Technical Manual

Pepsi-Cola High Visibility Vender

Models DNCB 640, DNCB 448

Beginning Production Run 5206CK

Manufactured by

CRANE MERCHANDISING SYSTEMS

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English Manual Part 80390482

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Special Note: Crane Merchandising Systems Dixie-Narco part numbering has changed. Many of the 11 digit numbers are now 8 digit numbers. The last 3 digits were dropped in the new numbering system. An example of this is 800,102,970.01 is now 80010297.

High Voltage Warning / Electrical Warning
Danger electricity, electric shock.

A Generic Warning.

Hazard Warning: Beware of moving machinery – Entanglement hazard. Keep hands, loose clothing, and long hair away from moving parts.

APPLICATION

This information applies to DNCB 640 & DNCB 448 venders manufactured the second quarter 2012 which have significant differences in programming and parts content from previous venders. To order parts or information pertaining to this vender, please contact Crane Merchandising Systems.

VENDER SAFETY PRECAUTIONS

Please read this manual in its entirety. This service information is intended for use by a qualified service technician, who is familiar with proper and safe procedures to be followed when repairing, replacing, or adjusting any Crane Merchandising Systems vender components. All repairs should be performed by a qualified service technician who is equipped with the proper tools and replacement components, using genuine Crane Merchandising Systems factory parts.

REPAIRS AND/OR SERVICING ATTEMPTED BY UNINFORMED PERSONS CAN RESULT IN HAZARDS DEVELOPING DUE TO IMPROPER ASSEMBLY OR ADJUSTMENTS WHILE PERFORMING SUCH REPAIRS. PERSONS NOT HAVING A PROPER BACKGROUND MAY SUBJECT THEMSELVES TO THE RISK OF INJURY OR ELECTRICAL SHOCK WHICH CAN BE SERIOUS OR EVEN FATAL.

PRODUCT IDENTIFICATION

First production of DNCB 640 & DNCB 448 was Second quarter of 2012. The production date of Crane Merchandising Systems products is determined by the date code incorporated in the serial number.

The vender serial number takes the form yyyyzz-xxxx.The last 4 digits (xxxx) identify the specific vender. The first 4 digits (yyyy) identify the manufacturing run that the vender was built in. The two alpha characters (zz) identify the quarter and the year the vender was built. The first alpha-character identifies the quarter.

A = 1st quarter
B = 2nd quarter
C = 3rd quarter
D = 4th quarter

The second alpha-character identifies the year:

K = 2012
L = 2013
M = 2014
N = 2015
O = 2016

CE Mark & IIA Declaration:

An updated CE Mark or IIA Declaration document can be provided upon request: If needed please contact Technical Support Manager in Williston, SC. Phone: Bryan Staubs 1 - 803 – 266 - 8805 or email bstaubs@cranems.com.

PHYSICAL CHARACTERISTICS

	DNCB 640 (Wide)	DNCB 448 (Narrow)
HEIGHT	72”	72”
WIDTH	37”	28”
DEPTH	36”	36”
SHIPPING WEIGHT	833 lbs.	678 lbs.
LOADED WEIGHT 4 DEEP 12OZ CANS	TBD lbs	TBD lbs

Model	Number of Selections	Number of Narrow Columns
DNCB 640	12	10
DNCB 448	6	7

RECEIVING INSPECTION

Upon receipt, inspect the vender for any shipping damage. If there is any damage have the driver note the damage on the bill of lading and notify Crane Merchandising Systems. Although the terms of sale are FOB shipping point, which requires the consignee to originate shipping damage claims, Crane Merchandising Systems will gladly help if you must file a claim.

UNPACKING THE VENDERS

Remove the stretch wrap and top cover from the vender. Product cards are installed in the select buttons.

DO NOT STORE THE VENDER OUTSIDE WITH THE STRETCH WRAP ON. THIS COULD CAUSE THE STRETCH WRAP TO BOND TO THE VENDER’S SURFACE, WHICH COULD DAMAGE THE FINISH.

Remove the shipping boards from the bottom of the vender. The shipping boards are attached by the leveling legs. To avoid unnecessary damage to the leveling legs or base, remove the shipping boards by using a 1½" or 38mm socket type wrench to unscrew the leveling legs. Be sure to replace the legs after removing the shipping boards.

Once the vender is unpacked, check the columns in the stack for any additional parts, price/product labels, service/operation manual or other information concerning factory-equipped accessories such as coin mechanism and validator.

WARNING

TO AVOID THE POSSIBILITY OF A FIRE HAZARD, DO NOT STORE ANYTHING OR ALLOW DEBRIS OF ANY KIND TO ACCUMULATE IN THE BOTTOM OF THE DOOR, IN AND AROUND THE REFRIGERATION COMPARTMENT OF THE CABINET, OR IN FRONT OF THE EVAPORATOR AND CONDENSER COILS.

WARNING: ENSURE THAT POWER IS DISCONNECTED FROM THE VENDER OR THAT THE POWER INTERRUPT SWITCH IS NOT DEFEATED BEFORE INSPECTING OR REPLACING THE LAMPS, OTHER ELECTRICAL COMPONENTS, OR WORKING WITH OR ADJUSTING THE VENDING MECHANISM. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY SUBJECT THE USER TO THE RISK OF ELECTRICAL SHOCK OR MECHANICAL INJURY, WHICH CAN BE SERIOUS OR FATAL.

ELECTRIC POWER NEEDED

Refer to the cabinet serial number plate to determine the proper voltage and frequency the machine. In the US and Canada this is 120 VAC, 60 Hertz, 1P. In Europe, Australia, and other export countries, this is 220/230/240Vac, 50Hz, 1P depending upon your country voltage. The serial plate also specifies the ampere rating of the machine. This machine must be plugged into a properly rated receptacle with its own circuit protection (fuse or circuit breaker).

Equipment Nominal Power Requirements -
120V / 10.2 A = *1224W (1.224kw)
220V / 5.8 A = *1276W (1.276kw)
240V / 5.8 A = *1392W (1.392kw)
*Note: Watts = V X A

DO NOT USE AN EXTENSION CORD.

POWER SUPPLY CORD and GROUNDING REQUIREMENTS

In accordance with the National Electrical Code and Underwriters Laboratories Inc., domestic vending machines are equipped with a three-wire power supply cord and Ground Fault Circuit Interrupter (GFCI). The GFCI device is provided as part of the power supply cord and is either incorporated directly into the plug or mounted on the cord adjacent to the plug.

WARNING

- The GFCI protects against current leakage caused by ground faults. The GFCI is not designed to protect against over current or short circuits.
- **DO NOT** use the TEST and RESET buttons on the GFCI as an ON/OFF switch.

- The vending machine supply cord **MUST** be plugged directly into a properly grounded, 3 wire receptacle that is properly protected by a fuse or circuit breaker. If the receptacle will not accept the power cord plug, it must be replaced with a properly grounded, 3 wire receptacle in accordance with the National Electrical Code and Local Codes and Ordinances. The work should be done by a qualified electrician. **DO NOT USE A 3 WIRE TO 2 WIRE ADAPTOR**

DO NOT REMOVE THE GROUND PIN ON THE PLUG OR IN ANY WAY BYPASS, MODIFY, DEFEAT, OR DESTROY THE GROUNDING SYSTEM OF THE VENDING MACHINE

- **DO NOT USE WITH AN EXTENSION CORD.**
- **DO NOT REMOVE THE WARNING TAG ATTACHED TO THE POWER SUPPLY CORD.**
- The GFCI must be tested frequently and before each use in accordance with the instructions provided on the GFCI device. **IF THE GFCI DOES NOT PASS THE TEST, DO NOT USE THE MACHINE**. Unplug the supply cord from the receptacle and call the Crane Merchandising Systems Technical Support Group for assistance at 1-803-266-5001.

It is recommended that the machine be located so that the GFCI device will be accessible after the machine is installed. After installation, visually inspect the GFCI and power supply cord to be sure it is not crushed, pinched, or stretched.

Protect the power supply cord during transportation and use. Periodically inspect the power supply cord for damage. If the cord or plug is worn or damaged, it must be replaced with a power supply cord of the same type, size and specification as originally provided with the machine. **DO NOT USE THE VENDING MACHINE UNTIL THE WORN OR DAMAGED CORD IS REPLACED.**

FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY SUBJECT THE USER TO THE RISK OF INJURY OR ELECTRICAL SHOCK WHICH CAN BE SERIOUS OR FATAL. PERIODICALLY INSPECT THE POWER SUPPLY CORD FOR DAMAGE. IF THE CORD BECOMES DAMAGED IT MUST BE REPLACED WITH THE SAME SIZE AND TYPE CORD. CONTACT CRANE MERCHANDISING SYSTEMS FOR ASSISTANCE.

PLACING THE VENDER ON LOCATION

!! CAUTION !!

DO NOT TRANSPORT THE VENDER TO OR FROM THE LOCATION LOADED WITH PRODUCT. DAMAGE TO THE VENDER MAY RESULT.

The vender must be located on a solid, flat, and level surface. Ensure the flooring can bear the weight of a fully loaded vender (approx. 1512 lbs or 686 kg). The vender must be positioned close enough to an electrical outlet that an extension cord is not required. If the machine will be subject to user misuse or vandalism, it is recommended that the vender be secured to the floor or wall as described in Technical Bulletin 344. Do not transport the vender to or from customer locations loaded with product, as damage may result due to excessive weight. Be sure to test vender for proper operation before putting in to service on location. Call the Crane Merchandising Systems Technical Service Department or your Crane Merchandising Systems Representative for assistance.

ELECTRONIC DOOR LOCK (OPTION)

The electronic lock when provided in the vender consists of a door mounted, motor driven bayonet (shaft) system, a cabinet mounted nut receptacle switch system, an infrared controlled CPU, and a remote control key (FOB). The design is modular and allows for easy field service.

The electronic remote key (FOB) features a rolling code system which cannot be decoded if it is lost or stolen. After the vender has been unlocked, a new key can be programmed into it any number of times. If a key is lost or stolen, it is recommended you change the lock code in the field as soon as possible. Changing the lock code requires a new key and pressing the LEARN button inside the lock. The lock does not need to be changed for re-keying.

Important: For security reasons all Electronic Door Lock Venders are shipped less keys. Customers will need to contact the Electronic Door Lock manufacturer to order keys.

A power bypass jack, located in the product delivery port, allows auxiliary power to be applied via a battery pack to the electronic lock in the event that power is not available or there has been a failure of the internal power supply. In the event of an emergency, battery power is applied to the connector and the door can be opened and closed using the FOB.

The electronics uses an infrared transmission system, which functions similar to a television remote control. The transmission signal is line-of-sight, which requires you to aim the remote at a specific place at close range to prevent the accidental opening of several venders at the same time.

TO OPEN THE ELECTRONIC DOOR LOCK: (OPTION)

1. Plug the vender into a properly powered outlet.
2. Hold the key FOB 0 to 3 inches (76.2mm) to the right side of select button #10 in 12 select or select button #5 in 6 select and press the button on the key FOB.
   Note: The wide end of the FOB should face the door.
3. The lock will begin releasing the door. The display will indicate "**Door Opening".** After the motor has stopped running, you can pull the door open. The display will indicate: "**Door Unlocked"**.

TO CLOSE THE ELECTRONIC DOOR LOCK:

CAUTION: DO NOT SLAM THE DOOR CLOSED. Slamming the door closed can damage the electronic locking device.

1. Push the door to the cabinet until the lock motor starts. The display will indicate: "**Door Closing"**.
2. Continue to push the door for approximately 2 to 3 seconds after the lock motor starts. The lock will pull the door closed tightly.
3. When the lock motor stops the door will be locked and the display will indicate**: "Door Locked"**.
   Before leaving the vender, ensure that the door is locked.

The electronic door lock assembly is supplied by TriTeq Lock and Security. Crane Merchandising Systems, Inc. does not carry parts for the TriTeq Electronic Door Lock.
For parts and assistance, please contact:

TriTeq
701 Gullo Ave.
Elk Grove Village, IL 60007
Tel: 847-640-7002
Fax: 847-640-7008
Email: triteqlock.com

ACCEPTABLE AMBIENT OPERATING TEMPERATURE RANGE.

DNCB 448 & DNCB 640 equipment manufactured by Crane Merchandising Systems is designed to work properly in a temperature range of 75°F to 90°F (23°C to 32°C) in still air 65% R.H. non-condensing.

LEVEL THE VENDER

When the vender is level, the door can be opened to any position and it will not move by itself. Open the door to several different positions before deciding the vender is level. A carpenter's level will help verify the machine is level. Leveling legs are adjusted using a wrench or socket 1 ½" or 38 mm in size. Make sure that all leveling legs are in contact with the floor. If you cannot level the vender in its current location, select another location. NEVER PLACE OBJECTS UNDER THE LEVELING LEGS OF THE VENDER.

DANGER

THE VENDER MUST BE PROPERLY LOCATED AND LEVELED. IF THE MACHINE WILL BE SUBJECT TO USER MISUSE OR VANDALISM IT IS RECOMMENDED THAT THE VENDER BE SECURED TO THE FLOOR OR WALL AS DESCRIBED IN CRANE MERCHANDISING SYSTEMS TECHNICAL BULLETIN 344 TO MINIMIZE THE RISK OF INJURY OR DEATH FROM TIPPING. CALL THE CRANE MERCHANDISING SYSTEMS TECHNICAL SERVICE DEPARTMENT OR YOUR CRANE MERCHANDISING SYSTEMS REPRESENTATIVE FOR ASSISTANCE.

SPACE THE VENDER

Do not block the rear of the vender. Keep the vender 4 inches (10 cm) from the wall to ensure adequate airflow from the condenser and compressor. At the front of the vender, make sure that nothing obstructs the air intake at the bottom of the main door. At the rear of the vender, make sure nothing obstructs the air exhaust at the bottom of the cabinet.

WARNING

TO AVOID THE POSSIBILITY OF A FIRE HAZARD, DO NOT STORE ANYTHING OR ALLOW DEBRIS OF ANY KIND TO ACCUMULATE IN THE BOTTOM OF THE DOOR, IN AND AROUND THE REFRIGERATION COMPARTMENT OF THE CABINET, OR IN FRONT OF THE EVAPORATOR AND CONDENSER COILS.

COIN CHANGERS & OTHER ACCESSORIES

The vender must have an MDB coin changer installed and can have an MDB bill acceptor installed as well. If the MDB coin changer and other MDB accessories are not factory installed, refer to the instructions received from the manufacturer of the MDB coin changer and other MDB accessories for proper set-up and installation.

For additional information about coin mechanisms, refer to the specific manufacturer's instructions.

SETTING THE TEMPERATURE CONTROL

This vender is equipped with an electronic temperature sensor. The temp sensor is factory pre-set to maintain a cabinet temperature of 37º Fahrenheit (2.7ºC). It is also a good practice to ensure the proper operating temperature prior to installing the vender on location. To set the temperature, apply power to the vender and allow it to run for several hours with the door closed or until the minimum cabinet temperature is achieved. Then, using the method below, verify the temperature inside the cabinet. In programming scroll to and enter Environmental Controls, then scroll to and enter Refrigeration, then scroll to and enter Display, set this mode to "On". Important note: Sales Message must also be set to On for the temperature to be displayed.

