



**THE VENDO COMPANY**

<b>VEC 5.1-1061 - 1067 Programming Guide</b>
<b>DOOR OPEN CONTROL SEQUENCE</b>
<ol style="list-style-type: none"><li>1. Diagnostic Error Codes</li><li>2. Sales Information</li><li>3. Alternate Test Vend</li><li>4. Control Operation &amp; Programming</li></ol>

<b>PROGRAMMING CHECKLIST</b>
<p><b>NOTICE:</b> Do not enter the programming modes of this control without authorization and proper training.</p> <p>The leading cause of vendor malfunction is a control board that is not properly programmed. When installing a new board or when trying to trouble shoot a vendor that is not operating as expected, follow these steps in the order listed.</p>
<ol style="list-style-type: none"><li>1. Space to Sales (SSS). Confirm each selection has the correct column(s) assigned. Confirm each column is assigned to at least one selection. As a starting point, assign columns to selections using the Quick Set (SSSS) Mode and pressing the last selection button (Selection 9 or 10 depending on model).</li><li>2. Options (OPTS) &amp; (OPT 2). Check the settings for each of the different options. As a starting point, set all options to factory settings.</li><li>3. Price Setting (COST). Set each selection to desired price from .00 (Free Vend) to \$99.95</li><li>4. Timer Control (TCTL). If an optional timing device or key switch is installed, check that the selections are set as desired. (Be sure the optional timing device is operating properly.)</li><li>5. When exiting "Service Modes" (i.e. actuating the door switch) you must wait 30 seconds before the vendor will accept coins or bills.</li></ol>

For detailed instructions, refer to the Service and Operation Manual or call the Technical Services Department of The Vendo Company at 800-344-7216 or 559-439-1770.

## ERROR CODES

ERROR CODE	ACTION	TO REMOVE ERROR CODE
<b>"NONE"</b> No Reported Errors	No action needed	No Error Code to remove. Control board will automatically go to total historical vends.
<b>"ER-1"</b> Jammed Column	Press Mode Switch 1 time to identify jammed column(s)	Remove cause of motor jam and test vend all columns vended by that motor.
<b>"ER-3"</b> Door Left Open 1 Hour	Remove the error code and close the door	While ER-3 is displayed, press the mode switch then press and hold any selection switch for 2 seconds
<b>"ER-4"</b> Stuck Selection Switch	Press Mode Switch 1 time to identify stuck switch(es)	Automatically cleared when stuck switch is repaired.
<b>"ER-5"</b> MDB Changer Error (Valid only with MDB Interface)	Press Mode Switch 1 time to identify: <b>"CCO"</b> = Coin Changer Communication <b>"TUBE"</b> = Coin Tubes Low <b>"ICB"</b> = Inlet Chute Blocked	After repair, press any selection switch for 2 seconds while ER-5 is displayed.
<b>"ER-6"</b> MDB Coin Changer Error (Valid only with MDB Interface)	Press Mode Switch 1 time to identify: <b>"ESC"</b> = Excessive Escrow Attempts <b>"JA"</b> = Coin Jam in Changer <b>"LO"</b> = Low Coin Acceptance	After repair, press any selection switch for 2 seconds while ER-6 is displayed.
<b>"ER-7"</b> MDB Card Reader Error (Valid only with MDB Interface)	Press Mode Switch 1 time to identify: <b>"CrOx"</b> = Card Reader Error <b>"Cr1x"</b> = Invalid Card <b>"Cr2x"</b> = Tamper Error <b>"Cr3x"</b> = Manufactures Defined Error <b>"Cr4x"</b> = Communication Error <b>"Cr5x"</b> = Reader Requires Service <b>"Cr6x"</b> = Unassigned <b>"Cr7x"</b> = Manufactures Defined Error <b>"Cr8x"</b> = Reader Failure <b>"Cr9x"</b> = Communication Error-Inop Reader <b>"CrAx"</b> = Card Jammed <b>"CrBx"</b> = Manufactures Defined Error	After repair, press any selection switch for 2 seconds while ER-7 is displayed.




