ROYAL VENDORS

G-III

Operation and Service Manual

Coca-Cola
Marketing Vender

ROYAL VENDORS

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Royal Vendors, Inc.

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SECTION 1: GENERAL INFORMATION

Specifications

Dimensions ..... (804 cap.) 79 1/2"H x 37"W x 34"D
(660 cap.) 72"H x 37"W x 34"D
Approximate Empty Weight ..... Wide (79.5") 653 lbs
..... Wide (72") 599 lbs
..... Narrow (72") 536 lbs.
Capacity ..... (804 cap.) 12 oz. cans, 12 columns
(660 cap.) 12 oz. cans, 12 columns
Operating Voltage ..... 115 V AC, 60 Hertz
Amperage Rating ..... 15 AMP
Charge ..... .5.25 oz. R134A
Construction ..... Steel cabinet, steel rack
Selections ..... 9 or 13 selections
Altitude Adjustment ..... no adjustment required for the G-III's Electronic Cold Control

VENDER IDENTIFICATION

Your G-III vending machine can be easily identified by taking note of the following three items:

1. Vender Serial Plate - mounted on the exterior left side of the vender door
2. Refrigeration Serial Plate - mounted on the "kick plate" of the refrig. unit
3. Control Chip Revision Number - Mounted on the upper part of the control board. Also can be read on the L.E.D., when the door is first closed.

VENDER SERIAL PLATE - The vender's main serial plate (shown in figure 1.2) is located on the exterior left side of the vender's main door and has the following information:

- Vender model number
- Vender serial number
- Amps required by vender
- Unit charge of R134A
- Refrigeration design pressures

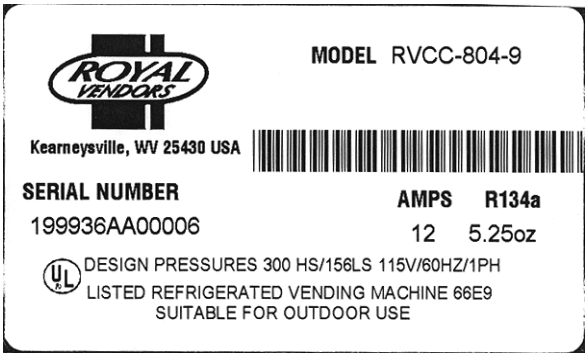


Figure 1.2

The vender's model number contains two important pieces of information. The machine type such as RVCC (Royal Vendors Coca Cola). It also contains the vender model number such as 804-9 (capacity of 804 twelve ounce cans / 9 selections).

How to read a Serial Number:
• The first 4 numbers represent the year the vender was produced
• The 5th and 6th numbers represent the week within the year the vender was produced
• The 1st letter represents the style of vender
•The 2nd letter represents the location the vender was built
• The last five numbers represent the model built with in that week

REFRIGERATION SERIAL PLATE

The refrigeration serial plate is located in the bottom of the vender's cabinet in front of the condenser coil and is mounted to the refrigeration unit "kick plate". It looks similar to the serial plate shown in figure 1.2 with the exception that the model number specified is the refrigeration unit model (as shown below). There is currently one model in use:

Model - 8000

Compressor Size - Super 1/3 Horsepower

SECTION 2: SET-UP AND INSTALLATION

Four-Button Programming

All programming of the vender options is done in the Service Mode. To enter the Service Mode, open the vender door and press and release the Service Mode Button which is located on the controller board (see Figure 2.7).

The first four selection switches are used to navigate through the service routines as follows:

Button	Meaning	Usage
1	(ABORT)	Escape, Cancel
2	(UP)	Increase, Next
3	(DOWN)	Decrease, Previous
4	(ENTER)	OK, Accept, Save

The controller will automatically return to the Closed-Door Mode if:

1) No response from the selection switches is received within approximately five minutes;
2) The Service Mode Button is pressed a second time;
3) The “rtn” function is activated.

If the door is closed, the controller will return to the Sales Mode. If credit exists, the credit amount will be displayed after returning to the Sales Mode.

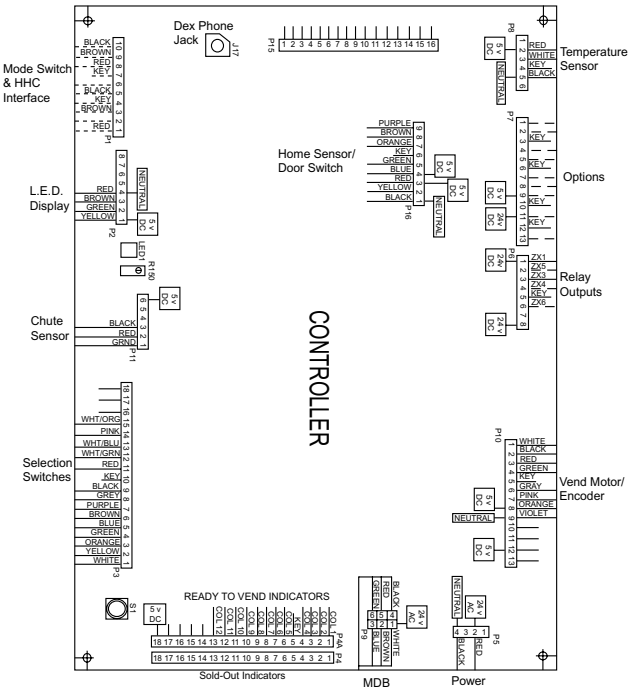
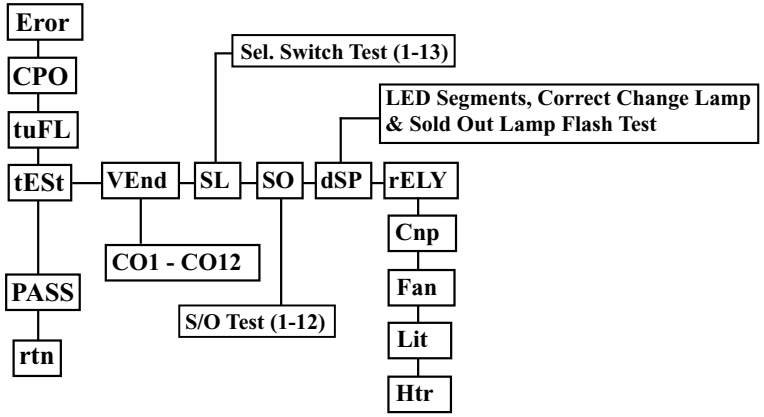


Figure 2.7

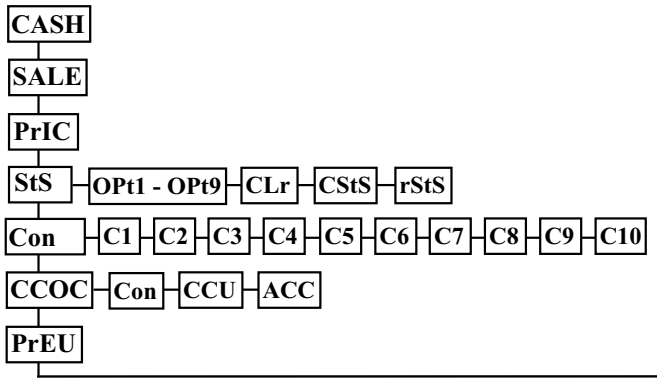
K.O. Programming Flowchart

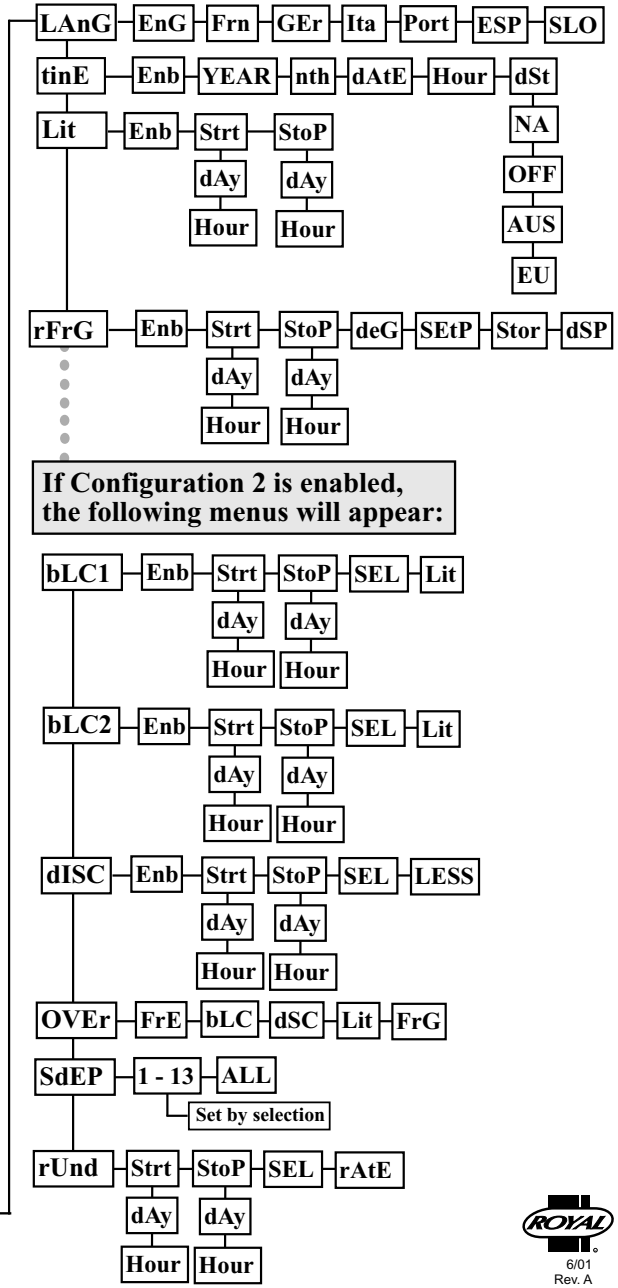
EXTERNAL MENU

INTERNAL (SERVICE) MENU



PASSWORD PROTECTED MENU





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Code Levels

Individual modes are identified by displaying their code as follows:

CODE	DESCRIPTION
Eror	Error Display Mode
CPO	Coin Payout Mode
tUFL	Tube Fill Mode
tESt	Test Vend Mode
PASS	Password Protection
• CASH	Cash Counter Display Mode
• SALE	Vend Counter Display Mode
• PrIC	Selection Price Setting Mode
• StS	Space to Sales Programming Mode
• Con	Machine Configuration Mode (C1-C10)
• CCOC	Correct Change Only
• PrEU	Preview Data Password Mode
• LAnG	Language Selection Mode
• tinE	Time/Date Setting Mode
• rFrG	Refrigeration Control Mode
• bLC1*	**Block Selection Mode**
• bLC2*	**Block Selection Mode**
• dISC*	**Discount Setting Mode**
• OVEr*	**Manual Switch Over-ride Mode**
• SdEP*	**By-selection Setting Mode**
• rUnd*	**Remote Vend Mechanism Routine**
rtn	Return to Sales Mode

**** If optional features (C2 under Con Menu) are disabled, these menus will not appear, and will not apply. The exception to this rule is SdEP which will not appear, but will still apply.***

• Code level modes preceded with a "•" are considered sensitive to incorrect setup procedures. Therefore, they can only be accessed after a predefined and unchangeable password has been entered via the selection switches. Once the password has been entered, all functions will be available. "PASS" will be displayed only if the password has not been entered. Otherwise the function codes will be displayed as listed above.

The password is entered via the first four selection switches while the controller is displaying "PASS." The password must be entered within 10 seconds in the following order: 4-2-3-1. The display will go blank after the first selection switch is pressed. After completing the sequence, press (ENTER). If the password is not recognized, the display will remain blank but will reappear if no buttons are pressed..

Code Level Explanation

ERROR DISPLAY MODE

If (ENTER) is pressed at the "Eror" prompt, the controller will enter the error display mode. If no errors have occurred since the last error reset, the display will show "nonE." If an error has been detected since the last error reset, the display will show the first error summary code that has occurred.
EXAMPLE: *"CJXX" would indicate a column jam error.*

If (ENTER) is pressed, the controller will display the detailed error for the summary code. (UP) and (DOWN) will cycle through any remaining error detail codes. If the (ABORT) is pressed while displaying any *detailed* code, the controller will return to the summary code. If the (ABORT) is pressed while displaying any *summary* code, the controller will return to the code level.

If (ENTER) is pressed and held for two seconds during the display of a detailed error code, that error will be cleared. If other currently accessed detailed errors exist, the next error will now be displayed. If no other errors of this type exist, the next error summary code will be displayed, or "nonE" if no other errors exist.

Vend Mechanism Error *"UEnd"*

The "UEnd" prompt indicates that at least one vend mechanism error has been detected. If the (ENTER) is activated, the controller will display:

"CJxx"	Indicating a column jam error.
"CS"	Chute sensor is active for more than 5 mins.
"hS"	Indicating a home sensor error.
"EC"	Indicating an encoder error.
"rE"	Indicating a "rabbit" error.

If more than one detailed error is presented, they may be viewed using (UP) and (DOWN) . These errors are cleared via the HHC or Service Mode.

Control System Error *"Ctr1"*

After the "Ctrl" prompt, the controller will display:

dS	Indicating a door switch error.
Ran	Indicating RAM error.
ACLO	Indicating low AC.
SF	Indicating a scaling factor error.
IS	Indicating an inlet sensor error.
Ib	Indicating the inlet is blocked.

Selection Switch Error *"SEL"*

After the "SEL" prompt, the controller will display "SSXX" where 'XX' indicates the selection switch has been active for more than 15 seconds while in the sales mode.

Space to Sales Error *"StS"*

After the "StS" prompt, the controller will display "UAXX" where 'XX' represents the column which is not assigned to a selection.

Coin Changer Error *"CHAr"*

After the "CHAr" prompt, the controller will display:

"CC" Indicating a changer communications error.
"tS" Indicating a tube sensor error.
"IC" Indicating an inlet chute blocked error (no coins sensed in the acceptor for over 96 hours).
"tJXX" Indicating a tube jam error (where 'XX' indicates the tube number).
"CrCH" Indicating a changer ROM checksum error.
"EE" Indicates excessive escrow.
"nJ" Indicating a coin jam.
"LA" Indicating a low acceptance rate.

The "CC" error is cleared when proper communication is established. The "CSF" error is cleared upon power up or via the HHC or service mode. The "IC" error is cleared when a coin is accepted. All other "CHAr" errors are reset via the HHC or Service Mode, or when the condition causing the error no longer exists.

Bill Acceptor Error *"bUAL"*

After the "bUAL" prompt, the controller will display:

"bC" Indicating a bill communication error.
"bFuL" Indicating a full bill stacker.
"biLL" Indicating a defective motor.
"bJ" Indicating a bill jam error.
"brCH" Indicating a bill acceptor ROM checksum error.
"bOPn" Indicating an open cash box.
"bS" Indicating a sensor error.

The "bC" error is cleared when proper communication is established. The "bSF " error is cleared upon power up, via the HHC or the service mode. The remaining errors are cleared whenever the validator reports no errors and is enabled (the validator is "enabled" when it accepts money).

Card Reader Error *"Crdr"*

After the "Crdr" prompt, the controller will display:

"CrC" Indicating a card reader communication error.
"Crxy" Indicating an error number reported by the card reader, where 'x' is a hexadecimal digit representing the card reader code and 'y' is a hexadecimal digit representing the manufacturer-specific sub-code.

Refrigeration Error *"rFrG"*

After the "rFrG" prompt, the controller will display:

"SEnS" Indicating a temperature sensor error.
"CoLD" Indicating temperatures three or more degrees below the compressor cut-out setting.
"Hot" Indicating cabinet temp. is above limit.
"CnPr" Indicating that the compressor is not cooling within 30 minutes of turning on, or;
"Htr" indicating the heating system has failed to increase 1 deg. per hour while heater is on.

The "CoLD" error is cleared when the temperature rises above three degrees below cutout. The "Hot" error is cleared when the temperature drops to the "SetP". The "SEnS" error is cleared when a sensor is detected. The remaining "rFrG" errors can also be cleared via the HHC or service mode.

External Menu

Access the External Menu by entering your 4-digit password (factory set 4-2-3-1), when the main door is closed.

The External Menu contains:
Errors (Eror)
Cash Counts (CASH)
Sales Counts (SALE)
Return (rtn)

***Note**: Use the Preview Data Password Mode (PrEU) under the password protected menu to display or change the current password.*

Internal (Service) Menu

COIN PAYOUT MODE

If (ENTER) is pressed at the "CPO" prompt, the controller will enter the coin payout mode and display the lowest coin value that can be paid out. Using (UP) or (DOWN) will allow the operator to cycle through the coin values that are routed to the coin tubes. If (ENTER) is pressed, a payout of the displayed value will be made. Coins will continue to payout as long as (ENTER) is held down. If (ABORT) is pressed at any time, the controller will return to the "CPO" prompt. Press the (UP) button to proceed to the next prompt "tuFL".

TUBE FILL MODE

If (ENTER) is pressed at the "tuFL" prompt, the controller will enter the coin tube fill mode. In this mode, the operator is allowed to deposit any coin into the coin changer's acceptor where that coin tube is not full. The tube inventory level will be displayed after each coin is accepted. If (ABORT) is pressed at any time during this operation, the controller will return to the "tuFL" prompt. Press the (UP) button to proceed to the next prompt "tESt".

NOTE: *This is the only method of loading the tubes that ensures exact cash accountability.*

TEST VEND MODE

If (ENTER) is pressed at the "tESt" prompt, the controller will enter the test vend mode. Using (UP) or (DOWN) will allow the operator to toggle between the following modes:

"VEnd" Column Vend Test
"SL" Selection Switch Test
"SO" Sold Out Test (per column)
"dSP" Display Test
"rELY" Relay Test- (CnP, FAn, Lit, Htr)

Column Vend Test *"UEnd"*

If (ENTER) is pressed at the "UEnd" prompt, the controller will enter the column vend test mode. The display will show "CO 1", which represents "column 1". Pressing (UP) and (DOWN) cycle through the available columns. If (ENTER) is pressed, the controller will attempt to vend a product from the displayed column. Vends made while in this routine will affect only the test vend counters. If (ABORT) is pressed at anytime during this operation, the controller will return to the "UEnd" prompt. Press the (UP) button to proceed to the next prompt "SL".

Selection Switch Test *"SL"*

If (ENTER) is pressed at the "SL" prompt, the controller will enter the selection switch test mode. The display will show "SL 4", which indicates that the fourth selection switch was pressed last. When any selection switch is pressed, it will be represented by the right two digits. The last selection switch pressed will remain on the display until the service mode timer expires or the (ABORT) button is pressed and held for two seconds, this will return the controller to the "SL" prompt. Press the (UP) button to proceed to the next prompt "SO".

Sold Out Test *"SO"*

If (ENTER) is pressed at the "SO" prompt, the controller will enter the sold out test mode. The display will show "C 1X", which represents column one, if X is (0) column one is not sold out and if X is (1) column one is sold out. Pressing (UP) and (DOWN) cycles through the available columns. Pressing the (ENTER) button has no action. Pressing (ABORT) button will return the controller to the "SO" prompt. Press the (UP) button to proceed to the next prompt "dSP".

Display Test *"dSP"*

If (ENTER) is pressed at the "dSP" prompt, the controller will enter the display test mode. The display, correct change only light and sold out light will run a diagnostic test until service timer expires or if the (ABORT) button is pressed. Press the (UP) button to proceed to the next prompt "rELY".

Relay Test Mode *"rELY"*

If (ENTER) is pressed at the "rELY" prompt, the controller will enter the relay test mode by displaying "CnpX." If (ABORT) is pressed in this mode, the user will return to the "rELy" prompt. Using (UP) or (DOWN) will allow the operator to toggle between the following modes:

"CnP" Compressor Relay
"FAn" Evaporator Fan Relay
"Lit" Light Relay
"Htr" Heater Relay

If (ENTER) is pressed at the "CnPX" prompt, the controller will enter compressor relay test. If X = (0) the relay is not activated and if X= (1) the relay is activated. Pressing (ENTER) will toggle the display between "0" and "1."

For all relays
X= 1 relay is activated;
X= 0 relay is not activated.

Pressing (ABORT) at the "rELy" display will bring you out to "tESt". Press the (UP) button to proceed to the next prompt "PASS".

Password Protected Menu

PASSWORD PROTECTION

"PASS" will be displayed only if the password has not been entered. Otherwise the function codes will be displayed as listed under the Code Level section of this manual. The password is entered via the first four selection switches while the controller is displaying "PASS." The password must be entered within 10 seconds in the following order: 4-2-3-1. The display will go blank after the first selection switch is pressed. After completing the sequence, press (ENTER). If the password is not recognized, the display will go back to "PASS".

CASH COUNTER DISPLAY MODE

If (ENTER) is pressed at the "CASH" prompt, the controller will enter the non-resettable cash display mode by displaying "CASH"/"XXXX"/"XX.XX" where the 'X's represent total cash over machine life. A decimal will be displayed in the appropriate position with the lower four digits. If the cash amount is less than five digits long, the upper four digits are not displayed. Using (UP) or (DOWN) will cycle through each selection as "CANN" "XXXX/XX.XX," where the "NN" indicates the selection and the 'X's represent the resettable cash per selection. If (ABORT) is pressed anytime during this operation, the controller will return to the code level. Press the (UP) button to proceed to the next prompt "SALE".

VEND COUNTER DISPLAY MODE

If (ENTER) is pressed at the "SALE" prompt, the controller will enter the non-resettable vend display mode by displaying "SALE/"XXXX"/"XXXX." where the 'X's represent the number of all paid vends over machine life. If the sales amount is less than five digits, the upper four digits will not be displayed. Using (UP) or (DOWN) will cycle through each selection as "SLNN"/"XXXX/XXXX." where the "NN" indicates the selection and the 'X's represent the resettable number of vends for that selection. A decimal will be displayed in the right-most position with the lower four digits. If (ABORT) is pressed anytime during this operation, the controller will return to the "SALE" prompt. Press the (UP) button to proceed to the next prompt "PrIC".

SELECTION PRICE SETTING MODE

If (ENTER) is pressed at the "PrIC" prompt, the controller will enter the selection price setting mode. The display will show "Pr 1" if the machine is in multi-price mode, or "SPrI" if the machine is in single-price mode.

The G-III Vender is shipped from the factory in multi-price mode with a .75 cent vend price.

Notes:

1. *In the single-price mode, the price for selection 1 is the price for all selections. Single-price is displayed as "SPrI" instead of "Pr1" as a reminder to the operator that the machine is currently in single-price mode.*

In the multi-price mode, individual selection prices can be changed using the (UP) and (DOWN) to display "PrXX," where 'XX' is the selection number, or choose "ALL" to change the prices for all selections. If (ENTER) is pressed, the display will show the current price for the displayed selection. Using (UP) or (DOWN) will increase or decrease the price. Holding (UP) or (DOWN) for more than five seconds will cause the price to change at 10 times the normal rate. When the desired price is on the display, pressing (ENTER) will save that price, while pressing (ABORT) will return to the selection level without saving. Press the (UP) button to proceed to the next prompt "StS".

SPACE-TO-SALES PROGRAMMING MODE

If (ENTER) is pressed at the "StS" prompt, the controller will enter the space-to-sales programming mode by displaying "OPtn," where 'n' is the current option selected; "CStS" for custom configuration, or "rStS". Using (UP) or (DOWN) will allow the operator to cycle through all 12 available space-to-sales options "OPt1"-"OPt9," "CLr" as well as the "CStS" and "rStS" options. When one of the "OPt1"-"OPt9", "CLr" options are on the display, pressing (ENTER) will select that space-to-sales option and return to the code level. If one of the "OPt1"-"OPt9," "CLr", "CStS," or the "rStS" option is displayed and (ABORT) is pressed, the user will return to the "StS" prompt without changing the settings.

NOTES:

1.If (ENTER) is pressed at "CLr", the "StS" settings will reset to none.

2. There is a decal, located on the inner door, that shows the relationship between columns and selections.

3. If the clear program is used without assigning any columns, the LED with read "Sold-out".

Custom Space-to-Sales Programming *"CStS"*

If (ENTER) is pressed at the "CStS" prompt, the custom space-to-sales programming mode is entered. The display will show "SL XX" and alternate this message with either "nonE," if no columns are assigned to the selection, or a sequence of numbers (XX) that represent the columns currently assigned to the selection. Pressing (UP) or (DOWN) will cycle through the remaining selections, plus the "SAUE" {save} option. Pressing (ABORT) at this point will move the user to the "SAUE" option, where pressing (ENTER) will save the changes, and pressing (ABORT) will return to the "CStS" prompt without saving any of the changes.

If (ENTER) is pressed at a "SLXX" prompt, the display will show "Cnn" where 'nn' is the column number. Pressing (UP) or (DOWN) will cycle through all 12 columns. If (ENTER) is pressed at any column indicator, the display will change to "CnnY" where "Y" will be '1' if column "nn" is currently assigned to the selection, or '0' if it is not. (UP) and (DOWN) can be used to change the assignment status of the column. Pressing (ABORT) at this time will return the user to the "Cnn" display without changing the status of the column, while pressing (ENTER) saves the displayed status of the column. Pressing (ABORT) at any column indicator ("Cnn") returns the user to the "SLXX" display. Pressing (ABORT) at this point will move the user to the "SAUE" option. While at the "SAUE" prompt, pressing (ENTER) saves the custom space-to-sales settings and returns to the code level ("StoS"), while pressing (ABORT) returns to the "CStS" prompt without saving the settings. Press the (UP) button to proceed to the next prompt "rStS".
NOTE: *Assigning a column to a selection does not clear previous assignment of that column. Care must be taken to ensure that a column is not mistakenly double-assigned or left unassigned.*

SPACE TO SALES SETTINGS

12 COLUMNS

	Opt1	Opt2	Opt3	Opt4	Opt5	Opt6	Opt7	Opt8	Opt9
Sel 1	1,6,7	1,2,7,8	1,2,7,8	1,2,7,8	1,2,7,8	1,2,7,8	1,2,3	1,2,3	1,2,3
Sel 2	1,6.7	1,2,7,8	1,2,7,8	1,2,7,8	3,9	1,2,7,8	4,5	4,5	4,5
Sel 3	2,8	1,2,7,8	1,2,7,8	1,2,7,8	4	3,9	6	6	6
Sel 4	2,8	1,2,7,8	1,2,7,8	1,2,7,8	5	4,10	7	7,8	7,8,9
Sel 5	3	3	3,9	3,9	6	5	8	9	10
Sel 6	3	4	3,9	3,9	10	6	9	10	11
Sel 7	4	5	4	4,10	11	11	10	11	12
Sel 8	5	6	5	4,10	12	12	11	12	
Sel 9	9	9	6	5	1,2,7,8	1,2,7,8	12		
Sel 10	10	10	10	6					
Sel 11	11	11	11	11					
Sel 12	12	12	12	12					
Sel 13	1,6,7	1,2,7,8	1,2,7,8	1,2,7,8					

Recommended Space-to-Sales *"rStS"*

If (ENTER) is pressed at the "rStS" prompt, a recommended space-to-sales configuration is calculated, based on first choice attempts since StS was last changed. The display will flash "SL 1" and alternate this message with either "nonE," indicating that no columns should be assigned to selection 1, or a sequence of numbers that represent columns that should be assigned to selection 1. Pressing (UP) or (DOWN) will cycle through the remaining selections. Pressing (ENTER) or (ABORT) will move the user to the "SAUE" option, where pressing (ENTER) will save the recommended space to sales or pressing (ABORT) will return the "StS" prompt without saving the changes. Press the (UP) button to proceed to the next prompt "Con".

MACHINE (C1-C10) CONFIGURATION MODE

If (ENTER) is pressed at the "Con" prompt, the controller will enter the machine configuration mode by displaying "C1-1," which designates configuration option number 1. If (ABORT) is pressed while at the "Cn" level, the controller will return to the code level. Pressing (UP) or (DOWN) will allow the selection of available configuration options. Pressing (ENTER) will change the display to "Cn X" where "n" is the configuration number and "X" is the current status of the option. The status is changed using (UP) or (DOWN). Pressing (ENTER) saves the status of the current option and returns the user to the "Cn" prompt, while pressing (ABORT) returns to the "Cn" prompt without saving. From the "Con" prompt, press (UP) to proceed to the next prompt "CCOC".

Royal Vendors recommended E.V.S. configuration settings:
Con 1 - (**1**) Multi price
Con 2 - (**1**) Opt features on
Con 3 - (**0**) Greeting displayed
Con 4 - (**0**) Totals disabled
Con 5 - (**0**) Mis reset
Con 7 - (**0**) Five minute timer used
Con 8 - (**1**) Force attempt enabled
Con 9 - (**0**) Multi purchase disabled
Con 10 - (**0**) Bill escrow

Single/Multi-Price

This configuration chooses between the single-price and multi-price settings by pressing (UP) or (DOWN). In the single-price mode, the price of selection (0) will be used for all selections. In the multi-price mode (1), each selection can be set to a different price.

If X = 1, Multi-pricing is used.
If X = 0, Single-pricing is used.

Optional Features Enable

This configuration enables optional features "bLC1", bLC2", "dISC", "OUEr" and "SdEP" if set to "1".

If set to "0" the optional features will be disabled and will not be displayed in the menus. ***Notes:*** *The timers and the key switch functions will not work if set to "0". SdEP is the only optional feature that will work if set to "0"*

P.O.S. Disable

This option is used to disable the point of Sales (P.O.S.) message if set to "1".

If set to "0" the P.O.S. is enabled (greeting will be displayed).

Open Door Totals

This option changes the Open-Door Mode Display (see "Modes of Operation" section of this manual for a description of the Open-Door Mode). If enabled, the total machine sales and total machine cash values are displayed before the error codes. These values represent the number of all paid vends and the cash amount of all paid vends, respectively. The sales and cash values are displayed the same as in the "SALE" and "CASH" service mode functions. The display shows "SALE"/ "XXXX"/ "XXXX." for two seconds each four digits, then "CASH"/ "XXXX"/ "XX.XX", then existing errors or "nonE." If this option is disabled, existing errors are displayed, or "nonE" if no errors exist.

If X = 1, "SALE"/ "XXXX"/ "XXXX.",
"CASH"/ "XXXX"/ "XX.XX",
and existing errors or "nonE" are displayed.
If X = 0, Existing errors or "nonE" is displayed.

Door Switch Reset

This option is used to allow the door switch to reset all resettable MIS.

If X = 1, All resettable MIS registers are reset when the door switch is activated, if any one of the resettable MIS registers are read.
If X = 0, All resettable MIS registers will be reset only when the "CF" command is received from the HHC.

For Future Use

Save Credit

This configuration is used to determine how long the credit is displayed.

If X = 1, The credit is left on the display indefinitely.
If X = 0, After 5 minutes the credit is erased.

Escrow Rule #1: Forced Attempt

This configuration prevents the machine from becoming a change maker. When this mode is set to (1) enabled, escrow of coins is allowed until any of the following:

- Any bill is inserted into the bill acceptor.
- Any "cash box" coin (a coin that is not assigned to a tube) is inserted.
- The maximum vend price is reached. Once any of these conditions are met, escrow is ignored and a vend must be made.

If a selection is made that is sold out or locked out, this option will override and an escrow will be honored.

If this mode is set to (0), the force-attempt option will be disabled.
NOTE: *Force attempt has no effect on the card reader. Once a card is inserted, it can always be returned to the customer via an escrow or the return switch on the card reader.*

If X = 1, Force-attempt is enabled.
If X = 0, Force-attempt is disabled.

Escrow rule #2: Multi-Purchase

Allows multiple purchases without reentering coins. If enabled, instead of returning the change after a vend, the credit will remain on the display to be used for another selection. An escrow will be honored at any time. This option will take precedence over the force-attempt option after the first vend has been completed.

If X = 1, Multi-purchase is enabled.
If X = 0, Multi-purchase is disabled.