LOADING CHANGE TUBES

Open the main door and enter the Service Mode. Advance to **"Fill Coin Mech"** mode in the **"Cash Settings"** menu in Programming.
Load the coin mechanism with coins by inserting coins in the coin mech's separator. The display will show the total value of coins as they are inserted.
Note: A low coin level in the coin tubes will interfere with operation of the bill validator.

For additional information about coin mechanisms, refer to the specific manufacturer's instructions.

Loading Product

The Vender is designed to vend a wide range of packages. All Venders are shipped ready to vend packages according to customer orders. To vend an alternative package in the vender, contact Crane Merchandising Systems Service Dept. or your Representative for Assistance. You may also search the package type you wish to vend at www.dixienarco.com .

INITIAL LOADING

To ensure proper vending, make sure columns are set to vend the proper packages. When loading the narrow columns, lay the first row of packages on the Load Bar.

Correct loading will prevent service calls and ensure proper vending.

After loading the vender for the first time, ensure the vender is loaded and primed. Priming is done in programming. **The depth must also be programmed depending on the package to be vended. Cans may be programmed up to 4 deep.**

NOTE: To ensure proper airflow through the evaporator and the proper operation of the Vend Sensor, ***DO NOT*** place packages (or other foreign objects) in the bottom of the tank.

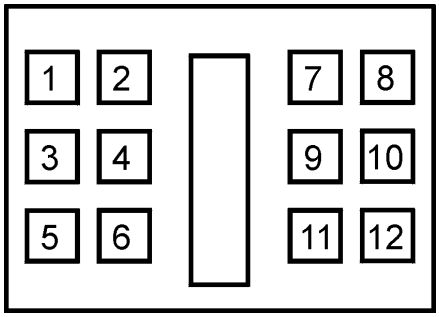
SERVICE NOTE

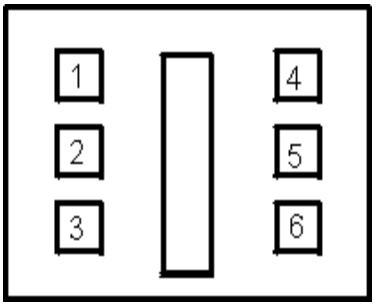
Battery Backup (SBC)
The Single Board Controller is equipped with a battery backup which is used to retain information programmed in the system (pricing, time, date, etc.) in case of power interruptions or any time the main power is off. When the vender is shipped, the battery is connected and memory is being maintained.

Disconnect the battery if the vender will be stored for a long period of time. The following steps will guide you through this procedure.

- Remove power from the vender by unplugging the main power cord from the wall receptacle.
- Locate the Control Board on the main door. Remove the battery from its holder (B1).

SBC
PROGRAMMING METHOD
2012
HVV
DNCB 640/ DNCB 448





The controller has two modes of operation:
NORMAL and SERVICE.

NORMAL MODE:
In Normal Mode, on power up display will show the software version installed in vender for 10 Seconds, then change to "**Ice Cold Drink"** message, **Product Price**, **"Sold Out"**, **Credit Value**, or decimal point. If the right most decimal is flashing, this indicates an error or problem recognized in the vender. When money is inserted, the display indicates the total amount of the deposit. The select buttons are used to select the product. In normal mode you may access an external menu for reading historical sales total, product total, product total by selection, sales by price totals, and machine temperature.

Note: If **"Enter Number of Columns"** appears on the display on power up with the door open, you will need to program the vender model number in the controller. Refer to Setting the Vender Type on page 25.

Important: Vender has Energy Star software that turns the lights out after 10 hours of inactivity. The lights come back on once the unit is coined or any selection button is pressed. The feature in non adjustable and cannot be disabled.

SERVICE MODE:
The Service Mode is entered when the vender door is open and the service switch is pressed. The display will show a list of error codes for errors that have occurred since the door was last opened. **"Jammed Column #"** is a vend mechanism jammed, **"Select Switch #"** is a select switch problem, **"Refrigeration"** is a refrigeration or temp sensor problem, **"Vend Sensor"** is a Vend Sensor problem and **"Door Switch"** is a door switch open problem. To acknowledge an error, press select button 1, at this time you will enter the service menu. The display will show **"Historical Data"** at this time. Some of the menu items have sub-menus.
To move through the menus and sub-menus follow these instructions. To:

MOVE THROUGH MENU:	Press select buttons 1 & 2 simultaneously to scroll down through the menu. While scrolling down through menu, release for 2 seconds, press select buttons 1 & 2 simultaneously to scroll up through menu.
ENTER SUB-MENU:	Press and hold select button 1 to enter a sub-menu.
EXIT SUB-MENU:	With **"Return"** on display, press and hold select button 1 to exit a sub-menu.

EXIT SERVICE MODE:
Closing the inner door, pressing button 1 when **"Return"** is displayed at the top menu level, or a five-minute inactivity time-out will exit the service mode.

FRONT PANEL PROGRAMMING
SERVICE MENU

Historical Data

This function shows the user the vender accounting over the life of the vender. Use the following select buttons to view the total sales in dollars, total number of vends and the total number of vends for each selection.

Press Select Button 1: Shows the historical total cash sales for the life of the vender.
Press Select Button 2: Shows the historical total number of vends.
Press Select Button 3: Shows the historical number of vends by selection. Each selection automatically scrolls across the display.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Resettable Data

This function shows the user the vender accounting data since the last counter reset. This data can be reset either from the menu or by DEX interrogation.

Press Select Button 1: Shows the total cash collected since the last counter reset
Press Select Button 2: Shows the total number of vends since the last counter reset.
Press Select Button 3: Shows the total number of vends by selection since the last counter reset. Each selection automatically scrolls across the display.
Press Select Button 4: This button zeros the interval data described above. Hold select button "4" for 5 seconds, "the display will go blank" then **"Counters Reset"** will be displayed. At this time, all interval data will return to **"0"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Set Price

This function is used to set the price of each selection. When a select button is pressed, the price for that selection will be displayed. If the button is held in, the price will increment or decrement. To change from increment to decrement, release the select button and press it again. To set all selections for the same price: set the desired vend price on select #1, then simultaneously press and hold buttons 3 & 4, the price set for select #1 will be displayed. After 5 seconds the display will show **"Single Price Set"**, this will change the vend price of all selections, both primary and secondary, to the price programmed to button #1.

Note: The SBC multi-pricing capability allows you to set all the selections to any price in the range of $0.00 to $99.95.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Cash Settings

This function is used to configure credit handling rules for the vender. To move to **"User Menu"**, press & hold select buttons 1 & 2 simultaneously. Press button 1 to enter **"Cash Settings"** Menu. The following are sub-menus of the Cash Settings: "**Fill Coin Mech", "Dump Coin Mech", "Coin Rules", "Escrow", "Multi Vend",** and "**Return"**.

Fill Coin Mech:

This function is used to count coins loaded in the top (separator) of the coin mech. When "**Fill Coin Mech"** is displayed the coin mech will accept tubed coins. When the first coin is inserted, "**Fill Coin Mech"** will be replaced with the cash value of coins in the coin tubes. The total value of the coins inserted will be displayed and will be counted in the DEX audit data, so the controller knows exactly how much change is in the coin mech. Press select button 1 to return to **"Fill Coin Mech"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Dump Coin Mech:

This function is used to dump coins from the coin mechanism. Press select button #1 to enter **"Dump Coin Mech"** mode and the lowest coin value dispensable will show on the display. Press and hold select buttons 1 & 2 simultaneously to scroll through the different coin values available to dump coins. Press and hold select button #1 to dump the coins whose value is shown on the display. Press and hold select buttons 1 & 2 simultaneously until **"Return"** shows on the display. Press select button #1 will return to **"Dump Coin Mech"**.

If a level 3 coin mech with Alternate Payout mode is installed, the coin mech will stop dispensing coins when the coin mech's coin count reaches 0.

Coin Rules:

This condition is used to allow the exact change condition to be turned on or off. When **"Off"** the controller will not go into an exact change condition. This will allow bills or coins to be accepted regardless of the ability to pay back non-refundable currency. When turned **"On"**, the controller will set the exact change condition based on the ability to pay back non-refundable currency (i.e. Coins, paper). To show current condition press select button 1. Press and hold select button 1 to toggle **"Coin Rules" "On"** and **"Off"**.

Escrow:

This function supports 4 (four) escrow options. Pressing select button 1 will show the current escrow setting. Press and hold select button 1 to scroll through the available Escrow options and set the escrow mode to the setting displayed when select button1 is released.

"Price 1"
This escrow condition is forced vend option 1 ("Escrow to Price"). All dollar bills will be stacked. No cancel sale is allowed once minimum vend price is met or exceeded.

"Price 2"
This escrow condition is forced vend option 2 ("Escrow No Cancel") with all bills stacked, and no cancel sale allowed unless the vender is in exact change and the maximum vend price is exceeded. Note: Any money entered below the vend price cannot be returned.

"Select 4"
This escrow condition is "Escrow to Select" with all the dollar bills being stacked. Cancel sale will return the deposit from the coin changer (i.e.4 quarters).

"Select 1"
This escrow condition is "Escrow to Select Dollar Bills" with the last dollar bill that meets or exceeds maximum vend price being escrowed in the validator. Cancel sale will return the held dollar bill and any amount over $1 will be returned from the coin changer.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Multi Vend:

This function, when turned on, allows credit to be retained after a vend so the customer can vend from another selection. (i.e..50 vend price, put in $1.00, push a select button and vends, .50 still shows on the display, push a second select button and vends). Credit is cancelled after 5 minutes of inactivity. There is unlimited acceptance. If a customer wants their credit (money) back, the coin return lever must be pressed. To show the current **"Multi Vend"** condition, press select button 1 and the display will show the current setting. Press and hold button 1 to toggle **"Multi Vend" "On"** and **"Off"**.

Press and hold select buttons 1 & 2 simultaneously to move to **"Return"**.

Return:

Press and hold button 1 to return to **"Cash Settings"**.

User Menu:

This function is used to configure the vender to operate in a fashion best suited for the vender location. To move to **"Diagnostics"**, press & hold select buttons 1 & 2 simultaneously, to enter the **"User Menu"** sub-menus press select button1. The following are sub-menus of the **"User Menu"** for a machine with AC motors: **"Space To Sales"**, **"Column"**, **"Time", "Language", "Electronic Counter", "Limited Access", "Secondary Price", "Environmental Controls", "Light", "Refrigeration", "Free Vend", "Override", "Sales Message", "Recharge",** and **"Return"**. The **"Column"** sub-menu prompt will only be available in machines with DC motors.

Space To Sales

To view the space to sales condition, press select button 1 and display will show **"Selection 1"**. Alternating with columns assigned to that select button. Press select buttons 1 & 2 simultaneously to scroll through the available select buttons to view columns assigned and **"Return"**.

To change space to sales:

Press select button 1 at the **"Selection #"** prompt and **"Column ## #"** (column edit routine) will be displayed, where the ## is the column to be added or deleted to the select button and the third # is **"0"** for not assigned or **"1"** for assigned to that selection. Press select button 1 with **"Column ## #"** on the display to toggle between **"Column ## 0"** and **"Column ## 1"**. With the setting you wish to use showing on the display, press select buttons 1 & 2 to scroll to next selection to add/delete columns. Press select button 1 at the **"Return"** prompt when selecting columns to enable, will return to **"Selection #"**. Press select button 1 at the **"Return"** prompt when choosing what selection to set for Space to Sales, will return to **"Space to Sales"**.

Note: You must be in the **"Selection"** prompt to get to the **"Return"** mode that scrolls to **"Space To Sales"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Column - This prompt only appears on machines with DC motors.

Select this prompt to set column depth, package type and vend angles if the package type is custom. This will scroll through the list of **Columns 1--- 9, "ALL" or "Return"** to select what column(s) will have its settings changed. Pressing button 1 will display **"Column # "** where # represents the column number.
Pressing select buttons 1 & 2 simultaneously will scroll through the columns.
Press select button 1 to scroll to **"Package"**

"Package" - is the next prompt. Press select buttons 1 & 2 simultaneously after entry into this sub-menu will toggle between **"Package"** and **"Return"**. Selecting **"Package"** allows setting the package type for the column selected in the column prompt. Pressing select button 1 will show current package setting. (i.e.**1, 2, 3, …, Custom, and Return**). Press select buttons 1 & 2 simultaneously to scroll through the package settings.
Press select button 1 to select the package type.

If a predefined package type(1, 2, 3, 4, or 5) is selected

After the package type has been selected, **"Key 1 = Prime, Key 2 = Exit"** will be displayed. Press button 1 to prime the column with product or button 2 to exit without priming the column. If select button 2 is pressed the column will be marked as jammed and will prime when the door is closed.

"Hold Angle" - **Will only be displayed if the package type selected is "custom"**.

This allows setting the hold angle for the column selected in the column prompt. Press select button 1 to display the current hold angle **"Hold Angle ###"**. Press select buttons 1 & 2 simultaneously to increase the Hold Angles Number. Release and Press Selection Buttons 1 and 2 again to decrease the Hold Angle Number. Press select button 1 to select the displayed hold angle. **"Depth"** will be displayed after the hold angle is set.

"Depth" - **Will only be displayed if the package type selected is "custom"**.

This allows setting the product depth for the column selected in the column prompt. The current product depth **"Depth #"** is displayed when select button 1 is pressed. Press select buttons 1 & 2 simultaneously to scroll through available product depths (1-5). Press select button 1 to select the displayed depth.

"Vend Angle" - **Will only be displayed if the package type selected is "custom"**.
This allows setting the vend angles for the column selected in the column prompt. "**Vend Angle # ###**" will be displayed where the first # is the product number in the column and ### is the Vend Angle Number for that product. The user will be prompted to enter same number of vend angles as was entered at the **"Depth"** prompt. After the last vend angle is entered the display will show **"2 = Exit, 1 = Prime"**. Press button 1 to prime the column with product or 2 to exit with out priming the column. If select button 2 is pressed the column will be marked as jammed and will prime when the door is closed.

Return
Pressing select button 1 will return to **"Column#"**

Press and hold select buttons 1 & 2 simultaneously to move to the next item on the menu

Time

This function is used to set the year, month, day, hour/minute (military 24 hour clock), and daylight savings time. Press select button 1 and **"Year"** will show on display. Press select buttons 1 and 2 simultaneously to scroll through all **"Time"** sub-menus.

"**Year**"- Year Setting (2000 to 2099)
Press select button 1 the current year setting will show on display.
Press and hold select button 1 to increment the year setting (2000 to 2099).
Release select button 1 and press and hold again will decrement the year setting.
Release the select button with the display showing the year you wish to use and display will return to **"Year"**.
Press select buttons 1 & 2 simultaneously to scroll to **"Month"**.