<p align="center"><b>"ER-8"</b></p> <p>STS Assignment Error (SSS)</p>	<p>Press Mode Switch 1 time to identify:  <b>"SS_"</b> = Unassigned Switch(es)  <b>"UA_"</b> = Unassigned Column (5.1 Only)  <b>"DA_"</b> = Doubly Assigned Column (5.1 Only)</p>	<p>Automatically cleared when assignment error is corrected through SSS program mode.</p>
<p align="center"><b>"ER-9"</b></p> <p>MDB Bill Validator Error (Valid only with MDB Interface)</p>	<p>Press Mode Switch 1 time to identify:  <b>"BOPN"</b> = Bill Box Open  <b>"BS"</b> = Bill Validator Sensor Error  <b>"BJ"</b> = Bill Jammed  <b>"BILL"</b> = Defective Motor  <b>"BRCH"</b> = ROM Checksum Error  <b>"BFUL"</b> = Bill Box Full (5.1 Only)</p>	<p>After repair, press any selection switch for 2 seconds while ER-9 is displayed.</p>

<b>SALES INFORMATION</b>		
<b>DESIRED DISPLAY</b>	<b>ACTION FOR DESIRED DISPLAY</b>	<b>NEXT CONTROL ACTION</b>
<p><b>TOTAL HISTORICAL VENDS</b>  <b>"CANS"</b>            (Non-Resettable)</p>	<p>If No Errors:            No action is required to display total vend            vends            If Error Codes are not cleared:            Press selection switches 1 and 2 at the same time</p>	<p>After 15 seconds, control will automatically go to alternate test vend operation.</p>
<p><b>VENDS BY SELECTION</b> (Since Last Reset)</p>	<p>Pressing any selection button will display unit sales for that selection since the reset button was last pressed.</p>	<p>After 15 seconds, control will automatically go to alternate test vend operation.</p>
<p><b>TOTAL HISTORICAL CASH</b>  <b>"CASH"</b>            (Non-Resettable)</p>	<p>From Total Vends:            No action is required to display total cash            From vends by selection:            Press selection switches 1 and 2 at the same time</p>	<p>After 15 seconds, control will automatically go to alternate test vend operation.</p>

NOTE: OPTIONAL DOOR CLOSED DATA RETRIEVAL

If desired, **“Total Historical Vends”** and **“Vends By Selection”** may also be retrieved with the door closed after entering passcode. (Refer to “OPTS”, selection 5). After passcode, vends by selection may be reset by pressing selection switches 1 And 4 at the same time and holding for 3 seconds.

<b>ALTERNATE TEST VEND</b>		
<b>DISPLAY</b>	<b>HOW TO DISPLAY</b>	<b>ACTION</b>
<b>“.00” OR “(VEND PRICE)”</b> (With inner and outer doors separated)	Control board automatically reverts to this display from “Sales Information” Or “Control Operation & Programming” after 15 seconds of inactivity.	All vend and cash activities effect special test meters (counters) only and will not change normal (Door Closed) vend or cash meters.

<b>CONTROL OPERATION &amp; PROGRAMMING SUMMARY</b>		
<b>MODE</b>	<b>OPERATION</b>	<b>RESULT/RESPONSE</b>
CHANGE PAY OUT <b>“CPO”</b> (Press Mode Switch One Time)	Press Selection Switch 1	.05  Pay Out
	Press Selection Switch 2	.10  Pay Out
	Press Selection Switch 3	.25  Pay Out
	Press Selection Switch 4	\$1.00 Coin Pay Out (If Coin Changer is Available)
COLUMN TEST VEND <b>“TEST”</b> (Press Mode Switch Two Times)	Press Selection Switch 1	Increases Displayed Column Number
	Press Selection Switch 2	Decreases Displayed Column Number
	Press Selection Switch 3	Vends Displayed Column Number
PRICE SETTING <b>“COST”</b> (Press Mode Switch Three Times)	Press Any Selection Switch	Selection’s Current Price Is Displayed
	Press And Hold Same Selection	Selection’s Price Increases
	Press And Hold Same Selection	Selection’s Price Decreases