NOTE: *If the card reader is not multi-vend capable, the card will be ejected after each vend regardless of the state of this option.*

Bill Escrow Inhibit

This configuration allows the escrow of bills. If 'X' is set to "1" and the bill value inserted takes the accumulated credit over the maximum vend price, bills will always go to the cash box. If the rule is set to "0", the bill will be held in the escrow position.

If X = 1, Bill escrow is disabled
If X = 0, Bill escrow is enabled.

SECTION 2: SET-UP AND INSTALLATION

CORRECT CHANGE ONLY CONTROL MODE

If (ENTER) is pressed at the "CCOC" prompt, the controller will enter the correct change only control mode. The first sub-menu "Con", if disabled (0), it would prevent customers from being cheated if sufficient change is not available for payout. The vend is aborted and credit is returned.

If X=1, No cheat rule is enabled;
(The vender will payback available change, however the customer could potentially be cheated).
If X=0, Will not cheat the customer if disabled.

NOTE: If "Con" is set to "0", CCU and ACC do not apply:
The second sub- menu "CCU", will control the Exact Change Only light. If the vender can not make change for the value (or lower), the Exact Change Only lamp will light when set to "00.00". The four digit value can range from "00.00 to 99.95" which represents the correct change value. Using the (UP) or (DOWN) buttons will increase or decrease the number in increments of the lowest coin tube amount.

The third sub-menu "ACC" *(unconditional acceptance of currency)*, controls the value for dollar coins or bills to be accepted, regardless. Upon entering "ACC" the prompt will show the current four digit value (00.00 - 99.95) which represents the unconditional acceptance value. Using the (UP) or (DOWN) buttons will increase or decrease the number in increments of the lowest coin tube amount. If (ABORT) is pressed anytime during this operation, the controller will return to the code level. Pressing the (UP) button will procede to the next prompt "PrEU".

PREVIEW DATA "External" PASSWORD MODE

If (ENTER) is pressed at the "PrEU" prompt, the controller will display the current password for the external preview mode. The first digit of the number will be flashing. Pressing (UP) or (DOWN) will adjust the currently flashing digit up or down. Pressing (ENTER) will save the currently flashing digit and the next digit of the password will begin flashing. All digits may be modified in this manner. Pressing (ENTER) while the last digit is flashing saves the currently displayed password and returns to the "PrEU" prompt, while pressing (ABORT) at any time in the procedure returns to the "PrEU" prompt without saving. From the "PrEU" prompt pressing (UP) will procede to the next prompt "LAnG" ***Note:*** *Password digits correspond to selection switches. If a digit is set to a nonexisting selection switch number or "0", it will not be possible to enter the preview mode.*

LANGUAGE SELECTION MODE

The "LAng" mode gives you the opportunity to set vending messages in any of the following international languages:

English - "EnG"
French - "Frn"
German - "GEr"
Italian - "ItA"
Portuguese - "Port"
Spanish - "ESP"
Slovenian - "SLO"

Pressing (ENTER) will display the last programmed setting. Press (UP) or (DOWN) to cycle through the available languages. When desired language is displayed, press the (ENTER) button to save your choice. If (ABORT) is pressed anytime during this operation, the controller will return to the "LANG" prompt. Press the (UP) button to proceed to the next prompt "tinE".

TIME/DATE SETTING MODE

If (ENTER) is pressed at the "tinE" (time) prompt, the controller will enter the time setting mode and the first display will be "Enb" (enable). Using (UP) or (DOWN) will allow you to cycle through all available time selection options. Pressing (ENTER) will allow you to set the sub-menu you have entered into (example "Enb"). If (ABORT) is pressed anytime during this operation, the controller will return to the "tinE" prompt. Press the (UP) button to proceed to the next prompt "Lit".

TIME SELECTION OPTIONS
(current time settings)

***"Enb"**	Enable (must be set to "1")
"yEAr"	Current Year (Example '99)
"nth"	Current Month
"dAtE"	Current Day of the Month
"Hour"	Current Time (hours, minutes)
"dSt "	Daylight Savings Time Selection (NA, OFF, AUS, EU)

****NOTE**: Enable must be set to "1" at all times to assure proper vender operations.*

Enable Setting *"Enb"*

This setting controls the time and date support by keeping a continuous updated clock connection (1) or you can turn the clock off (0), so the clock is not updated. Toggle between the (1) and (0) by pressing (UP) or (DOWN). Pressing (ENTER) will save the current setting and return to the "Enb" prompt. Press the (UP) button to procede to the next prompt "YEAr".

If X=1, Will keep the clock current when enabled.
If X=0, Will not keep the clock current if disabled.

Set Year *"YEAr"*

If (ENTER) is pressed at the "yEAr" prompt, the last two digits of the year are displayed and will be flashing. Pressing (UP) or (DOWN) will increase or decrease the year setting. Pressing (ENTER) will save the displayed year setting and return the user to "yEAr" while pressing (ABORT) will return to "yEAr" without saving. Press the (UP) button to proceed to the next prompt "nth".

Set Month *"nth"*

After (ENTER) is pressed at the "nth" prompt, you will be able to select the current month (01-12). Pressing (UP) or (DOWN) will increase or decrease the month setting. Pressing (ENTER) will save the displayed month and return the user to the month level. Pressing (ABORT) while the month digits are flashing returns to the month level without saving the month. Press the (UP) button to proceed to the next prompt "dAtE".

Set Date *"dAtE"*

If (ENTER) is pressed at the "dAtE" prompt, two digits will appear and represent the day of the month (01-31). Pressing (UP) or (DOWN) will increase or decrease the number. Pressing (ENTER) will save the displayed number and return the user to the date level. Pressing (ABORT) while the numbers are flashing returns to the date level without saving the number. Press the (UP) button to proceed to the next prompt "Hour".

Set Hour *"Hour"*

If (ENTER) is pressed at the "Hour" prompt, the current time is displayed in a 24-hour format. The left two digits of the display show the current hour, the right two digits show the current minutes. While the hour setting is flashing, pressing (UP) or (DOWN) will increase or decrease the hour setting. If (ENTER) is pressed, the minute setting will flash. (UP) or (DOWN) will set the minutes. Pressing (ENTER) at this point will save the displayed hour and minutes setting and return the user to "hour." Pressing (ABORT) while the hour or minutes digits are flashing returns to "Hour" without saving the hour or minutes. Press the (UP) button will procede to the next prompt "dSt"

Daylight Savings Time *"dSt"*

After the (ENTER) button is pressed at the "dSt" prompt, the display will show the current daylight saving time code. Using the (UP) and (DOWN) buttons will rotate through the available options. Pressing (ENTER) any time will save the selected options and return the user to "dSt." Pressing (ABORT) button while in (NA, OFF, AUS, or EU) will return you to the "dSt" without saving any changes.

NA	North American Rules
OFF	No daylight savings time changes made
AUS	Australian Rules
EU	European Rules

Pressing the (ABORT) button at the "dSt" display, the controller will return to the "tinE" prompt. Press the (UP) button to proceed to the next prompt "Lit".

LIGHTING CONTROL MODE

(Optional Relay Kit Required)

If (ENTER) is pressed at the "Lit" prompt, the controller will enter the lighting control mode and the first display will be "Enb"(enable). Using (UP) or (DOWN) will allow you to cycle through all available lighting control mode options (Enb, Strt, Stop).

Enable *"Enb"*

If (ENTER) is pressed at the "Enb" prompt, the controller will enter the lighting control enable mode. If set to (1) the lighting control will be enabled and the lighting panels of the vender will be turned off during the following programmed time blocks *(if the lamp relay kit is installed)*. If set to (0) the lighting control will be disabled. Toggle between the (1) and (0) by pressing (UP) or (DOWN). Pressing (ENTER) will save the current setting. If (ABORT) is pressed anytime during this operation, the controller will return to the "Lit" without saving your settings. Pressing (UP) will procede to the next prompt "Strt".

If X=1, The lighting control is (on) enabled.
If X=0, The lighting control is (off) disabled.

Start Time Setting *"Strt"*

If (ENTER) is pressed at the "Strt" prompt, the controller will display "daY"(day of the week). Enter into "daY" by pressing the (ENTER) button. The display will show the current day of the week followed by a (1) if the timer is active on that day or (0) if the timer is not active on that day.

If X= 1 The timer is active on that day.
If X= 0 The timer is not active on that day.

Using (UP) or (DOWN) will allow you to cycle through the days of the week (non, tue, UEd, thu, Fri, SAt, Sun or All).

Press (ENTER) at the desired day to activate or not activate the timer for that day. The value must be blinking to edit the setting. Press (UP) or (DOWN) to toggle between (0) or (1). When desired selection is shown, press (ENTER) to save your setting. If the (ABORT) is pressed anytime during this operation, the controller will return to the "daY" prompt without saving your selection. Press the (UP) button to proceed to the next prompt "Hour".

If (ENTER) is pressed at the "Hour" prompt, the left two digits of the display will begin to flash, prompting the user to adjust the hour setting. (UP) or (DOWN) is used to adjust the hour. When the desired hour is shown, pressing (ENTER) will cause the right two digits to flash, showing the current minute setting. The minutes are set in the same fashion. When the minutes are properly displayed, pressing (ENTER) will save the start time and return to the "Hour" prompt, pressing (ABORT) from the "Hour" prompt will return the controller to "Strt" prompt. Press the (UP) button to procede to the next prompt "StoP".

Note: *The time is based on 24 hour time (Military time)*

Stop Time Setting *"StoP"*

If (ENTER) is pressed at the "StoP" prompt, the controller will display "daY"(day of the week). Enter into "daY" by pressing the (ENTER) button. The display will show the current day of the week followed by a (1) if the timer is active on that day or (0) if the day is not active on that day.

If X= 1 The timer is active on that day.
If X= 0 The timer is not active on that day.

Using (UP) or (DOWN) will allow you to cycle through the days of the week (non, tue, UEd, thu, Fri, SAt, Sun or All). Press (ENTER) at the desired day to activate or deactivate the timer for that day. The value must be blinking to edit the selection. Press (UP) or (DOWN) to toggle between (0) or (1). When desired selection is shown, press (ENTER) to save your selection. If (ABORT) is pressed anytime during this operation, the controller will return to the "daY" prompt without saving your selection. Press the (UP) button to proceed to the next prompt "Hour".

If (ENTER) is pressed at the "Hour" prompt, the left two digits of the display will begin to flash, prompting the user to adjust the hour setting. (UP) or (DOWN) is used to adjust the hour. When the desired hour is shown, pressing (ENTER) will cause the right two digits to flash, showing the current minute setting. The minutes are set in the same fashion. When the minutes are properly displayed, pressing (ENTER) will save the stop time and return to the "StoP" prompt. Pressing (ABORT) at "StoP" prompt will bring you out to "Lit" prompt. Press the (UP) button to proceed to the next prompt "rFrG".

REFRIGERATION CONTROL MODE

If (ENTER) is pressed at the "rFrG" prompt, the controller will enter the refrigeration control mode by displaying "Enb", indicating the energy conservation mode. Using (UP) or (DOWN) will allow the operator to toggle between the following modes:

"Enb" Enable energy conservation
"Strt" Start time setting
"Stop" Stop time setting
"deG" Degree - Fahrenheit or Celsius
"SEtP" Set point *(maintaining cabinet temperature setting)*
"Stor" Storage - maximum cabinet temperature setting
"dSP" P.O.S. temperature display

If (ABORT) is pressed at this point, the controller will return to the "rFrG" prompt without saving the changes.
Note: *The refrigeration unit can not be disabled from the controller when using manual thermostat (cold control).*

Enable Energy Conservation *"EnB"*

If (ENTER) is pressed at the "Enb" prompt, the controller will enter the energy conservation enable mode. If set to (1) the energy conservation control will be enabled and the cabinet temperature will be allowed to raise to the "Stor" programmed time blocks. If set to (0) the energy conservation will be disabled and the refrigeration unit will operate as normal and will maintain the "SEtP" temperature. Toggle between the (1) and (0) by pressing (UP) or (DOWN). Pressing (ENTER) will save the current setting. If (ABORT) is pressed anytime during this operation, the controller will return to the "Enb" level without saving your selection. Press the (UP) button to proceed to the next prompt "Strt".

If X=1, Enabled (on), the refrigeration unit runs when the storage temperature is reached*. *see note below.*
If X=0, The refrigeration unit will run according to the "SEtP" setting.
Note: *If enabed (set to 1), the cabinet temperature will rise to the "Stor" temperature operated by the timer program, <u>ONLY</u> if the Start and Stop times are set.*

Start Time Setting *"Strt"*

If (ENTER) is pressed at the "Strt" prompt, the controller will display "daY"(day of the week). Enter into "daY" by pressing the (ENTER) button. The display will show the current day of the week followed by a (1) if the timer is active on that day or (0) if the timer is not active on that day.

If X= 1 The timer is active on that day.
If X= 0 the timer is not active on that day.

Using (UP) or (DOWN) will allow you to cycle through the days of the week (non, tue, UEd, thu, Fri, SAt, Sun or All). Press (ENTER) at the desired day to activate or deactivate the timer for that day. The value must be blinking to edit the setting. Press (UP) or (DOWN) to toggle between (0) or (1). When desired setting is shown, press (ENTER) to save your setting. If (ABORT) is pressed anytime during this operation, the controller will return to the "daY" prompt without saving your selection. Press the (UP) button to proceed to the next prompt "Hour".

If (ENTER) is pressed at the "Hour" prompt, the left two digits of the display will begin to flash, prompting the user to adjust the hour setting. (UP) or (DOWN) is used to adjust the hour. When the desired hour is shown, pressing (ENTER) will cause the right two digits to flash, showing the current minute setting. The minutes are set in the same fashion. When the minutes are properly displayed, pressing (ENTER) will save the start time and return to the "Hour" prompt. Pressing (ABORT) from the "Hour" prompt will return the controller to "Strt" prompt. Press the (UP) button to proceed to the next prompt "StoP".

Note: *The time is based on 24 hour time (Military time)*

Stop Time Setting *"StoP"*

If (ENTER) is pressed at the "StoP" prompt, the controller will display "daY"(day of the week). Enter into "daY" by pressing the (ENTER) button. The display will show the current day of the week followed by a (1) if the timer is active on that day or (0) if the timer is not active on that day.

If X= 1 The timer is active on that day.
If X= 0 The timer is not active on that day.

Using (UP) or (DOWN) will allow you to cycle through the days of the week (non, tue, UEd, thu, Fri, SAt, Sun or All). Press (ENTER) at the desired day to activate or deactivate the timer for that day. The value must be blinking to edit the selection. Press (UP) or (DOWN) to toggle between (0) or (1). When desired setting is shown, press (ENTER) to save your setting. If (ABORT) is pressed anytime during this operation, the controller will return to the "daY" prompt without saving your setting. Press the (UP) button to proceed to the next prompt "Hour".

If (ENTER) is pressed at the "Hour" prompt, the left two digits of the display will begin to flash, prompting the user to adjust the hour setting. (UP) or (DOWN) is used to adjust the hour. When the desired hour is shown, pressing (ENTER) will cause the right two digits to flash, showing the current minute setting. The minutes are set in the same fashion. When the minutes are properly displayed, pressing (ENTER) will save the stop time. Press the (ABORT) button to return to the "StoP" prompt. Press the (UP) button to proceed to the next prompt "dEG".

Note: *The time is based on 24 hour time (Military time).*

Fahrenheit/Celsius Setting *"dEG"*

If (ENTER) is pressed at the "dEG" prompt, the controller will display "dEGX," if 'X' is 'F' the controller is currently in **°F** Fahrenheit mode, or if 'X' is 'C' the controller is in the **°C** Celsius mode. Pressing (UP) or (DOWN) will toggle the 'X' digit between 'F' and 'C'. Pressing (ENTER) will save the displayed temperature mode and return the user to the "dEG" prompt, while pressing (ABORT) will return to the "dEG" prompt without saving any changes. Press the (UP) button to proceed to the next prompt "SEtP". This function can also be accessed via the HHC.

FACTORY SETTING:
Fahrenheit: 35°F Set point, 60°F Storage
Celsius: 1.5°C Set point, 15.5°C Storage

Set Point Setting *"SEtP"*

The set point setting is what temperature the cabinet will maintain and when (ENTER) is pressed at the "SEtP" prompt, the controller will display "tt.tX," where 'tt.t' will be in degrees and X will represent either 'F' Fahrenheit or 'C' Celsius. Pressing (UP) or (DOWN) will increase or decrease by 1° F (or 0.5°C). Pressing (ENTER) will save the set point and return the user to the "SEtP" prompt, while pressing (ABORT) will return to the "SEtP" prompt without saving any changes. Press the (UP) button to proceed to the next prompt "Stor".

Storage Setting *"Stor"* *(Applies only when using timer)*

The storage setting is the maximum temperature you want the cabinet to reach when the timer mode is in use.

If (ENTER) is pressed at the "Stor" prompt, the controller will display the current storage setting "tt.tX," where 'tt.t' will be in degrees and X will represent either 'F' Fahrenheit or 'C' Celsius. Pressing (UP) or (DOWN) will increase or decrease by 1° F (or 0.5°C). Pressing (ENTER) will save the setting and return the user to the "Stor" prompt, while pressing (ABORT) will return to the "Stor" prompt without saving any changes. Press the (UP) button to proceed to the next prompt "dSP".

POS Temperature Display *"dSP"*

If (ENTER) is pressed at the "dSP" prompt, the controller will display "dSPX," if 'X' is '0' the controller is not displaying the cabinet temperature in the POS message, or '1' if the controller is currently displaying the cabinet temperature after teh POS message. Pressing (UP) or (DOWN) will toggle the 'X' digit between '0' and '1'. Pressing (ENTER) will save teh currently displayed setting and return the user to the "dSP" prompt, while pressing (ABORT) will return to the "dSP" prompt without saving the changes. Pressing (ABORT) at the 'dSP' prompt will bring you out to "rFrG" prompt. Press the (UP) button to proceed to next prompt "bLC1", (if Con. 2 is set to "1").

Configuration 2 must be enabled (set to 1) for the following timer functions to operate:

Note: *The timers or the override switch will not function, if C2 is set to "0".*

BLOCK SELECTION 1

BLOCK SELECTION 2

If (ENTER) is pressed at the "bLC1" or "bLC2" prompt, the controller will enter the block selection control and the first display will be "Enb"(enable). Using (UP) or (DOWN) will allow you to cycle through available sub menus. If (ABORT) is pressed anytime during this operation, the controller will return to the "bLC1" "bLC2" without saving your selection.

Enable Blocking *"Enb"*

If (ENTER) is pressed at the "EnbX" prompt, the controller will enter the blocking enable mode. If set to (1) the blocking control will be enabled and the active selections will not be able to vend during the following programmed time blocks. If set to (0) the blocking control will be disabled. Toggle between the (1) and (0) by pressing (UP) or (DOWN). Pressing (ENTER) will save the current setting. If (ABORT) is pressed anytime during this operation, the controller will return to "EnbX" without saving your selection. Press the (UP) button to proceed to the next prompt "Strt" prompt.

If X=1, The blocking control is enabled.
If X=0, The blocking control is disabled.

Start Time Setting *"Strt"*

If (ENTER) is pressed at the "Strt" prompt, the controller will display "daY". Enter into "daY" by pressing the (ENTER) button. The display will show the current day of the week followed by a (1) if the timer is active on that day or (0) if the day is not active on that day.

If X= 1 The timer is active on that day.
If X= 0 The timer is not active on that day.

Using (UP) or (DOWN) will allow you to cycle through the days of the week (non, tue, UEd, thu, Fri, SAt, Sun or All) Press (ENTER) at the desired day to activate or deactivate the timer for that day. The value must be blinking to edit the selection. Press (UP) or (DOWN) to toggle between (1) or (0). When desired setting is shown, press (ENTER) to save your setting. If (ABORT) is pressed anytime during this operation, the controller will return to the "daY" prompt without saving your setting. Press the (UP) button to proceed to the next prompt "Hour".

If (ENTER) is pressed at the "Hour" prompt, the left two digits of the display will begin to flash, prompting the user to adjust the hour setting. (UP) or (DOWN) is used to adjust the hour. When the desired hour is shown, pressing (ENTER) will cause the right two digits to flash, showing the current minute setting. The minutes are set in the same fashion. When the minutes are properly displayed, pressing (ENTER) will save the start time and return to the "Hour" prompt. Press the (ABORT) button to return to the "Strt" prompt. Press the (UP) button to proceed to the next prompt "StoP".

Note: *The time is based on 24 hour time (Military time)*

Stop Time Setting *"Stop"*

If (ENTER) is pressed at the "StoP" prompt, the controller will display "daY". Enter into "daY" by pressing the (ENTER) button. The display will show the current day of the week followed by a (1) if the timer is active on that day or (0) if the day is not active on that day.

If X= 1 The timer is active on that day.
If X= 0 The timer is not active on that day.

Using (UP) or (DOWN) will allow you to cycle through the days of the week (non, tue, UEd, thu, Fri, SAt, Sun or All). Press (ENTER) at the desired day to activate or deactivate the timer for that day. The value must be blinking to edit the selection. Press (UP) or (DOWN) to toggle between (0) or (1). When desired setting is shown, press (ENTER) to save your setting. If (ABORT) is pressed anytime during this operation, the controller will return to the "daY" prompt without saving your selection. Press the (UP) button to proceed to the next prompt "Hour".

If (ENTER) is pressed at the "Hour" prompt, the left two digits of the display will begin to flash, prompting the user to adjust the hour setting. (UP) or (DOWN) is used to adjust the hour. When the desired hour is shown, pressing (ENTER) will cause the right two digits to flash, showing the current minute setting. The minutes are set in the same fashion. When the minutes are properly displayed, pressing (ENTER) will save the stop time. Press the (ABORT) button to return to the "StoP" prompt. Press the

(UP) button to proceed to the next prompt "SEL".
Note: *The time is based on 24 hour time (Military time).*

Selection Setting *(SEL)*

If (ENTER) is pressed at the "SEL" prompt, the controller will enter the selection setting and the first display will show the current setting for selection one "01 X". If X is (1) the selection is active or (0) the selection is not active. Using (UP) or (DOWN) will allow you to rotate through the valid selections or select "ALL". If (ABORT) is pressed anytime during this operation, the controller will return to the "SEL" without saving your selection.

X= (1) The selection is active.
X= (0) The selection is not active.

To edit a selection, press (ENTER) when the desired selection is displayed, the value must blink before any changes can be made. Pressing (UP) or (DOWN) will change the current setting. Pressing (ABORT) while editing a selection will bring you back to the original setting without saving any changes. Press the (UP) button to proceed to the next prompt "Lit".

Lighting Control *"Lit"* *(Optional relay kit required)*

If the lighting control option is activated and the (ENTER) button is pressed at "LitX" the controller will enter the current lighting control setting. If "X" equals (1), the lighting control will be activated and the lighting will be turned off during the blocking period. If "X" is set to (0) the lighting control will be disabled.

X= (1) Lighting control will be actived.
X= (0) Lighting control will be not actived.

Press (ENTER) to edit the setting, "1" or "0" must blink before any changes can be made. Pressing (UP) or (DOWN) will change the current setting. Pressing (ABORT) while editing a setting will bring you back to the original setting without saving any changes. Pressing (ABORT) at the "Lit" prompt will bring you out to "bLC1" or "bLC2" prompt. Press the (UP) button to proceed to the next prompt "diSC".

DISCOUNT SETTING

If (ENTER) is pressed at the "diSC" prompt, the controller will enter the discounting control setting and the first display will be "Enb"(enable). Using (UP) or (DOWN) will allow you to cycle through available sub menus. If (ABORT) is pressed anytime during this operation, the controller will return to the "diSC" without saving your selection.

Enable Discount *"Enb"*

If (ENTER) is pressed at the "EnbX" prompt, the controller will enter the discount enable mode. If "X" is set to (1) the discount will be enabled and the active selections will be discounted during the following programmed time blocks. Or if "X" set to (0) the discount setting will be disabled. Toggle between the (1) and (0) by pressing (UP) or (DOWN). Pressing (ENTER) will save the current setting. If (ABORT) is pressed anytime during this operation, the controller will return to "EnbX" without saving your selection. Press the (UP) button to proceed to the next prompt "Strt".

If X=1, The discounting price is enabled.
If X=0, The discounting price is disabled.

Start Time Setting *"Strt"*

If (ENTER) is pressed at the "Strt" prompt, the controller will display "daY". Enter into "daY" by pressing the (ENTER) button. The display will show the current day of the week followed by a (1) if the timer is active on that day or (0) if the timer is not active on that day.

If X= 1 The timer is active on that day.
If X= 0 The timer is not active on that day.

Using (UP) or (DOWN) will allow you to cycle through the days of the week (non, tue, UEd, thu, Fri, SAt, Sun or All). Press (ENTER) at the desired day to activate or deactivate the timer for that day. The value must be blinking to edit the selection. Press (UP) or (DOWN) to toggle between (0) or (1). When desired selection is shown, press (ENTER) to save your setting. If (ABORT) is pressed anytime during this operation, the controller will return to the "daY" prompt without saving your setting. Press the (UP) button to proceed to the next prompt "Hour".

If (ENTER) is pressed at the "Hour" prompt, the left two digits of the display will begin to flash, prompting the user to adjust the hour setting. (UP) or (DOWN) is used to adjust the hour. When the desired hour is shown, pressing (ENTER) will cause the right two digits to flash, showing the current minute setting. The minutes are set in the same fashion. When the minutes are properly displayed, pressing (ENTER) will save the start time and return to the "Hour" prompt. Pressing (ABORT) from the "Hour" prompt will return the controller to "Strt". Press the (UP) button to proceed to the next prompt "StoP".
Note: *The time is based on 24 hour time (Military time)*

Stop Time Setting *"StoP"*

If (ENTER) is pressed at the "StoP" prompt, the controller will display "daY". Enter into "daY" by pressing the (ENTER) button. The display will show the current day of the week followed by a (1) if the timer is active on that day or (0) if the timer is not active on that day.

If X= 1 The timer is active on that day.
If X= 0 The timer is not active on that day.

Using (UP) or (DOWN) will allow you to cycle through the days of the week (non, tue, UEd, thu, Fri, SAt, Sun or All). Press (ENTER) at the desired day to activate or deactivate the timer for that day. The value must be blinking to edit the selection. Press (UP) or (DOWN) to toggle between (0) or (1). When desired setting is shown, press (ENTER) to save your setting. If (ABORT) is pressed anytime during this operation, the controller will return to the "daY" prompt without saving your selection. Press the (UP) button to proceed to the next prompt "Hour".

If (ENTER) is pressed at the "Hour" prompt, the left two digits of the display will begin to flash, prompting the user to adjust the hour setting. (UP) or (DOWN) is used to adjust the hour. When the desired hour is shown, pressing (ENTER) will cause the right two digits to flash, showing the current minute setting. The minutes are set in the same fashion. When the minutes are properly displayed, pressing (ENTER) will save the stop time. Pressing (ABORT) while editing a selection will bring you back to "Hour" without saving any changes. Pressing the (ABORT) button from the "Hour" prompt, the controller will return to the "StoP" prompt. Press the (UP) button to proceed to the next prompt "SEL".

Selection Setting *"SEL"*

If (ENTER) is pressed at the "SEL" prompt, the controller will enter the selection setting and the first display will show the current setting for selection one "01 X". If X is (1) the selection is active or (0) the selection is not active. Using (UP) or (DOWN) will allow you to rotate through the valid selections or select "ALL". If (ABORT) is pressed anytime during this operation, the controller will return to the "SEL" without saving your selection.
X= (1) The selection is active.
X= (0) The selection is not active.

To edit a selection, press (ENTER) when the desired selection is displayed, the value must blink before any changes can be made. Pressing (UP) or (DOWN) will change the current setting and pressing (ENTER) will save the settings. Pressing (ABORT) while editing a selection will bring you back to the original setting without saving any changes. When finished making changes, press (ABORT) to return to the "SEL" prompt. Press the (UP) button to proceed to the next prompt "LESS".

Discount Amount *"LESS"*

If (ENTER) is pressed at the "LESS" prompt, the controller will enter the discount amount setting and the first display will show the current four digit discount amount (.00 - 99.95). *For example if the amount was set to .10, every price set in the price mode will be reduced by 10 cents.* Using (UP) or (DOWN) will allow you to increase or decrease the number in increments of the least coin tube amount. Press (ENTER) to save the setting and return you to the "LESS" prompt. Press (ABORT) to return to the "LESS" prompt without saving any changes. Pressing (ABORT) at "LESS" prompt will bring you out to "diSC" prompt. Press the (UP) button to proceed to the next prompt "OVEr".

MANUAL SWITCH OVER-RIDE

If the vender is equipped with a key-switch it can be used to over-ride numerous operations of the vender (timer control). The key-switch can control one, or several features. When the switch is activated, the feature is over-ridden. Press (ENTER) at the "OUEr" prompt, the controller will enter the key switch over-ride setting and the first display will show "FrE". Using (UP) and (DOWN) will allow the operator to toggle between the following modes "FrE", "bLC", "dSC", "Lit" and "FrG".

An "over-ride switch kit" must be used to over-ride the following features:

"FrE" Free Vend Enable
"bLC" Selection Blocking Over-Ride
"dSC" Discounting Over-Ride
"Lit" Lighting Control Over-Ride
"FrG" Refrigeration Over-Ride

Free Vend Enable *"FrE"*

If (ENTER) is pressed at the "FrE" prompt, the controller will enter the free vend over-ride setting. "FrEX", if 'X' is set to (1) free vending is enabled, if 'X' is set to (0) free vending is disabled. Using (UP) or (DOWN) will allow you to toggle between (1) or (0). If (ABORT) is pressed anytime during this operation, the controller will return to the "FrE" prompt without saving your selection. Press the (UP) button to proceed to the next prompt "bLC".

X= (1) Free vending is enabled.
X= (0) Free vending is disabled.

Blocking Over-ride *"bLC"*

If (ENTER) is pressed at the "bLC" prompt, the controller will enter the selection blocking over-ride enable setting and the first display will show the current setting "bLCX". If "X" is blinking (0) the selection blocking over-ride is disabled or if blinking (1) the selection blocking (bLC1 & bLC2) over-ride will be enabled.

X= (1) Selection blocking (bLC1& bLC2) is enabled
(Turns off timer control modes).
X= (0) Selection blocking is disabled.

Using (UP) or (DOWN) will allow you to toggle between (1) or (0). If (ABORT) is pressed anytime during this operation, the controller will return to the "bLC" without saving your selection. Press the (UP) button to proceed to the next prompt "dSC".

Discount Over-ride *"dSC"*

If (ENTER) is pressed at the "dSC" prompt, the controller will enter the discounting over-ride enable setting and the first display will show the current setting "dSCX". If "X" is blinking (0) the discounting over-ride is disabled or if blinking (1) the discounting over-ride will be enabled.

X= (1) Discounting over-ride is enabled
(Turns off timer control).
X= (0) Discounting over-ride is disabled.

Using (UP) or (DOWN) will allow you to toggle between (1) or (0). If (ABORT) is pressed anytime during this operation, the controller will return to the "dSC" without saving your selection. Press the (UP) button to proceed to the next prompt "Lit".

Lighting Control Override *"Lit"*

(Optional Relay Kit Required)

If (ENTER) is pressed at the "Lit" prompt, the controller will enter the lighting control over-ride enable setting and the first display will show the current setting "LitX". If "X" is blinking (0) the lighting control over-ride is disabled or if blinking (1) the lighting control over-ride will be enabled.

X= (1) Lighting control over-ride is enabled
(Turns off timer control).
X= (0) Lighting control over-ride is disabled.

Using (UP) or (DOWN) will allow you to toggle between (1) or (0). If (ABORT) is pressed anytime during this operation, the controller will return to the "Lit" without saving your selection. Press the (UP) button to proceed to the next prompt "FrG".