"**Month"** - Month Setting (01 to 12)
Press select button 1 and the current 2-digit month setting will show on display.
Press and hold select button 1 to scroll through the month settings. (01 = Jan. to 12 = Dec).
Release the select button with the display showing the month you wish to use and display will return to **"Month".**
Press select buttons 1 & 2 simultaneously to scroll to **"Day"**.

"**Day**" - Day of Month Setting (1 to 31)
Press select button 1 and the current 2-digit day of month setting will show on display.
Press and hold select button 1 to scroll through the day of month settings (1 to 31).
Release select button 1 and press and hold again will decrement the day of month setting.
Release the select button with the display showing the day of month setting you wish to use and display will return to **"Day"**.
Press select buttons 1 & 2 simultaneously to scroll to **"Hour/Minute"**.

"**Hour/Minute"** - Hour and Minute Setting (0000 to 2359)
Press select button 1 and the current 4-digit hour and minute setting will be displayed (24 hour).
Press and hold select button 1: Set Hours
Press and hold select button 2: Set Minutes
Press select buttons 1 & 2 simultaneously to move to "**Daylight Savings Time"** menu.

Daylight Savings Time
Press select button 1 and the current setting will show on the display.
Press and hold select button 1 to scroll through the **"Daylight Savings Time"** options listed:

"American" – North American rules – Set forward 1 hour at 2:00 am on the first Sunday in April; Set backward 1 hour at 2:00 am on the last Sunday in October.

"European" – European rules – Set forward 1 hour at 1:00 am on the last Sunday in March; Set backward 1 hour at 1:00 am on the last Sunday in October.

"Australian" – Australian rules – Set forward 1 hour at 1:00 am on the first Sunday in October; Set backward 1 hour at 1:00 am on the last Sunday in March.

"Off" – Off Rules – Daylight savings time change will not be made.

Release the select button with the display showing the **"Daylight Savings Time"** setting you wish to use and display will return to **"Daylight Savings Time"**.
Press and hold select buttons 1 & 2 simultaneously to move to "Return".

Return:
Press select button 1 to return to **"Time"**.

Language

This function is used to set the language that will be used for sales mode messages. To display the current language selected, press select button 1. To change the language selected, press & hold select button 1 to scroll through the language menu. Once the desired language is shown on the display, release the button. The display will then return to **"Language"**.

English	**Spanish**
French	**Slovene**
German	**Finnish**
Italian	**Norwegian**
Portuguese	**Turkish**

Press and hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Electronic Counter

This function is used to set the four (4) button code that will show historical cash sales, historical total vends, historical product counts by selection, historical product counts that have occurred for prices, and cabinet temperature when the vender is in sales mode. Press select button 1 to view the current four (4) button code.

To change **"Electronic Counter"** four button code:
At **"Electronic Counter"** press select button 1, **"####"** (representing current four button code) will show on display (**"4231"** is the factory default code). Press and hold select button 1 until the far left digit is replaced by an **"*"** indicating it can be changed. Press the select button desired for the first digit of the code. The next digit will be replaced by an **"*"** press the select button desired for that digit of the code. Continue this process until all 4 digits are set. After the last digit is entered the display will return to **"Electronic Counter"**
Note: The four-button code used must be select buttons 1 through 9 only.

Enter the four button code while in sales mode to view the data. Once entered the listed data is available from the front of the vender:

Press select button 1: Show historical cash sales.
Press select button 2: Show historical total vends.
Press select button 3: Show historical product counts by selection.
Press select button 4: Show historical cash sales by selection
Press select button 5: Show temperature inside the cabinet.
Press select button 6: Returns to sales idle mode (sales vender operation).

Note: There is a thirty (30) second time-out that will return the vender to sales mode if no select buttons are pressed.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Limited Access

This function is used to program the vender to use the Limited Access Features. To move to "**Secondary Price Menu"** press & hold select buttons 1 & 2 simultaneously, to enter the sub-menu press Select Button 1. The following are sub-menus of the Limited Access Menu: **"Selects", "Days", "Start 1", "Stop 1", "Start 2", "Stop 2",** and **"Return"**.

Selects

This function is used to set selection(s), which, will be limited during certain periods of the day. To view the selection setting condition, press select button 1. The display will show **"Selects## #"** where ## is the selection number and # is a **"0"** or **"1"** depending on whether the selection is enabled (1) or disabled (0). Press and hold select button 1 to toggle between **"0"** & **"1**". Press select buttons 1 & 2 simultaneously to scroll through all available select buttons, **"NONE", "ALL",** and **"Return"**. Pressing select button 1 when **"ALL"** is" displayed will cause the display to change to **"On"** when all selections have been enabled. Pressing select button 1 when **"NONE"** is" displayed will cause the display to change to **"Off"** when all selections have been disabled. Press select button 1 at the **"Return"** prompt returns to **"Selects"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Days

This function is used to set the days of the week to be affected by limited access.

Day of Week:	**Sunday**	**Wednesday**	**Saturday**	**Return**
	Monday	**Thursday**	**All Days**	
	Tuesday	**Friday**	**No Days**	

Press select button 1 and **"Monday #"** will show on the display, where # is **"0"** (disable) or **"1"** (enable). Press and hold select button 1 to toggle between **"0"** and **"1"**. Release the select button with the display showing the setting you wish to use. Press select buttons 1 & 2 simultaneously to scroll through all available days, **"All Days"**, **"No Days"**, and **"Return"**. Pressing select button 1 when **"ALL Days"** is displayed will cause the display to change to **"On"** when all days have been enabled. Pressing select button 1 when **"No Days"** is displayed will cause the display to change to **"Off"** when all days have been disabled. Press select button 1 at the **"Return"** prompt returns to **"Days"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Start 1

This function is used to set the hours and minutes to start period 1 limited access. Press select button 1 and the current four-digit hour and minute setting will to be displayed (24 hour).
Press & hold select button 1: Set Hours
Press & hold select button 2: Set Minutes

Press select buttons 1 & 2 simultaneously to move to the next item in the menu.

Stop 1
This function is used to set the hours and minutes to stop period 1 limited access. Press select button 1 and current four-digit hour and minute will be displayed. (24 hour).
Press & hold select button 1: Set Hours
Press & hold select button 2: Set Minutes

Press select buttons 1 & 2 simultaneously to move to the next item in the menu.

Start 2
This function is used to set the hours and minutes to start period 2 limited access. Press select button 1 and the current four-digit hour and minute setting will be displayed (24 hour).
Press & hold select button 1: Set Hours
Press & hold select button 2: Set Minutes

Press select buttons 1 & 2 simultaneously to move to the next item in the menu.

Stop 2
This function is used to set the hours and minutes to stop period 2 limited access. Press select button 1 and the current four-digit hour and minute setting will be displayed (24 hour).
Press & hold select button 1: Set Hours
Press & hold select button 2: Set Minutes

Press select buttons 1 & 2 simultaneously to move to the next item in the menu.

Return
Press select button 1 to return to **"Limited Access"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Secondary Price

This function is used to program a second price for each selection. To move to **"Environmental Controls**", press & hold select buttons 1 & 2 simultaneously. To enter the sub-menu press select button 1. The following are sub-menus of the Secondary Price Menu: **"Price", "Days", "Start", "Stop"**, and **"Return"**.

Price
This function is used to set the price of each selection. When a select button is pressed, the price For that selection will be displayed. If the button is held in, the price will increment or decrement. To change from increment to decrement, release the select button and press it again.
Note: The SBC multi-pricing capability allows you to set all selections to any price in the range of $0.00 to 99.95.

Press & and hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Days
This function is used to set the days of the week to be affected by secondary pricing.

Day of Week:	**Sunday**	**Wednesday**	**Saturday**	**Return**
	Monday	**Thursday**	**All Days**	
	Tuesday	**Friday**	**No Days**	

Press select button 1 and **"Monday #"** will show on the display, where # is **"0"** (disable) or **"1"** (enable). Press and hold select button 1 to toggle between **"0"** and **"1"**. Release the select button with the display showing the setting you wish to use. Press select buttons 1 & 2 simultaneously to scroll through all available days **"All Days"**, **"No Days"**, and **"Return"**. Pressing select button 1 when **"ALL Days"** is displayed will cause the display to change to **"On"** when all days have been enabled. Pressing select button 1 when **"No Days"** is" displayed will cause the display to change to **"Off"** when all days have been disabled. Press select button 1 at the **"Return"** prompt returns to **"Days"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Start
This function is used to set the hours and minutes to start secondary pricing. Press select button 1 and the current four-digit hour and minute setting will be displayed. Press and hold select button 1 to change the hour setting, press button 2 to change the minute setting.

Press select buttons 1 & 2 simultaneously to move to the next item in the menu.

Stop
This function is used to set the hours and minutes to stop secondary pricing. Press select button 1 and the current four-digit hour and minute setting will be displayed. Press and hold select button 1 to change the hour setting, press button 2 to change the minute setting.

Press select buttons 1 & 2 simultaneously to move to the next item in the menu.

Return
Press button 1 to return to **"Secondary Pricing"**.

Press buttons 1 & 2 to scroll to the next item in the menu

Environmental Controls

This allows the user to view the energy conservation menu **"Lighting"**, **Refrigeration"**, and also the **"Relay"** test menu. **When this is programmed to "Off" you will not see "Lighting", Refrigeration or Relay Test.** Press select button 1 and the current setting will be displayed (**On or Off**). Press and hold select button 1 to toggle between **"On"** and "**Off"** (**This feature is "Off" from the factory).** To move to **"Light"**, press & hold select buttons 1 & 2 simultaneously with this feature on. To move to "**Free Vend"**, press & hold select buttons 1 & 2 simultaneously with this feature off.

Light

This function is used to turn the lights off during certain periods of the day. To enter the sub-menu press select button 1. The following are sub-menus of the Light Menu: **"Days"**, **"Start"**, **"Stop"**, **"Enable"**, and **"Return"**. To move to **"Refrigeration**", press & hold select buttons 1 & 2 simultaneously.

Pressing select button 1 will enter **"Days"**.

Days
This function is used to set the days of the week to turn lights off.

Day of Week:	**Sunday**	**Wednesday**	**Saturday**	**Return**
	Monday	**Thursday**	**All Days**	
	Tuesday	**Friday**	**No Days**	

Press select button 1 and **"Monday #"** will show on the display, where # is **"0"** (disable) or **"1"** (enable). Press and hold select button 1 to toggle between **"0"** and **"1"**. Release the select button with the display showing the setting you wish to use. Press select buttons 1 & 2 simultaneously to scroll through all available days, **"All Days"**, **"No Days"**, and **"Return"**. Press select button 1 at the **"Return"** prompt returns to **"Days"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Start
This function is used to set the hours and minutes to start lighting routine.
Press select button 1 and the current four-digit hour and minute setting will be displayed.
(24 hour).
Press & hold select button 1: Set Hours
Press & hold select button 2: Set Minutes

Press select buttons 1 & 2 simultaneously to move to the next item on the menu.

Stop
This function is used to set the hours and minutes to stop lighting routine.
Press select button 1 and the current four-digit hour and minute setting will be displayed. (24 hour)
Press & hold select button 1: Set Hours
Press & hold select button 2: Set Minutes

Press select buttons 1 & 2 simultaneously to move to the next item on the menu.

Enable
This function is used to allow the lighting routine to go in to affect.
Press select button 1 and the current setting will be displayed (**On** or **Off**).
Press and hold select button 1 to toggle between **"On"** and **"Off"**.
Release the select button showing the setting you wish to use and display will return to **"Enable"**.

Press select buttons 1 & 2 to scroll to **"Return"**.

Return
Press select button 1 to return to **"Light"**.
Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Refrigeration

This function is used to electronically control the refrigeration operations of the vender. . To enter the sub-menu press select button 1. The following are sub-menus of the Refrigeration Menu: **"Temperature", "Celsius or Fahrenheit "**, **"Display"**, **"Days"**, **"Start"**, **"Stop"**, **"Storage Temperature"** , **"Storage Enabled"**, and **"Return"**. To move to **"Free Vend"**, press & hold select buttons 1 & 2 simultaneously.
Press select button 1 will enter **"Temperature"**.

Temperature
(Default Temperature 37^0F/15^0C)
This function is used to set the average product temperature for initial pull down and reload recovery (32-41 Fahrenheit or 0-5 Celsius).
Press select button 1 and **"tt.tx"** will show on the display where "**x"** is Fahrenheit or Celsius and "**tt.t"** is the degrees.
Press and hold select button 1 to increase or decrease the number by 1F or 0.5C. Release select button with the display showing the temperature you wish to use and the display will return to **"Temperature"**.
Press select buttons 1 & 2 to scroll to **"Celsius or Fahrenheit"**.

Celsius or Fahrenheit
This function is used to set the degree reading to Fahrenheit or Celsius.
Press select button 1 and the current setting will show on the display. Press and hold select button 1 to toggle between **"Fahrenheit**" and **"Celsius**". Release the select button with the display showing the setting you wish to use and display will return to **"Celsius or Fahrenheit"**.
Press select buttons 1 & 2 to scroll to **"Display"**.

Display
This function is used to enable the Temperature to be displayed following the **"Ice Cold Drink"** message. "**Sales Message" must also be set to "ON" for the temperature to be displayed**.
Press select button 1 and the current setting will be displayed (**On or Off**). Press and hold select button 1 to toggle between **"On" and "Off"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Days
This function is used to set the days of the week to use Temperature Setting Routine.

Day of Week:	**Sunday**	**Wednesday**	**Saturday**	**Return**
	Monday	**Thursday**	**All Days**	
	Tuesday	**Friday**	**No Days**	

Press select button 1 and **"Monday #"** will show on the display, where # is **"0"** (disable) or **"1"** (enable). Press and hold select button 1 to toggle between **"0"** and **"1"**. Release the select button with the display showing the setting you wish to use. Press select buttons 1 & 2 simultaneously to scroll through all available days, **"All Days"**, **"No Days"**, and **"Return"**. Press select button 1 at the **"Return"** prompt returns to **"Days"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Start
This function is used to set the hours and minutes for storage temperature to become active. Press select button 1 and the current four-digit hour and minute setting will be displayed (24 hour)

Press & hold select button 1: Set Hours
Press & hold select button 2: Set Minutes

Press select buttons 1 & 2 simultaneously to move to the next item on the menu.

Stop
This function is used to set the hours and minutes for storage temperature to become inactive. Press select button 1 and the current 4-digit hour and minute setting will be displayed (24hour).

Press & hold select button 1: Set Hours
Press & hold select button 2: Set Minutes

Press select buttons 1 & 2 simultaneously to move to the next item on the menu.

Storage Temperature
(Default Temperature 60^0F/ 16^0C)
This function is used to set the temperature for product storage (32-75 Fahrenheit or 0-24 Celsius). Press select button 1 and **"tt.tx"** will show on the display where **x** is Fahrenheit or Celsius and **tt.t** is the degrees.
Press and hold select button 1 to increase or decrease the number by 1 or 0.5. Release select button with the display showing the temperature you wish to use and display will return to **"Storage Temperature"**
Press select buttons 1 and 2 simultaneously to scroll to **"Storage Enabled"**

Storage Enabled
This function is used to enable the storage setting.
Press select button 1 and the current setting will be displayed (**On or Off**).
Press and hold select button 1 to toggle **"On or Off"**.
Release the select button showing the setting you wish to use and display will return to **"Storage Enabled"**

Press select buttons 1 & 2 to scroll to **"Return"**

Return
Press select button 1 at **"Return"** to return to **"Refrigeration"**
Press select buttons 1 & 2 simultaneously to scroll to next item on the menu.

