Setup
Port Test – Test the operation of the Port :
This Sub-menu will be used to test the operation of the Port Cup Assembly and Port Sensor. Press the number 4 Key and the Display will show four numbers "####". The 1st # is Port Open Switch and 0 = Port not open or 1 = Port opened. The 2nd # is Port Closed Switch and 0 = Port not closed or 1 Port closed. The 3rd # is Sensor and 1 = Sensor on or 0 = Sensor off. The 4th # is Vend detect (only if Sensor is on) 0 = No product in Port or 1 Product in Port. To test the Port press the following:
   a. Key "A" to Open Port Door. Display 1###.
   b. Key "B" to Close Port Door. Display 0###
   c. Key "C" to turn Port Sensor On. When turned on and something is placed in the Port a red LED will light on the Control Board. Display ##1#.
   d. Key "D" to turn Port Sensor Off. Display ##0#.
   e. Key "✳" All Stop on any of these tests.
   f. Key "CLR" to return to "Port Test".

Coke Factory Setup
### Set Shelf Config – Allows for Shelf Configuration to be set:
This Sub-menu allows the Service Technician to program the electronics to match the different settings available for the Shelves. These settings are available to vend different package heights. The Factory Default Setting is Shelf Setting D2. Press the Key "4" on the Keypad and Display will show "Set Shelf Config". Press the "4" key and Display will show current setting. To change the setting press Key 2 to scroll through the following: A = G setting, B = M1 setting, C = M2 setting, D = D setting, E = E setting, F = E1 setting, 1 = D2 setting, 2 = E3 setting, & 3 = E4 setting. D2 = BM3 5800-4 domestic setting. Note Shelf settings G, M1, & M2 settings are used in Venders prior to 8487-0001AE. Shelf settings D, E, & E1 settings are used in Venders 8487-0001AE to 8900-0001BH. Shelf settings D2 is setting used in all domestic BevMax 4 5800-4 Venders and E3 (5 shelf Export), E4 (4 shelf Export), E5 (5 shelf Export), & E6 (5 shelf Export) are manufactured on request in BevMax 4 5800-E4 & 3800-E4 Venders 8900-0001BH and higher. Once the desired setting is showing on the Display press the "4" Key to save the setting. Note: all Shelf settings have to be physically set to match the programmed setting. You can not set the physical Shelf settings differently. Press the "1" Key to return to "Set Shelf Location". Press the "2" Key to scroll to the next Menu item.

BEVMAX 4 DN5800-4/3800-4 MDB "720"OR "700" CONTROLLER
80492972 or 80492870

> **Dongle harness must be installed in the J3 plug when using the "720"or "700" BevMax 4 Control Board.**

Door Switch Harness # 100805 (previous #80492853) in kit - Remove "DONGLE" from Harness and install on Control Board. The remainder of # 100805 (previous #80492853) Harness will not be used. DONGLE Wire could be Red or Yellow.

Service Switch
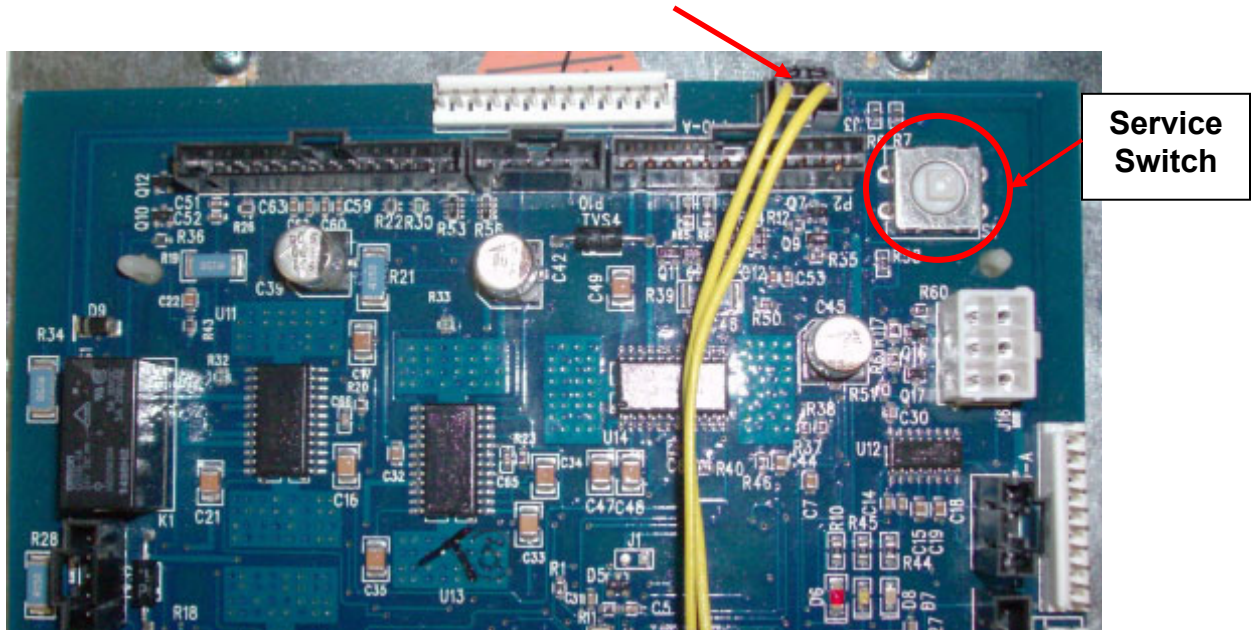
80492972 Control Board is Red in color.

> If the Dongle is missing the Display will scroll
>
> **"dongle missing . . ."**

> Power down the Machine using the On/Off toggle switch located in the AC Distribution Box. Insert the Dongle Jumper Harness in J3 port, power up the Machine and program.
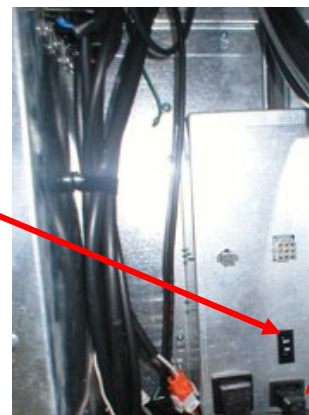
BevMax 3 AC Distribution Box	BevMax 4 AC Distribution Box

On/Off Switch

Main Power Plug

Main Power Plug

Key Menu Items when installing a new Control Board:

> **These are the Main Menu items that will have to be programmed when replacing the main Control Board.**

COCA-COLA BevMax 4/3 (74x.x1or 70x.x1 Software) PROGRAMMING METHOD
NORMAL MODE:
SERVICE MODE:
    Error Codes
        List & Clear
    Price Program
    Test Mode
        Test Vend

Dixie-Narco Factory Setup Menus
BevMax Setup/Test Modes/Multimate Setup
    Set Model Number
    Set Shelf Offset
    Position Test
    Set Hook Offset
    Cup Sensor On/Off
    Port Test
    Set Shelf Config

Note: See Full Explanation of these menus on pages 13 through 17.