Refrigeration Control Over-Ride *"FrG"*

If (ENTER) is pressed at the "FrG" prompt, the controller will enter the refrigeration control over-ride enable setting and the first display will show the current setting "FrGX". If "X" is blinking (0) the refrigeration over-ride is disabled or if blinking (1) the refrigeration over-ride over-ride will be enabled.

X= (1) Refrigeration over-ride is enabled
(turns off timer control for the storage temperature)
X= (0) Refrigeration over-ride is disabled.

Using (UP) or (DOWN) will allow you to toggle between (1) or (0). If (ABORT) is pressed anytime during this operation, the controller will return to the "FrGX" without saving your selection. Pressing (ABORT) at "FrG" prompt will bring you out to "OVEr" prompt. Press the (UP) button to proceed to the next prompt "SdEP".

SET SELECTION DEPTH MODE

If (ENTER) is pressed at the "SdEP" prompt, the controller will enter the "by-selection" depth setting mode by displaying "01X". Where "X" represents "1" for single depth or "2" for double depth. Using (UP) or (DOWN) will allow the operator to cycle through the individual selections ("0YY") as well as the "ALL" selection. If (HOME) is pressed anytime during this operation, the controller will return to the code level. If (ENTER) is pressed, the display will show "ALLX" or "0YYX," depending on if the "ALL" mode is being used or if an individual selection is being accessed. "YY" represents the number of the selection and "X" represents the current column-depth setting of the selection. "X" will be '1' if the selection is set to single-depth mode, or '2' if it is set to double-depth. Using (UP) or (DOWN) will toggle "X" between '1' and '2'. When the desired setting is on the display, pressing (ENTER) will save that setting and return to the selection level, while pressing (ABORT) will return to the "SdEP" prompt without saving any changes. If the "ALLX" setting is saved, all individual selections will be set to this value. Press the (UP) button to proceed to the next prompt "rtn". This function can also be accessed via the HHC.

Note: *When viewing the "ALLX" setting, the last value for "ALL" will be displayed, regardless of any changes that have been made to the individual settings.*

REMOTE VEND MECHANISM ROUTINE

If the ENTER button is activated at the "rUnd" prompt the VMC will enter the universal satellite device control routine. Upon entry into this routine the display will show

the first summary level code, “Strt”. Using the UP or DOWN buttons will cycle through the available summary level codes as listed below. Activation of the ENTER button will enter the detail level routines. Activation of the ABORT button while a summary level prompt is displayed will return the VMC to the “rUnd prompt. Activation of the ABORT button at the “rUnd” prompt has no action.

Start Time Setting *“Strt”*

If the ENTER button is activated at the “Strt” prompt the VMC will enter the start time setting routine. Upon entry into this routine the display will show the first summary level code, “dAY”. Using the UP or DOWN buttons will cycle through the available summary level codes as listed below. Activation of the ENTER button will enter the detail level routines. Activation of the ABORT button while a summary level prompt is displayed will return the VMC to the “Strt” prompt. Activation of the ABORT button at the “Strt” prompt will return the VMC to the “rUnd” prompt.

If the ENTER button is activated at the “dAy” prompt the VMC will enter the day of week setting routine. Upon entry into this routine the display will show the current day of the week setting, i.e. “FriX”, where X will be 1 if the state is active, or 0 if the state is not active. Using the UP or DOWN buttons will rotate through “non”, “tUE”, “UEd”, “tHu”, “Fri”, “SAt”, “Sun”, or “ALL”. Activation of the ABORT button will return the VMC to the “day” prompt without making any changes.

If the ENTER button is activated at the “Hour” prompt the VMC will enter the start time setting routine. Upon entry into this routine the display will show the current four digit hour and minute setting, in 24-hour format (0000, midnight, to 2359). The hour setting will be blinking to indicate that it can be edited. Using the UP or DOWN buttons will increase or decrease the number. Activation of the ENTER button will cause the minute setting to begin blinking indicating that it can now be edited. Using the UP or DOWN buttons will increase or decrease the number. Activation of the ENTER button will save the hour and minute setting and return to the “Hour” prompt. Activation of the ABORT button will return the VMC to the “Hour” prompt without saving any changes.

Stop Time Setting *“Stop”*

If the ENTER button is activated at the “StoP” prompt the VMC will enter the start time setting routine. Upon entry into this routine the display will show the first summary level code, “dAY”. Using the UP or DOWN buttons will cycle through the available summary level codes as listed below. Activation of the ENTER button will enter the detail level routines. Activation of the ABORT button while a summary level prompt is displayed will return the VMC to the “StoP” prompt. Activation of the ABORT button at the “StoP” prompt will return the VMC to the “dISC” prompt.

If the ENTER button is activated at the “dAy” prompt the VMC will enter the day of week setting routine. Upon entry into this routine the display will show the current day of the week setting, i.e. “FriX”, where X will be 1 if the state is active, or 0 if the state is not active. Using the UP or DOWN buttons will rotate through “non”, “tUE”, “UEd”, “tHu”, “Fri”, “SAt”, “Sun”, or “ALL”. Activation of the ABORT button will return the VMC to the “day” prompt without making any changes.

If the ENTER button is activated at the “Hour” prompt the VMC will enter the start time setting routine. Upon entry into this routine the display will show the current four digit hour and minute setting, in 24-hour format (0000, midnight, to 2359). The hour setting will be blinking to indicate that it can be edited. Using the UP or DOWN buttons will increase or decrease the number. Activation of the ENTER button will cause the minute setting to begin blinking indicating that it can now be edited. Using the UP or DOWN buttons will increase or decrease the number. Activation of the ENTER button will save the hour and minute setting and return to the “Hour” prompt. Activation of the ABORT button will return the VMC to the “Hour” prompt without saving any changes.

“SEL”

If the ENTER button is activated at the “SEL” prompt the VMC will enter the selection setting routine. Upon entry into this routine the display will show the current setting for selection one as “01 X”, where X is 1 if the state is active or 0 if the state is not active. Using the UP or DOWN buttons will rotate through the valid selections or “ALL”. Activation of the ABORT Button will return the VMC to the “SEL” prompt without making any changes.

“rAtE”

If the ENTER button is activated at the “rAtE” prompt the VMC will enter the universal satellite device vend rate routine. Upon entry into this routine the display will show the current vend rate (0 - 255). Using the UP or DOWN buttons will increase or decrease the number in single digit increments. A rate of “0” will disable the universal satellite device vending. All active selection vends (from above menu), regardless of selection, should be counted in this vend rate. Activation of the ENTER button will save the setting and return to the “rAtE”

RETURN TO SALES MODE

If (ENTER) is pressed at the “rtn” prompt, or if 30 seconds passes without a selection switch being pressed while at the “rtn” prompt, the controller will return to the normal door open mode.

Door Switch

The vender door switch is mounted to the lower right side of the vender's door and is actuated by the door each time it is opened or closed (see Figure 3.3). The following functions are performed each time the vender door is closed:

1. Clears any column sold-out.
2. Scrolls Greeting
3. If door switch reset is enabled (see "Con"), the resettable MIS counters may be reset, upon reading selection 1.
4. Starts the refrigeration unit after an aproximate 5 to 8 minute delay (after door switch is pressed).

Note: *The door switch is mounted to the lower right side of the vender cabinet on models built prior to P.O. 1521.*

Delivery Chute Sensor

The delivery chute sensor mounted on the bottom of the delivery chute signals the controller when a product is delivered.

Selection Switches

The selection switches signals the vender controller when a selection is made (see Figure 3.3). These switches are also used to program all vender functions (see "Four-Button Programming" section of this manual).

Low Voltage Transformer

The step-down transformer has a secondary winding which produces 24-volt AC output. The transformer works in conjunction with an external fuse which protects the vender in the event of a short in the secondary circuit. (See figure 3.3)

A power supply located on the vender controller changes the 24-volt transformer output to direct current.

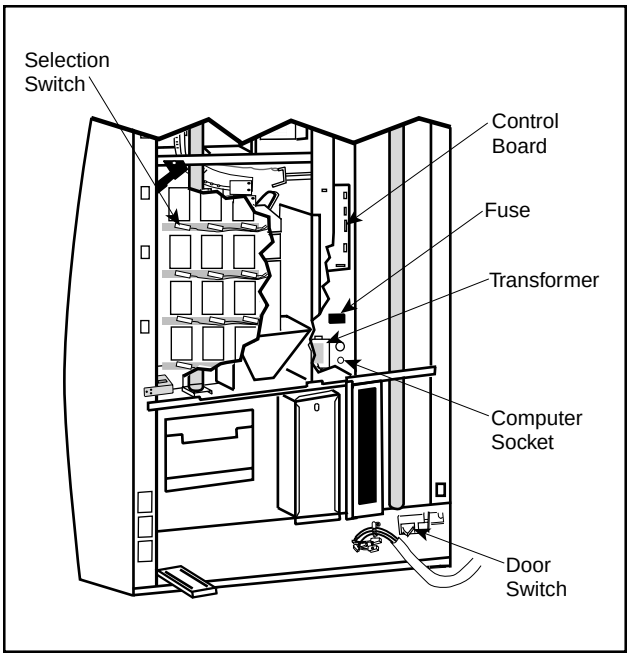


Figure 3.3

Vend Rack Assembly

The vend rack assembly, located in the cooling compartment of the vender, is composed of twelve product columns; six located in the front (columns one through six) and six in the rear (columns seven through twelve). Both front and rear columns are double-depth columns that can be adjusted to single-depth to accommodate packages other than 12 oz. cans. Different package types *cannot* be mixed within the same column.

Each column has an individual vend mechanism consisting of a rotating pivot, which is held in place by a spring-loaded release lever. On the opposite side of the column are the product stops, both of which are adjustable to vary the clearance through the mechanism for various diameter packages. These parts are mounted at the bottom of each column, and supported by rods through the vender's center support.

Beneath the rack and mounted to the left wall is a single vend motor and home sensor assembly. Connected to the motor's drive sprocket and running below the center support is the drive chain and lever actuator assembly.

See "Vend Sequence" section for a complete description of the vend operation.

Vend Rack Components

PIVOT: Located directly below each of the columns. Product in the column is retained between this pivot and the product stops. Rotation of the pivot allows the bottom package to dispense.

ADJUSTABLE PRODUCT STOPS: Two adjustable product stops, one long and one short, are located in each column. Both the long and short product stops can be adjusted to vend either large diameter packages or small

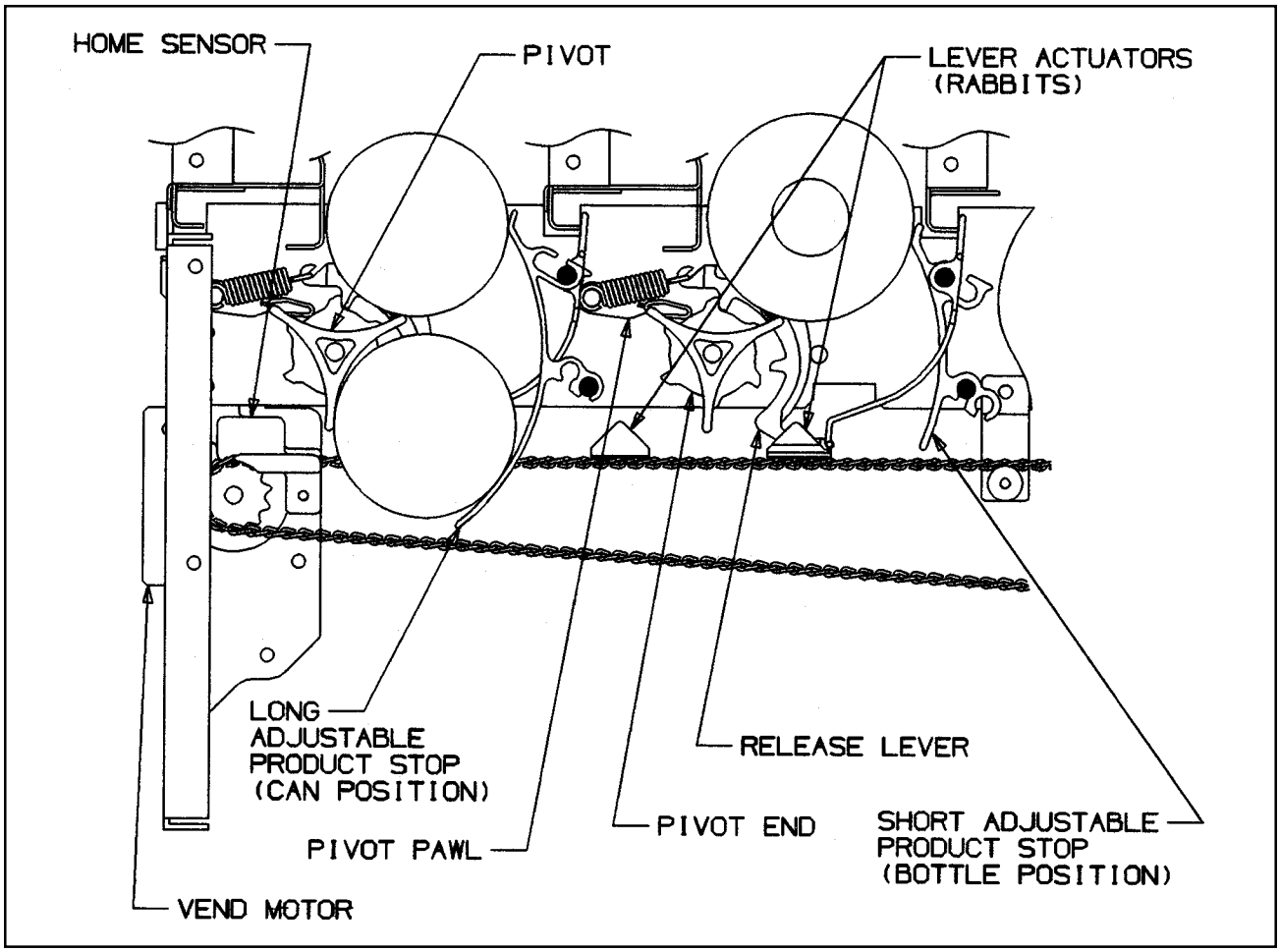


Figure 3.5

diameter packages. In any given column, *both the long and the short adjustable product stops must be set to the same diameter position* (i.e. when vending 12 oz. cans from a column, both the long and the short adjustable product stops must be set to the "small" package position). For adjustment, see "Setting the Adjustable Product Stops" section of this manual.

PIVOT END AND RELEASE LEVER: A geared pivot end is inserted in the pivot. Its gear teeth engage with the teeth of the spring-loaded release lever thereby locking the pivot assembly until the release lever is pulled by the motor driven lever actuator.

PIVOT PAWL: A pivot pawl is used on each column's vend mechanism to reduce the backlash ("play") between the pivot assembly and the release lever. Pivot pawls are mounted behind the release lever springs.

ANTI-TILT SPRING: Prevents lowest can on fixed product stop from free vending if the vender is tilted or shaken by vandals.

VEND MOTOR ASSEMBLY: This assembly is comprised of a vend motor and electronic encoder. These are controlled by the vender's electronic controller. The encoder confirms the motor's positioning of the lever actuator.

HOME SENSOR: The home sensor is mounted directly above the vend motor sprocket on the vend motor mounting bracket. It senses the lever actuator, using this information to signal the controller that the lever actuator has reached the "home" position.

DRIVE CHAIN AND LEVER ACTUATOR: Attached to the drive chain are the two sets of lever actuators. The vend motor accurately positions the lever actuator to strike the appropriate release lever.

IDLER BRACKET ASSEMBLY: Provides proper tensioning for the chain assembly.

CHAIN STABILIZER: Provides support for the upper run of the chain assembly.

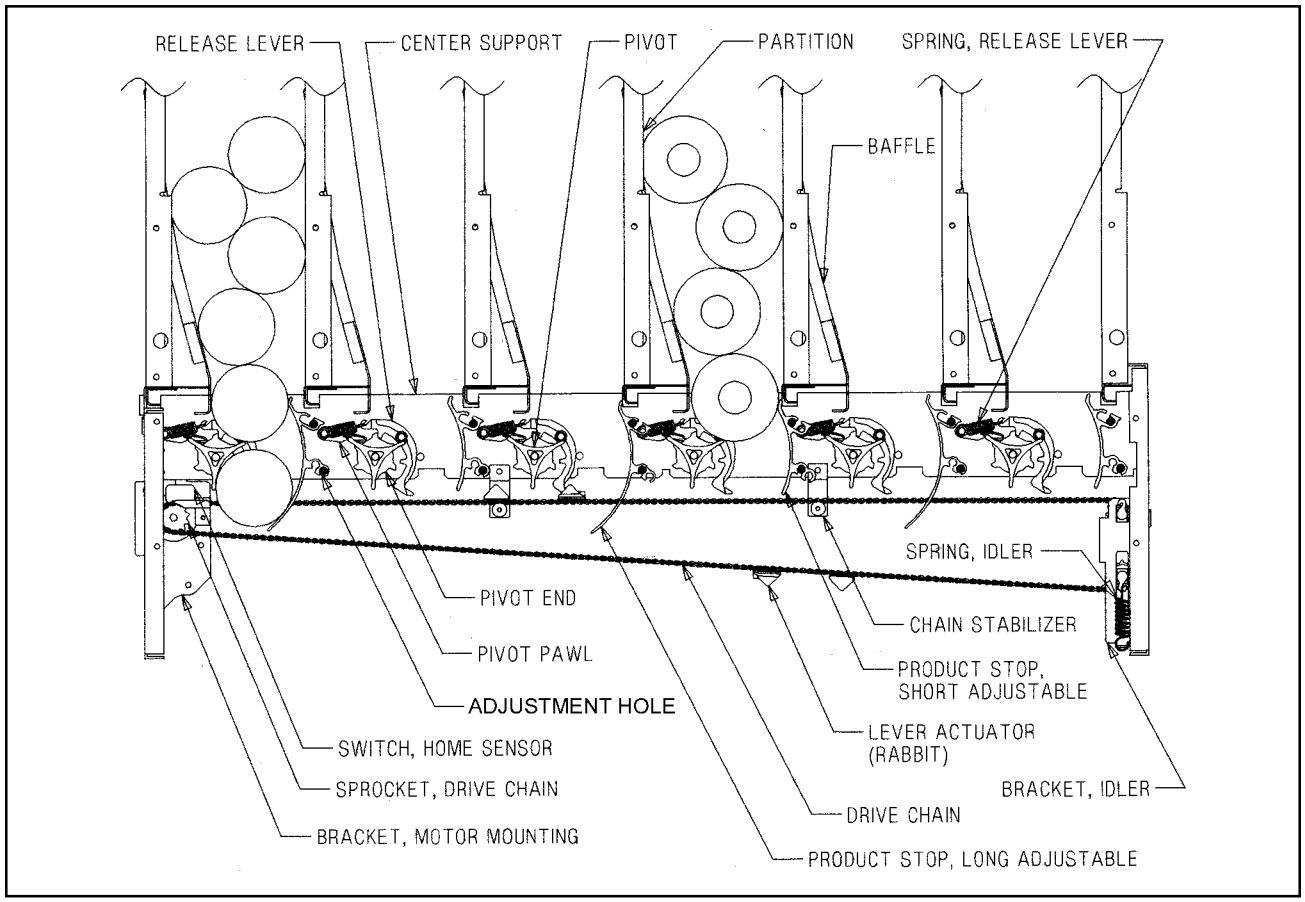


Figure 3.7

The Electronic Refrigeration Cycle

1. The temperature sensor (electronic thermometer) informs the board of the cabinet temperature. The boards function is to interpret the temperature and turn on/off according to the program setting for refrigeration.

2. The control board activates the relay, turning on the compressor and condenser fan motors. The control board also deactivates the relay, turning off the compressor and condenser fan motors.

3. The compressor circulates refrigerant throughout the system by pulling low pressure refrigerant vapor from the evaporator coil, compressing it and forcing it into the condenser coil.

4 The condenser, aided by the condenser fan motor, removes heat from the refrigerant as it flows through the condenser coil and releases it to the outside environment. The dropping of the refrigerant temperature changes the vapor to a liquid.

5. The capillary tube controls the amount of refrigerant released to the evaporator coil.

6. The evaporator coil allows the vaporized refrigerant to absorb heat from the cooling compartment as it flows through the coil.

7. The falling temperature in the cooling compartment is caused by the continual circulation of refrigerant through the system, removing heat from the cooling compartment and transporting it to the outside environment.

Note: *After the door is closed, there will be a 5-8 minute delay before the refrigeration system will come on.*

SECTION 4: VEND SEQUENCE OF OPERATION

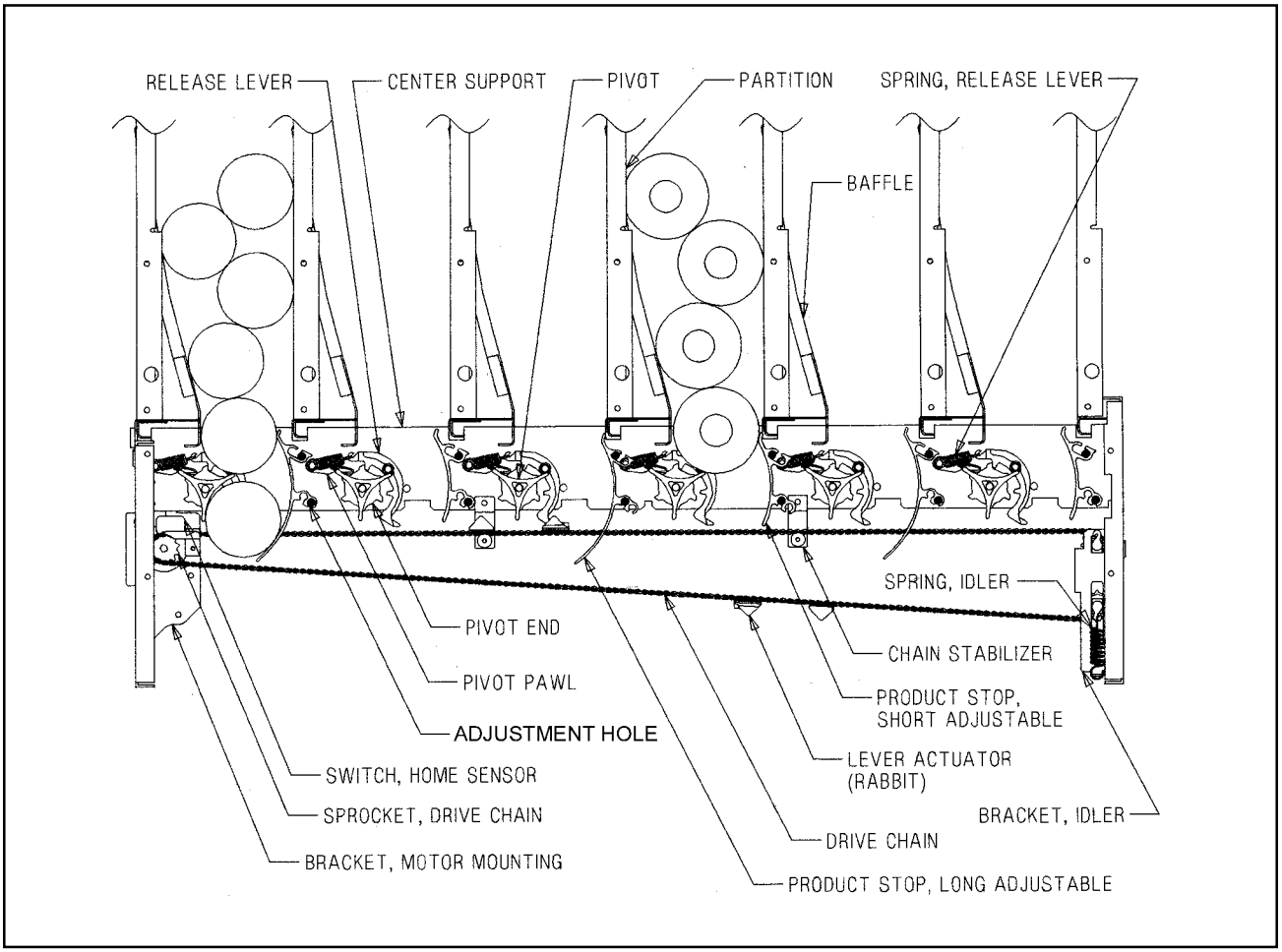


Figure 4.1

Vend Sequence (Figure 4.1)

NOTE: *For proper operation, the vender must have several packages in each column. The "Correct Change Only" light will be on if a coin changer is present and sufficient coins are not in the tubes.*

1. Credit inserted by the customer (coins, bills, debit card) is registered by the controller. A customer can only make a selection after sufficient credit has been inserted to satisfy the sales price setting.

NOTE: *At any time prior to reaching a vend price, a customer may press the coin release lever on the outside of the vender, cancelling credit and escrowing all inserted money. If a bill or cashbox coin is inserted, this escrow is disabled. See "C-8 = Escrow Rule #1" for additional information.*

2. When the customer presses a selection switch, the controller senses a selection has been made and immediately compares the amount of money validated to the sale price of the selected product.

3. If the amount of money credited is the same or exceeds the sales price setting, the controller directs the vend motor to move the chain (clockwise rotation) to position the lever actuator to the vend position of the selected column.

4. After the position is verified by the encoder, the vend motor is directed to reverse direction (counter-clockwise rotation). The chain drives the lever actuator ("rabbit") to engage and activate the release lever.

5. The upper tooth on the release lever disengages the pivot end, allowing the pivot assembly to rotate one increment. At that time, the lower tooth engages the pivot end, preventing further rotation.

6. When the vend motor again reverses (clockwise rotation), the lever actuator pulls away from the release lever allowing the pivot to complete its rotation. It is at this point that double-depth product (e.g. a 12 oz. can) is released to the customer. The lever actuator strikes an additional time (two times total) for single-depth product (e.g. 20 oz. bottles).

7. The lever actuator ("rabbit") continues running in a clockwise rotation until the forward one of the two rabbits reaches the home position.

8. A delivery sensor on the bottom of the delivery chute indicates a product was delivered and signals the controller to reset and initiate a payback of change if too much money was inserted.

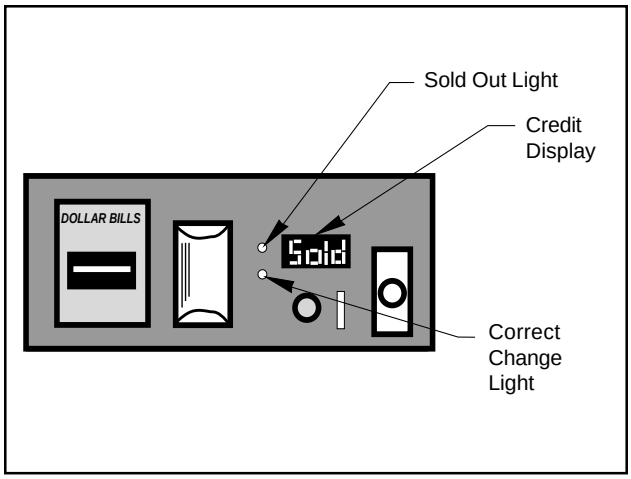


Figure 4.2

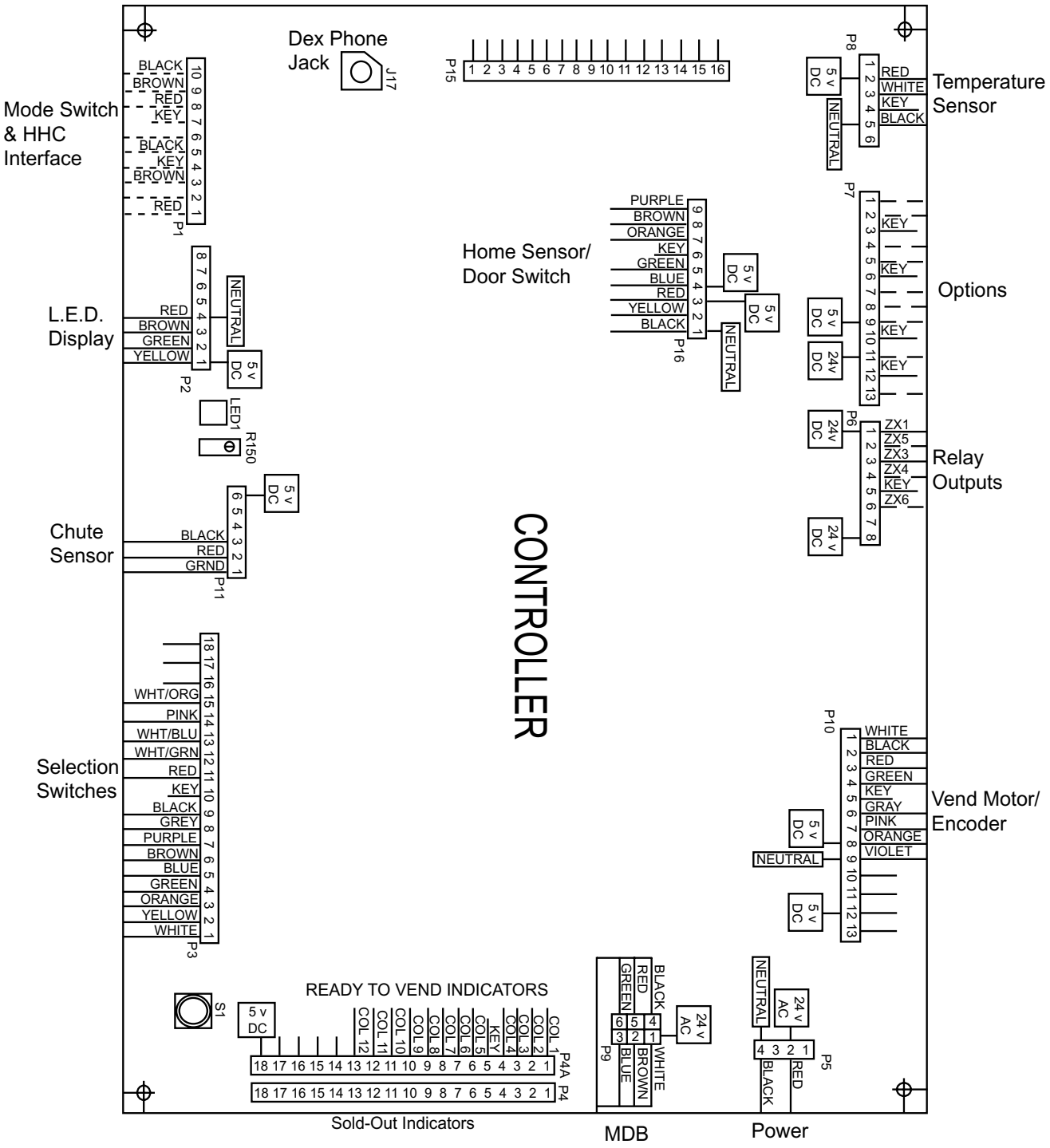
Sold Out

If the product selected is sold out, the digital display will indicate "SOLD OUT" and flash the "SOLD OUT" lamp, signalling the customer to make another selection or push the coin return lever for a full refund. The "SOLD OUT" lamp will continue to flash until a successful vend is completed.

If the vender is totally sold out of product, illumination of the "SOLD OUT" lamp and the "SOLD OUT" message on the digital display will be continuous. No money will be accepted into the vender in a total sold out condition.

SECTION 5: MAINTENANCE

KO CONTROLLER



SECTION 5: MAINTENANCE

WHAT TO ADJUST

Chute Sensor: The chute sensor has been pre-set at the factory to sense product on the delivery chute. To return the setting to the factory default, locate the adjustment screw, which is next to the service mode button on the controller board (see view of G-III controller board). Slowly turn the adjustment screw clockwise until the adjustment LED lights. Next, turn the screw counter-clockwise until the adjustment LED barely goes out. Continue turning counter-clockwise 2 full turns from this point. Test by vend testing the exterior columns and watch the chute sensor indicator light after the product hits the chute. The light should flash on and off.

This adjustment is necessary upon delivery chute replacement, chute sensor replacement, controller board replacement, or to return the vender to the factory setting.