Free Vend

This function is used to set the Free Vend option. Note: For free vend to become active the Key Switch Kit (626,020,44x.x4) must be connected to the Free Vend Switch Connector. Press select button 1 and **"ENABLE"** will show on the display. To move to "**Override"**, press & hold select buttons 1 & 2 simultaneously.

Enable
This function is used to allow the free vend to go in affect.
Press select button 1 and the current setting will be displayed (**On or Off**).
Press and hold select button 1 to toggle between **"On" or "Off "**.
Release the select button showing the setting you wish to use and the display will return to **"Enable"**.
Press select buttons 1 & 2 to scroll to **"Display"**

Display
This function is used to show the current number of free vends performed by the controller.
Press select button 1 and **"#"** will show on the display where **"#"** is the number of free vends performed by the controller. Release the select button and display will return to **"Display"**
Press select buttons 1 and 2 simultaneously to scroll to **"Reset"**

Reset
This function is used to reset number of free vends to zero.
Press and hold select button 1 for 5 seconds to reset the number of free vends performed by the controller to zero. Release the select button and the display will return to **"Reset"**.
Press select buttons 1 & 2 to scroll to **"Return"**.

Return
Press select button 1 to return to **"Free Vend"**.
Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Override

This function is used to allow the Key Switch Kit (626,020,44x.x4) to override some of the settings stored for normal operations. When enabled and the free vend switch is in the closed position, the controller will override **"Free Vend"**, disable vending, disable currency acceptance, display will show **"No Sales"**, and lights will be off. The compressor will continue to keep product at the programmed temperature. Vender will remain in this state until the Override Switch is in the open position.
Press select button 1 and the display will show the current setting for 2 seconds (**On or Off**).
Press and hold select button 1 to toggle between **"On"** - enabled and **"Off"** - disabled.
Release the select button showing the setting you wish to use and display will return to **"Override"**.
To move to **"Sales Message**", press & hold select buttons 1 & 2 simultaneously.

Sales Message

This function is used to turn on the scrolling message **"Ice Cold Drink"**.
Press select button 1 and the display will show the current setting (**On or Off**).
Press and hold select button 1 to toggle between **" On or Off"**.
Release the select button showing the setting you wish to use and display will return to **"Sales Message"**. Press select buttons 1 & 2 simultaneously to scroll to **"Recharge"**

Recharge -The installed Card Reader must support this option for this feature to work correctly.

This function is used to enable the recharge card setting routine.
Press select button 1 and the display will show the current setting (**On**- recharge card enabled or **Off**- recharge card disabled). Press and hold select button 1 to toggle between **"On"** and **"Off"**.
Release the select button showing the setting you wish to use and display will return to **"Recharge"**.
Press select buttons 1 & 2 simultaneously to scroll **"Return"**

Return

Press select button 1 to return to **"User Menu"**.
Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Diagnostics

This function allows you to systematically diagnose problems related to the vender. To move to **"Auto Test"** press select buttons 1 & 2 simultaneously, to enter sub-menu press select button 1. The following are sub-menus of Diagnostics Menu:

Vender with DC motors **"Selection", "Home Sensor", "Vend Sensors", "Motors", "Coin Mech", "Note Acceptor", "Display", "Relay", "Jog", "Prime",** and **"Return"**.

Selection

Press any select button, and the display will indicate the number of the select button pressed.
Press & hold select buttons 1 & 2 simultaneously to the next item on the menu.

Home Sensor - This prompt only appears on machines with DC motors.

Use this to test the Home Sensor on the Motor for any column. Press select button 1 to display **"Column 1"**. Press & hold select buttons 1 & 2 simultaneously to scroll through the columns and **"Return"**. Press button 1 when a column is displayed will cause the displayed column to test that the motor's home sensor can be detected. The Display will read **"Pass"** or **"Fail".** Press select button 1 at **"Return"** to return to **"Home Sensor"**.
Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Vend Sensor - This prompt only appears on machines with DC motors.

Use this to test vend sensor in the machine. Press select button 1 to begin the test and **"TEST CHUTE"** will be displayed. Touch or place an object on the chute. When it is detected **"Chute Pass"** will be displayed. If nothing is detected on the chute, a **"Fail"** or "CS Error" message will be displayed.
Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Motors

Use this test to run any motor in the stack. Press select button 1 and **"Motor 1"** will show on the display. Use the following select buttons to run this test.

Press Select Buttons 1 & 2:	Press until desired motor # to run or **"Return"** is shown on the display.
Press Select Button 1:	Press to run the selected motor. The display will show **"Vending"** and the selected motor will run until a product passes the Vend Sensor.

Coin Mech

Use this test to check Coin Mech, Coin Chutes, and the Coin Mech payout systems. Inserting any coins enters the coin mech diagnostic function. Only tubed coins (i.e. that can be returned) will be accepted. The value of the coins will be reflected on the Display. Press select button 2 will return any coins inserted and return to **"Coin Mech"**.
Press select buttons 1 & 2 simultaneously to move to the next item on the menu.

Note Acceptor

Use this test to check note acceptor. Inserting a bill enters the Note Accepter diagnostic function. Bill will be held in escrow and the Display will the notes value. Press select button 2 to stack the bill. Press select button 3 to return the bill. After the note is has been stacked or returned, the display will return to **"Note Acceptor"**.
Press & hold select buttons simultaneously to move to the next item on the menu.

Display

Press select button 1 and the display segments will illuminate in a scrolling manner, or will scroll through a set of text characters and return to **"Display"**.

Press & hold select buttons 1 & 2 simultaneously to move to the next item on the menu.

Relay – Relays can only be tested if the environmental controls package is installed in the vender.

Compressor #
This function allows you to test the relay circuit in the Power Distribution Box for the compressor.
CAUTION: *Disconnect power to the compressor before testing the compressor relay. Failure to disconnect power to the compressor before testing the relay could result in damage to the compressor.*
Press select button 1 and the display will show **"Compressor #"**, where # is the state of the relay **0** = not activated or off; **1**= activated or on. Press select button 1 to toggle the relay **"On"** and **"Off"**. Press select buttons 1 & 2 simultaneously to move to **"Fan"**.
Fan #
This function allows you to test the relay electronic control of the evaporator fan.
Press select button 1 and the display will show **"Fan #"** where # is state of the relay **0** = not activated or on; **1** = activated or off. Press select button 1 to toggle the relay **"On**" and **"Off"**.
Press select buttons 1 & 2 simultaneously to scroll to **"Light"**.
Light #
This function allows you to test the relay electronic control of the lights.
Press select button 1 and the display will show **"Light #"**, where # is the state of the relay **0** = not activated or on; **1** = activated or off. Press select button 1 to toggle the relay on and off. Press select buttons 1 & 2 simultaneously to scroll to **"Return"**.
Return
Press select button 1 to return to **"Relay"**.

Jog Motor - This prompt only appears on machines with DC motors

Press select button 1 the display will show **"Column 1"**. Press select buttons 1 & 2 simultaneously until the desired column is displayed. Selecting the desired column will then prompt for a direction either **"Clockwise"** or **"Counter Clockwise"**. Pressing select 1 & 2 simultaneously will scroll between **"Clockwise"**, **"Counter Clockwise"** and **"Return"**. Pressing select button 1 when "**Clockwise"** or **"Counter Clockwise"** is displayed will jog the motor in that direction. Press select buttons 1 & 2 to scroll to **"Return"**. Press select button 1 at the **"Return"** to return to **"Jog Motor"**.
Press select buttons 1 & 2 to scroll to the next Item.

Prime Column – This prompt only appears on machines with DC motors.

Pressing select button 1 will display **"Column 1"**. Pressing select buttons 1 & 2 simultaneously will scroll to the desired column. Pressing select button 1 when the desired column is displayed will cause that column to be primed. The Display will show **"Prime Column"**. Press select buttons 1 & 2 simultaneously to scroll to **"Return"**. Press select button 1 at **"Return"** will return to **"Prime"**
Press select buttons 1 & 2 simultaneously to scroll to the next Item.

Return

Press select button 1 to return to **"Diagnostics"**.
Press and hold select buttons 1 & 2 simultaneously to scroll to next menu item.

Auto Test

This function is used in Crane Merchandising Systems's manufacturing process and is not intended for use in the field. Its purpose is a self-test routine to check the SBC components listed. For further details contact Crane Merchandising Systems Factory Service.
Press and hold select buttons 1 & 2 simultaneously to scroll to **"Return"**.

Return

Press & hold select buttons 1 & 2 simultaneously to scroll to **"Return"**.
Press select button 1 to return to Sales mode.

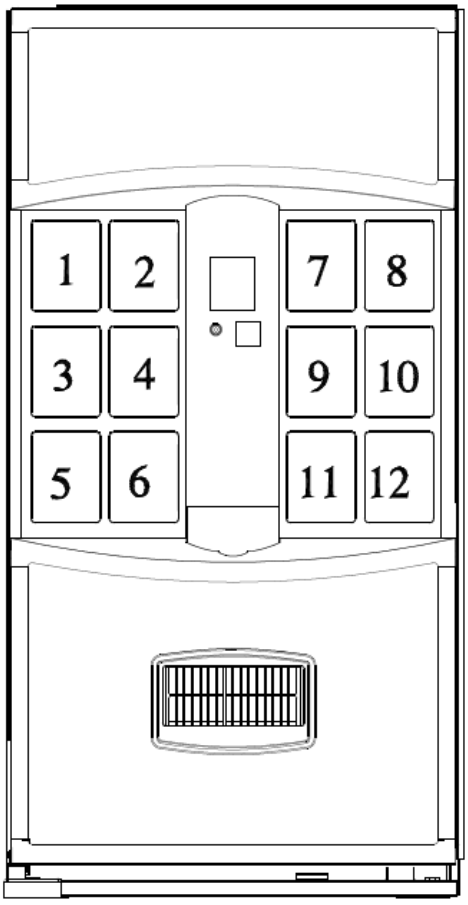
HVV DNCB 640/ DNCB 448 SBC QUICK REFERENCE MENU PROMPTS

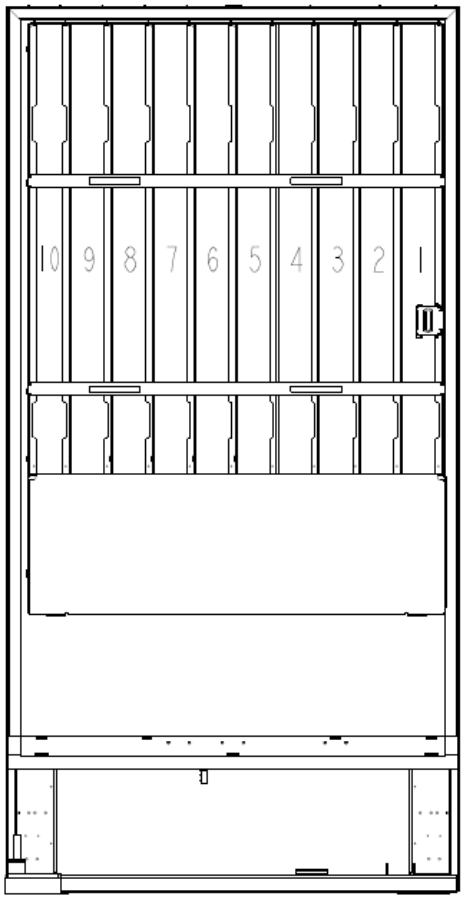
Main Menu	Sub-Menu	Sub-Sub-Menu	Main Menu	Sub-Menu	Sub-Sub-Menu
Historical Data			User con't.	Light	Days
Resettable Data					Start
Set Price					Stop
Cash Settings	Fill Coin Mech				Enable
	Dump Coin Mech				Return
	Coin Rules			Refrigeration	Temperature
	Escrow	Price 1			Celsius or Fahrenheit
		Price 2			Display
		Select 4			Days
		Select 1			Start
	Multi Vend				Stop
	Return				Storage Temperature
User Menu	Space To Sales				Storage Enable
	Column	Package			Return
		Hold Angle		Free Vend	Enable
		Depth			Display
		Vend Angle			Reset
		Return			Return
	Time	Year		Override	
		Month		Sales Message	
		Day		Recharge	
		Hour/Minute		Return	
		Daylight Savings Time	Diagnostics	Selection	
		Return		Home Sensor	
	Language			Vend Sensors	
	Electronic Counter			Motors	
	Limited Access	Selects		Coin Mech	
		Days		Note Accepter	
		Start 1		Display	
		Stop 1		Relay	Compressor
		Start 2			Fan#
		Stop 2			Light#
		Return			Return
	Secondary Price	Price		Jog Motor	Column #
		Days			Return
		Start		Prime Column	Column #
		Stop			Return
		Return		Return	
	Environmental Controls		Auto test		
			Return		

A. Press and hold select buttons 1 & 2 simultaneously to move through the menu from top to bottom.

B. Press select button 1 to move left/right or enter/exit in the menu, depending on the menu prompt on the display.

Factory Default Setting





DNCB 448 (not shown)	
Selection #	**Column #**
1	1
1	2
2	3
3	4
4	5
5	6
6	7

DNCB 640 (shown)	
Selection #	**Column #**
1	1
2	1
3	2
4	2
5	3
6	4
7	5
8	6
9	7
10	8
11	9
12	10

Setting The Vender Type

To program with **"Enter Number of Columns in Machine"** on the display press select button 1. The display will show **"6"** for six columns. Press select buttons 1 & 2 to scroll through available number of columns in the machine. When the displayed number of columns matches the number of columns in the machine, press select button 1 to set the number of columns. **"Set Model Number"** will appear on the display, press select button 1. The display will show the first available model number for the current vender type. Press select button 1 & 2 to scroll through the available vender model numbers for this vender. When the vender type you wish to save is showing on the display, press select button 1. The display will scroll **"1 = Set Package Type 2 = Exit"**. Press select button 1 and the display will show **"1"** indicating the package type. This will allow you to set the package type of the machine if it is different that the default of package type 2. Press select button 1 & 2 to scroll through the available package types. Press select button 1 to set the displayed package type. **"2=Exit 1=Prime Col 1"** will appear on the display. Press button 1 to prime column 1 or select button 2 to skip priming column 1. The display will then display **"2=Exit 1=Prime Col 2"**. Repeat the priming process until all columns have been primed or skipped.