## CONTROL OPERATION & PROGRAMMING SUMMARY

MODE	OPERATION	RESULT/RESPONSE
<b>OPTIONS "OPTS"</b> (Press Mode Switch Four Times)	<b>Bill Handling</b> Press Selection Switch #1 (Continue to press #1 until desired setting is reached.)	Bill Handling 1 = Force Vend if bill is accepted. Scavenger lever will return change. 2 = Change Machine 3 = Bill accepted is held in escrow. Scavenger lever will return bill.
	<b>Correct Change Acceptance</b> Press Selection Switch #2 (Continue to press #2 until desired setting is reached.)	Correct Change Vending 1 = Only correct change accepted for vend 2 = Correct change or greater accepted for vend 3 = Same as #1 Special Application Only 4 = Same as #2 Special Application Only
	<b>Zero Indicator</b> Press selection switch #3 (Continue to press #3 until desired setting is reached.)	"o" in Display to Indicate Sold Out or Jammed Column(s) 1 = On 2 = Off
	<b>Fast Price Set</b> Press selection switch #4 (Continue to press #4 until desired setting is reached.)	Fast Price Set 1 = Each selection's price set individually 2 = All selections same price as selection 1's price
	<b>Door Closed Data</b> Press selection switch #5 (Continue to press #5 until desired setting is reached.)	Door Closed Sales Data Retrieval 1 = Off 2 = On (After 5 seconds, displays passcode)
	<b>Control Board Identification</b> Press selection switch #6	Displays control board ID and software revision level (Example: "1 5.1 1061")

## CONTROL OPERATION & PROGRAMMING SUMMARY

MODE	OPERATION	RESULT/RESPONSE
<b>OPTIONS TWO "OPT 2"</b> (Press Mode Switch Five Times) <b>Options 2 Is Used Only On Models With VEC 5.1-1061. All Settings Should Remain At Factory Unless Special Applications Apply.</b>	<b>Acceptance Non-Tube Coins (Special application Only)</b> Press selection switch #1 (Continue to press #1 until desired setting is reached.)	Acceptance of Non-Tube Coins <b>5 = Must have adequate change for existing credit, value of Non-Tube coin, and for all possible selections. (Factory Setting, USA)</b> 6 = Must have adequate change for existing credit and value of Non-Tube coin (International)
	<b>Multi-Vend Option (Special Application Only)</b> Press selection switch #2 (Continue to press #2 until desired setting is reached.)	Allows Single Or Multiple Vends From One Purchase <b>5 = Does not allow multiple vends. (Factory Setting)</b> 6 = Allows multiple vends.
	<b>Product Count</b> Press selection switch #3 (Continue to press #3 until desired setting is reached.)	Product count displays history of product vended. <b>5 = Count shows vends per selection. (Factory Setting)</b> 6 = Count shows vends per price.
	<b>Change Pay-Out (Special Application Only)</b> Press selection switch #4 (Continue to press #4 until desired setting is reached.)	Change paid out when money is accepted. <b>5 = Yes, pay out change after selection is made. (Factory Setting)</b> 6 = No, remaining credit will be erased after selection is made.

## CONTROL OPERATION & PROGRAMMING SUMMARY

MODE	OPERATION	RESULT/RESPONSE
SPACE TO SALES <b>"SSS"</b>	<b><i>TO DISPLAY CURRENT COLUMN TO SELECTION CONNECTIONS:</i></b>	
	Press and release any selection	Displays current column(s) connected to that selection
(Press Mode Switch Six Times)	<b><i>TO CONNECT AND DISCONNECT COLUMNS FOR A SELECTION:</i></b>	
	Press and release the selection to be changed. Then press and hold same selection again for 3 seconds	Display shows "CO 1" (Column 1). Displayed column number may or may not flash.  Flashing = Column is connected to the selection  Continuous = Column is not connected to the selection
	<b><i>Selection Buttons 1,2, 3 and 4 are now used as programming buttons to connect and disconnect columns.</i></b>	
	Press (Selection) Switch 1	Increases displayed column number
	Press (Selection) Switch 2	Decreases displayed column number
	Press (Selection) Switch 3	Changes connection status of displayed column number
	Press (Selection) Switch 4	Records and ends connection changes for the selection. Display returns to SSS beginning.
	<p><i>Buttons 1,2,3 and 4 are used as selection switches again.</i></p> <p><i>After connection changes are made and door is closed, the new settings will be displayed.</i></p>	



## CONTROL OPERATION & PROGRAMMING SUMMARY

MODE	PREPROGRAMMED SPACE-TO SALES CONFIGURATIONS										
QUICK SET SSS <b>"SSSS"</b> (Press Mode Switch Six Times to Display SSS. Then Press Reset Button Twice.)	<b>SETTING</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	<b>SEL #</b>	<b>COL</b>	<b>COL</b>	<b>COL</b>	<b>COL</b>	<b>COL</b>	<b>COL</b>	<b>COL</b>	<b>COL</b>	<b>COL</b>	<b>COL</b>
	<b>1</b>	1	1,2	1	1,2	1	1	---	---	1	1
	<b>2</b>	2	3	2	3	2	2	---	---	---	2
	<b>3</b>	3	4	3	4	3	3	---	---	---	3
	<b>4</b>	4	5	4	5	4	4	---	---	---	4
	<b>5</b>	5	6	5	6	5	5	---	---	---	5
	<b>6</b>	6	7	6	7	6	---	---	---	---	6
	<b>7</b>	7	8	7	8	---	---	---	---	---	7
	<b>8</b>	8	9	8	---	---	---	---	---	---	---
	<b>9</b>	9	10	---	---	---	---	---	---	---	---
<b>10</b>	10	---	---	---	---	---	---	---	---	---	