SECTION 5: MAINTENANCE

Trouble Shooting

The G-III vender is equipped with a self-diagnostic feature to aid in the repair and maintenance of the vender. When servicing the vender, pay close attention to the digital display. When the vender door is opened the electronics will begin displaying any error codes that are stored in memory. If there are no errors, the display will read "nonE." See "Four-Button Programming" section of this manual.

To enter the Service Mode, press and release the Service Mode Button located on the controller. The display will read "Eror." If (ENTER) is pressed at the "Eror" prompt, the controller will enter the error display mode. If no errors have occurred since the last error reset, the display will show "nonE." If an error has been detected since the last error reset, the display will show the first error summary code that has occurred.

If (ENTER) is pressed, the controller will display the detailed error for the summary code. The (UP) and (DOWN) buttons will cycle through any remaining error detail codes. If (ABORT) is pressed while displaying any *detailed* code, the controller will return to the summary code. If (ABORT) is pressed while displaying any *summary* code, the controller will return to the code level.

NOTE: *When troubleshooting errors with peripherals, the appropriate peripheral service manual(s) should also be consulted for further tests and corrective actions.*

ERROR	DETAILED ERROR CODE AND DESCRIPTION		TEST PROCEDURE	CORRECTIVE ACTION
C HAr (Coin Acceptor Error)	EE	More than 255 escrow attempts since the last coin was accepted.	Check escrow lever and associated mechanisms. Go to Open-door Mode and wait for 30 seconds. Manually clear the error.	If vender returns to Sales Mode from Open-door Mode without input, replace changer/acceptor. If it stays in Open-door Mode and the manually-cleared error does not reoccur, system may be OK.
	nJ	Coin Jam.	Check changer/acceptor for jammed coins or other obstructions.	If no obstructions are apparent, replace changer/acceptor.
	LA	Low Acceptance Rate (more than 20% of the last 255 coins were rejected as slugs)	Check changer/acceptor for obstructions or dirt. Drop coins in Sales Mode or Tube Fill Mode to test acceptance.	If no obstructions are apparent, and acceptance appears to be OK, this may be an indication of cheating attempts. If no obstructions are apparent and coins do not accept, or acceptance rate is poor, replace changer/ acceptor.
bUAL**	bC	Bill Communication Error	If changer or card reader is being used, check for "CC" or "rC" errors. Unplug machine and wait at least five seconds. Plug machine back in.	If there is no "CC" or "rC" error: 1) Check bill acceptor harness; 2) Replace bill acceptor. If there is a "CC" or "rC" error: 1) Check control board MDB harness.
	bFuL	Full bill stacker	Ensure bill cashbox is empty and that the cashbox is properly closed and in place.	If cashbox appears to be OK, replace bill acceptor.
	biLL	Motor is defective	No test available.	Replace bill acceptor.
	bJ	Bill jam error	Check bill acceptor for obstructions or dirt.	If no obstructions are apparent, replace bill acceptor.
	brCH	Bill acceptor ROM checksum error.	Unplug machine, wait at least five seconds, replug machine. Manually clear the error.	If error does not clear, replace bill acceptor.
	bOPn	Open cash box.	Check that bill cashbox is closed and in correct position.	If cashbox appears to be OK, replace bill acceptor.
	bS	Sensor error.	Check bill acceptor for obstructions or dirt.	If no obstructions are apparent, replace bill acceptor.

* *Error Code must be manually cleared. See "Eror" section of this manual for detailed instructions.*

** *These Error Codes will be automatically cleared when the validator reports no errors and is enabled (the validator is "enabled" when it accepts money).*

SECTION 5: MAINTENANCE

ERROR	DETAILED ERROR CODE AND DESCRIPTION		TEST PROCEDURE	CORRECTIVE ACTION
	CC	Changer communication error.	If card reader/bill acceptor is being used, check for "rC" or "bC" errors. Unplug machine, wait at least five seconds, and replug.	If there is no "rC" or "bC" error: 1) Check changer harness. 2) Replace changer. If there is a "rC" or "bC" error: 3) Check control board MDB harness.
	tS	Tube sensor error.	Check changer tubes for blockage.	Clear tube blockage, if found. If no blockage found, replace changer.
	IC	Inlet chute blocked error. (no coins sensed in the acceptor for over 96 hours)	Check inlet chute for blockage. Drop coins in Sales Mode or Tube Fill Mode to test acceptance. Manually clear the error.	Clear inlet chute blockage. If no blockage found, replace changer. If acceptance rate is acceptable, system is probably OK. If acceptance rate is low or changer will not accept coins, replace changer.
	tJXX	Tube jam error.	Check changer tubes and payout for blockage.	Clear blockage, if found. If no blockage found, replace changer.
	CrCH	Changer ROM Checksum error.	Unplug machine, wait at least five seconds, replug machine. Manually clear the error.	If error does not clear, replace changer.
	CSF	Changer's scale factor is not valid for the machine configuration.l	Ensure that changer, bill acceptor, and card reader are all models for same country. Unplug machine, wait at least five seconds, replug machine.	If models are compatible, replace changer.
Crdr (Card Reader Error)	CrC	Card reader communication error.	If changer or bill acceptor is being used, check for "CC" or "bC" errors. Unplug machine, wait at least five seconds, and replug.	If there is no "CC" or "bC" error: 1) Check card reader harness; 2) Replace card reader. If there is a "CC" or "bC" error: 1) Check control board MDB harness.
	Crxy*	Card reader error. (see card reader manual for description of error codes)	No test available.	Refer to card reader manual for corrective action.
OLn On Line Module	OC	On line module communication (No communication for 5 sec.)		Proper communications
	OnC	On line network communication (Network is not responding, OLM can not call out)		Proper cummunications
	OI	On line module internal problem, causing improper functions (check sum, etc.)		
rUnd Remote Vend	rUC	Remote vend Mech. (No communication for 5 sec.)		Proper communications
S-d Selection/ Display Device	SdC	Display device communication (No communication for 5 sec.)		Proper communications
	SdXX	Error code number "XX" device specific		
rFrG	SEnS	Unplugged or defective temperature sensor error.	Check the temperature sensor connection of the control board to make sure it is plugged in. Check if it is wired properly and the pins are making contact.	If the sensor is unplugged, replug it. If it is miswired, replace the temperature sensor. If the connections are bad, attempt to repair them or replace the temperature sensor if it is unrepairable.

* *Error Code must be manually cleared. See "Eror" section of this manual for detailed instructions.*

SECTION 5: MAINTENANCE

ERROR	DETAILED ERROR CODE AND DESCRIPTION	TEST PROCEDURE	CORRECTIVE ACTION
	CoLd Temperature three or more degrees below the compressor cut out setting.	1) Check the refrigeration unit before opening the vender's main door to see if it's running. 2) Open the vender's main door and see if the unit cuts off. 3) Make sure the vender's door switch is working properly. 4) Unplug one of the two white wires plugged into the refrigeration relay.	If upon unplugging one of the white wires, the unit stops: 1) Check the temperature sensor reading; 2) Check Setp settings; 3) Check two white wires for shorts from the control board. 4) If upon unplugging one of the white wires, the unit still runs; unplug one of black wires. If the unit stops, replace refrigeration relay. If optional heater kit is not installed, one may be required. 5) If heater kit is installed and heater does not turn on (heater relay does not click upon energizing with the relay test mode), check the two white wires from the board to the heater relay for voltage (should be +24VDC on one of the two wires). Check the other wire for continuity between the control board and the relay. If voltage is OK, replace relay. Otherwise, replace control board.
	Hot Cabinet temperature is above the limit.	Procede with normal refrigeration trouble shooting . Refer to the refrigeration flowchart.	
	Htr Heating System has failed to increase 1 degree per hour	Procede with normal refrigeration trouble shooting . Refer to the refrigeration flowchart.	
	CnPr Compressor is not cooling within 30 minutes of turning on.	1) Check the refrigeration unit before opening the vender's main door to see if it's running. 2) Open the vender's main door and check the display to see that the door switch is working as normal. 3) Access the "rFrG" setup mode and check the "SetP" settings. 4) While in the "rFrG" mode, change "dSP" to '1' to show the temperature on the display during the greeting and see if it's correct. 5) While in the "Test" mode, access the "rELy" mode and turn the compressor on.	1) If the unit is running, clear the error and see if it reoccurs. 2) If the display does not function as normal, check the door switch circuit. 3,4) Change any settings if necessary and check temperature sensor operation. 5) If the unit does not run (refrigeration relay not clicking upon energizing with the relay test mode), check the two white wires from the board to the refrigeration relay for voltage (should be 24+ VDC on one of the two wires). Check the other wire for continuity between the control board and relay. Note: The compressor relay test mode must be on to check voltage.
SEL (Selection	SSXX Selection switch has been closed for more than 25 seconds (where 'XX' indicates selection switch number).	Check the selection switch number shown in the detailed error code 'XX' to see if: 1) the button is sticking; 2) the switch is sticking/defective; 3) the harness is wired wrong/shorted.	Try to correct the problem if one of the three is found. If you can't correct it, then replace the component in question.
StS (Space-to Sales Error)	UAXX A column is unassigned.	Access Space-to-Sales Mode and go to custom Space-to-Sales. Check all selections for the column showed in the detailed error description (XX).	Change space-to-sales setting as required. In some situations, it may by quicker to completely reset all Space-to-Sales.

* *Error Code must be manually cleared. See "Eror" section of this manual for detailed instructions.*

SECTION 5: MAINTENANCE

ERROR	DETAILED ERROR CODE AND DESCRIPTION	TEST PROCEDURE	CORRECTIVE ACTION
UEnd (Vend Mechanism Error)	hS* Home sensor error.	1) Observe chain to make sure the four lever actuators (rabbits) are attached. 2) Make sure that two of the four have magnets pressed in them. 3) Make sure that the magnets are facing the rear of the cabinet. 4) Check the location of the chain. The lever rabbits should be at each end of the cabinet. Pull the chain until both sets of rabbits are in the middle of the cabinet. Power down then repower. The bottom set of rabbits should go to the home position.	1,2) If not, replace chain assembly. 3) If not, chain is in backward. Remove chain and attach it so that the magnets are facing to the rear of the cabinet. 4) If motor jerks but does rotate the chain, check the motor's wiring to the control board and if nothing is found, replace the vend motor assembly. If chain rotates several times without a lever actuator (rabbit) stopping above vend motor (at the home sensor), check the above test. If it is OK, then check the home sensor wiring to see if it's pinched or shorted. Replace home sensor if nothing is found.
	EC* Encoder error.	Learn how column sequencing works and vend from all columns, watching the lever actuators (rabbits) locate each column.	If the encoder is defective, the vend motor will not be able to find the release levers for one or more of the column(s) and will stop at a place where there is no release lever. Replace vend motor assembly. This error may also indicate the chain is sticky, making it difficult for the chain to move. See "Taking Care of the Vender" on how to clean the chain.
	rE* Rabbit error (Lever Actuator error).	1) Closely examine the four rabbits mounted to the chain assembly. Make sure they are tightly mounted (two of which have magnets) and none are are missing. 2) Check to make sure that the upper run of the chain assembly is above the stabilizers. 3) Check the chain's alignment under the mechanism. Check the idler pulley sprocket and the vend motor sprocket to see if aligned.	1) If a rabbit is missing, replace the chain assembly. 2) If upper run of chain assembly is below stabilizers, raise it above them (see Figure 5.7). 3) If the idler pulley sprocket is in the wrong position on the shaft, order new idler sprocket assembly. If the vend motor sprocket is in the wrong position on the shaft, order a new vend motor assembly.
Chut (Chute Sensor Error)	CS* Chute sensor error. (Chute sensor is active for more than 5 mins)	Check to see that the sensor is adjusted properly. Make sure that the sensor adjustment LED is normally not lit, but blinks as product impacts the delivery chute.	Adjust the sensor to factory specs. See "Taking Care of the Vender" in Section 5 for detailed instructions.
COLJ (Column Jam Error)	CJXX* Column jam error. (where 'XX' indicates the the column number of the jam)	Check column for problem. Check for contamination on release lever, pivot, and pivot end. Enter "test" and vend one time from column.	Correct problem. Clean contamination. If two or more products are received, increase chute sensor sensitivity, or replace chute sensor. To increase sensitivity, turn screw clockwise. See "Chut" section.
Ctrl	dS* Door switch error.	Check the vender's door to see it it's sticking or miswired. If nothing is found at the door switch, check two wires from door switch to control board to see if they're pinched or shorted.	Replace the door switch, if defective. Repair or replace the door switch harness to the control board.
ACLo*	Average rectified voltage was under 22VDC for at least 30 consecutive seconds.	Check for low voltage at the wall outlet at the unit startup with all else on circuit running, in an "extreme" condition.	If low voltage can't be found on the wall outlet in an extreme condition, check for shorts in the vender.

* *Error Code must be manually cleared. See "Eror" section of this manual for detailed instructions.*

ERROR	DETAILED ERROR CODE AND DESCRIPTION	TEST PROCEDURE	CORRECTIVE ACTION
rAn (Set Up Info Corrupted)	rM* RAM error.	No test available.	If error shows ups frequently, replace control board and contact Royal Vendors.
	SF Scale factor error	Check the connections of changer harness; make sure changer is plugged up and working.	Make corrections to harness or replace the changer if necessary.
	IS Inlet sensor blocked		Check changer harnessing for cut, pinched or crimped wires. Replace changer.
	IB Inlet is blocked		Check inlet for blockage; if nothing is found. Check changer harnessing for cut, pinched or crimped wires. Replace changer.

ERROR	PROBABLE CAUSE	CORRECTIVE ACTION
COIN ACCEPTANCE/ PAYOUT (RECORD ALL ERRORS ON PAPER)		
Coin mechanism will not accept coins.	No power to control board.	Check to make sure the LED and the sign lighting are lit. Check fuse and transformer.
	Harness from coin mech to board is cut or disconnected.	Using a meter, check each wire for continuity and to ground.
	Short in coin mechanism.	Unplug all connections from the control board except the transformer and coin mech connections. Test acceptance. If it accepts, replug each connection one at a time and test acceptance after each.
	Acceptor is dirty or other problem may exist (not tuned)	Clean acceptor or contact your local coin mech dealer.
	Short in control board.	If above procedures do not work, replace controller.
No acceptance or Rejects a percentage of good coins.	Coin return lever pressing down on acceptor's coin plunger.	Make sure changer is mounted correctly and the coin return lever is in the proper position.
	Acceptor is dirty or foreign matter is in the path.	Clean acceptor or contact dealer.
	Coin changer is improperly tuned (if tunable).	Contact manufacturer for tuning.
	Defective controller board.	Replace/test controller.
Always accepts coins but gives erratic/no credit.	IF NO CREDIT: Defective harness between coin mech and control board (will have "CC" error).	Check harness for cut wires or wrong/bad connections. Test each wire for continuity or test to ground. If found to be defective, replace.
	IF ERRATIC OR NO CREDIT: Acceptor or coin mech.	Replace coin mech and test. If OK, then check the following:
	IF NO CREDIT: Defective controller.	Replace/test controller.
Changer will not payout coins.	Defective harness between coin mech and control board.	Test vender's manual coin payout. If vender won't pay out using the CPO mode or during sales, check harness for cuts, bad continuity or wrong connections. If defective, replace and test.
	Defective coin mech.	Replace coin mech and test. If it pays out, the coin mech was defective.

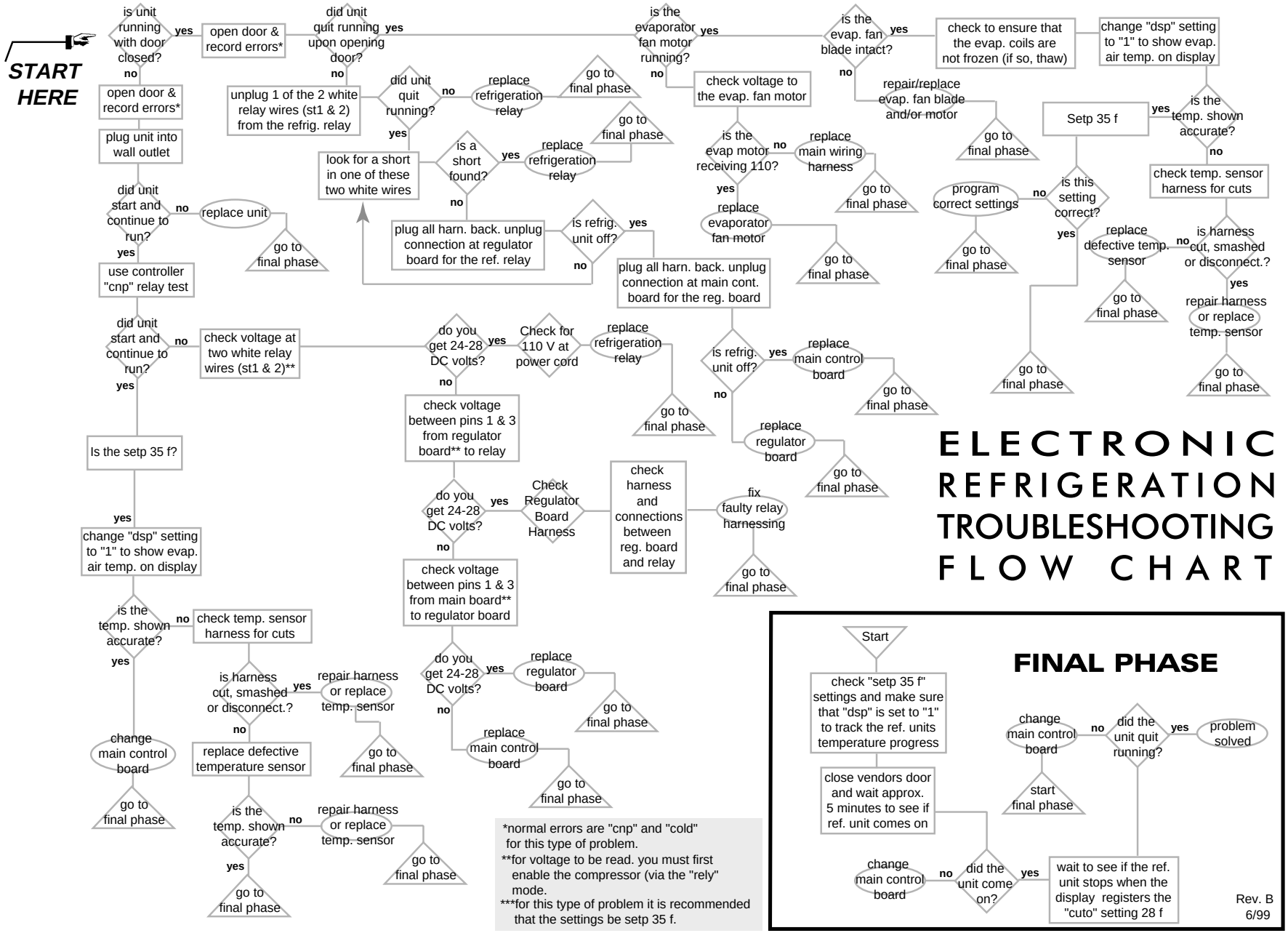
ERROR	PROBABLE CAUSE	CORRECTIVE ACTION
	Defective controller.	If coin mech won't payout coins manually in the CPO mode or during the Sales Mode and the above two procedures have failed, replace the control board and test payout both in the CPO mode and during a sale.
	Changer payout buttons are disabled while door is closed or while in Open-Door Sales Mode.	Enter the Service Mode or access the Coin Payout Mode ("CPO").
BILL ACCEPTANCE		
Bill Acceptor will not pull bill in.	No power to validator.	Unplug vender for 10 seconds and replug to see if bill acceptor cycles. If not, check acceptor harnessing or replace the bill acceptor.
	Wrong acceptor harness or wires of the harness are in the wrong positions.	Make sure that the acceptor harnessing is correct for your style acceptor and that it's wired properly.
	Acceptance disabled by coin mech (if present), or bad harnessing.	Make sure that the coin mech is plugged in (accepts coins) and that the coin tubes have enough coins to enable bill acceptance.
	Coin mech is not operative.	Make sure that the changer harness-ing is correctly connected and has continuity. Repair or replace if necessary.
	Replace acceptor and test. If acceptor accepts, bill acceptor was defective.	Replace bill acceptor.
Bill Acceptor takes a bill not establishing a credit.	Defective acceptor harness (credit not getting from acceptor to control board through the the harness).	Make sure that the acceptor and harnessing is correct for your style of acceptor and it is plugged in and wired properly.
	Defective acceptor.	Replace/test acceptor.
	Defective controller.	Replace/test controller.
Bill Acceptor takes a bill and credits but not erasing credit.	Defective/wrong acceptor interface harness. Defective bill acceptor.	Refer to bill acceptor service manual or bill acceptor representative. Replace acceptor and test acceptance and erasure of credit.
	Defective controller.	Replace/test controller for erasure of credit.
Acceptor takes a bill and allows payback of coins without a selection.	Controllers configurations not set properly.	Access vender configuration mode and check the "Forced Vend" setting.
VENDING PROBLEMS		
Multiple vending (not canceling credit)	If multiple vending is from all selections, delivery sensor is cut, improperly grounded, ***NOTE:*** *If the sensor is not present or is cut (defective), the G-III will allow up to two products from each column assigned to be vended before the column is determined to be sold out.*	***Factory Adjustment for the trim pot screw on the controller.*** **1.**Turn screw clockwise until the light comes on. **2.**Turn screw Counterclockwise until the light goes out. **3.**Continue turning counterclockwise (2 full turns) **4.**Vend test on columns (7 & 12) and watch the light on the board, make sure the only time you see the light come on is when a product hits the can chute.

ERROR	PROBABLE CAUSE	CORRECTIVE ACTION
	Depth setting not set correctly in SdEP mode. (May be set to single depth.)	Enter SdEP Mode and check setting to be correct. Refer to "SdEP" section of this manual.
	Mechanical error.	Check for correct operation of the pivot, pivot end and release lever. Verify that both adjustable product stops are set to the correct position for the package type.
Wrong product vending upon selection.	Misload by vender loader.	Ensure that all product within each column is the same.
	Space-to-Sales not set properly.	Look for StS error. Check or reset Space-to-Sales.
	Miswired selection.	Check the wiring from the controller to the selection switches.
	Bad encoder (motor assembly). ("UEnd" error should be displayed)	Watch vend cycle from under stack mechanism. Know the columns you're vending from (preferably one column assigned to one selection). If the lever actuators (rabbits) do not come close to this column upon vending, change the motor assembly.
No vend upon selection. Dry vend (no refund).	Delivery sensor too sensitive or a column is jammed or sold out.	Check to see if the delivery chute sensor adjustment LED is constantly on. If so, adjust it back to factory setting. See "Taking Care of the Vendor" in Section 5. Check adjustable product stops to ensure that both are set to the correct position.
	Defective controller board.	Unplug the sensors connection from the control board. Watch LED. If the adjustment LED stays on, replace defective controller.
Will vend from some but not all columns (allows refund or 2nd choice).	Select button, switch, or harnessing.	Check the selection switch. And trace the selection harnesses back to the control board. Replace if necessary.
	Defective encoder. ("UEnd" error should be displayed)	Watch vend cycle from under stack mechanism. Know the column you're vending from (preferable one column assigned to one selection). If the lever actuators (rabbits) do not come close to this column upon vending, change the motor assembly.
Complete sold out condition, motor rotates chain several times then says Sold Out.	Home sensor, chain or lever actuators (rabbits).	Pull chain out into middle of column and unplug power to door then replug. If the motor rotates the chain several times without finding a home position, check/change home sensor chain and lever actuators (rabbits).
Complete sold out condition	Timer is enabled or StS has been cleared (CLr)	Disable timer control or program StS
MISCELLANEOUS PROBLEMS		
Display shows sold out immediately upon pressing select button of full column (sold out not clearing).	Door switch wiring incorrectly connected or cut/pinched.	Check for cuts on the 2 door switch wires going from the switch to the control board. Also check for bad connections.
	Door Switch.	Check the door switch to see if it's defective. Use a meter to measure for continuity between Com./N.O. positions and Com./N.C. positions.
	Control Board.	Check control board by shorting across the two pins for the door switch at the (P5) pin position on the board. Does this clear the sold out condition? If it doesn't, replace the control board.
Vender Appears Dead; No Digital Display and No Lights	Defective main harness. Secondary power harness to the transformer. Lights defective.	Repair main harness or replace. Repair or replace secondary power harness. (See Interconnect Drawing, this section)

ERROR	DETAILED ERROR CODES AND PROBABLE CAUSE AS DISPLAYED	CORRECTIVE ACTION
No Digital Display; Vender Lights On	Transformer not properly connected or defective.	Check transformer connection to Check power from transformer controller board. (See Interconnect Drawing, this section) Replace if necessary.
	Defective display or display harness. harness and replace if necessary.	Check display and display
	Defective controller board.	Replace controller board.
Vender Scrolls Message On Display But Does Not Accept Money	Changer out of tune. Defective changer. Defective controller board.	See “Tuning Changer.” Replace changer. Replace board.
Vender Accepts Money But Does Not Credit	Defective changer. Defective controller board.	Replace changer. Replace board.
Vender Accepts And Credits Money But Does Not Vend (Does Not Indicate A Sold-Out.	Defective selection switch. Defective selection switch harness. Defective controller board.	Replace selection switch. Repair or replace harness. Replace controller board.
Vender Delivers Wrong Product	Vender loaded wrong. Vender space-to-sales set wrong.	Correct loading. See “StS.”
	Defective encoder.	Replace motor assembly.
	Defective controller board.	Replace controller board.
Flashing 8888’s on the LED.	Chips on control board not seated properly.	Seat the chips down properly.
	Bad LED connection.	Scrape the pins on the LED.
	Defective control board.	Unplug everything from the board except the LED and power in. If the 8888’s remain then replace the board.
	Defective components.	If the 8888’s have disappeared from the previous step, then begin plugging up harnesses one at a time. Replace whatever causes the 8888’s to reappear.
Solid 8888’s on the LED.	Defective LED.	Replace LED and/or harness.
	Defective control board.	Replace control board.
“Out of Order” on the LED.	Defective home sensor, chain assembly, or control board.	Make sure the lead rabbit is at the top of the vend motor (home position). Make sure the magnet on the lead rabbits face towards the rear of the cabinet. Check voltage at the control board (P5) position. Check for 5VDC across pins 1 and 3. The two wires will be red and black. If voltage is found check for the same voltage at the bottom of the door. This will be a three way connector. Replace whatever it is that you do not find voltage. If the correct voltage is found, replace the home sensor.
ELECTRONIC REFRIGERATION Refrigeration unit will not run. The cabinet temperature reads 255F or 17F.	Defective temperature sensor.	1. Check connection. 2. Replace temperature sensor.
Vender will not display a temperature when DSP is set to 1.	Defective temperature sensor. Defective control board	Unplug the existing sensor and plug the new sensor up and ground it to the board. Hold down the door switch and see if the LED displays a temperature. If it does not display a temperature, replace the board.

SECTION 5: MAINTENANCE

ERROR	PROBABLE CAUSE	CORRECTIVE ACTION
.Refrigeration unit will not run.	Defective unit.	Plug the unit directly to the wall outlet to see if it runs and cools. If not, then replace the unit.
Unit will only run in the compressor relay test mode. (Located under tESt)	Defective door switch.	Open and close the door to make sure the LED scrolls. If not then check the door switch, harness, or control board.
	Defective temperature sensor.	Follow the same steps detailed above about the temperature sensor.
	Wait the 5 to 10 minute delay once the door is closed.	Wait to see if the unit comes on.
	Defective control board.	If unit still does not come on, then replace the control board.
Unit will not run in the compressor relay test mode. **NOTE: Leave the compressor relay test mode on, in order to check for voltage.	Defective control board.	Check for 24 VDC across pins 1and 3 of control board. These are the large set of pins that connects with the regulator board. If no voltage or incorrect voltage is found, then replace the control board.
	Defective adapter harness.	Check wires 1 and 3 for the same voltage as above. Replace if incorrect.
	Defective regulator board.	Check for 24VDC at the top of the regulator board across pins 1 and 3. Replace if incorrect.
	Defective relay harness.	Check for 24VDC at the relay across the 2 wires with pink connectors. Replace if incorrect.
	Defective relay.	Check for 110VAC on the contact side of the relay. Replace if incorrect.
Refrigeration unit constantly runs.	Defective door switch.	Upon opening the door, the LED should not read “Ice Cold…”. If it does, then replace door switch.
	Defective control board.	Replace the control board.
	Adapter harness wired incorrectly.	Check to make sure the harness is wired 1 through 6. Correct the wires if wired wrong.
	Defective relay. Contacts are welded together	Unplug one of the wires with the pink connectors from the relay. Also unplug the 110VAC side of the relay. If the unit cuts off, then replace the relay.
	Defective main power cord.	If the unit continues to run after unplugging everything from the relay, replace the junction block.
Evaporator freeze-up.	Check the steps above if the unit runs when the door is open.	See above.
	Evaporator fan not running	Check wiring to evaporator fan. Check for 110VAC. If no voltage is found, replace the junction block. If the correct voltage is found, replace the evaporator fan motor.
	Air leaks around the inner door or port body.	Check for condensation around the inner door for air leaks. Ensure the door is tightened down far enough. Make sure the port door is not held open.
	Mullen area not properly sealed (area where the harnesses enter the cabinet).	Apply permagum.
	Drain tube clogged.	Check to make sure water can freely flow through the drain tube.
	SETP set too low.	Increase the SETP to 40°F
	Refrigeration unit not charged properly.	Replace unit.


START HERE
is unit running with door closed?
yes
open door & record errors*
did unit quit running upon opening door?
yes
no
open door & record errors*
plug unit into wall outlet
unplug 1 of the 2 white relay wires (st1 & 2) from the refrig. relay
did unit quit running?
no
replace refrigeration relay
go to final phase
yes
look for a short in one of these two white wires
is a short found?
yes
replace refrigeration relay
go to final phase
no
plug all harn. back. unplug connection at regulator board for the ref. relay
is refrig. unit off?
yes
no
did unit start and continue to run?
no
replace unit
go to final phase
yes
use controller "cnp" relay test
did unit start and continue to run?
no
check voltage at two white relay wires (st1 & 2)**
yes
Is the setp 35 f?
yes
change "dsp" setting to "1" to show evap. air temp. on display
is the temp. shown accurate?
no
check temp. sensor harness for cuts
yes
change main control board
go to final phase
is harness cut, smashed or disconnect.?
yes
repair harness or replace temp. sensor
go to final phase
no
replace defective temperature sensor
is the temp. shown accurate?
no
repair harness or replace temp. sensor
go to final phase
yes
go to final phase
do you get 24-28 DC volts?
yes
Check for 110 V at power cord
replace refrigeration relay
go to final phase
no
check voltage between pins 1 & 3 from regulator board** to relay
do you get 24-28 DC volts?
yes
Check Regulator Board Harness
check harness and connections between reg. board and relay
fix faulty relay harnessing
go to final phase
no
check voltage between pins 1 & 3 from main board** to regulator board
do you get 24-28 DC volts?
yes
replace regulator board
go to final phase
no
replace main control board
go to final phase
is the evaporator fan motor running?
yes
no
check voltage to the evap. fan motor
is the evap motor receiving 110?
no
replace main wiring harness
go to final phase
yes
replace evaporator fan motor
go to final phase
plug all harn. back. unplug connection at main cont. board for the reg. board
is refrig. unit off?
yes
replace main control board
go to final phase
no
replace regulator board
go to final phase
is the evap. fan blade intact?
yes
no
check to ensure that the evap. coils are not frozen (if so, thaw)
repair/replace evap. fan blade and/or motor
go to final phase
change "dsp" setting to "1" to show evap. air temp. on display
Setp 35 f
yes
is the temp. shown accurate?
no
check temp. sensor harness for cuts
program correct settings
no
is this setting correct?
yes
go to final phase
replace defective temp. sensor
go to final phase
no
is harness cut, smashed or disconnect.?
yes
repair harness or replace temp. sensor
go to final phase
go to final phase
ELECTRONIC REFRIGERATION TROUBLESHOOTING FLOW CHART
*normal errors are "cnp" and "cold" for this type of problem.
**for voltage to be read. you must first enable the compressor (via the "rely" mode.
***for this type of problem it is recommended that the settings be setp 35 f.
Start
check "setp 35 f" settings and make sure that "dsp" is set to "1" to track the ref. units temperature progress
close vendors door and wait approx. 5 minutes to see if ref. unit comes on
change main control board
no
did the unit come on?
yes
wait to see if the ref. unit stops when the display registers the "cuto" setting 28 f
FINAL PHASE
change main control board
no
did the unit quit running?
yes
problem solved
start final phase
Rev. B 6/99

SECTION 6: OPTIONAL EQUIPMENT

G-III Options

Kits For Vending Additional Packages

These kits were the latest available at the time of publication of this manual. For the latest information on kits that will enable the G-III to vend other packages, please contact Royal Vendors' Customer Service Department.