6 column machines
DN552-5,
DN552-6,
DN552-7,
DN756-10DP

7 column machines
DN504-6,
DN504-7,
DN504-8,
DN532-5,
DN532-6,
DN532-7,
DN448-6

8 column machines
DN756-7,
DN756-8,
DN756-9,
DN756-10,
DN756-11,
DN756-12,
DN756-13,
DN756HV-12,

10 column machines
DN640-8,
DN720-8, DN720-9, DN720-10,
DN720-12,
DN760-9,
DN760-10,
DN760-11, DN760HV-11
DN760-12, DN760HV-12
DN760-13,
DN770-12, DN770HV-11, DN770HV-12

The following are other model numbers that may appear:

6 column machines
DN552-5,
DN552-6,
DN552-7,
DN552-8,

7 column machines (continued)
DN532-5,
DN532-6,
DN532-7,
DN532-8,

8 column machines
DN756-7,
DN756-8,
DN756-9,
DN756-10,
DN756-11, DN756HV-11
DN756-12, DN756HV-12
DN756-13

10 column machines
DN760-9,
DN760-10,
DN760-11,
DN760-12,
DN760-13

The most important facets of proper vender care and maintenance are the electrical power supplied to it, leveling, and cleanliness of the machine and its components.

POWER

The vender must be connected to a dedicated 120VAC, 15 Amp circuit (U.S. and Canada).

CAUTION:
REMOVE POWER TO THE VENDER PRIOR TO CONNECTING / DISCONNECTING ANY ELECTRICAL COMPONENTS FOR TESTING OR REPLACEMENT.

Periodically inspect the power supply cord for damage. If the cord or plug is worn or damaged, it must be replaced with a power supply cord of the same type, size and specification as originally provided with the machine.

DO NOT USE THE VENDING MACHINE UNTIL THE WORN OR DAMAGED CORD IS REPLACED.

The Ground Fault Circuit Interrupter (GFCI) must be tested frequently and before each use in accordance with the instructions provided on the GFCI device. **IF THE GFCI DOES NOT PASS THE TEST, DO NOT USE THE MACHINE.**
Unplug the supply cord from the receptacle and call the Crane Merchandising Systems Technical Support Group for assistance at 1-803-266-5001.

CLEANING

DO NOT USE A WATER JET OR NOZZLE TO CLEAN THE VENDER

SIGN FACE

The polycarbonate sign face requires proper cleaning to prolong its service life. Periodically clean the sign as follows:

Rinse the sign with a soft cloth or sponge soaked in warm water. If necessary, use a mild soap to loosen any dirt or grime. DO NOT SCRUB or use a brush or squeegee. Scrubbing may cause damage to signs with a clear ultraviolet resistant coating (prevents yellowing). Repeat the above steps as necessary. To prevent spotting, dry the sign using a soft cloth.

CABINET

Wash the cabinet with a good detergent or soap mixed with warm water. Wax the vender often with a good grade of automobile wax. Any corrosion inside of the vender should be removed with a fine steel wool and the area should be painted with aluminum paint. Repair any scratches on painted surfaces to prevent corrosion.

DRAIN PAN, DRAIN TUBE, AND DRAIN HOSE

To prevent mold and mildew growth, and to avoid personal injury or property damage, the drain pan, drain tube, and drain hose must be properly aligned and routed. Ensure nothing obstructs the drain tube or drain hose and that the hose is not bent, pinched, or twisted in such a way as to prevent the flow of condensate. Periodically inspect the drain pan, drain tube, and drain hose for alignment and the presence of dirt, debris, mold, and mildew. Clean as needed.

THE COMPRESSOR ELECTRICAL CIRCUIT IS ALWAYS LIVE WHEN THE PLUG IS CONNECTED TO AN ELECTRICAL OUTLET

REFRIGERATION CONDENSER

Check the condenser periodically for dirt or lint build-up. Remove build-up with a brush or vacuum, or blow the dirt out of the condenser with compressed air and an approved safety nozzle. Ensure nothing obstructs the air intake at the bottom of the main door. Ensure nothing obstructs the air exhaust at the rear of the cabinet.

COIN ACCEPTOR

- Follow the coin acceptor manufacturer's cleaning instructions.

LUBRICATING THE VENDER

Time	Component	Lubricant Example
Every 6 months (or as needed)	**Main Door**	
	1. Lock Bolt & Nut Retainer	Mechanics Friend
	2. Hinge Pivot Points	Mechanics Friend
	Inner Door	
Every Year (or as needed)	1. Hinge Pivot Points	Mechanics Friend
	Inner Door	
	1. Door Gasket	Petroleum Jelly

MEMORY RESET

To reset memory enter the AUTO "Auto Test" menu and scroll to the option to reset the memory. Press select button 1 to select this option and follow the displayed prompts. Once the machine has cleared its memory it will be ready to program.

EPROM REPLACEMENT

Software changes / upgrades are accomplished by changing the EPROM on the Control Board.

HVV DNCB 640/448 Single Board Controller Software Update Procedure

This document describes how to update software on the Single Board Controller (SBC). **Note:** All existing software revisions automatically update the new software revision upon power up. Manual reprogramming is also available to update the software.
Important: EPROM containing software is sensitive to Electrostatic Discharge (ESD). Failure to handle the EPROM carefully could cause damage, which may result in a failed Single Board Controller (SBC).

ALWAYS KEEP THE EPROM IN THE ESD TUBE. GROUND YOURSELF ON THE VENDER CABINET BEFORE REMOVING THE EPROM FROM THE ESD TUBE OR CONTROL BOARD. AN EPROM CAN BE USED TO PROGRAM MANY VENDERS, AS LONG AS CARE IS TAKEN NOT TO DAMAGE THE EPROMS LEGS.

ALWAYS TURN POWER OFF BEFORE REMOVING OR INSTALLING EPROMS IN THE CONTROL BOARD.

Note: Use the SBC programming manual to program a vender that has a Single Board Controller (SBC) installed.

I. EPROM removal
- Power down the Vender. **Ground yourself on the vender cabinet before removing the EPROM from the ESD tube or control board.**
- If the EPROM is present in the SBC, remove the existing EPROM from the SBC.
  - Note: An EPROM does not need to be in the board after the SBC has been programmed. The EPROM can be used to reprogram other boards.
- Verify the pins of the new EPROM are not bent before installing in the EPROM socket.
- Install the new EPROM in the EPROM socket. Ensure the EPROM is oriented correctly with its reference marker (locator) in the same direction as the reference marker (locator) of the EPROM socket. Do not rely on the EPROM label for orientating the EPROM. See Figure 1.

II. Automatic Reprogramming (all software revisions)
- Turn power on to Vender. When auto-updating, the display will remain blank while the red LED on the board blinks rapidly for 3-4 seconds. Verify the new software version is shown on the display. If the new software version (the software version of the newly installed EPROM) displays, the SBC software has been successfully updated. If not, verify the EPROM is seated properly, with the reference marker oriented correctly and follow instructions for manual update if updating from 804,920,871.11. If problems still exist, contact the Crane Merchandising Systems Technical Service Department.
  Note: To remove the EPROM after programming is complete turn power off, **ground yourself on the vender cabinet before removing the EPROM**, remove the EPROM, turn power on, test vender for proper operation.

III. Manual Reprogramming (if an EPROM does not automatically reprogram the SBC)
- At power up, the current software version will be displayed. To manually program the control board with the new software, press the blue service switch on the SBC to enter the service menu. Advance to **"Auto Test"** menu by holding buttons 1& 2 simultaneously. Enter Auto Test by pressing button 1, and advance to the **"Reprogramming Microprocessor"** submenu by holding buttons 1& 2 simultaneously.
- At the **"Reprogramming Microprocessor"** prompt, press button 1**. "THIS OPERATION REPROGRAMS VENDOR"** shows on the display. Press button 1 at this prompt. Next display will show **"BUTTON 2 = REPROGRAM, BUTTON 3 = EXIT"**.

- Press button 2 to reprogram vender with the new software. **"Reprogramming Vendor…"** displays while the red LED on the board blinks rapidly for 3-4 seconds. Verify the new software version, and previous settings return to the display. If the new software version (the software version of the newly installed EPROM) shows on the display, the SBC software has been successfully updated.

Note: To remove the EPROM after programming is complete, remove power to the vender, **ground yourself on the vender cabinet before removing the EPROM**, remove the EPROM, while still grounded install a label on the microprocessor showing the revision of software that is installed in the SBC, power the vender back on and test for proper operation.

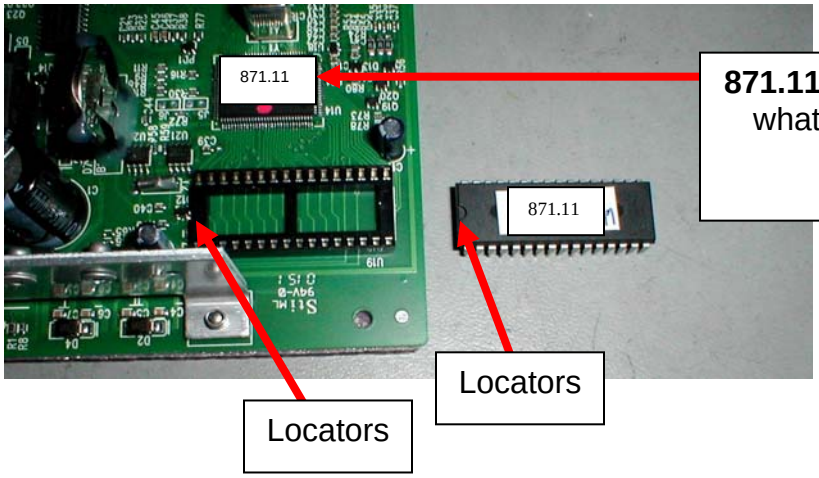
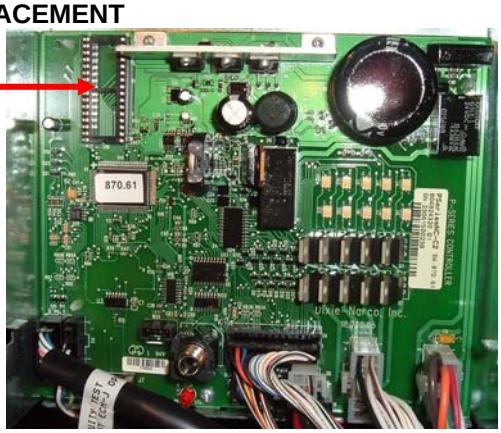


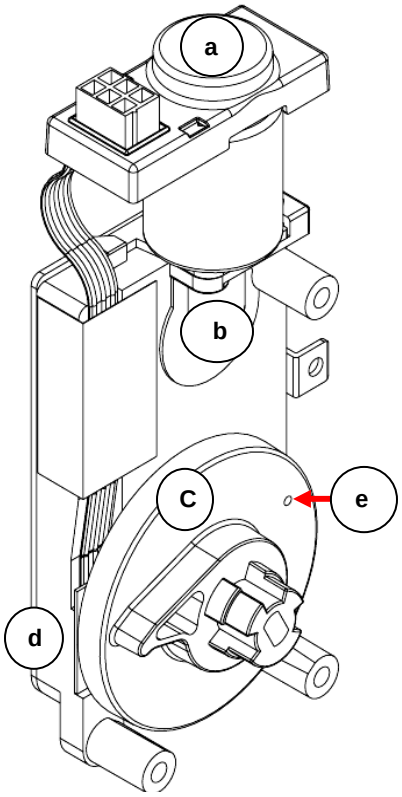
Figure 1 – EPROM REPLACEMENT

Sample Board Shown



REFRIGERATION

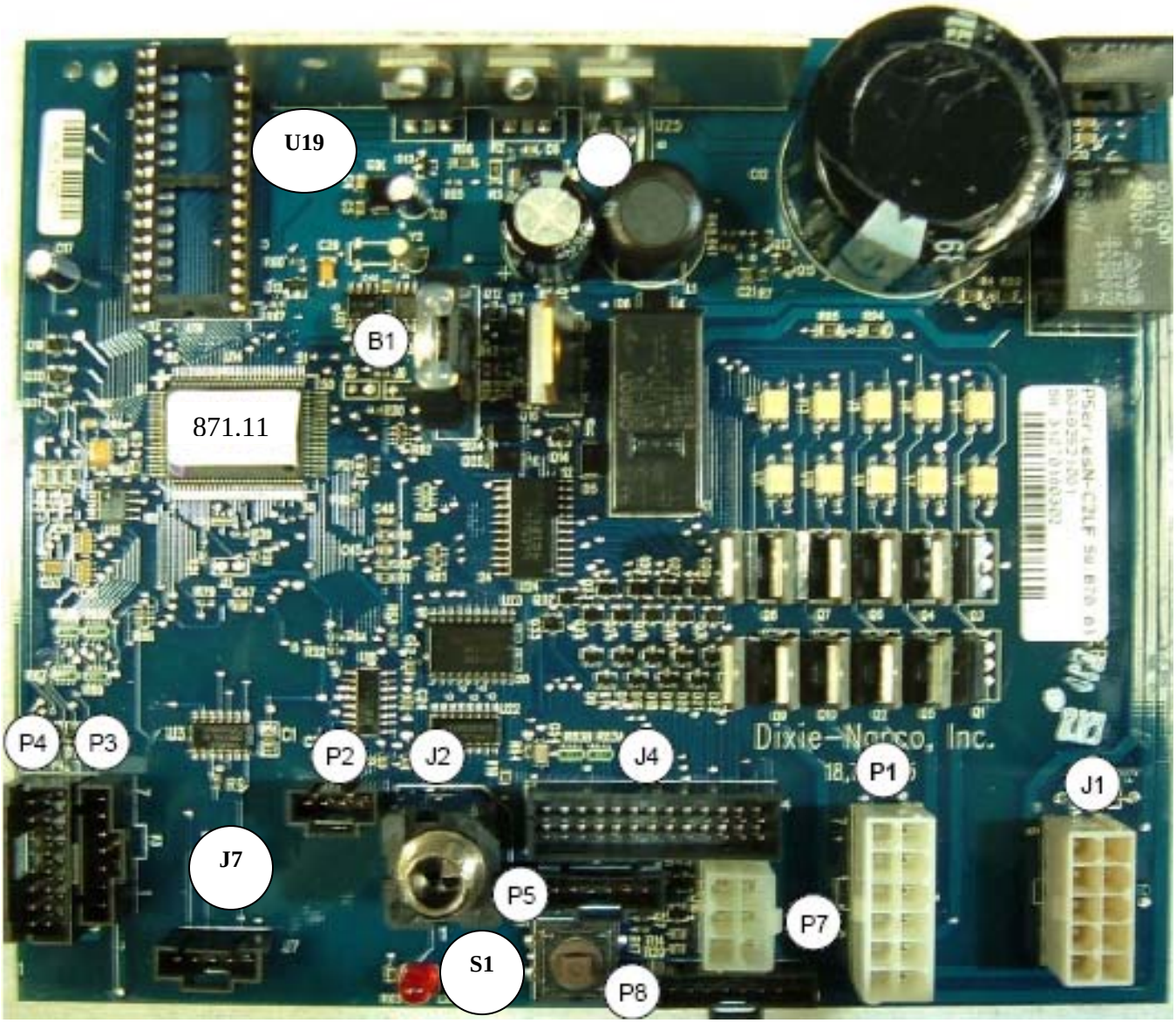
	DOMESTIC	220 VAC
Compressor	Embraco, 1/3 HP, FFU130HAX Unit uses 9.0 oz. of 134a Refrigerant	NEK6212Z 220/50 1/3 Embraco Unit uses 7.5 oz. of 134a Refrigerant
Start Relay	115 VAC,	EMBRACO #9660041155
Start Capacitor	115 VAC	77-88mfd/330v EMBRACO
Thermal Overload	115 VAC	TO741/G9 EMBRACO
Condenser Fan	9W Motor 115 V/60HZ FV900CW30S.	9W Motor CW MORRILL SPD9HUB2
Evaporator Fan	TBD.	EMBRACO 1900RPM 230/50



VEND MOTOR OPERATION

The Control Board is responsible for the operation of the Vend Motor Assembly. It supplies 24VDC to the Vend Motors through the P1 Connector of the Control Board and monitors its movement from the Encoder through the J4 Connector.
The Vend Motor Assembly consists of an Encoder (**a**), Motor and Gearbox (**b**), Cam Assembly (**c**) and a Home Sensor (**d**).
The Encoder sends counts to the Control Board to advise it of its position.
The Cam Assembly includes a Magnet (**e**) which actuates the Home Sensor when Vend Motor returns to the Home Position.
The Home Position is the starting position of each rotation of the Vend Motor. When the Main Door is closed, the Control Board identifies columns which are deemed as **SOLD OUT** or jammed. The Display will read **"PRIME"** and runs the Vend Motor to the Home Position. The Rotor is reloaded in this process.
When a selection is activated, the Control Board sends 24VDC to the Vend Motor. In turn the Encoder sends pulses to the Control Board which stops the Vend Motor at a predetermined point or **Vend Angle** in programming.