**After "SSSS " is displayed, selection switches 1-10 are used to obtain desired settings. The most commonly used setting can be obtained by using the last selection switch.**

TIMER CONTROL <b>"TCTL"</b> (Press Mode Switch Seven Times)	<i>NOTE: This mode has no meaning or effect for vendors as produced. This mode is effective only when an optional timer or key switch device is installed.</i>	
	Press any selection switch	Displays Selection's Current Setting Yes = Always vends regardless of timer No = Vending controlled by timer operation
	Press Same Selection	Changes Selection's Setting (Factory Setting = All Selections Set to No)

For detailed instructions refer to the Service & Operation Manual or you may call the Technical Services Department of The Vendo Company at 800-344-7216 or 559-439-1770.

2/10/96

### 1. PRODUCT

**12 OZ. CANS - 2.60 x 4.84 Long**

### 2. PRODUCT CAPACITY

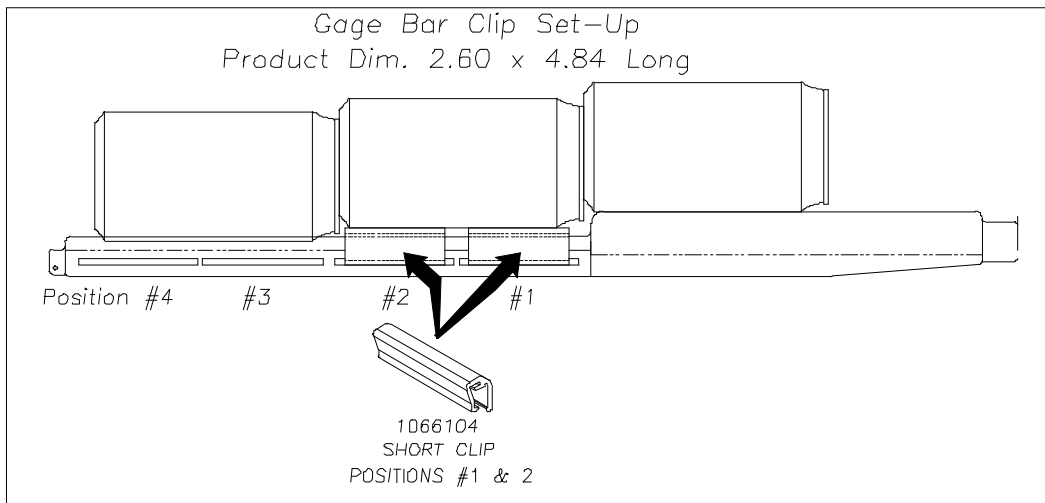
**48 PER COLUMN - 72", 57 PER COLUMN - 79"**

### 3. SET UP GUIDE UNIVENDOR-2

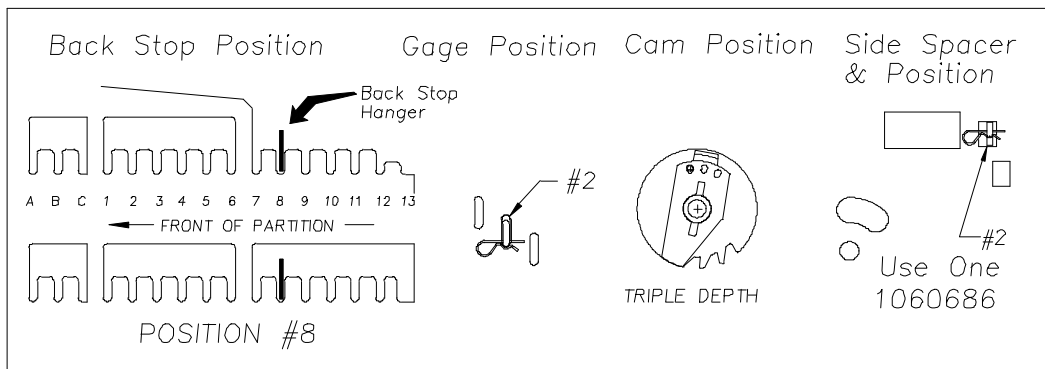
Product	CAM POSITION	BACK SPACER	GAGE BAR	Sold out Lever	SIDE SPACER	GAGE BAR CLIP	
						Part No.	Position
12 oz CANS	3	8	2	389242 SHORT	1060686	1066104 White	1 & 2