SURGE/BOLT 20 OZ. PACKAGE

In general, all G-IIIs with serial numbers after 1415XX-XXXX are capable of vending the Surge/Bolt package as delivered from the factory. If you are unsure as to the configuration of your vender or want to order the Surge/Bolt package kit for earlier venders, please contact Royal Vendors' Customer Service Department.

POWERADE 20 OZ. PLB

In general, all G-IIIs with serial numbers after 1381XX-XXXX are capable of vending the Powerade 20 oz. PLB package as delivered from the factory. Some earlier serial number venders are also Powerade capable. If you are unsure as to the configuration of your vender or want to order the Powerade kit for earlier venders, please contact Royal Vendors' Customer Service Department.

EVIAN AND NAYA 500 ml (16.9 oz.) WATER BOTTLES

All G-IIIs, no matter when they were manufactured, will require a kit to vend the Evian and Naya 500 ml water bottles. Please contact Royal Vendors' Customer Service Department for information.

Hand Held Computer (HHC)

The G-III Vender interfaces with the Direct Exchange/Uniform Communications Standard (DEX/UCS) and DEX/UCS Compatible Hand-held Computers (HHC). The HHC may be used to program the G-III Vender's vend price and (STS), as well as other pertinent MIS and security information. The HHC interfaces to the vender's controller board via the computer socket located near the top of the main door. Once the HHC is connected and meets initial communication requirements, it may then be used to program the G-III Vender. For more information on the HHC, see separate HHC manual.

External MIS Plug

An external MIS Plug is available with Kit #842099

Install in accordance with kit instructions.

Light Kit

Kit# 141160

Heater Kit

Kit# 141130

Override Key Switch Kit

Kit# 231107

U-Hinge Retrofit Kits

Kit# 164110, Black
Kit# 294110, Red

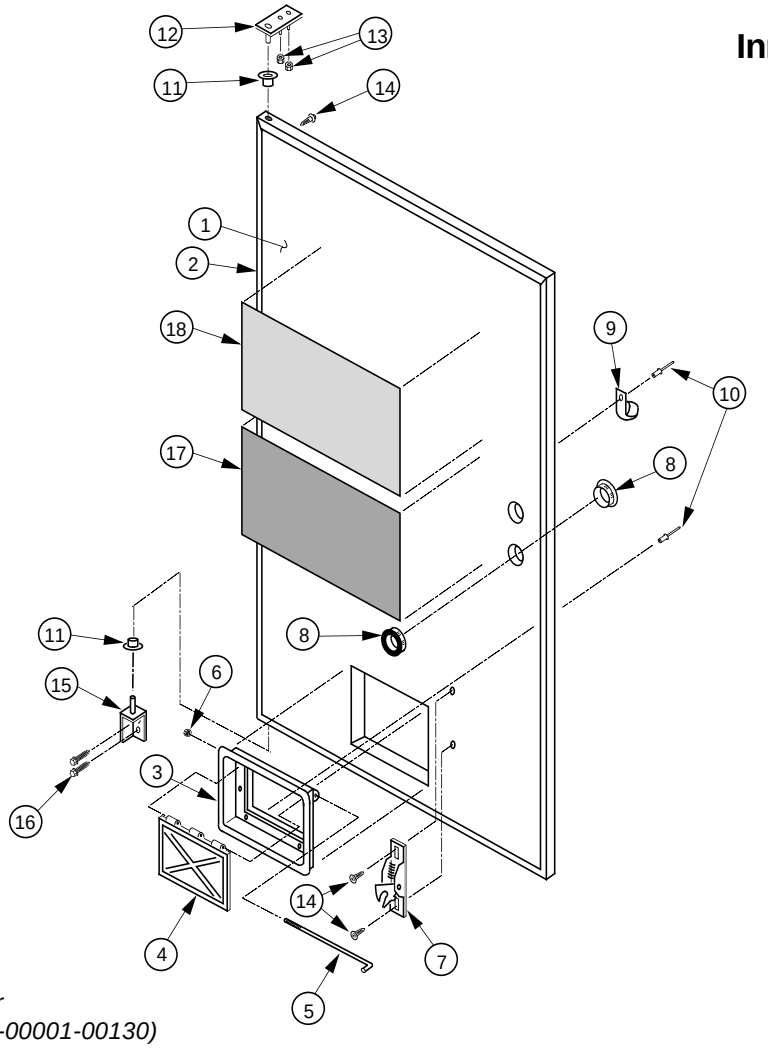
Enclosed Coin Cup Kits (Landscape Venders)

Kit# 231575, Narrow Port
Kit# 303140, Wide Port

exploded views

SECTION 7: EXPLODED VIEWS

Inner Door Assembly

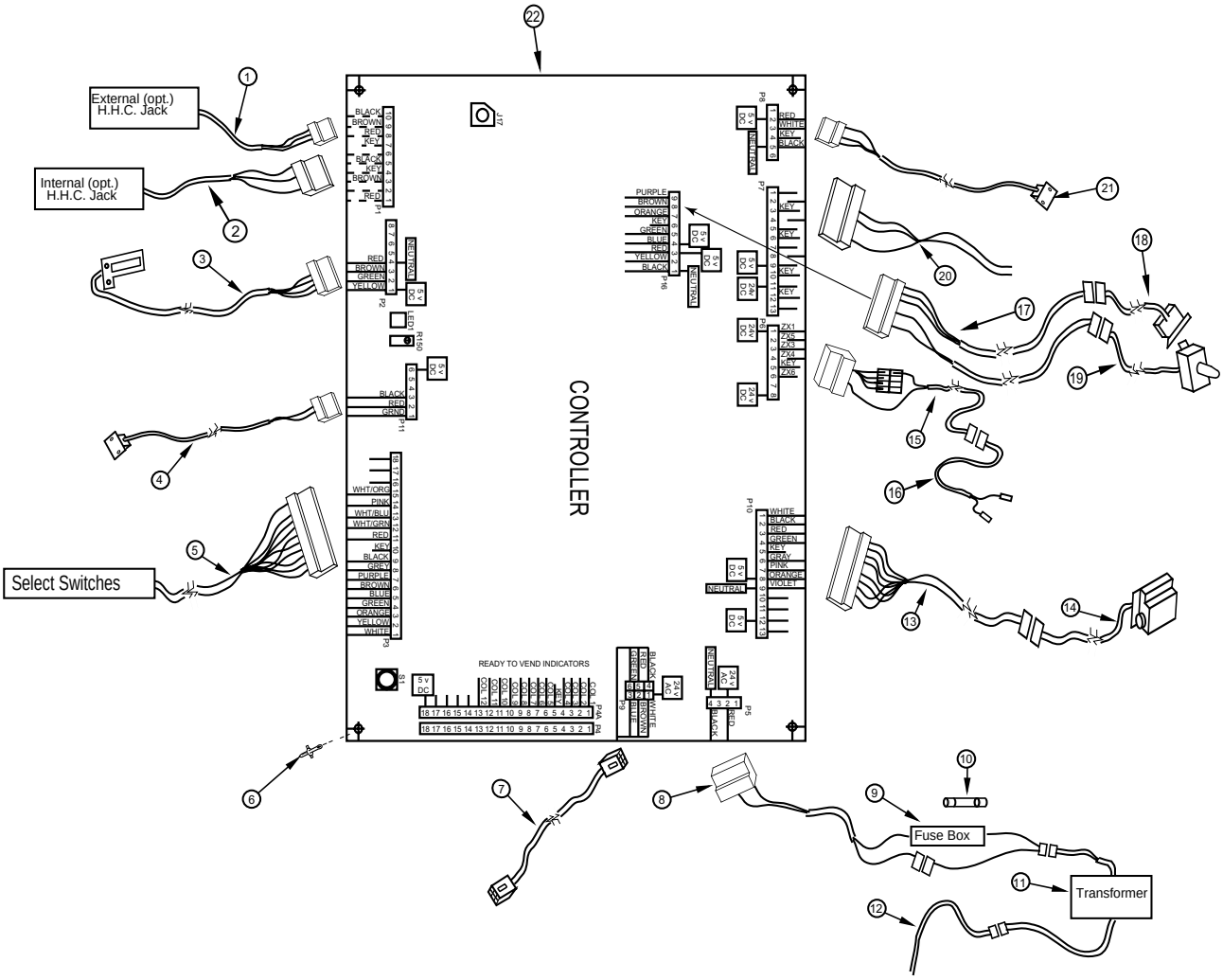


**1504 & after*
(except 1504-00001-00130)

Item No.	Description	Part Number	Qty.
1	Inner Door Assy, 72”	211604	1
	-79”	210606	1
	-72” Narrow*	289610	1
	-79” Marketing*	290605	1
	-72” Marketing*	291605	1
	-72” Narrow Marketing*	293605	1
2	Gasket, Inner Door, 72”	815032	1
	-79.5”	815033	1
3	Port Door Frame	815191	1
4	Port Door	815192	1
5	Port Door Rod	811028	1
6	Lock Nut, #6-32	905006	1
3-6	Port Door Assy	810053	1
7	Burst Open Latch	812002	1
8	Bushing, 1.38”	916003	2
9	Clamp, Cable, 1”	916004	1
10	Rivet, 3/16” Diameter	908002	2
11	Bushing, Inner Door	815026	2
12	Hinge, Inner Door (Top)	010520	1
13	Nut, #8-32	905001	2
14	Screw, Self-drilling, #8-18x1/2”	902001	50
15	Hinge, Bottom, Door	010550	1
16	Bolt,1/4-20x1”	901003	2
17	Interconnect Decal, G-III	931356	1
18	Vender Controller/Space-To-Sales, Decal, G-III	931225	1
	-E.V.S.	931352	1

SECTION 7: EXPLODED VIEWS

KO Control Board and Wiring

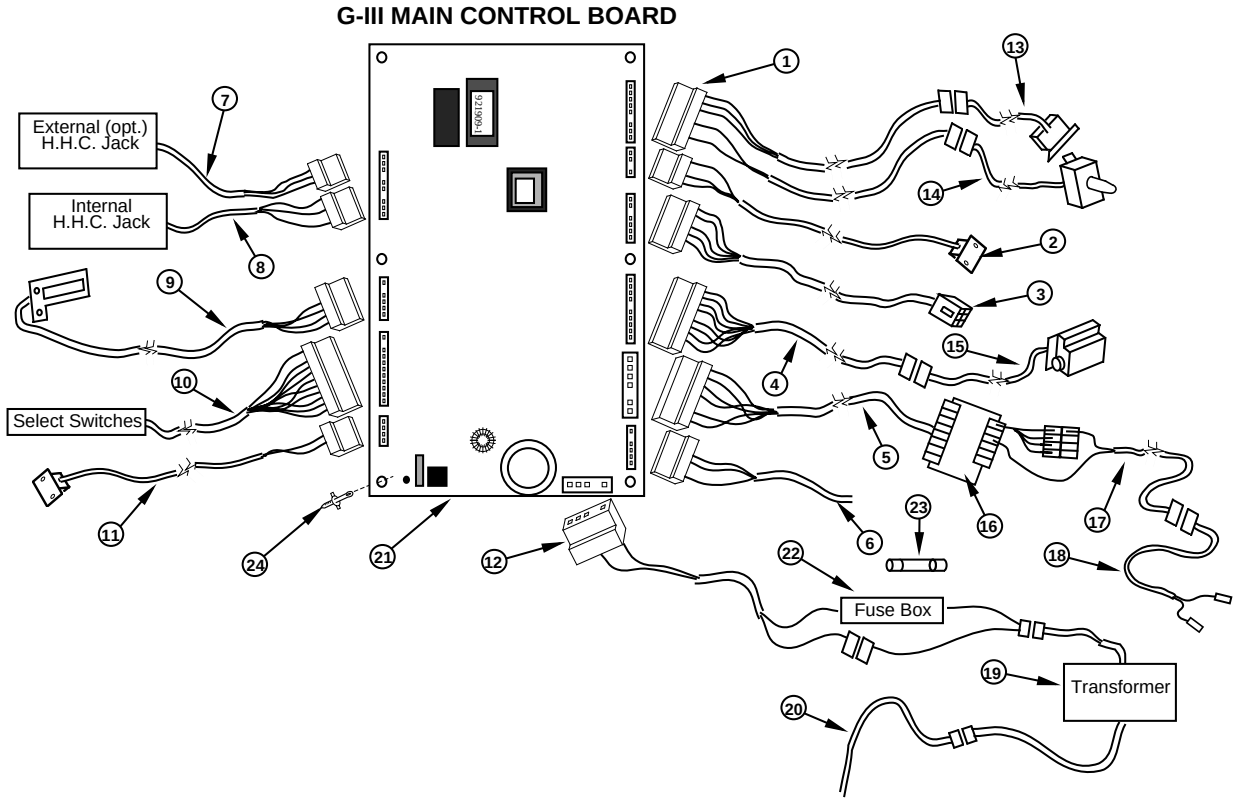


Item No.	Description	Part Number	Qty.
1	External Dex Harness (Opt)	842095	1
2	Internal Dex Harness (Opt)	842148	1
3	L.E.D. Harness	842171	1
4	Chute Sensor Harness	836004	1
5	Selection Switch Harness		
	13 Select Harness	842216	1
	9 Select Harness	842044	1
	Gas Island Harness	842204	1
6	Stand Off	916066	5
7	Serial Changer Extension Harness	842244	1
8	Fuse to Board Harness	842146	1
9	Fusebox Assembly	842219	1
10	Fuse, 3-amp	942111	2
11	Transformer Assy.	842147	1
12	Main Wiring Harness	842151	1
	Gas Island Harness	842207	1

Item No.	Description	Part Number	Qty.
13	Vend Motor Harness	842083	1
14	Motor Assembly	210727	1
15	Refrigeration Relay Harness (Door Side)	842236	1
16	Refrigeration Relay Harness (Cabinet Side)	842237	1
17	Door Switch/Home Sensor Harness	842080	1
18	Home Sensor Harness (Cab)	842052	1
19	Door Switch Harness		
	(Prior to 1521)	842047	1
	(1521 & After)	842228	1
	(1521 & After) Marketing	842229	1
20	Options	Call RV Cust. Srvc.	
21	Temp. Sensor Harness	822030	1
22	Control Board	836125	1

SECTION 7: EXPLODED VIEWS

EVS Control Board and Wiring

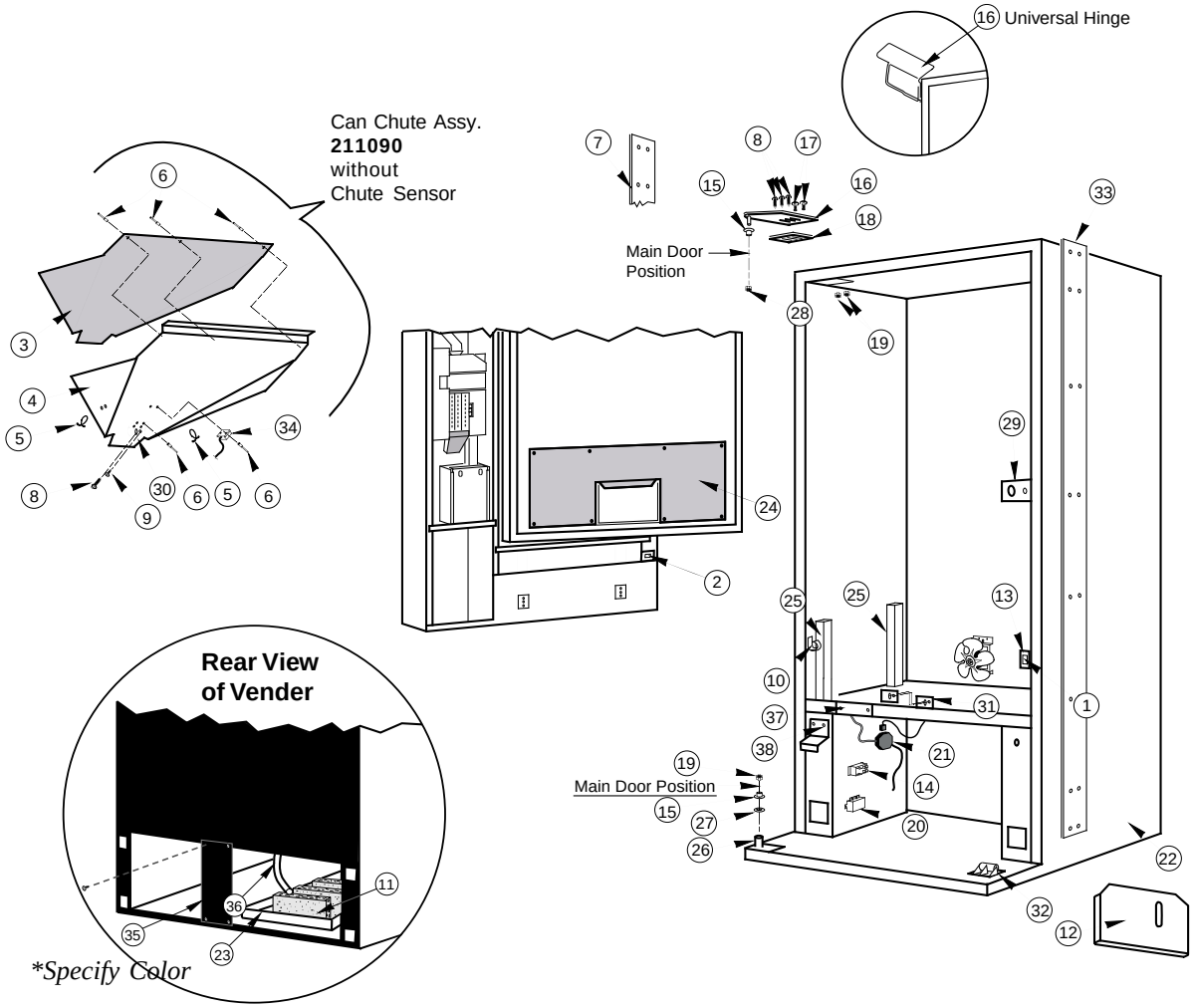


Item No.	Description	Part Number	Qty.
1	Harness, Home Sensor/Door Switch	842080	1
2	Temperature Sensor	822030	1
3	Harness, MDB Serial	842079	1
4	Harness, Vend Motor	842083	1
5	Harness, Regulator Bd	842273	1
6	Options	Call RV Cust. Srvc.	
7	MIS External DEX Harn.	842095	1
8	Jack, Internal HHC	842110	1
9	Harness, LED	842081	1
10	Harness, Sel. Switch, 13 select	842216	1
	-9 select	842044	1
	-Gas Island	842204	1
11	Sensor, Delivery Chute	836004	1
12	Harness, Fuse to Board	842146	1

Item No.	Description	Part Number	Qty.
13	Home Sensor Assy.	842052	1
14	Harness, Door Switch	842047	1
	-1521 & after	842228	1
	-1521 & after (Marketing)	842229	1
15	Motor Assembly	210727	1
16	Relay, Reg. Board	836081	1
17	Harness, Refrigeration Relay, Door Side	842235	1
18	Relay, Refrigeration Harness, Cabinet Side	842237	1
19	Transformer Assy.	842147	1
20	Harness, Main Wiring (117v)	842151	1
	-Gas Island	842207	1
21	Control Board	836109	1
22	Fusebox Assy.	842219	1
23	Fuse, 3-amp	942111	2
24	Stand Off	916066	5

SECTION 7: EXPLODED VIEWS

Cabinet Assembly



Cabinet Back Screen Mesh, Wide, 141001
-Narrow, 258004
Cabinet Back Screen Steel, Wide, 010215
-Narrow, 258005

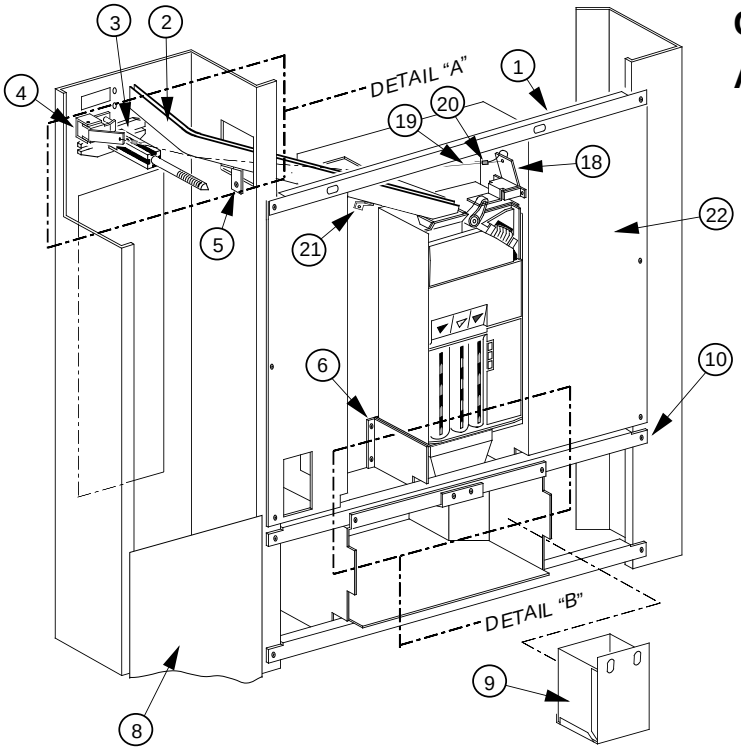
SECTION 7: EXPLODED VIEWS

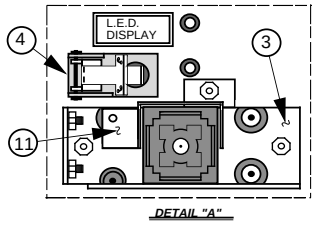
Item No.	Description	Part Number	Qty.
1	Door Switch (Prior to 1521)	835003	1
2	Door Switch (1521 & after)	835019	1
3	Delivery Chute Liner	815261	1
4	Delivery Chute	210002	1
5	Clip, Tension	916059	2
6	Rivets, 1/8"	908004	17
7	*Left Vandal Panel 72"	142001	1
	*-79"	141002	1
	-79", UHR	141022	1
	-72", UHR	142022	1
8	Bolt, 1/4-20 x 1"	901003	7
9	Screw, #8-18 x 1/2"	902004	11
10	Cable Clamp	916004	1
11	Sponge	815037	3
12	Condenser Baffle	010403	1
13	Bracket, Door Switch	010045	1
14	Relay	836065	1
15	Bushing, Nyliner	916012	2
16	Hinge, Top Left	810002	1
	-Universal Hinge, Black	164550	1
17	Bolt, Carriage, 1/4-20x1	901008	2
18	Spacer, Top Hinge	010016	1
19	Keps Nut, 1/4-20	905002	3
20	EMI Filter	842061	1

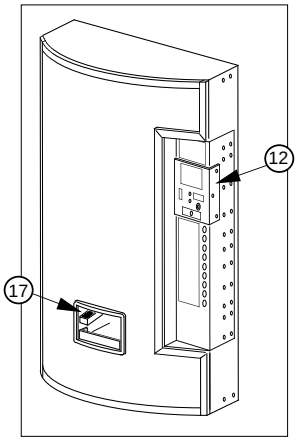
Item No.	Description	Part Number	Qty.
21	Main Wiring Harness	842063	1
22	Cabinet Assy., 79.5"	210010	1
	- 72"	211001	1
23	Condensate Pan	815368	1
24	Inner Door Cover Assy.	815259	1
25	Support, Rack	281001	3
26	Hinge, Bottom Main Door	010040	1
27	Washer, Flat	904002	1
28	Keps Nut, 3/8-16	905007	1
29	Latch Strike Assy.	010030	1
30	Bracket, Chute Locator	141014	1
31	Bracket, Cabinet Chute	010017	1
32	Door Roller Kit	141180	1
33	*Vandal Panel, Cabinet, Right, 79.5"	012122	1
	*-72"	011002	1
34	Chute Sensor	836004	1
35	Rear Baffle	010037	1
36	Drain Tube	815134	1
37	Wiring Cover Plate	010002	1
38	Door Switch Actuator	231009	1
•	1/4 Bolt for Latch Strike	901003	3
•	Drain Pan Hose Clip	906025	1

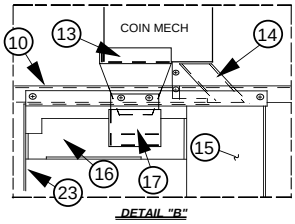
SECTION 7: EXPLODED VIEWS

Center Door Changer Assembly (for the Narrow Port)









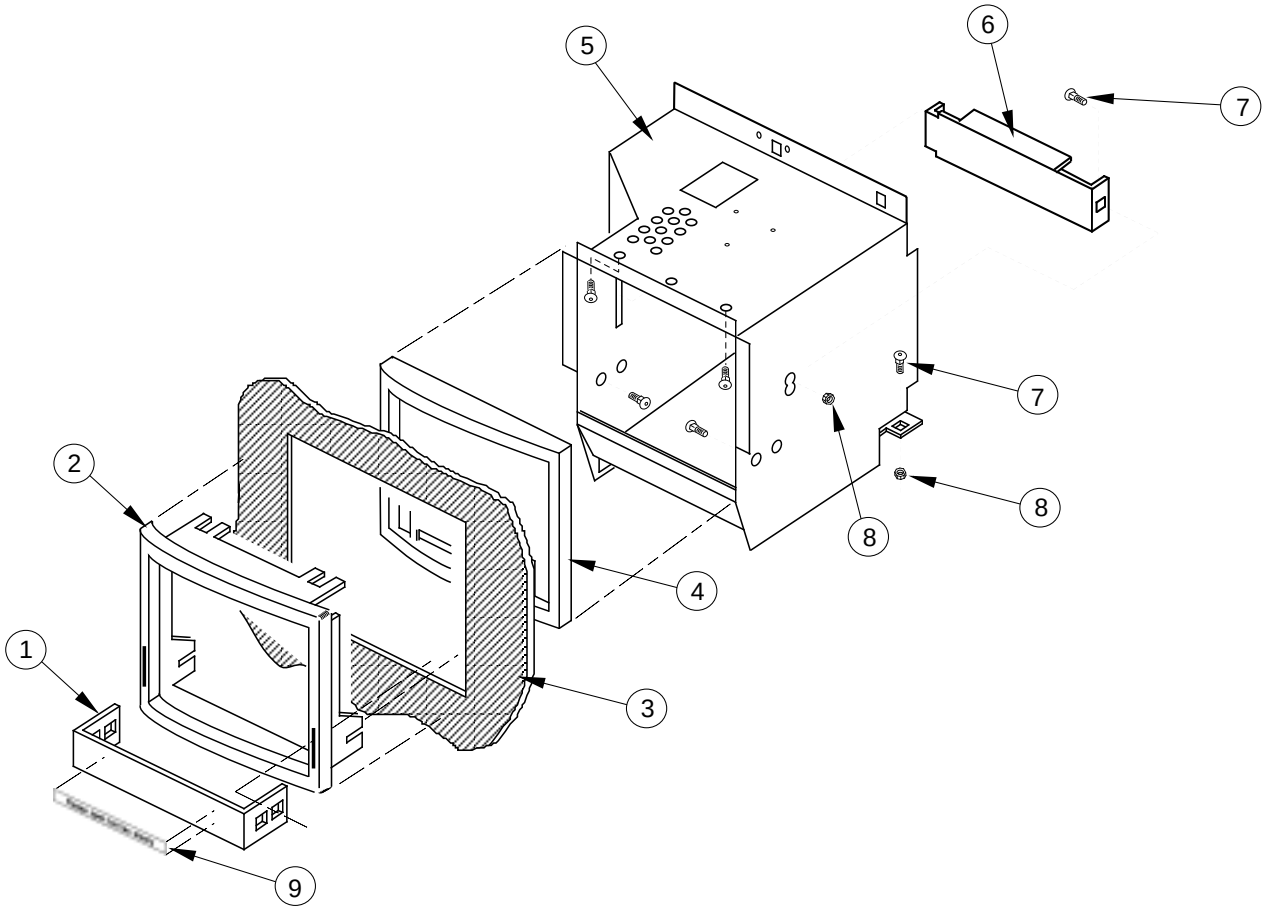
Item No.	Description	Part Number
1	Changer Vault Brace	161518
2	Coin Chute Assy., CDC, 79.5"	161590
	-72"	162540
3	T-Handle Brace (See Detail A)	141513
4	Button Lever Assembly	161594
5	Coin Chute Bracket, 79.5"	161527
	-72"	162502
6	Hopper Mounting Bracket	161515
8	Select Panel Plate	161512
9	Plastic Coin Box, CDC	815347
10	W/A Port Brace	161541
11	Lock Cylinder Cover	161532
12	Coin Insert Assembly, Coke, Electronic, CDC, 79.5"	161930
	Coin Insert Assembly, Coke, Electronic, CDC, 72"	162920
13	Coin Hopper	815015
14	Coin Box Coin Chute W/A	231519

Item No.	Description	Part Number
15	Coin Box Housing, CDC	273503
16	Anti-Theft Plate, CDC	231504
17	Coin Cup, CDC (after 1349)	231505
	-prior to 1349	161505
18	Coin Return Lever Assembly	161593
19	3/64 Diameter Cable	911032
20	Cable Sleeve (at each end)	906015
21	Support Bracket/Coin Chute	161537
22	Changer Vault W/A	161523
23	Port W/A, CDC	231510
•	Changer Vault Door (not shown)	161534
•	Change Label, CDC (not shown)	931341
•	Label, Open Bottle Slow (not shown)	931355
•	Decal, Sec. Plate, CDC (not shown)	845467
•	Coin Deflector	161526