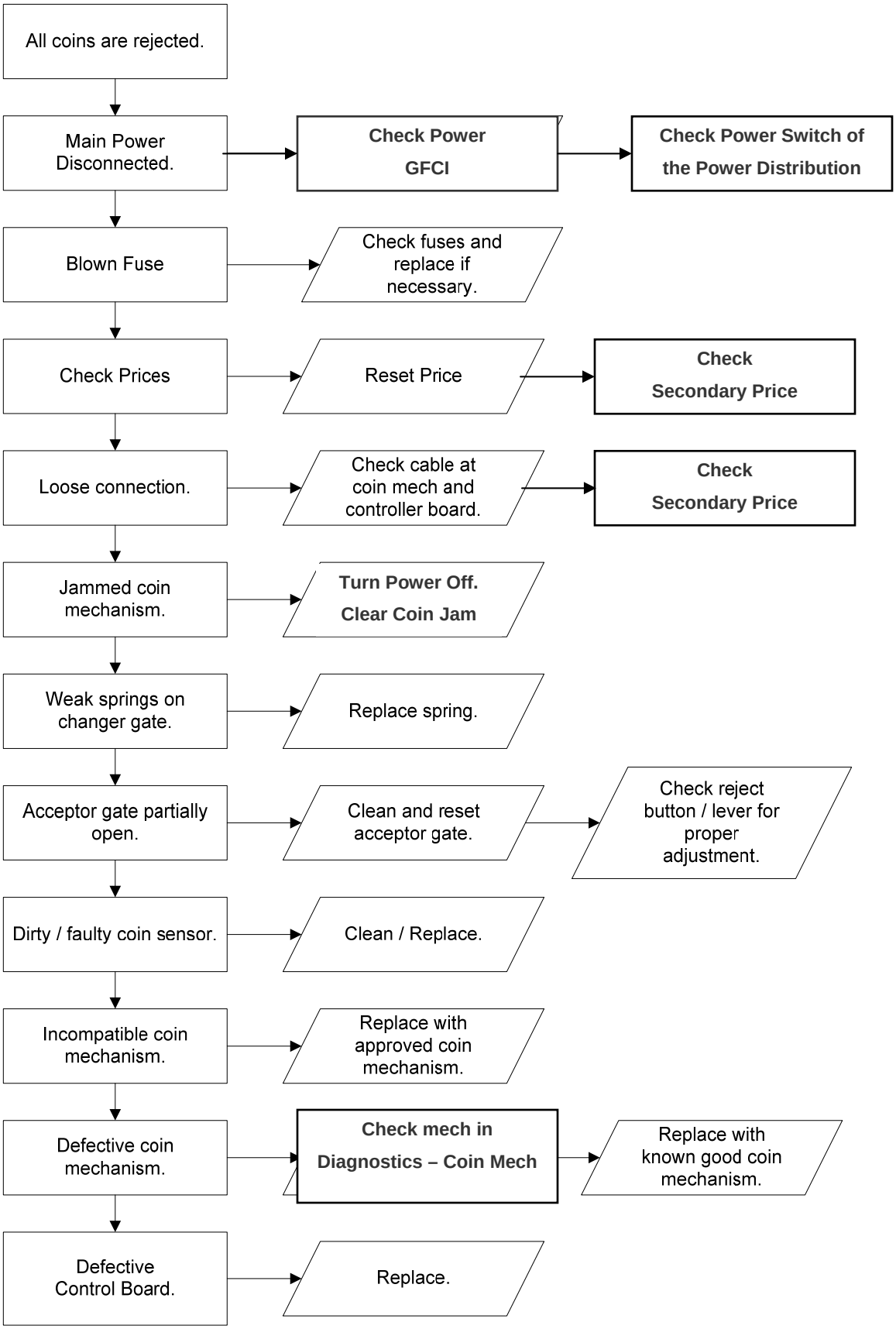
SBC Control Board



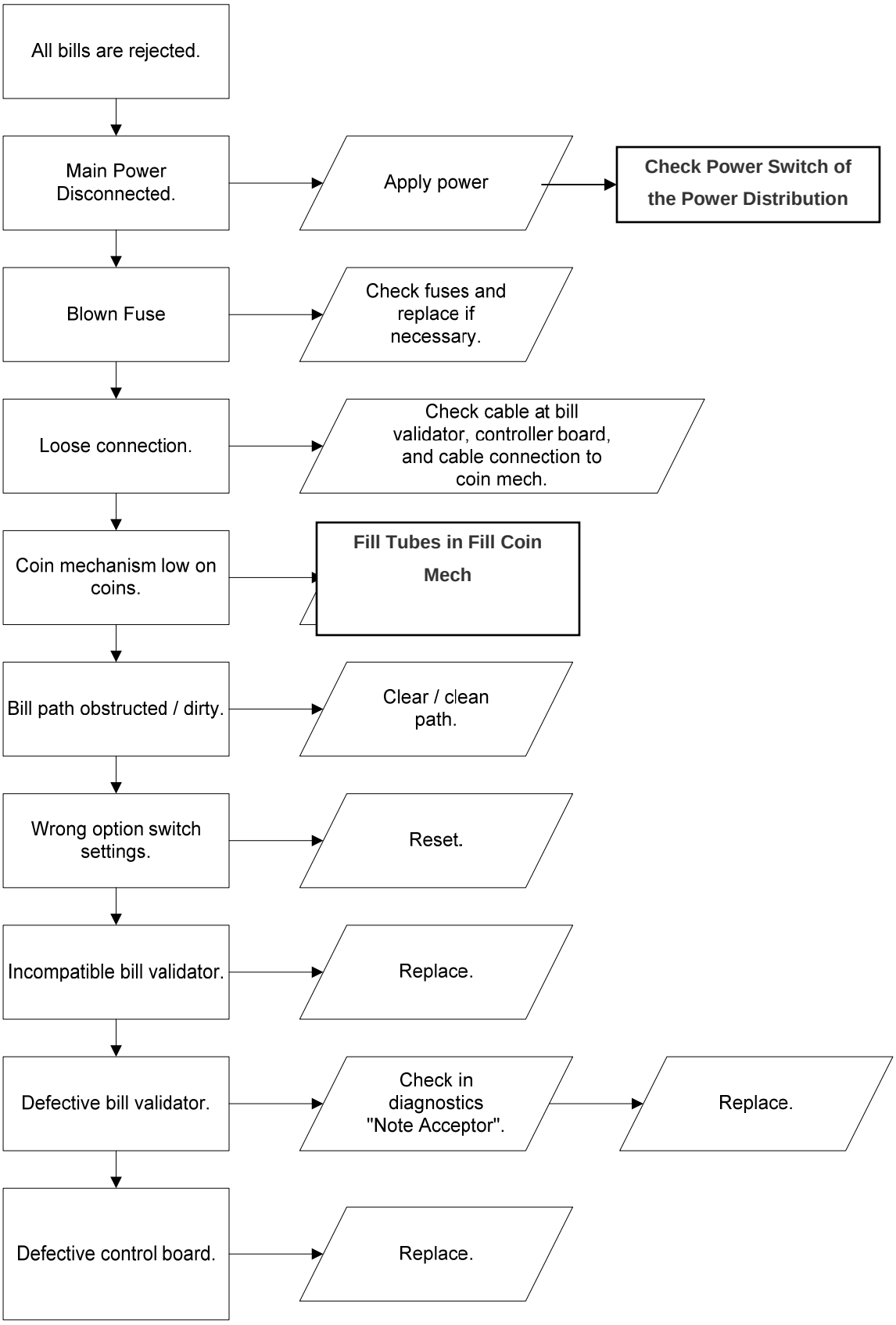
Position	Description	Position	Description
P1	Motor	P8	Energy Management
P2	Secondary DEX	J1	AC Power
P3	Display	J2	DEX
P4	Select Switches	J4	Home Switch
P5	Temp Sensor	J7	Optional
P7	MDB	B1	Battery
U19	EPROM Socket	S1	Service Switch

The following charts are intended to isolate and correct most problems you might encounter.