**Note:** To properly vend 12 oz. Cans. The Univendor-2 must have the columns setup correctly.

### 4. GAGE BAR CLIP SET UP.



### 5. SET UP GUIDE.



### 6. SOLD-OUT LEVER TO BE SHORT STYLE WITH FRONT SPACER. SPRING TO BE LOCATED ON THE RIGHT SIDE (LOW PRESSURE SETTING).

**1. PRODUCT**

**20 OZ. STRAIGHT WALL PET BOTTLE - 2.90 Top x 8.00 Long**

**2. PRODUCT CAPACITY**

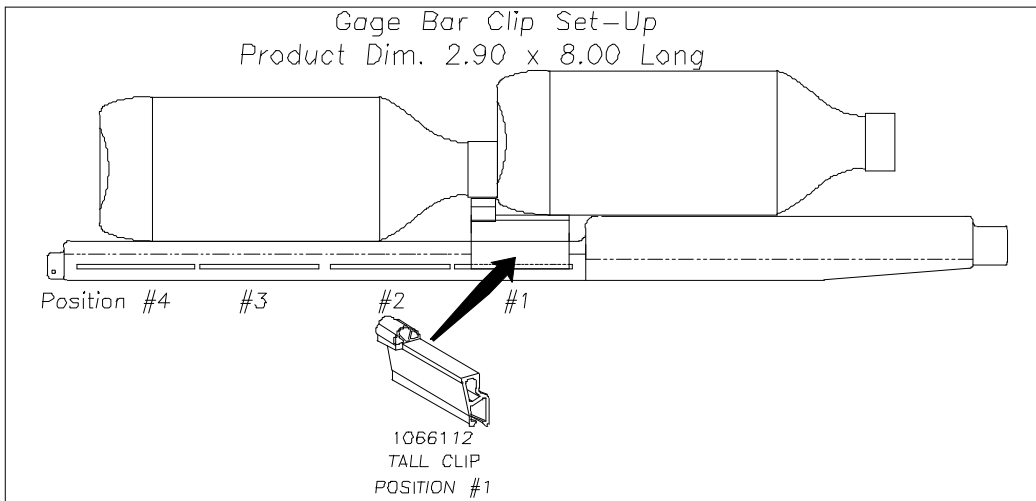
**28 PER COLUMN - 72", 32 PER COLUMN - 79"**

**3. SET UP GUIDE UNIVENDOR-2**

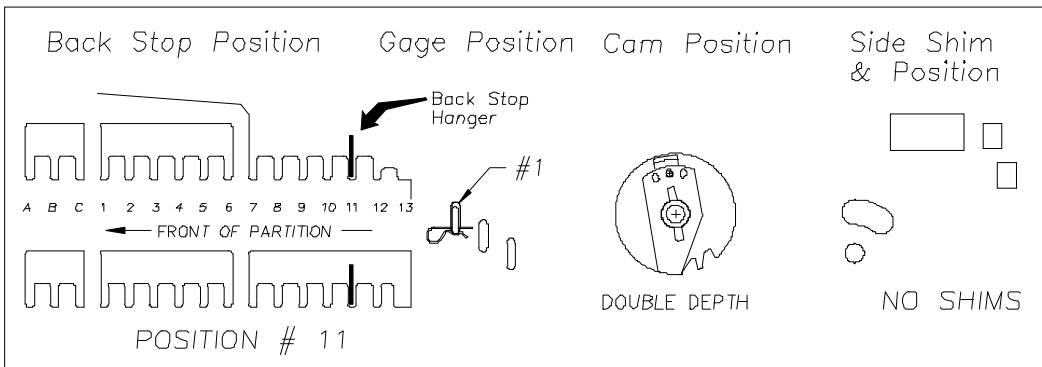
Product	CAM POSITION	BACK SPACER	GAGE BAR	Sold out Lever	SIDE SHIM	GAGE BAR CLIP	
						Part No.	Position
20 oz Straight Wall	2	11	1	389242 SHORT	NONE	1066112	1