** Coin box w/a CC CDC 6 in. = part no. 161570*
** Coin box w/a GIII CDC 8 in. = 231550*

SECTION 7: EXPLODED VIEWS

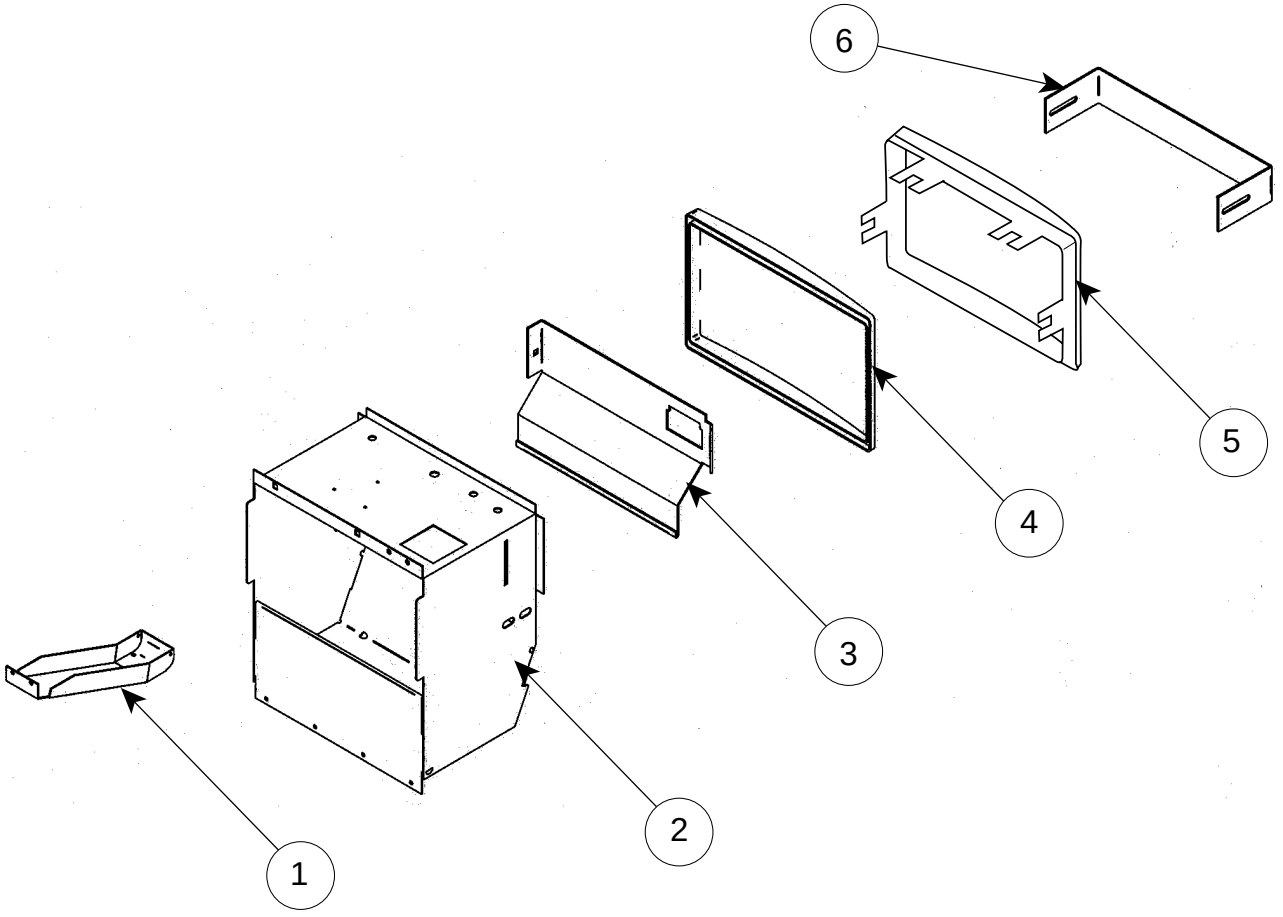
Narrow Port Assembly



Item No.	Description	Part Number	Qty.
1	Package Stop	010508	1
2	Port Trim	815019	1
3	Sign, 79.5” (Can Graphics)	----------	1
	Sign, 72” (Can Graphics)	----------	1
4	Port Spacer	815020	1
5	Port Body Assy., Welded	210510	1
	-Marketing	290540	1
6	Anti-theft Plate, Non CDC	210505	1
	-CDC	231523	
	-Marketing	290519	1
7	Bolt, 1/4-20 x 1/2”	901007	9
8	Nut, 1/4-20	905002	9
9	Label, Bottle, Door Port (Anti-Foaming)	931355	1

SECTION 7: EXPLODED VIEWS

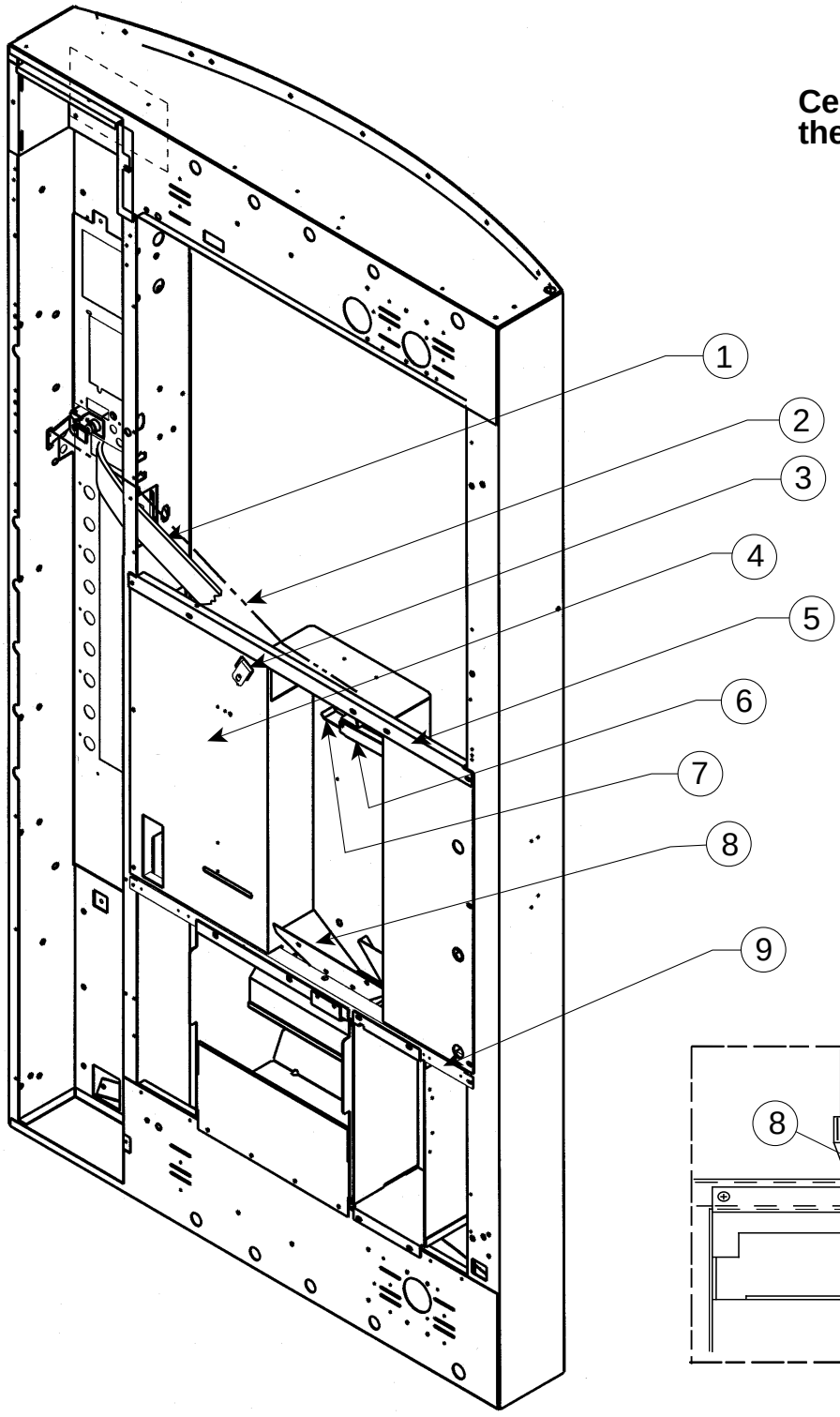
Wide Port Assembly

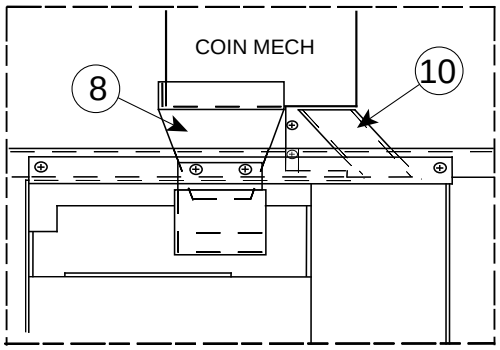


Item No.	Description	Part Number	Qty.
1	Coin Cup	231505	1
2	Port Body Assy., Welded	303540	1
	-Non CDC	305510	1
3	Anti-theft Plate, CDC	303503	1
	-Non CDC	305501	1
4	Port Spacer	815248	1
5	Port Trim	815249	1
6	Package Stop	273508	1

SECTION 7: EXPLODED VIEWS

Center Door Changer for the Wide Port





DETAIL "A"

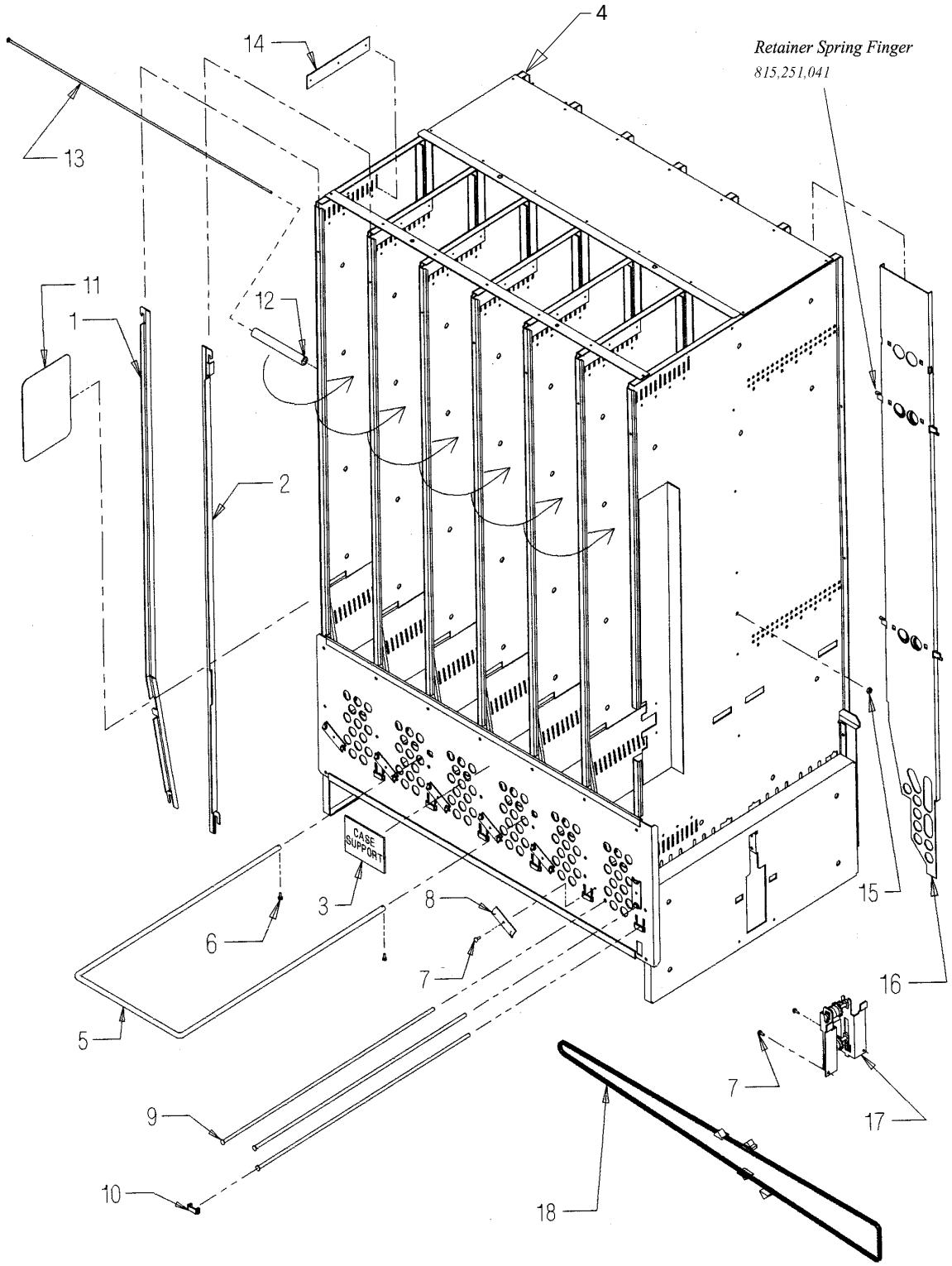
Item No.	Description	Part Number
1	Coin Chute Assy., CDC, 79.5" -72"	161590 162540
2	Cable	911032
3	Coin Chute Support, WP	303507
4	Changer Vault W/A	303506
5	Changer Vault Brace	161518

Item No.	Description	Part Number
6	Coin Return Hinge Bracket	290543
7	Coin Return Lever	161507
8	Coin Hopper, WP	303502
9	Port Brace	010515
10	Coin Box Chute, WP	303501

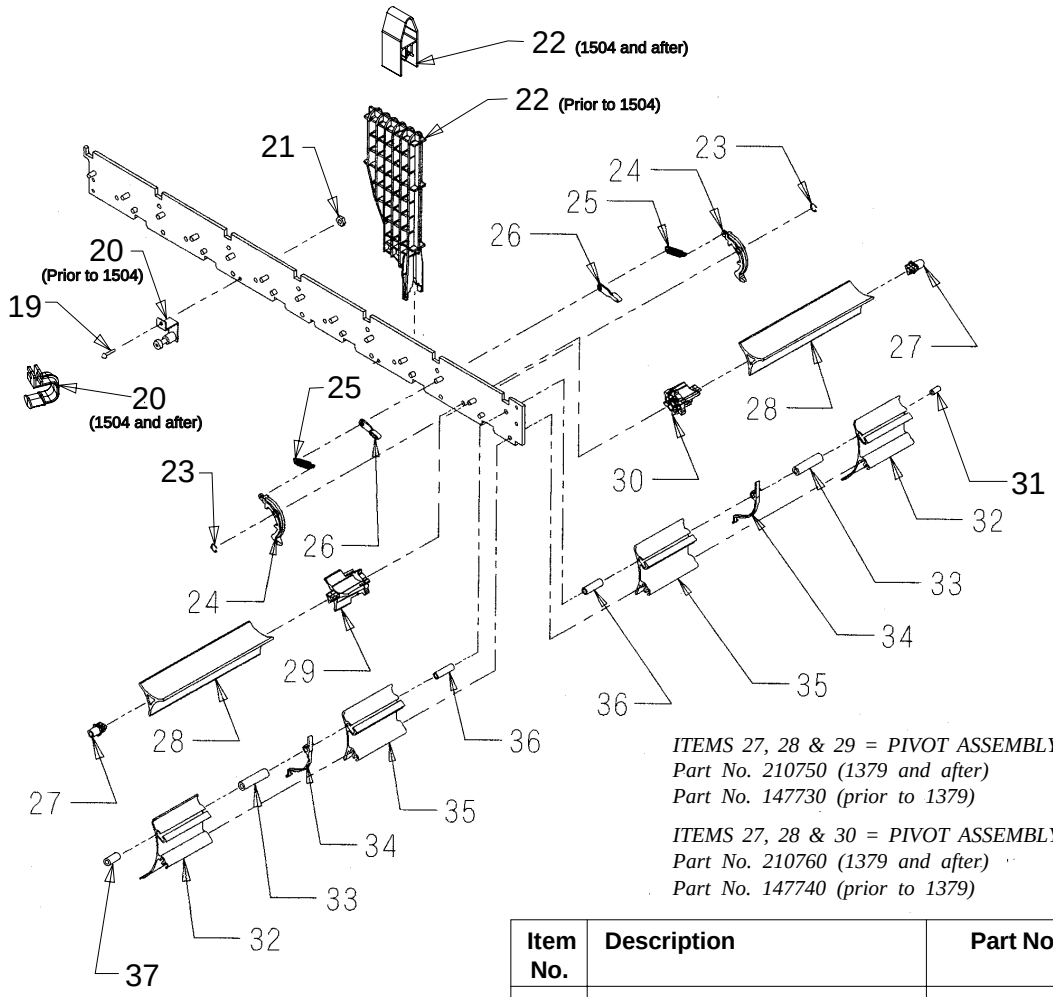
SECTION 7: EXPLODED VIEWS

Vend Mechanism Assembly

Prior to 1504



SECTION 7: EXPLODED VIEWS



ITEMS 27, 28 & 29 = PIVOT ASSEMBLY, FRONT
Part No. 210750 (1379 and after)
Part No. 147730 (prior to 1379)

ITEMS 27, 28 & 30 = PIVOT ASSEMBLY, REAR
Part No. 210760 (1379 and after)
Part No. 147740 (prior to 1379)

***1504 & after (except 1504-0001-00130)**

Item No.	Description	Part No.	Qty.
1	Retainer, Front, L, 79.5	210745	6
	- 72"	211712	6
2	Retainer, Front, R, 79.5"	210746	6
	-72"	211713	6
3	Decal, Case Support	931195	1
4	Vend Stack Assembly 79.5	210725	1
	-72	211711	1
5	Case Support	811026	1
6	Screw, Self-drilling*	902004	2
7	Screw, #8-32x3/8"	901011	11
8	Rod Retainer, Rotating	810046	7
9	Shaft, Pivot/Product Stop	803032	18
10	Rod Retainer, Sliding	915184	6
11	Sheet, Anti-friction	915197	24
12	Spacer, Column	915194	6
13	Bolt, Rack Retainer	811027	1
14	Rubber Strip	915199	7
15	Lock Nut, Retainer, #8-32	905004	1
16	Retainer Assy., Rear, 79.5"	210707	6
	- 72"	211714	6
17	Idler Bracket Assembly	210726	1
18	Chain/Actuator Assembly	210730	1

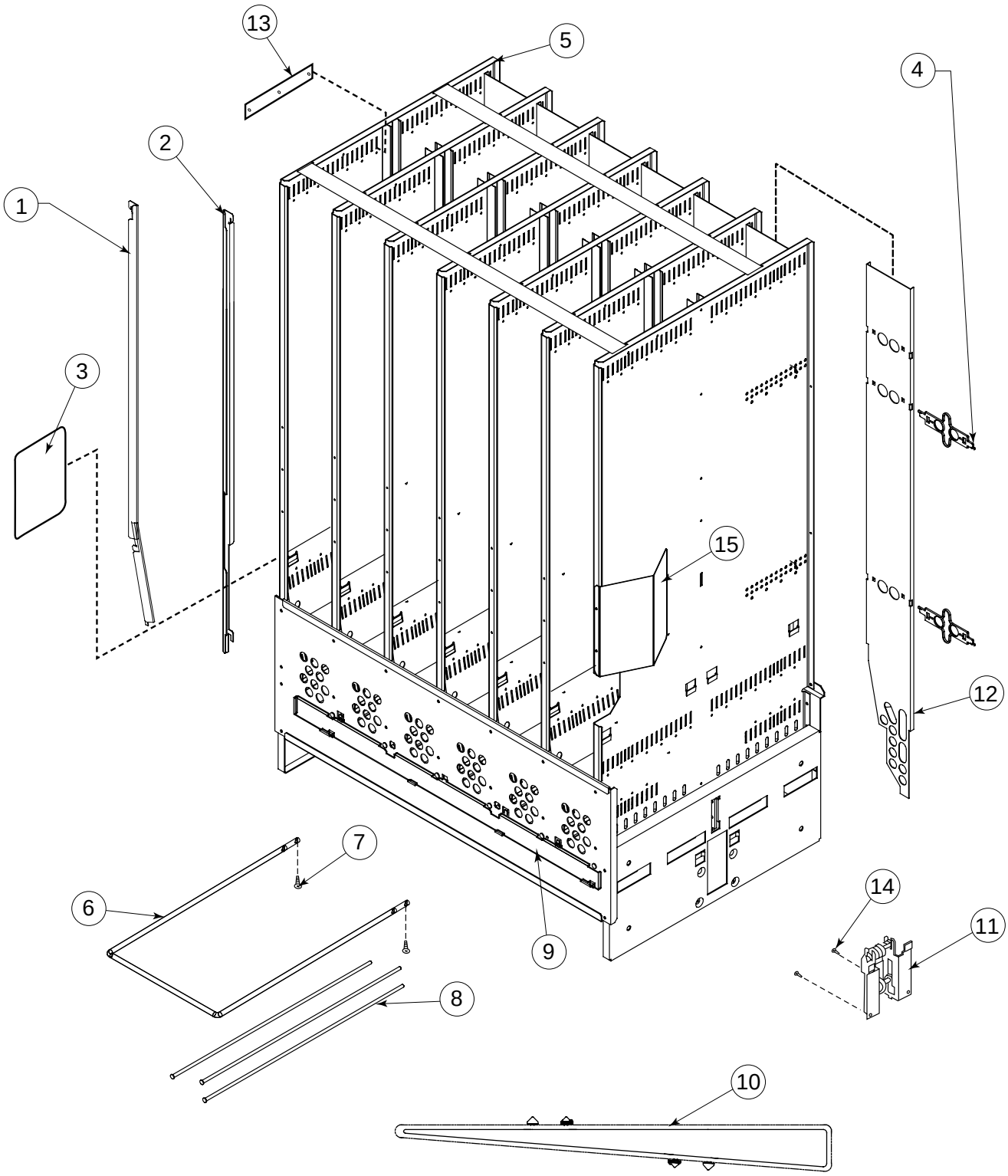
**Clip, Hitch-pin (part no. 906,023) in units 1435 and after.*

Item No.	Description	Part No.	Qty.
19	Screw, Stab., #6-32x1.5" (prior to 1504)	901023	2
	-**Screw 1.25" (1504 & after)	901041	2
20	Stabilizer Assembly (prior to 1504)	210744	2
	-**Stabilizer (1504 & after)	915266	2
21	Lock Nut, Stabilizer, #6-32 (prior to 1504)	905006	2
	-**Nut (1504 & after)	905018	2
22	Insert, Divider (prior to 1504)	815242	12
	-**Insert, Divider (1504 & after)	815252	12
23	E-ring, Release Lever	906013	12
24	Release Lever	915125	12
25	Spring, Release Lever	914008	12
26	Pawl, Anti-Rotation	915188	12
27	Bearing, Pivot	915206	12
28	Pivot	813010	12
29	Pivot End, Front	915207	6
30	Pivot End, Rear	915208	6
31	Spacer, Prod. Stop, .5"	915181	6
32	Product Stop, Long Adjustable	813016	12
33	Spacer, Prod. Stop, 1.85"	915250	12
34	Spring, Anti-tilt	915186	12
35	Product Stop, Short Adjustable	813006	12
36	Spacer, Prod. Stop, 1.25"	915182	12
37	Spacer, Front, 1"	915264	12

SECTION 7: EXPLODED VIEWS

Vend Mechanism Assembly

1504 and after: ***(except 1504-00001-00130)***



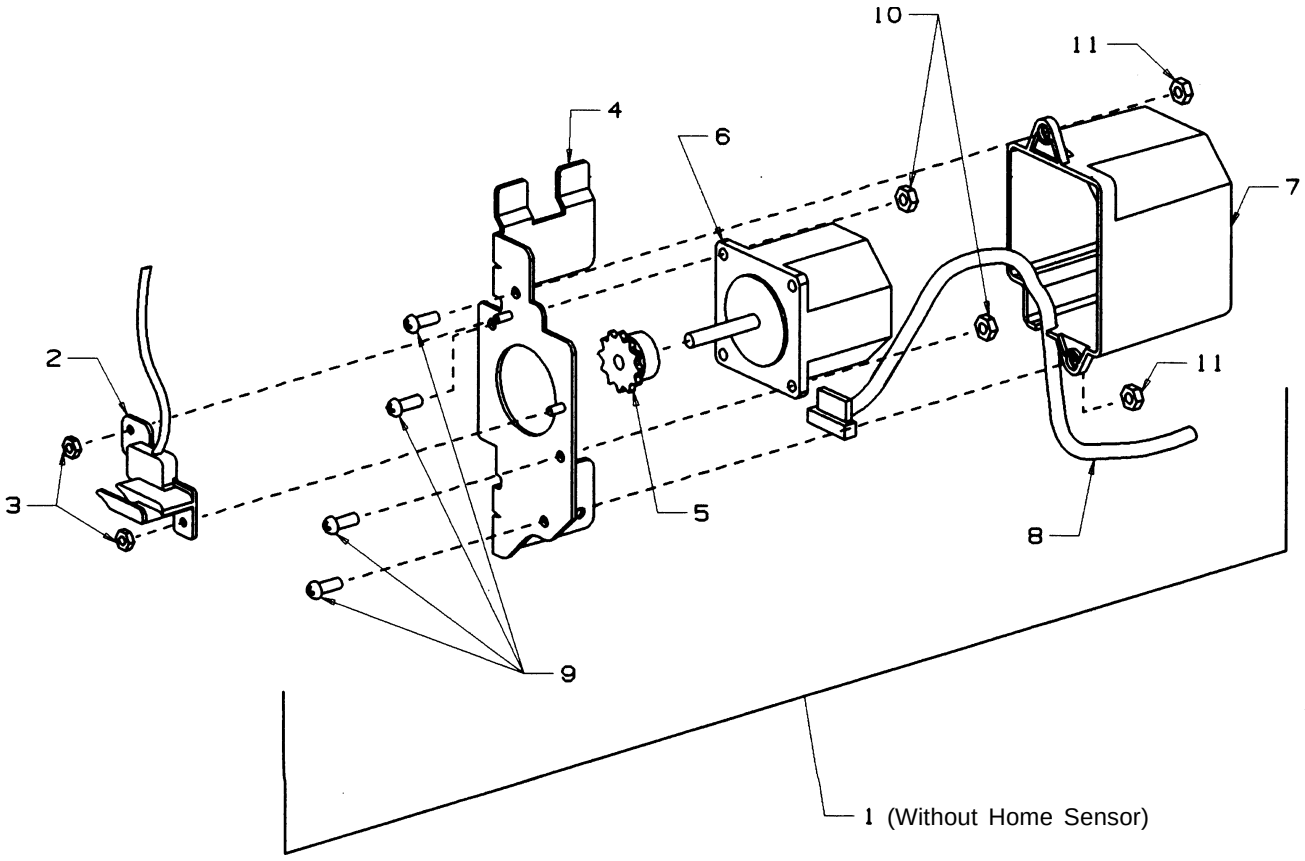
1504 and after:

(except 1504-00001-00130)

Item No.	Description	Part No.	Qty.
1	Retainer, Front, L, 79.5”	210745	6
	- 72”	211712	6
2	Retainer, Front, R, 79.5”	210746	6
	-72”	211713	6
3	Sheet, Anti-friction	915197	24
4	Retainer Spring Finger	815251	12
5	Vend Stack Assy, 79.5	210738	1
	-72	211711	1
	-72 Narrow	289610	1
6	Case Support	811026	1
7	Screw	902004	2
8	Shaft, Pivot/Product Stop	803032	18
9	Rod Retainer	281709	1
	-Narrow	283704	1
10	Chain/Actuator Assembly	210730	1
	-Narrow	283710	1
11	Idler Bracket Assembly	210757	1
12	Retainer Assy., Rear, 79.5”	210707	6
	-72	211714	6
13	Rubber Strip	915199	7
14	Screw, #8-32x3/8”	901011	4
15	Stack Stiffener, Wide	281704	1
	-Narrow	283702	1

SECTION 7: EXPLODED VIEWS

Vend Motor Assembly



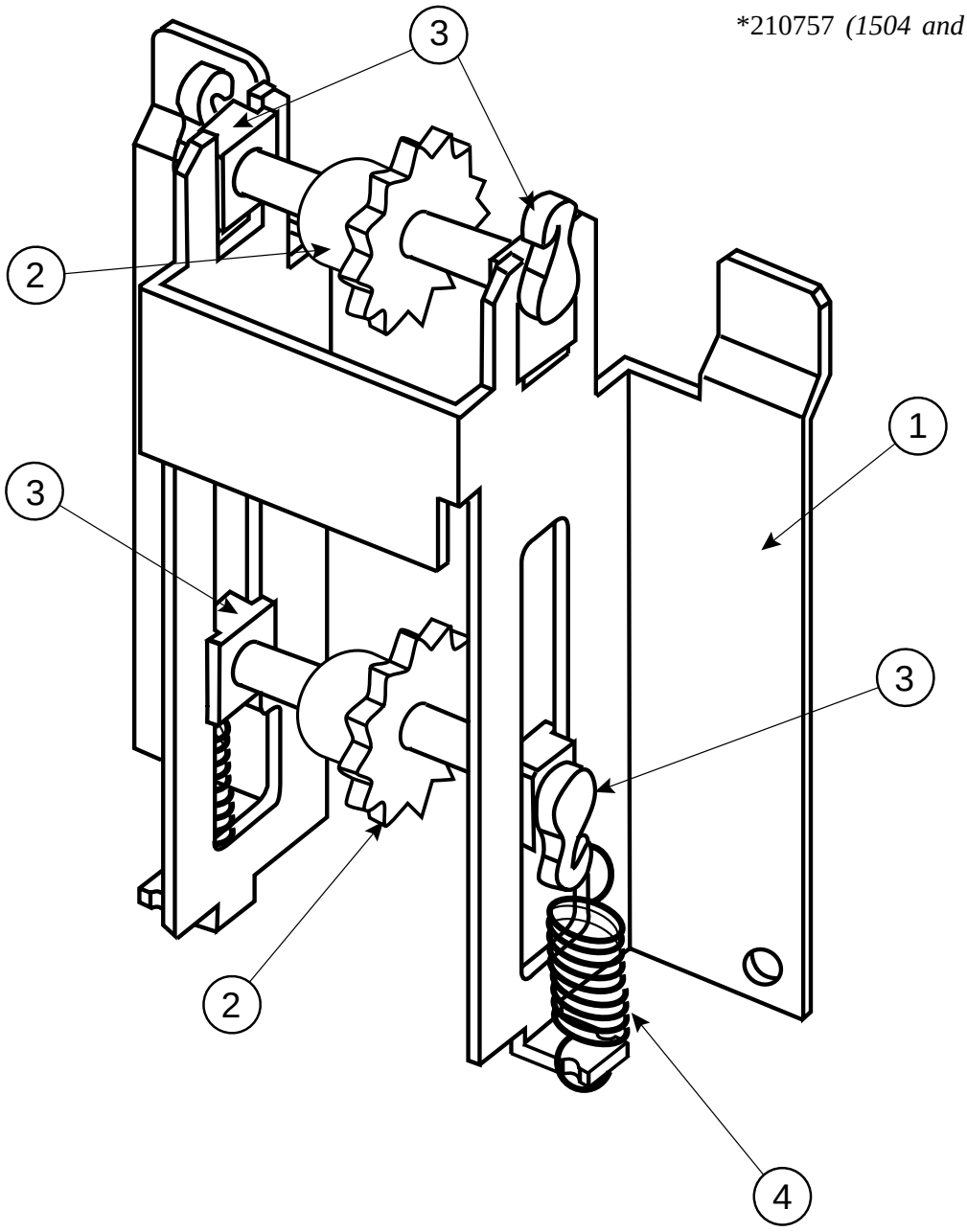
Item No.	Description	Part Number	Qty.
1	Vend Motor Assembly	210727	1
2	Home Sensor Assembly	842052	1
3	Lock Nut, Home Sensor, #6-32	905006	2
4	Bracket, Motor	----	1
5	Sprocket	916034	1
6	Motor and Encoder	----	1
7	Cover, Motor	----	1
8	Harness, Motor/Encoder	----	1
9	Screw, Machine, #10-24x.50”	----	4
10	Nut, #10-24	----	2
11	Lock Nut, #10-24	----	2