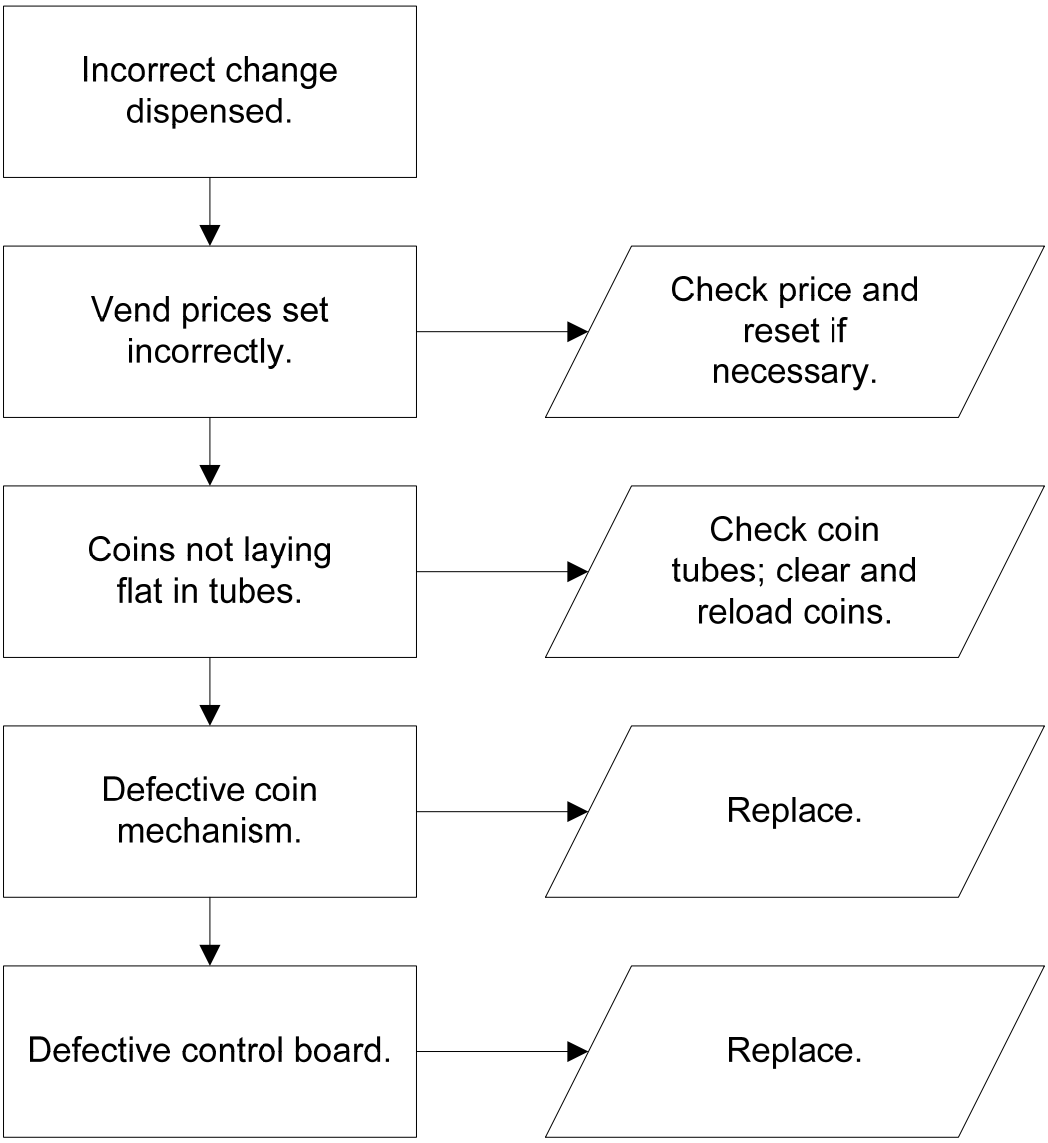
ALL COINS ARE REJECTED



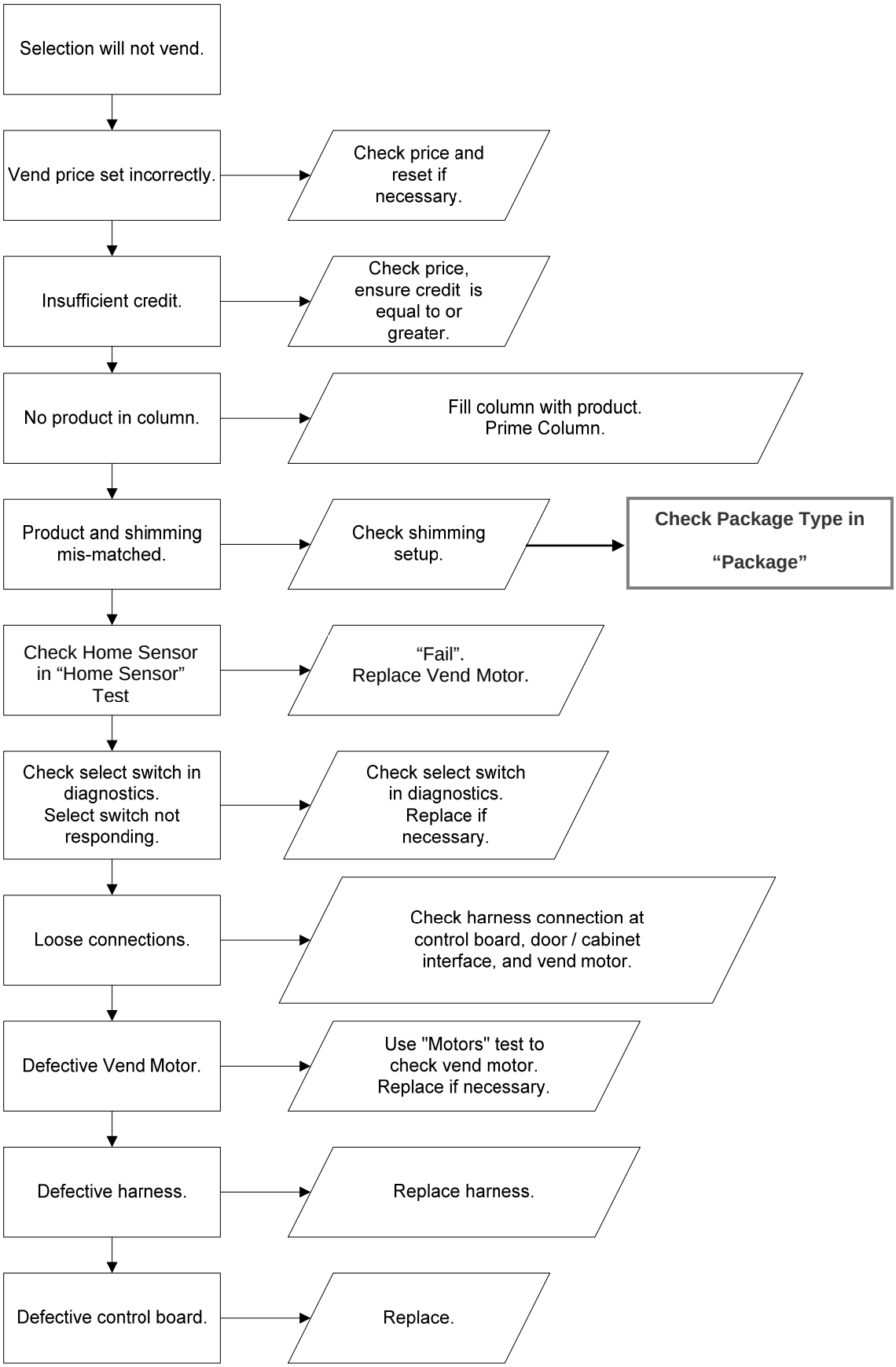
ALL BILLS ARE REJECTED



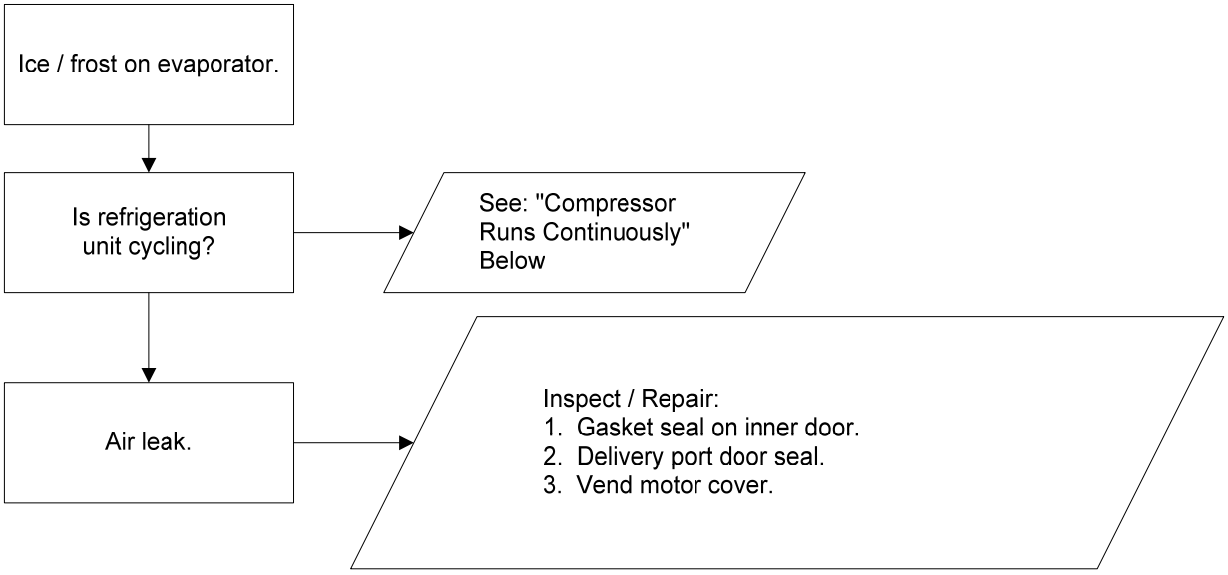
INCORRECT CHANGE DISPENSED



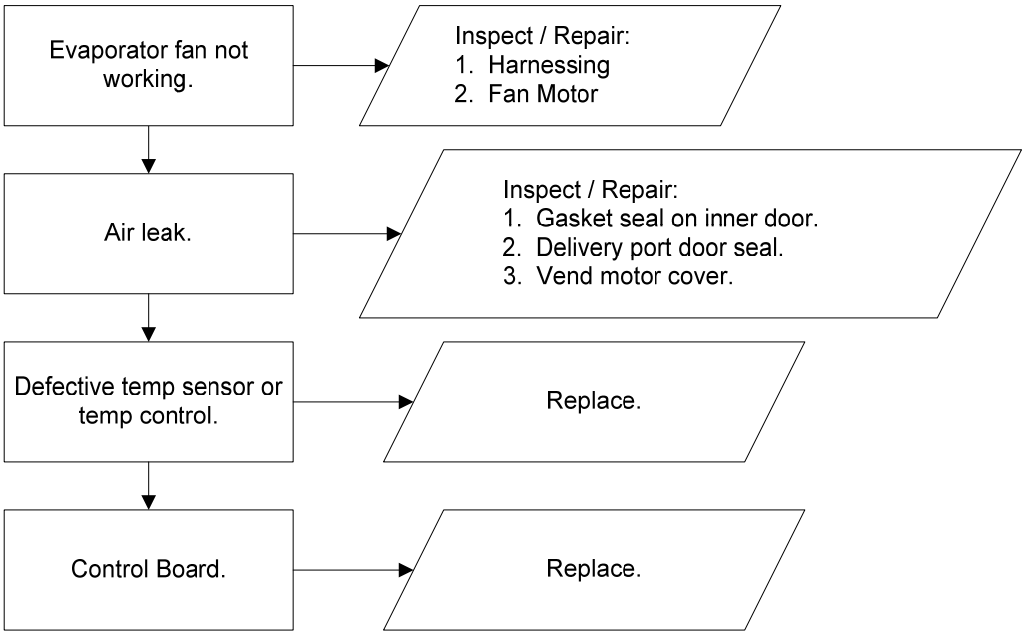
SELECTION WILL NOT VEND



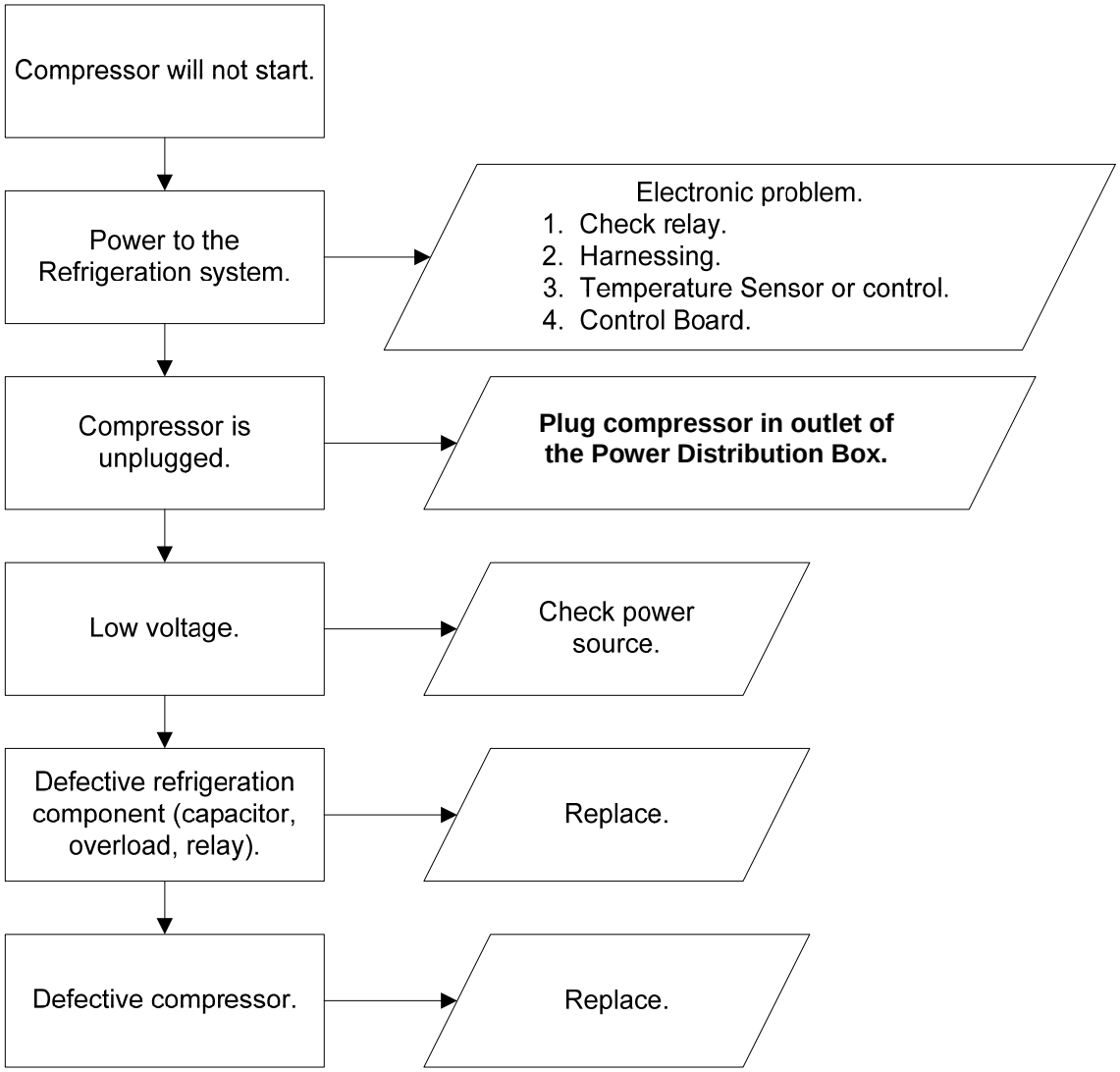
ICE / FROST ON EVAPORATOR



COMPRESSOR RUNS CONTINUOUSLY

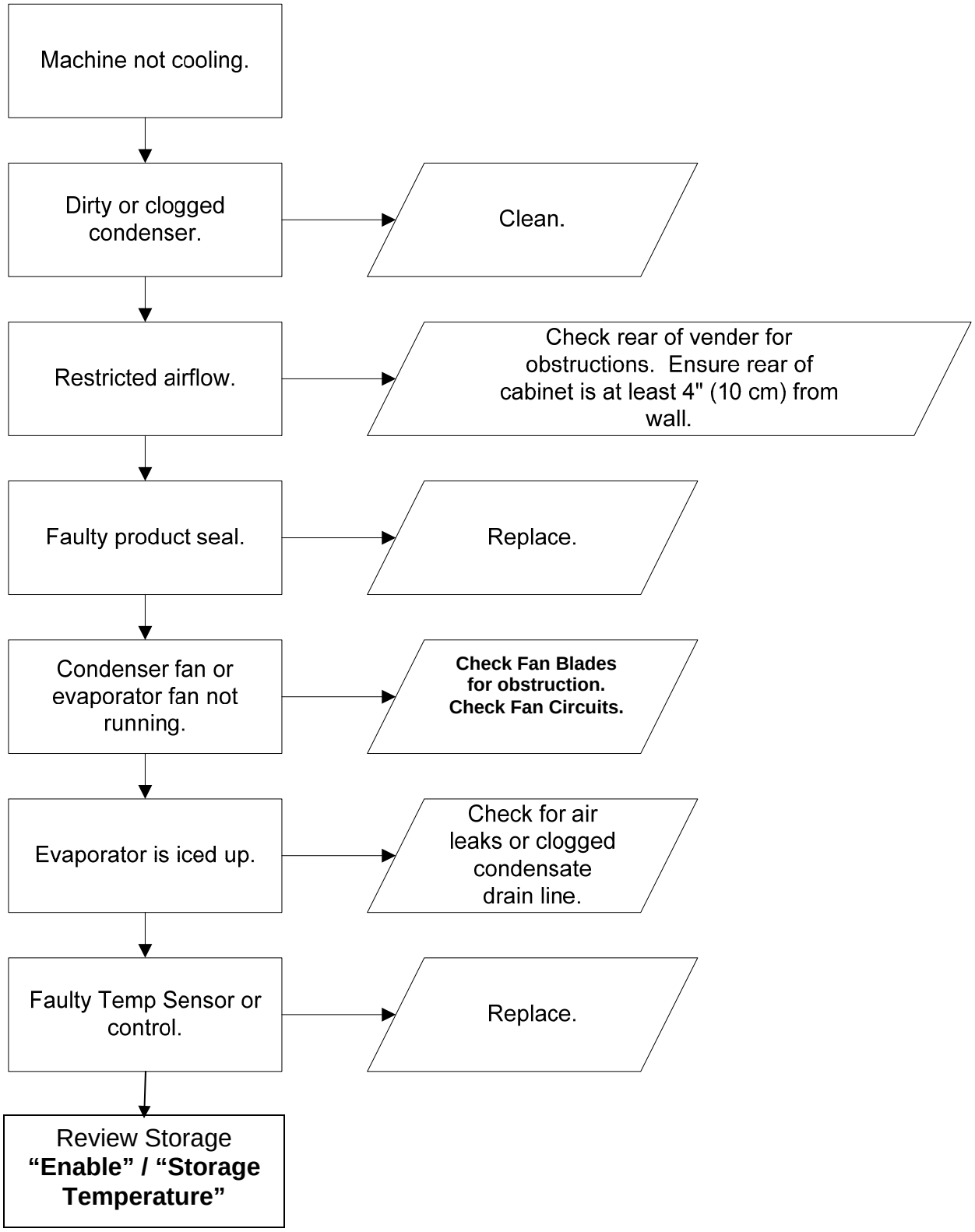


COMPRESSOR WILL NOT START



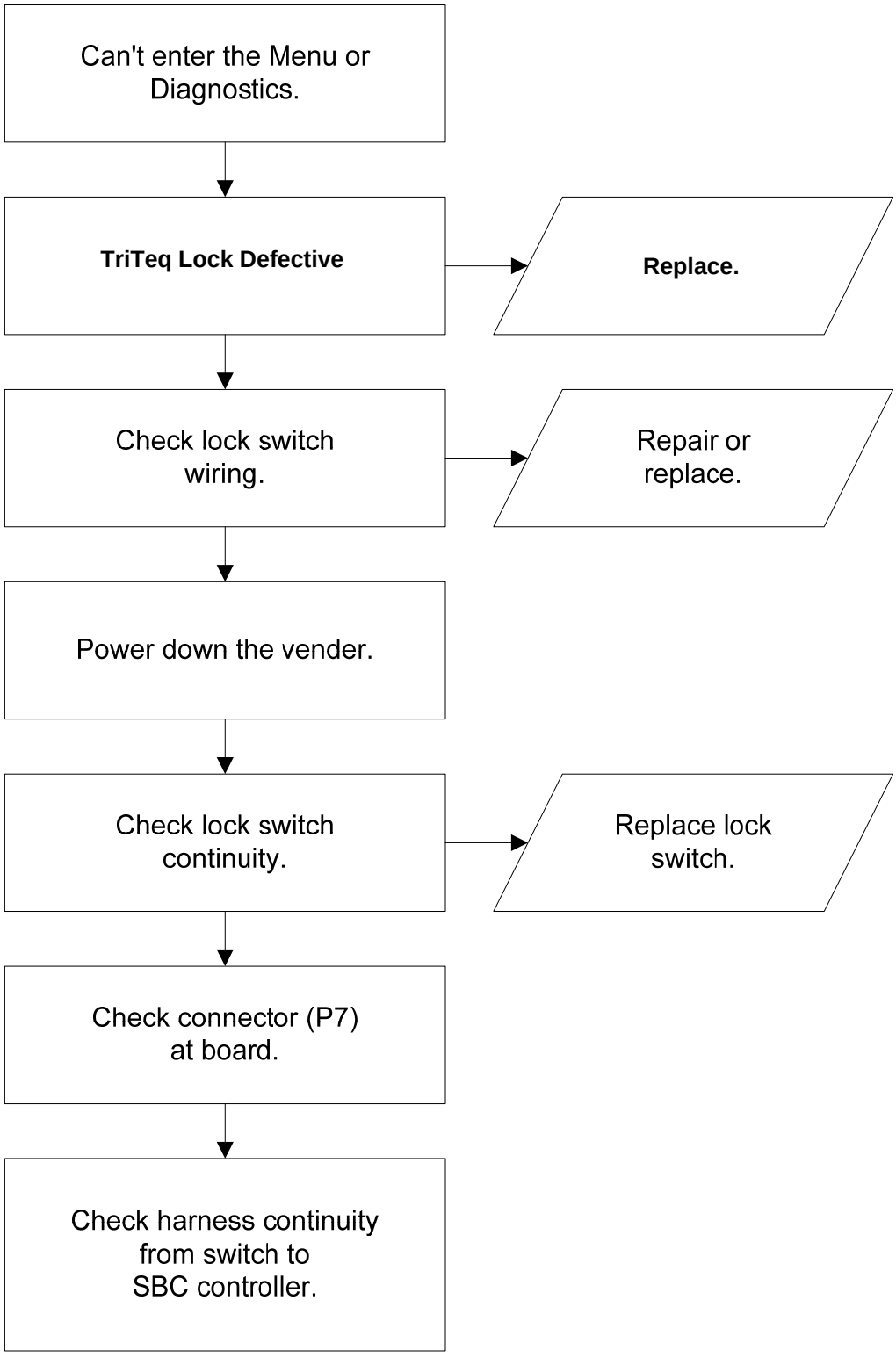