**Note:** To properly vend 20 oz. Straight Wall. The Univendor-2 must have the columns setup correctly.

**4. GAGE BAR CLIP SET UP.**



**5. SET UP GUIDE.**



**6. SOLD-OUT LEVER TO BE SHORT STYLE WITH FRONT SPACER.  
SPRING TO BE LOCATED ON THE RIGHT SIDE (LOW PRESSURE SETTING).**

**1. PRODUCT**

**473 ML, 16 OZ. ARROWHEAD - WATER PET BOTTLE - 2.58 x 7.50 Long**

**2. PRODUCT CAPACITY**

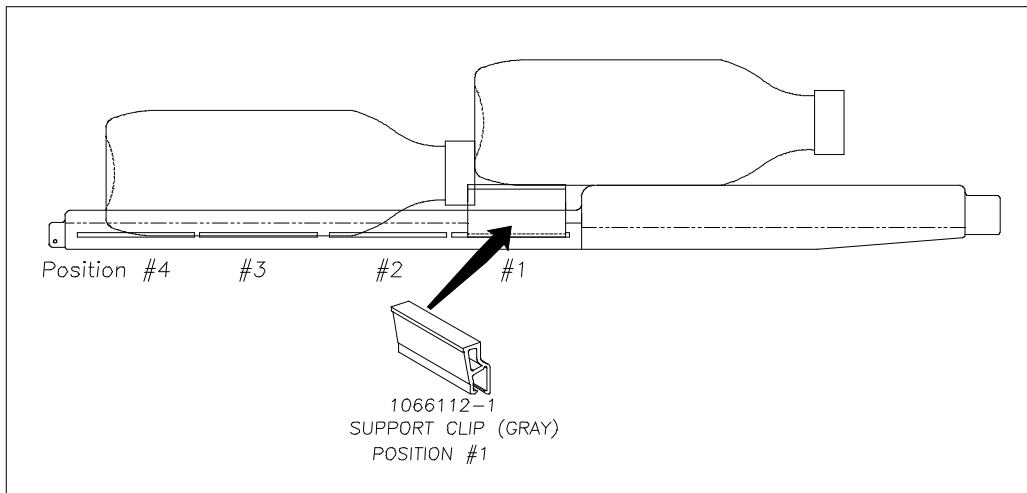
**34 PER COLUMN - 72", 44 PER COLUMN - 79"**

**3. SET UP GUIDE UNIVENDOR-2**

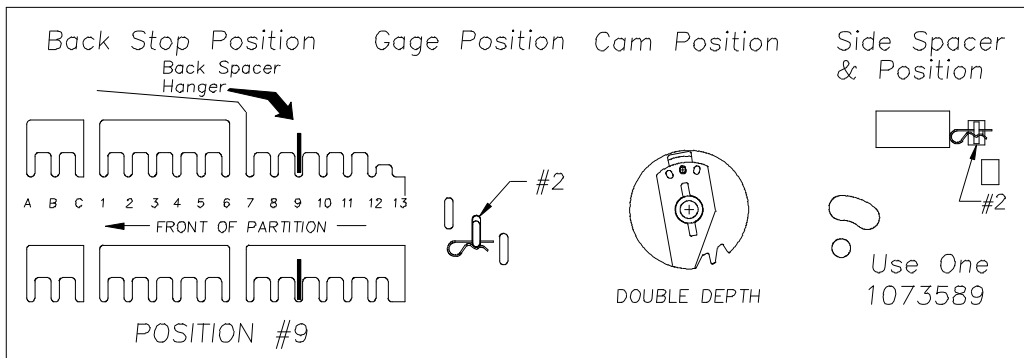
Product	CAM POSITION	BACK SPACER	GAGE BAR	Sold out Lever	SIDE	GAGE BAR CLIP	
					SPACER	Part No.	Position
16 OZ Arrowhead	2	9	2	389242 SHORT	1073589	1066112-1	1

**Note:** To properly vend Arrowhead 16oz. The Univendor-2 must have the columns setup correctly.

**4. GAGE BAR CLIP SET UP.**



**5. SET UP GUIDE.**



**6. SOLD-OUT LEVER TO BE SHORT STYLE WITH NEW FRONT SPACER #1077457. SPRING TO BE LOCATED ON THE RIGHT SIDE (LOW PRESSURE SETTING).**

**7. FOR OTHER PRODUCT SET UP GUIDES CONTACT VENDO COMPANY. TEL: (209) 439-1770 FAX: (209) 439-2083.**