SECTION 7: EXPLODED VIEWS

Idler Bracket Assembly

210726 *(Before run 1504)*

*210757 *(1504 and after)*

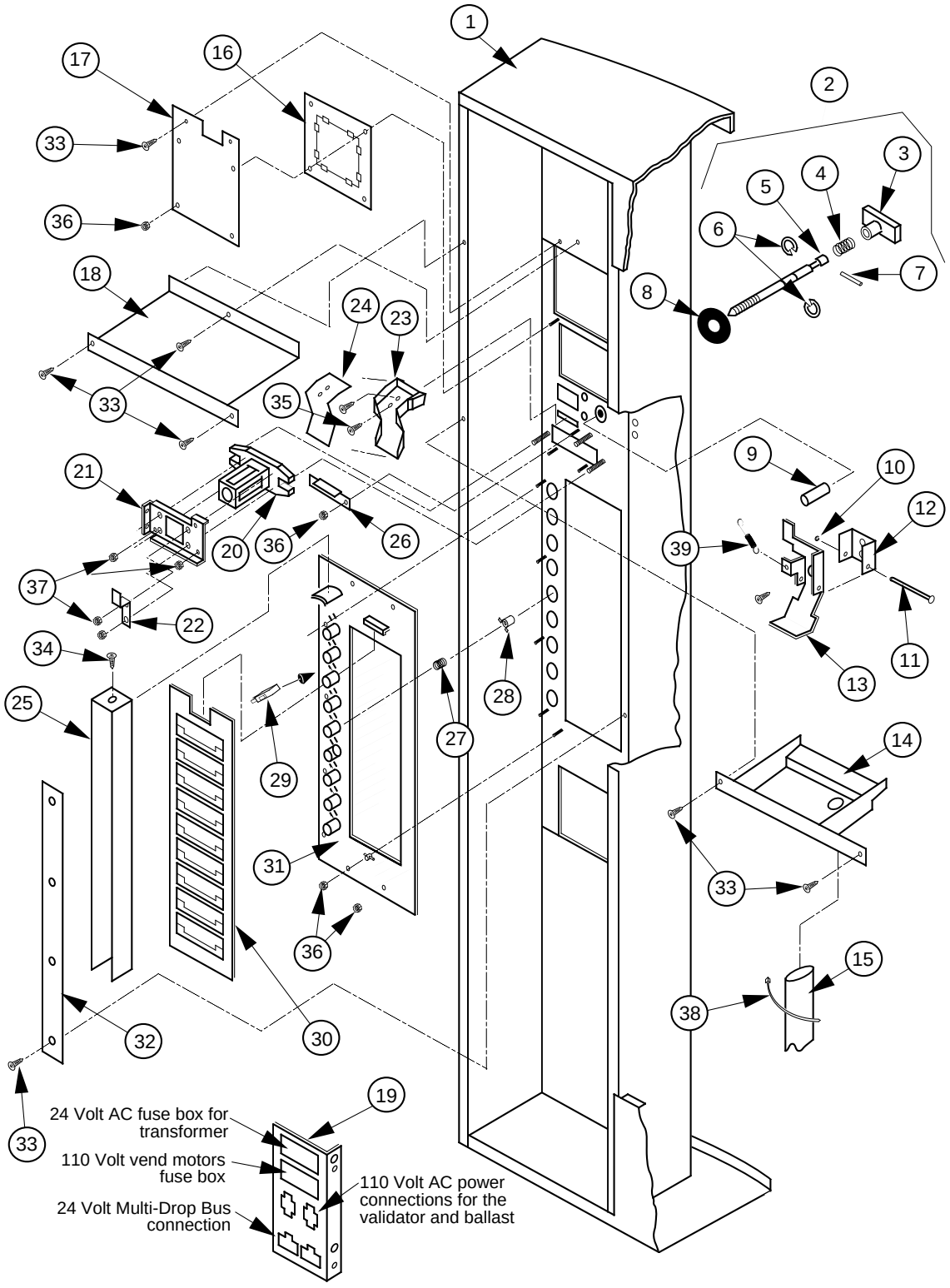


1504 and after *(except 1504-00001-00130)

Item No.	Description	Part Number	Qty.
1	Bracket, Idler (before run 1504)	210703	1
	-*Bracket, Idler (1504 & after)	281713	1
2	Shaft/Sprocket, Idler Assy (Before run 1504	095770	2
	-*Shaft/Sprocket, Idler Assy (1504 & after)	281716	2
3	Bearing, Idler Shaft	915079	4
4	Spring, Idler	914021	2

SECTION 7: EXPLODED VIEWS

Select Panel Assembly



SECTION 7: EXPLODED VIEWS

Select Panel Assembly

***1504 and after**
(except 1504-00001-00130)

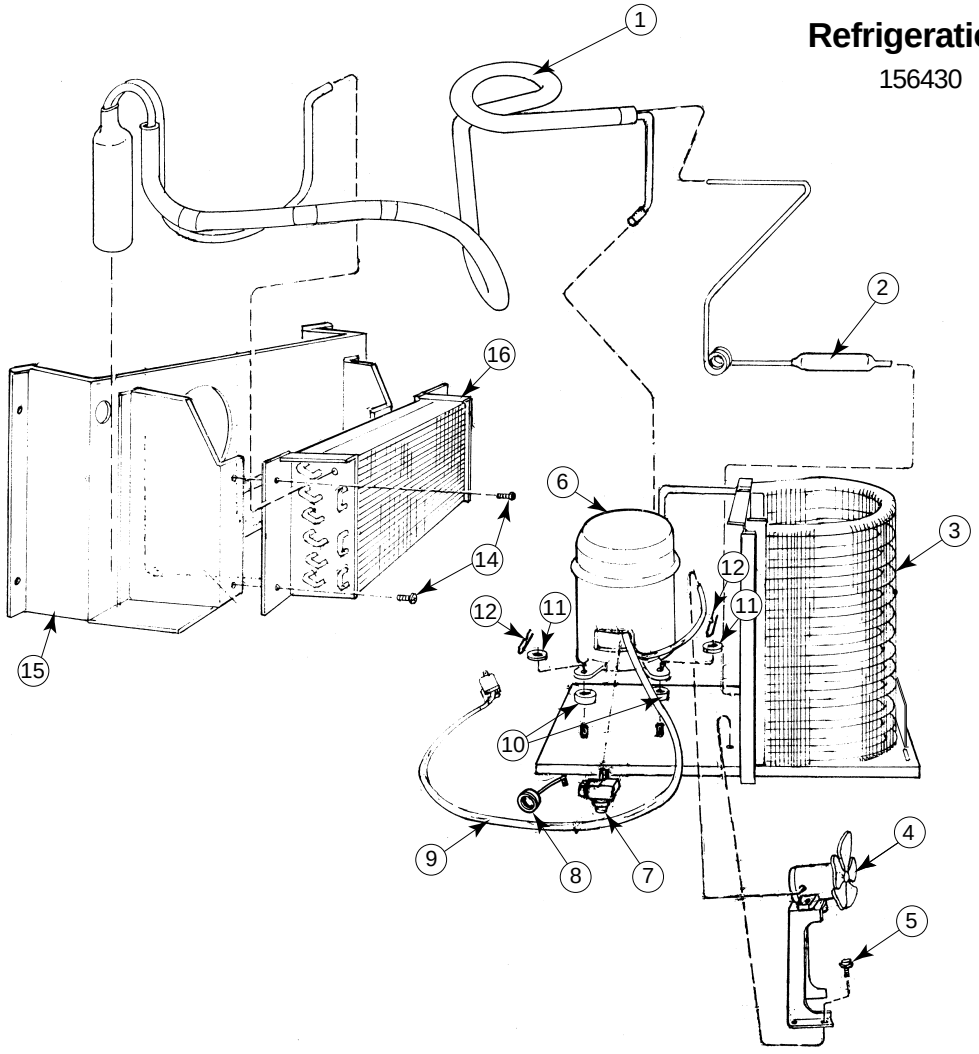
Item No.	Description	Part Number
1	Welded Assy., 79"	307510
	- 72"	308510
	- 79" Narrow	306510
	- 72" Gas Island	309510
2	Flush Mount Pop-Out T-Handle Assy. (Items 3, 4, 5, 6, 7 & 20)	812176
	-*T-Handle Assy.	812289
	-*T-Handle Assy, Stainless	812291
3	T-Handle Body	n/a
4	Spring	n/a
5	T-Handle Stud	n/a
6	Retaining Ring	n/a
7	Pin/T Handle Stud	n/a
8	T-Stud Sealer Washer	915258
9	Button, Coin Return Lever	803031
10	Retaining Ring, 5-32"	906005
11	Roller Pin - Door Lifter	811002
12	Hinge - Coin Return Lever	141506
13	Coin Return Lever	141504
14	Catch Basin Bill Validator Assy	095590
15	Catch Basin Drain Tube	925038
16	Decal	931439
17	W/A POS Plate, metal	231579
18	Security Shelf	141512
19	Fuse Bracket I.E.C.	141522
20	"T" Handle Housing	n/a
21	"T" Handle Brace	141513
22	Lever Stop	141514
23	Coin Chute	815001

Item No.	Description	Part Number
24	Coin Chute Cover	815002
25	Splash Guard - Coke	815169
26	Coin Ramp	141508
27	Spring-Select Button	914004
28	Select Button - Coke	815165
29	Switch, Miniature	835001
30	Carrier Strip Assy.	815167
31	Button Panel	815168
	-Gas Island	285507
32	Retaining Strap	141507
	- Gas Island	285504
33	Sems Screw, #8-32x3/8"	901011
34	Screw, Self-drilling #8x1/2" w/ 1/2" Washer	902001
35	Sew Screw #6-32x3/8"	901004
36	Nuts, Keps #8-32	905001
37	Nuts, Keps 1/4-20	905002
38	Wire Tie, Large (4")	916007
39	Sold Out Spring	914003
•	Bottom Coin Chute Assy Non CDC (Landscape)	010594
•	Coin return:	
	-Bushing (Coin return)	803030
	-Hex Jam Nut (Coin return)	905019
	-9/16 Internal Tooth Washer (Coin return)	904013
•	PC Board Housing	095530
•	Splash Guard	815169
•	Hole-Block Lock Cover	141509

SECTION 7: EXPLODED VIEWS

Refrigeration Unit

156430



Item No.	Description	Part Number	Qty.
1	Heat Exchange	See Note#1	1
2	Dryer	824005	1
3	Condenser	820007	1
4	Condenser Motor (Blade Only)	839010 (810014)	1
5	Screw, #8-32x1/2	901006	2
6	Capstart Compressor, 1/3+ Tecumseh, R134a	819028	1
7	Relay, 1/3+ Tecumseh	836065	1
8	Overload, 1/3+ Tecumseh	822010	1
9	Compressor Lead	See note #1	
10	Grommets, Compressor	916015	4
11	Grommet Plug	815017	4
12	Clip, Compressor	914002	4

14	Screw. #8x1/2	902004	4
15	Fan Shroud Assy.	210088	1
16	Evaporator Coil	820002	1
•	Evaporator Cover	210007	1
•	U-Clips	906007	1

Note #1: *This part is not available individually. It must be ordered as an assembly.*

SECTION 7: EXPLODED VIEWS

Vandal-Resistant Door

Control Panel, 9 Sel, W/A CDC
163520 (Before 1525)

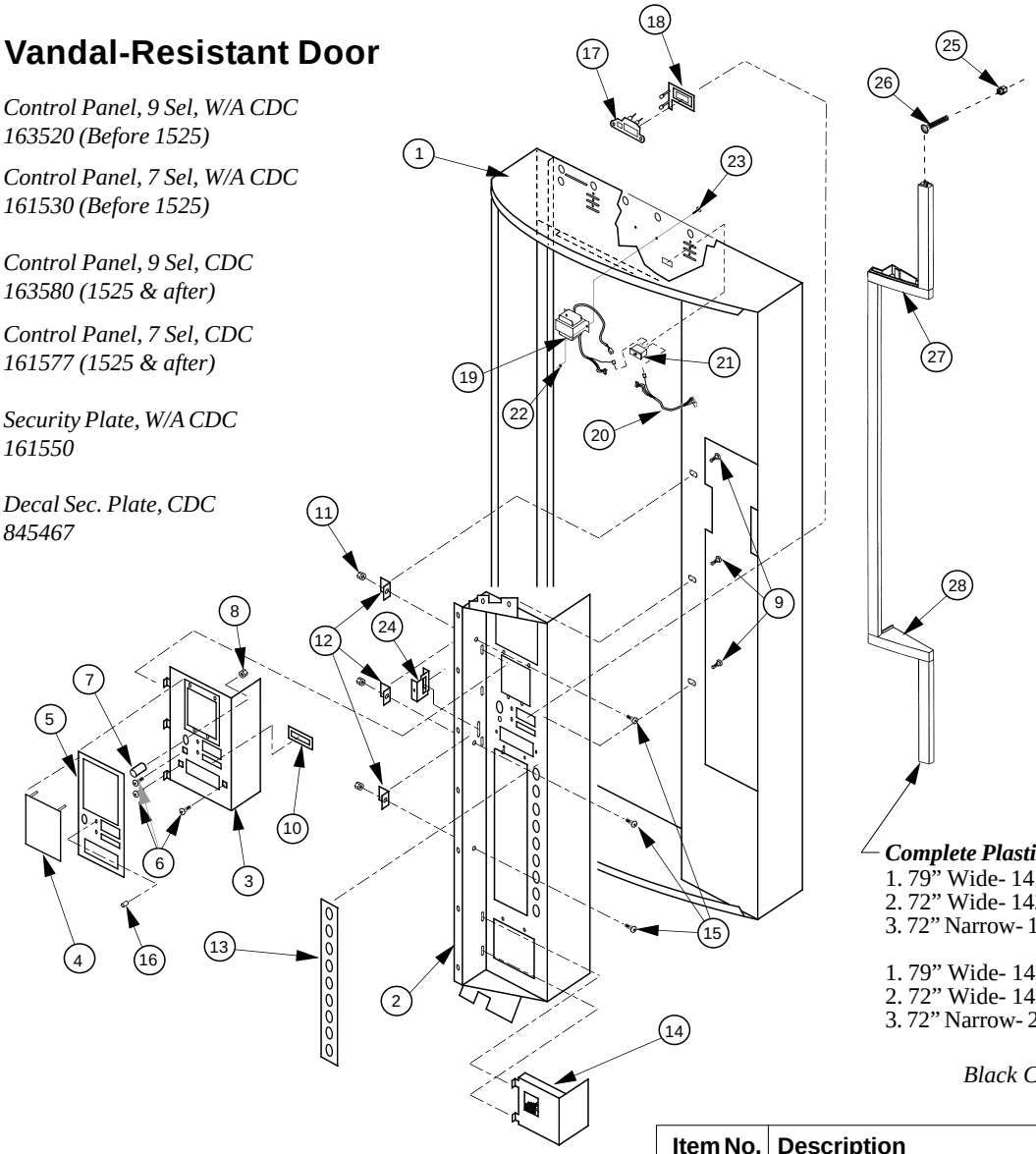
Control Panel, 7 Sel, W/A CDC
161530 (Before 1525)

Control Panel, 9 Sel, CDC
163580 (1525 & after)

Control Panel, 7 Sel, CDC
161577 (1525 & after)

Security Plate, W/A CDC
161550

Decal Sec. Plate, CDC
845467



Complete Plastic Trim Kits:

1. 79" Wide- 141590 (Before 1525)
2. 72" Wide- 142530 (Before 1525)
3. 72" Narrow- 149540 (Before 1525)

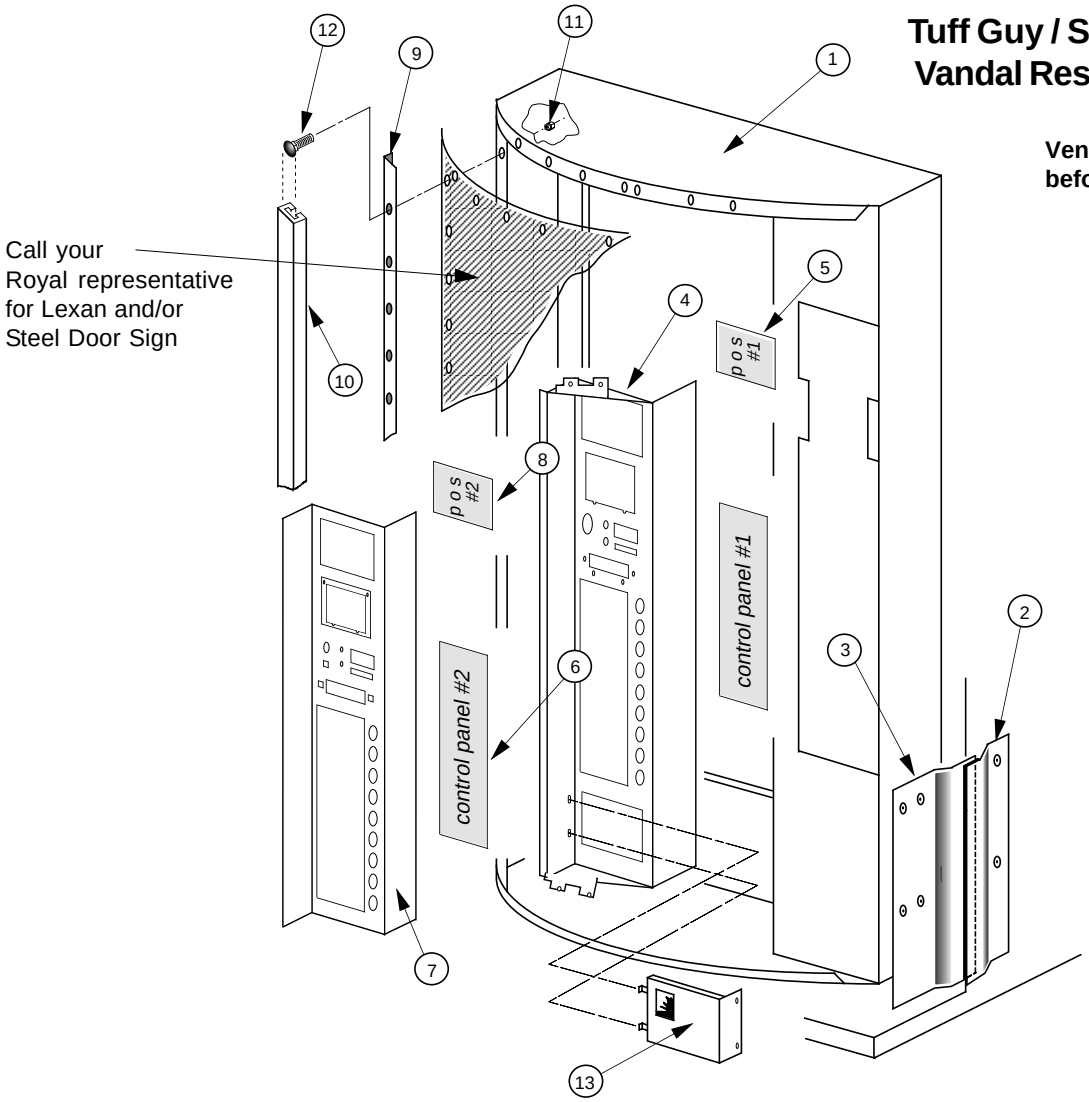
1. 79" Wide- 143509 (1525 & after)
2. 72" Wide- 142507 (1525 & after)
3. 72" Narrow- 259560 (1525 & after)

Black Christmas Tree- 916009

Item No.	Description	Part Number
1	Door w/a Coke 79" Wide	307510
	- 72" Wide	308510
2	Control Panel, 9 Select, Non CDC (Before 1525)	143510
	- 7 Select,Narrow (Before 1525) Non CDC	141530
	- 9 Select (after 1525) non CDC	143507
	- 7 Select,Narrow (after 1525) Non CDC	141577
	- Gas Island (Before 1525)	285520
	- Gas Island (After 1525)	285530
3	Security Plate W/A, non CDC	141550
4	Validator Cover, Coke	011518
5	Security Plate Decal	845396
6	T-bolt, 1/4-20x1" LG	901037
7	Button, Coin Return Lever	803031
	-Coin Return Bushing	803030
8	Hex Jam Nut 9/16-18 UNF2A	905019
9	Sems Screw, #8-32x3/8" LG	901011
10	Coin Plate, Coke	141516
11	Keps Nut, 1/4-20	905002

Item No.	Description	Part Number
12	Hold-Down Angle	123505
13	Decal Select Button	845383
14	Coin Cup Mounting Plate W/A	123550
15	Carriage Bolt, 1/4-20x1/2" LG	901007
16-18	LED Assembly	010593
19	Transformer	842147
20	Harness to Board, 24-volt	842146
21	Fuse Box Assy.	012165
22	Keps Nut #8-32	905001
23	T-Screw, #8-32x3/4"	901001
24	Lock Cover Hole Block	141509
25	Keps Nut	905001
26	T-Screw	901001
27	Coke Trim Filler, Top	815311
28	Coke Trim Filler, Bottom	815312
•	Bottom Coin Chute Assy, Non CDC	010594
•	Ballast Assy, 72" CDC	232520
•	Ballast Assy, 72" & 79" Non CDC	010950
•	Ballast Assy, 79" CDC	231560
•	Transformer Baffle, Wide	010047
•	Transformer Baffle, Narrow	258003

SECTION 7: EXPLODED VIEWS



Item No.	Description	Part Number
1	Door Weld Assy., 79”	307510
	-72”	308510
2	Vandal Panel Cover, 79.5”	171101
	-72”	172001
3	*Right Vandal Panel, 79”	010519
	*- 72”	011501
4	Bolt On Control Panel, 9 Sel.	143510
	- 7 Sel.	141530
5	P.O.S. Window	815007
6	Lexan Panel - flavor card	171522
7	Front Security Plate, 9 Sel.	183510
	Front Security Plate, 7 Sel.	181510
8	P.O.S. Lexan Cover	171523

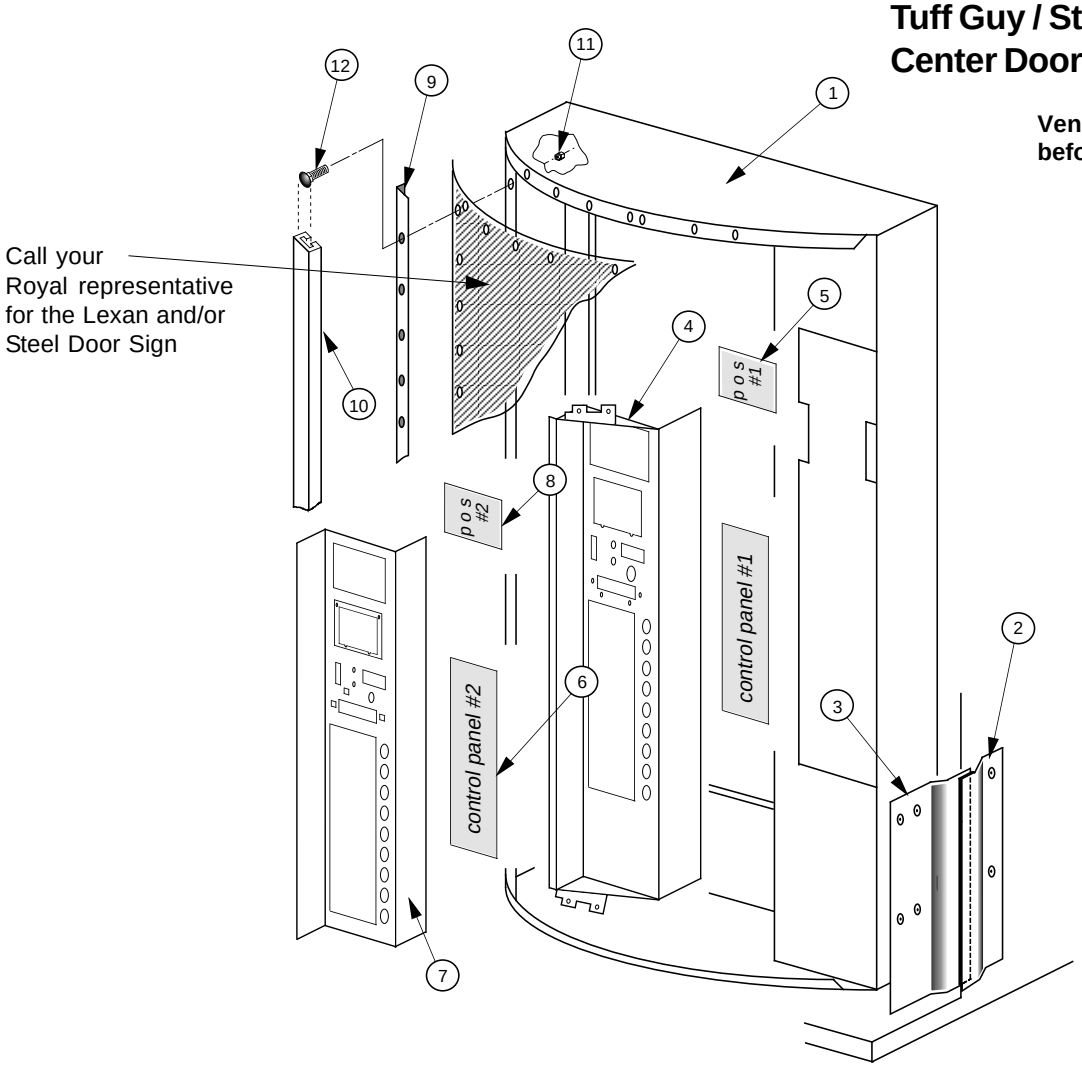
Item No.	Description	Part Number
9	Metal Bolt On Trim:	---
	Top and Bottom/All Wide	171502
	Left, 79.5”	171507
	Top and Bottom Right, 79.5”	171505
	Top and Bottom/Enclosure, 79.5”	171512
10	Plastic Trim:	---
	Top and Bottom/All Wide	171518
	Top Right, 79.5”	171516
	Top and Bottom/Enclosure, 79.5”	171519
	Bottom Right, 79.5”	171517
	Left Trim, 79.5”	171514
11	1/4-20 Kep Nut (Attaches to Item 12)	905002
12	1/2-20X 1” T-Bolt	901037
13	Coin Cup W/A	123550

***NOTES**: 1. For other trim and door sizes, contact your local Royal Vendors’ representative.*
*2. *Specify Color*

SECTION 7: EXPLODED VIEWS

Tuff Guy / Steel Door Center Door Changer

Venders built before PO 1519A



Item No.	Description	Part Number
1	Door Weld Assy., CDC, 72”	304510
	Door Weld Assy., CDC, 79”	303520
2	Vandal Panel Cover, 79.5”	171101
	Vandal Panel Cover, 72”	172001
3	*Right Vandal Panel, 79”	010519
	*Right Vandal Panel, 72”	011501
4	Bolt On Control Panel, 9 Sel., CDC	163580
	Bolt On Control Panel, 7 Sel., CDC	161530
5	P.O.S. Window	815007
6	Lexan Panel	171522
7	Front Security Plate, 9 Sel.	173510
	Front Security Plate, 7 Sel.	171510
8	P.O.S. Lexan Cover	171523

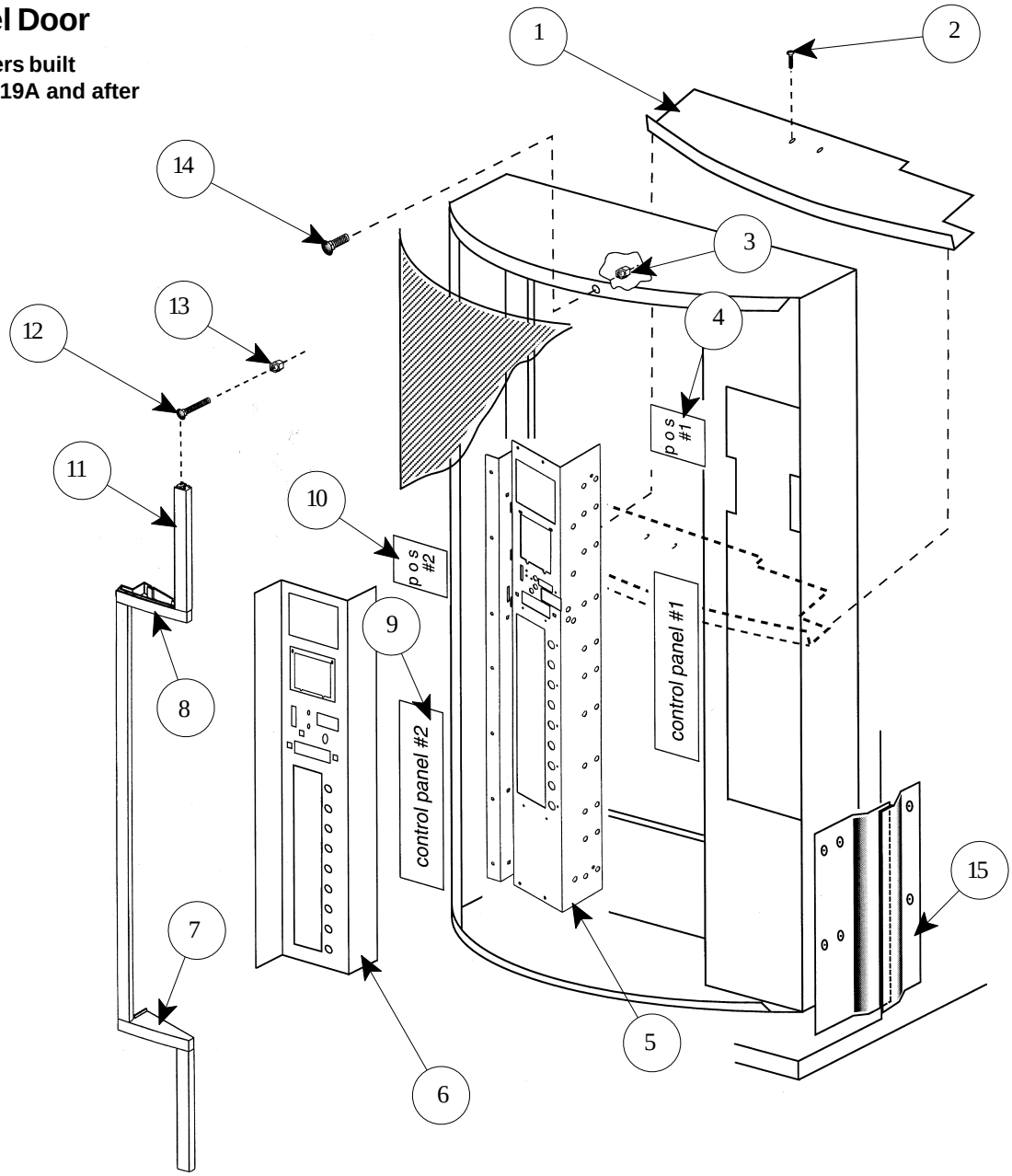
Item No.	Description	Part Number
9	Metal Bolt On Trim:	
	Top and Bottom/All Wide	171502
	Left, 79.5”	171507
	Top and Bottom Right, 79.5”	171505
	Top and Bottom/Enclosure, 79.5”	171512
	Right Trim, 79.5”	171506
10	Plastic Trim:	
	Top and Bottom/All Wide	171513
	Top Right, 79.5”	171516
	Top and Bottom/Enclosure, 79.5”	171512
	Bottom Right, 79.5”	171517
	Left Trim, 79.5”	171514
11	1/4-20 Kep Nut (Attaches to Item 12)	905002
12	1/4-20 x 1” T-Bolt	901037

***NOTES**: 1. For other trim and door sizes, contact your local Royal Vendors representative.*
*2. *Specify Color*

SECTION 7: EXPLODED VIEWS

Steel Door

Venders built
PO 1519A and after

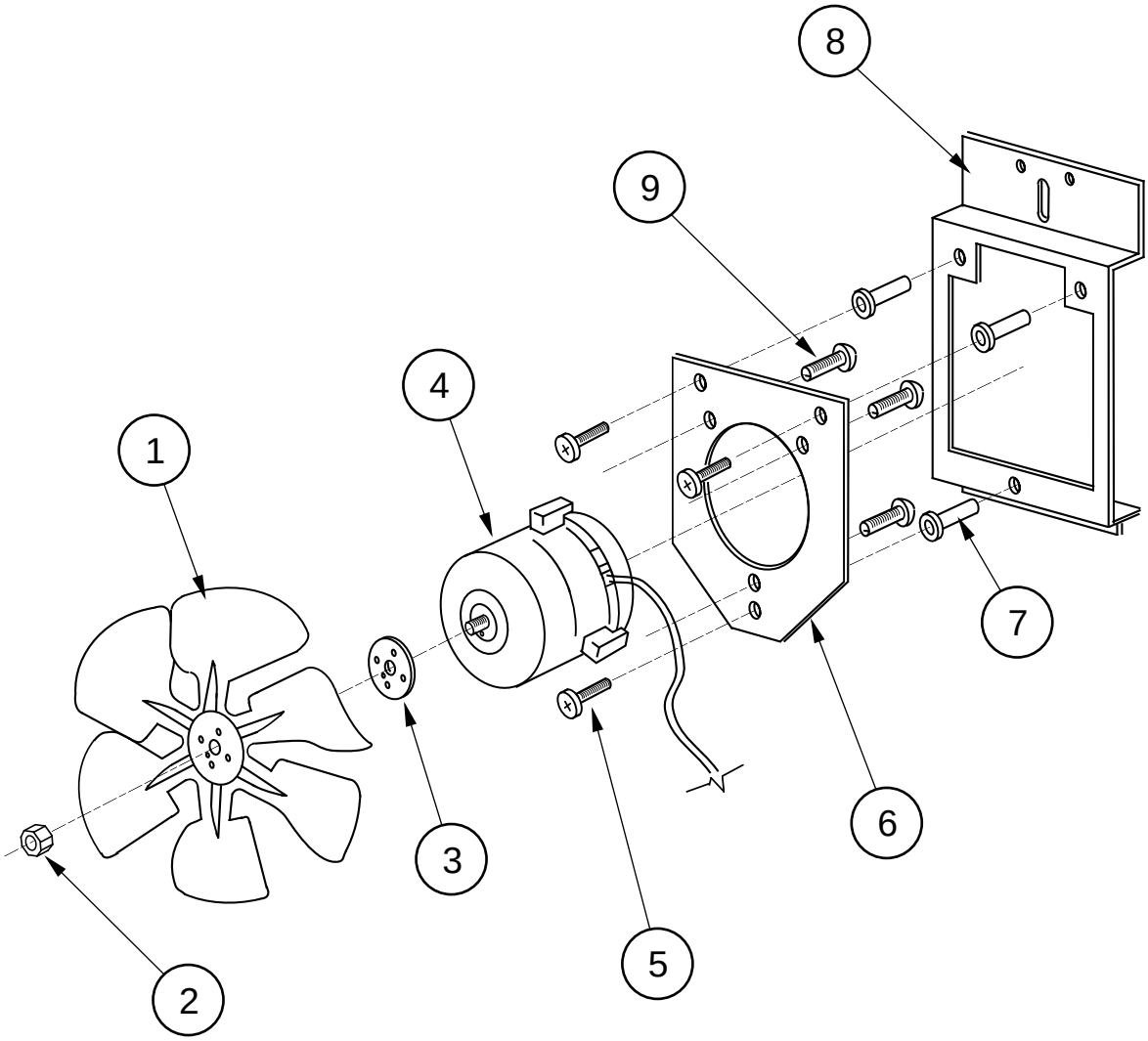


Item No.	Description	Part Number
1	Sign Support	171536
2	#8-32 Screw (2)	901011
3	1/4 Keps Nut	905002
4	P.O.S. Window	815007
5	Control Panel, 9 select CDC	163580
	-Non CDC	143507
6	Front Security Plate, 9 Sel.	183510
	-7 Select	181510
7	CokeTrim Filler, Bottom	815312
8	Coke Trim Filler, Top	815311
9	Lexan Panel - Flavor Card	171522
10	P.O.S. Lexan Cover	171523

Item No.	Description	Part Number
11	Trim Kit Assembly 79”	143509
	-72”	142507
	-72” Narrow	259560
12	T-Screw	901001
13	Keps Nut	905001
14	Carriage Bolt (3 Req.)	901056
15	Vandal Panel Cover, 79”	171101
	-72”	172001

SECTION 7: EXPLODED VIEWS

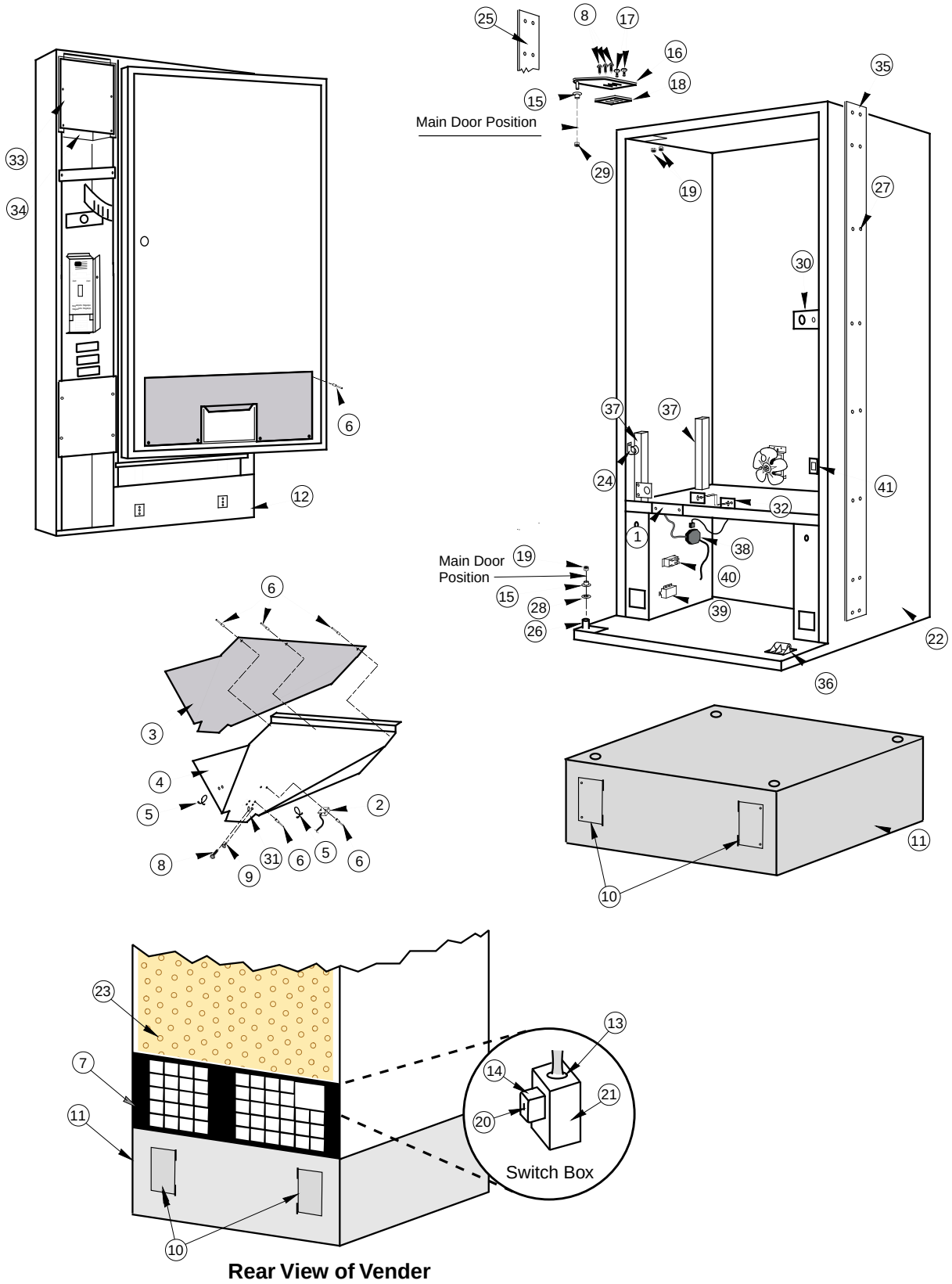
Evaporator Fan Motor Assembly



Item No.	Description	Part Number	Qty.
1	Fan Blade	810045	1
2	Nut, 1/4-20	905002	1
3	Silencer	-----	1
4	Motor, 35W/115V	839028	1
5	Machine Screw #8-32x1/2”	901038	3
6	Fan Plate	010058	1
7	Well Nut, #8-32	905026	3
8	Fan Mounting Bracket	010057	1
9	Sems Screw #8-32x3/8”	901011	3
1-9	Fan Assembly	210400	1

SECTION 7: EXPLODED VIEWS

Miscellaneous Assemblies, Gas Island



Rear View of Vender

SECTION 7: EXPLODED VIEWS

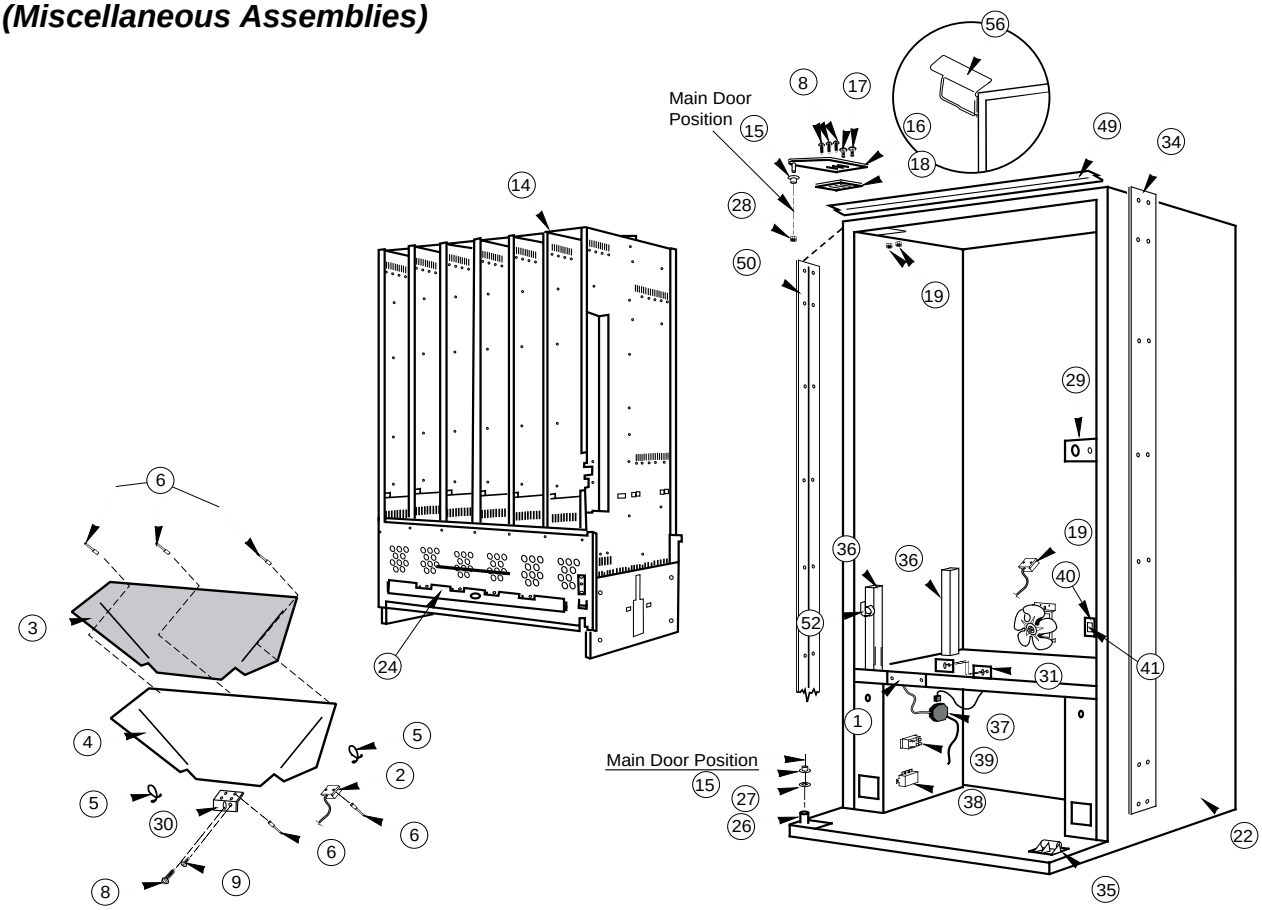
Miscellaneous Assemblies, Gas Island

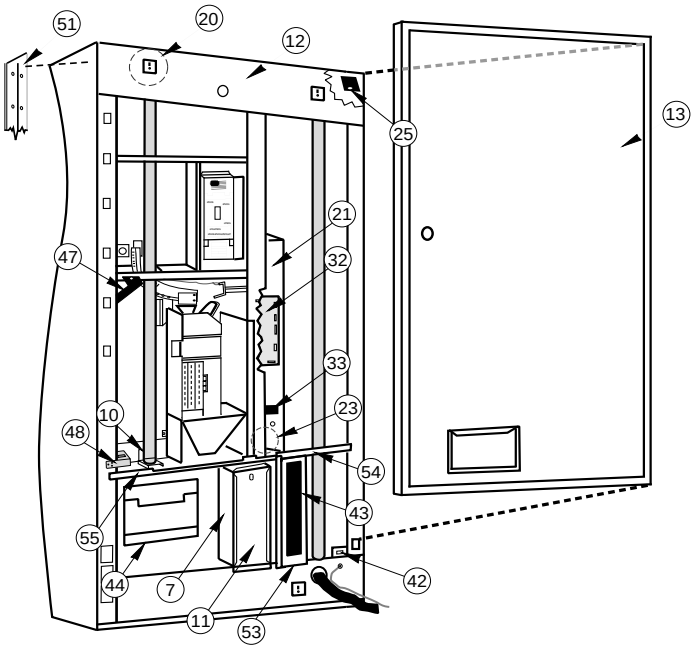
Item No.	Description	Part Number
1	Wiring Cover Plate	010002
2	Delivery Chute Sensor	836004
3	Delivery Chute Liner	815261
4	Delivery Chute	210002
5	Tension Clips	916059
6	Rivets 1/8"	908004
7	Cabinet Back Screen, Gas Island	285009
8	Bolts 1/4-20x1"	901003
9	Screw #8-18x1/2"	902004
10	Access Door, Gas Island	285001
11	Stand W/A, 16" Gas Island	285010
12	Door Assembly 72", Gas Island	285550
13	Cable Clamp, Gas Island	842200
14	Toggle Switch Cover, Gas Island	842199
15	Nyliner	916012
16	Top Hinge, Left	810002
17	Carriage Bolt	901008
18	Top Hinge Spacer	010016
19	Keps Nut 1/4-20	905002
20	Toggle Switch, Gas Island	835016
21	Handy Switch Box, Gas Island	842198
22	Cabinet Assembly	285050

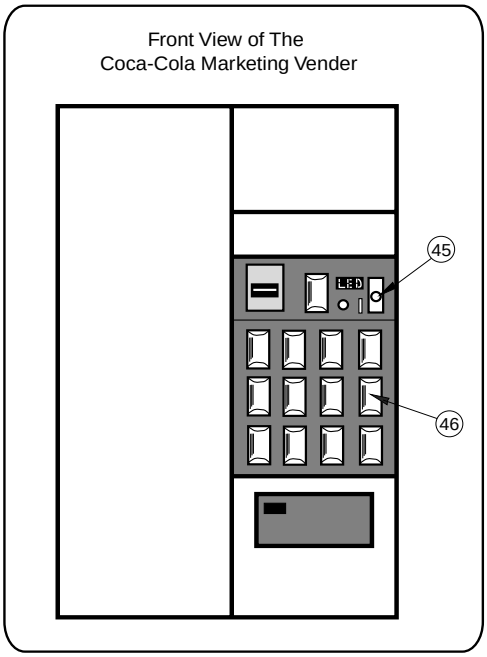
Item No.	Description	Part Number
23	Back Decal, Gas Island	848081
24	Cable Clamp	916004
25	Left Vandel Panel	142001
26	Main Door Bottom Hinge	010040
27	Pop Rivot	908003
28	Flat Washer	904002
29	Keps Nut 3/8-16	905007
30	Latch Strike Assembly	010030
31	Bracket, Chute Locator	141014
32	Can Chute Tie Bracket	010017
33	P.C. Board Cover Assembly	815260
34	P.C. Board Housing	095530
35	Right Cabinet Vandal Panel 72"	011002
36	Door Roller Kit	141180
37	Rack Support	281001
38	Main Wiring Harness, Gas Island	842207
39	EMI Filter	842061
40	Relay	836065
41	Door Switch Bracket	010045
•	Key Pad Cover Plate, Gas Island	285503
•	Wiring Diagram, Gas Island	931359

SECTION 7: EXPLODED VIEWS

Coca Cola Marketing Vender
(Miscellaneous Assemblies)







SECTION 7: EXPLODED VIEWS

Coca Cola Marketing Vender *(Miscellaneous Assemblies)*

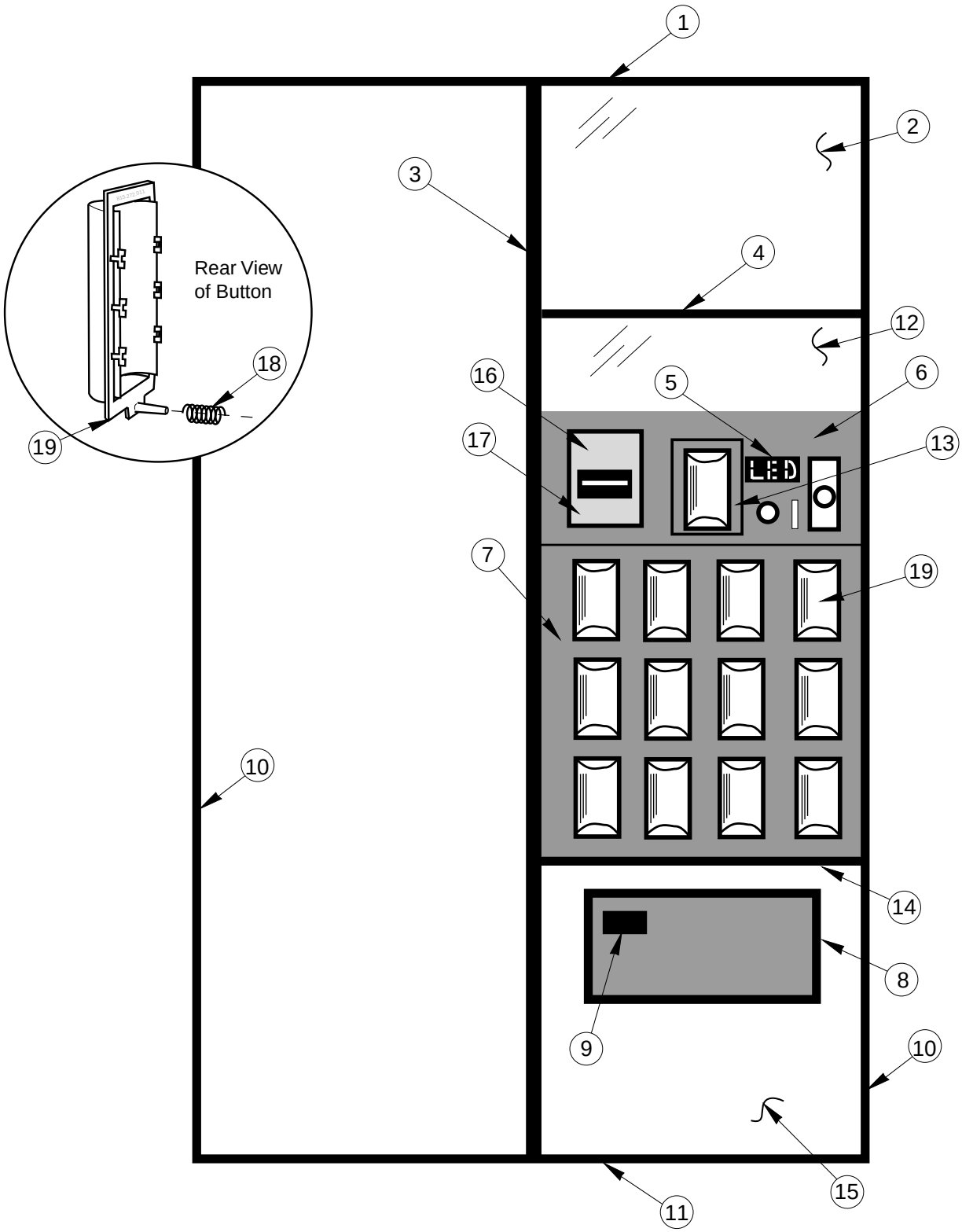
Item No.	Description	Part Number
1	Wiring Plate Cover	010002
2	Delivery Chute Sensor	836108
3	Delivery Chute Liner, Wide Marketing	815299
4	Delivery Chute, Wide Marketing	290001
5	Tension Clips	916059
6	Rivets 1/8"	908004
7	Coin Box Housing, Marketing	815347
8	Bolts 1/4-20x1"	901003
9	Screw #8-18x1/2"	902004
10	Lamp Bracket (bottom),Marketing	290534
11	Coin Box , Marketing	290550
12	Door Assy. Wide, Marketing 72", bottle	291550
	-Wide Marketing 72", can	291551
	-Wide Marketing 79", bottle	290593
	-Wide Marketing 79", can	290594
13	Inner Door Assembly, Wide Marketing 72"	291605
	-Wide Marketing 79"	290605
	-Narrow Marketing	293605
14	Vend Rack Assembly, Marketing Wide 72"	291710
	- Wide 79"	290710
	-Narrow	289710
15	Nyliner	916012
16	Top Hinge, Left, Marketing	810057
17	Carriage Bolt	901008
18	Top Hinge Spacer	010016
19	Temperature Sensor, Marketing	822041
20	Lamp Bracket (Top) Marketing	290533
21	Control Board Mounting Panel	290523
22	Cabinet Assembly 72", Wide Marketing	291020
	-79" Wide, Marketing	290020
23	Transformer Assy	842147
24	Rod Retainer, Wide	281709
	-Narrow	283704
25	Water Diverter (Top Hinge) Marketing	290575
26	Main Door Bottom Hinge, Marketing	290010
27	Flat Washer	904002
28	Keps Nut 3/8-16	905007
29	Latch Strike Assembly	281010
30	Bracket, Chute Locator	095002
31	Can Chute Tie Bracket	141014

Item No.	Description	Part Number
32	Control Board	836109
33	Fuse Box Assy	842219
	Fuse Holder Assy	842219
34	Right Cabinet Vandal Panel 72" Marketing	291004
	-79", Marketing	290004
35	Door Roller Kit	141180
36	Rack Support	281001
37	Main Wiring Harness	842063
38	EMI Filter	842061
39	Relay	836065
40	Door Switch Bracket	010045
41	Door Switch (prior to 1521)	835003
42	Door Switch (*1521 & after)	835019
43	Ballast Assy., Marketing 72"	291540
	-79"	290590
44	Port W/A, Marketing	290540
	Anti-Theft Plate, Marketing	290519
45	T-Handle Assy, Marketing	812271
	-1504 & after	812290
46	Select Button, Marketing	815272
47	Water Diverter, Marketing	290574
48	Burst Open Latch Strike Assy, Marketing	290546
49	Rain Guard, Wide Marketing	290592
50	Left Vandal Panel 79", Marketing	290003
	-72", Marketing	291003
	-79", UHR	141022
	-72", UHR	142022
51	Right Vandal Panel 79" Marketing	290585
	- 72", Marketing	291585
52	Cable Clamp	916004
53	Ballast Panel, Marketing	290531
54	Ballast Panel Brace, Marketing	290532
	-Narrow	292505
55	Port Brace, Marketing	290521
56	Universal Hinge, Red	294550
•	Ballast Panel Assy., Marketing	290571
•	Top Lampholder, H.O.	842001
•	Bottom Lampholder, H.O.	842002

*Except 72" Marketing Venders, which start PO 1528 and after.

SECTION 7: EXPLODED VIEWS

Coca Cola Marketing Vender



SECTION 7: EXPLODED VIEWS

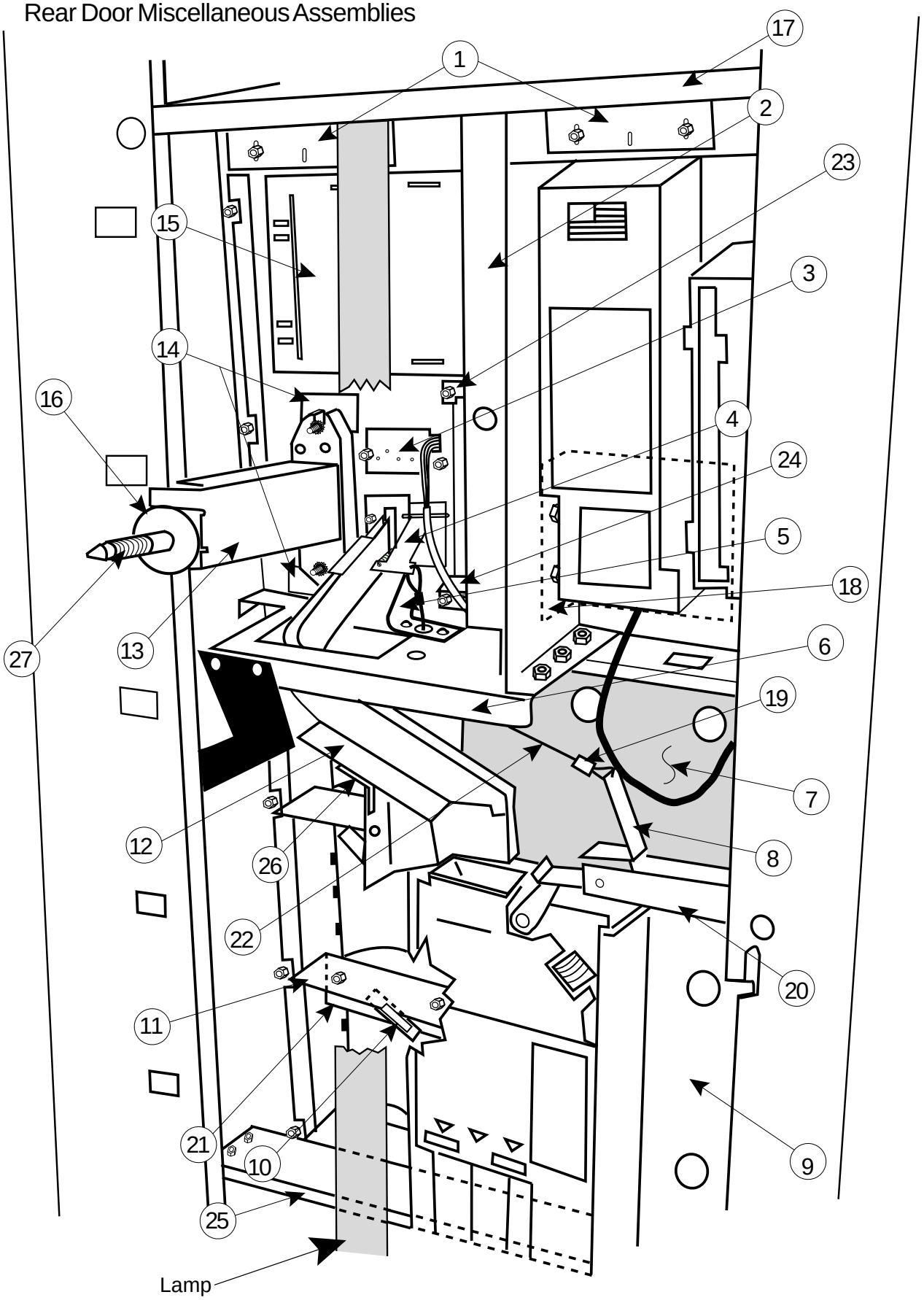
Note: *Clip-On Trim started with P.O. 1529B and after*

Item No.	Description	Part Number
1	Sign Trim Top, Wide 72"/79", Marketing	290587
	-Narrow	292508
	-Clip-On Wide	291539
	-Clip-On Narrow	292516
2	Lexan Ad Panel, 79"	848575
	-72"	848574
3	Sign Trim Center 79", Marketing	290596
	-72"	291509
	-Clip-On, 72"	291537
	-Clip-On, 79"	292514
4	Sign Trim-Flat, Marketing	290597
	-Clip-On	291545
5	L.E.D. Assembly	291525
6	Control Panel Assy, Marketing	290599
	-Control Panel W/A	290520
7	Button Panel Assy. with Harness, Marketing	290566
8	Port Trim, Marketing	290516
9	Coin Cup, Marketing	290522
10	Sign Trim Lt/Rt 79", Marketing	290589
	-72"	291508
	-Clip-on, 72"	291536
	-Clip-On, 79"	292513

Item No.	Description	Part Number
11	Sign Trim Bottom, Wide, Marketing	290588
	-Narrow	292509
	-Clip-On, Wide	291538
	-Clip-On, Narrow	292515
12	Lexan POS Window, Marketing	815304
13	Feature Button Bracket, Marketing	290569
14	Sign Trim-Flat, Marketing	290597
	-Clip-On	291541
15	Port Panel Sign, Marketing	848278
16	Validator Mounting Plate Assy	844008
17	Validator Decal, Marketing	931360
18	Spring	914024
19	Select Button	815272
•	Feature Button Bracket Decal	831349
•	Control Panel Decal,Marketing	848233
•	Control Panel Decal, Marketing (with lock cover holes)	848295
•	Red Christmas Tree	916084
•	Red Carriage Bolt	901051
•	Red Pop Rivet	908015
•	Validator Filler	931361
•	Validator Cover with Studs	291526

SECTION 7: EXPLODED VIEWS

Rear Door Miscellaneous Assemblies



SECTION 7: EXPLODED VIEWS

Coca Cola Marketing Vender *(Rear Door Miscellaneous Assemblies)*

Item No.	Description	Part Number
1	Control Panel Strap, Marketing	290582
2	Validator Divider, Marketing	290541
3	LED Assy, Marketing	291525
4	Coin Return Lever Assy, Marketing	291529
5	Lever Stop, Marketing	290544
6	Control Panel Brace, Marketing	290529
7	Changer Shield, Marketing	290525
8	Coin Return Lever, Marketing	161507
9	Changer Door Assy, Marketing	290562
10	Select Switch	835001
11	Switch Carrier Strip, Marketing	815273
12	Coin Chute Assy, Marketing	290564
13	T-Handle Brace, Marketing	290539
14	Hole Block Cover, Marketing	290555
15	POS Window Plate, Marketing	290535

Item No.	Description	Part Number
16	T-Stud Sealer Washer	915258
17	Bulkhead, Top	290515
18	Validator Support	291543
19	Cable Sleeve	906015
20	Coin Return Hinge Bracket	290543
21	Button Channel, Marketing	290506
22	Cable	911038
23	Feature Button Bracket	290512
24	Feature Button Plate	290538
25	Bulkhead, Bottom	290514
26	Coin Chute Support	290542
27	T-Bolt	901052
•	Validator Guard, Marketing	290101
•	Painted Hole Block Cover	290108
•	LED Shroud, Marketing	929031
•	Select Button Spring, Marketing	914024

CREDIT AND REPLACEMENT POLICY

Credits or replacements will be issued on warranty items if the proper procedures are followed:

1. ROYAL VENDORS will pay shipping charges on all parts covered under this warranty when transportation has been made the most economical way. (Ex. within the continental U.S. regular ground UPS). An A.R.S. (Authorized Return Service) sticker will be sent with all warranty parts. This method of shipping is preferred for returning parts to Royal.
2. Credits will only be issued to warranty parts that have been ordered in advance. Not for parts ordered as stock. (NO EXCEPTIONS)
3. When ordering warranty parts in advance, please have the full vendor / unit serial number.
4. A copy of the Packing Slip, the correct serial number and complete Return Material Tag (provided with part) are required for sending back parts. Please fill out the Return Material Tag completely, keeping the white copy for your records and sending the yellow tag back with the attached part. Make sure you have your company name, address, phone number, serial number and model number, along with a brief explanation of the problem
5. If the item returned is not under warranty, it will be sent back to you at your expense or it will be scrapped.
6. All warranty parts should be properly wrapped and packed securely to avoid further damage. Refrigeration units that are returned from the field and have been tapped into, tampered with, not packaged properly or have had the serial plate removed, will void the warranty.
7. If parts are not returned within 15 working days, the invoice will be due in full.

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