Troubleshooting Tip: **Use a short 15 Amp extension cord and plug the compressor directly into the wall outlet. This will bypass the Electronic Controls. Note: For Testing Purposes Only.**

MACHINE NOT COOLING

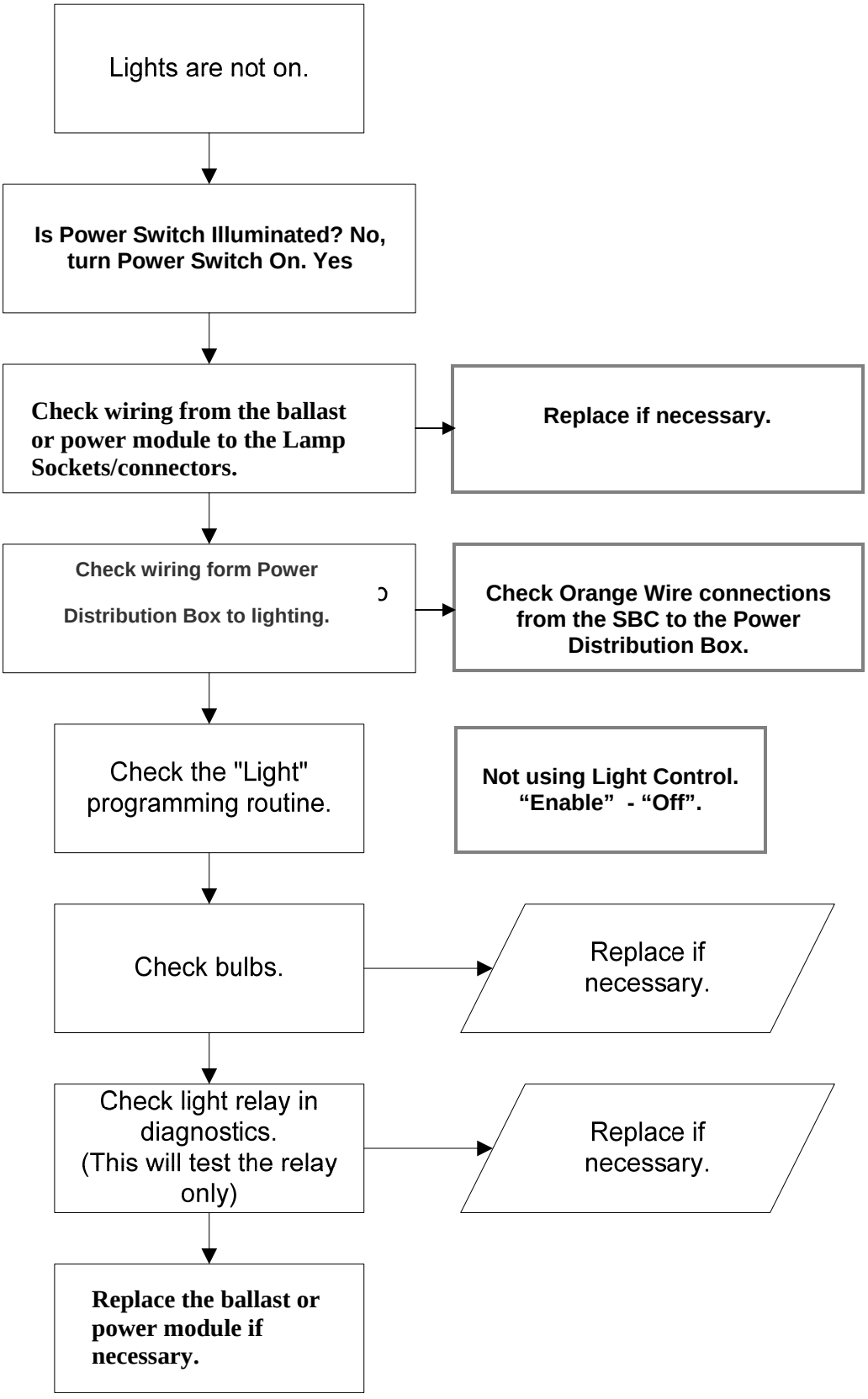


CANNOT ENTER THE MENU OR DIAGNOSTICS

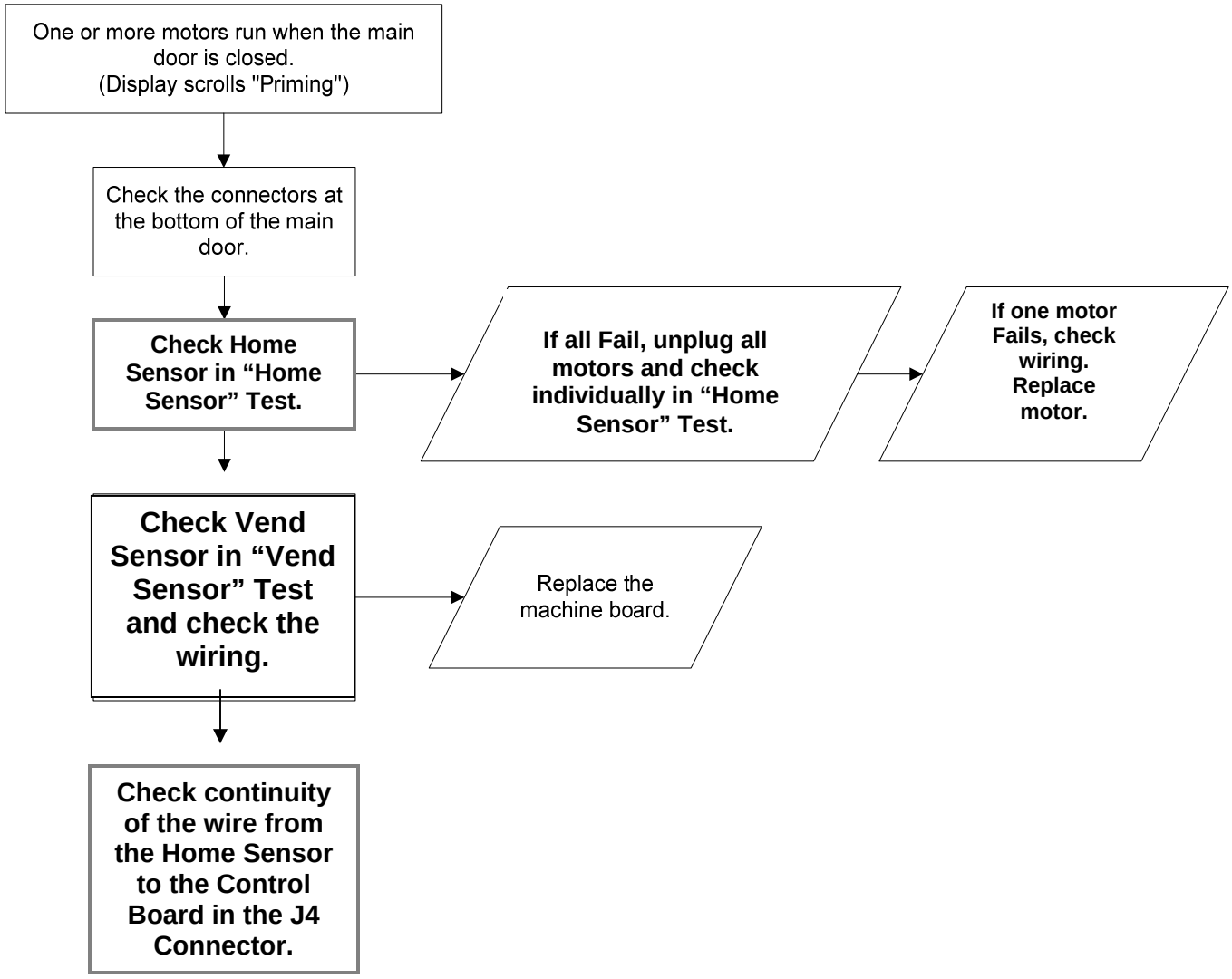
Note: Prior to checking wires or connections, ensure power has been removed from vender.



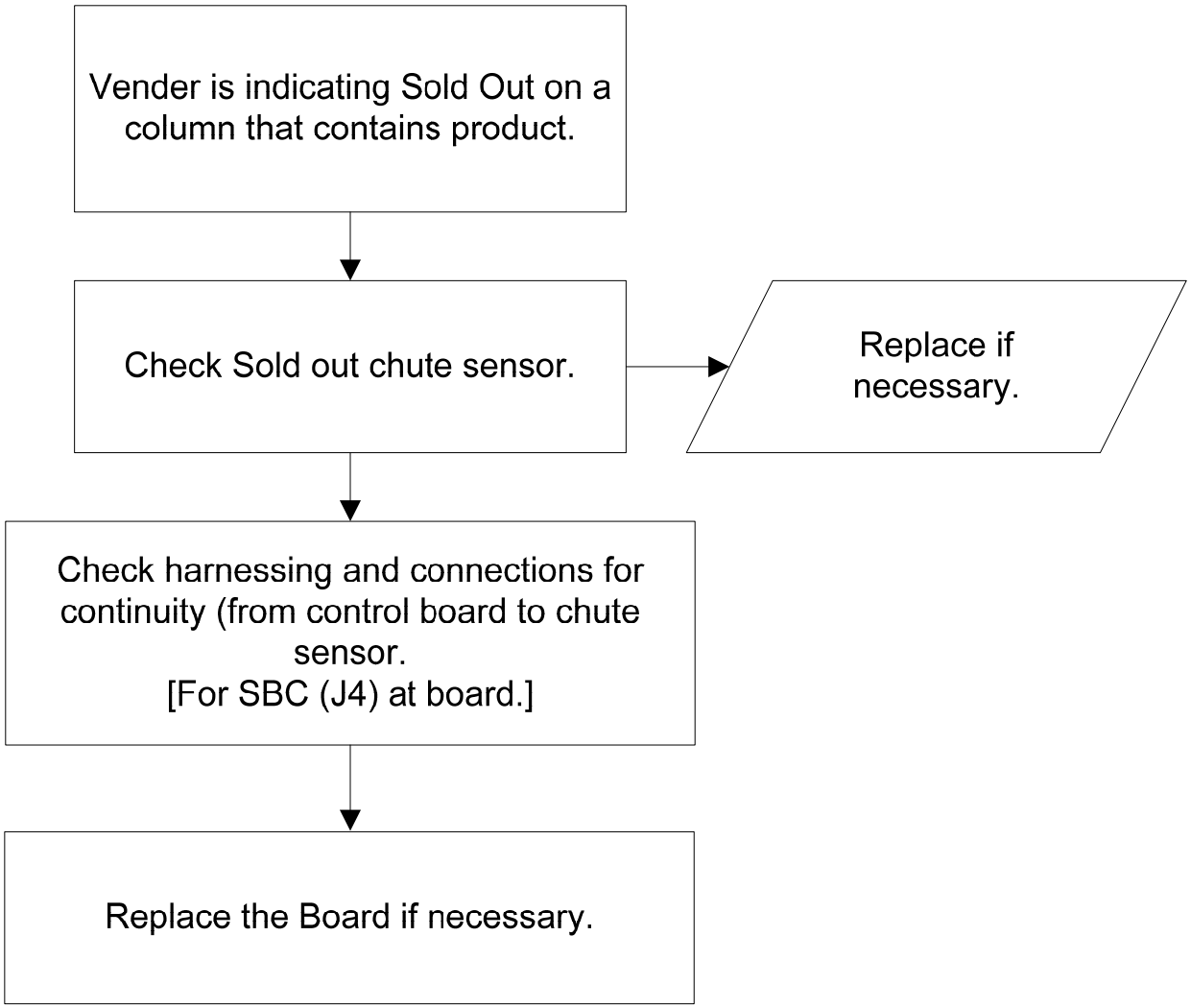
LIGHTS ARE NOT ON



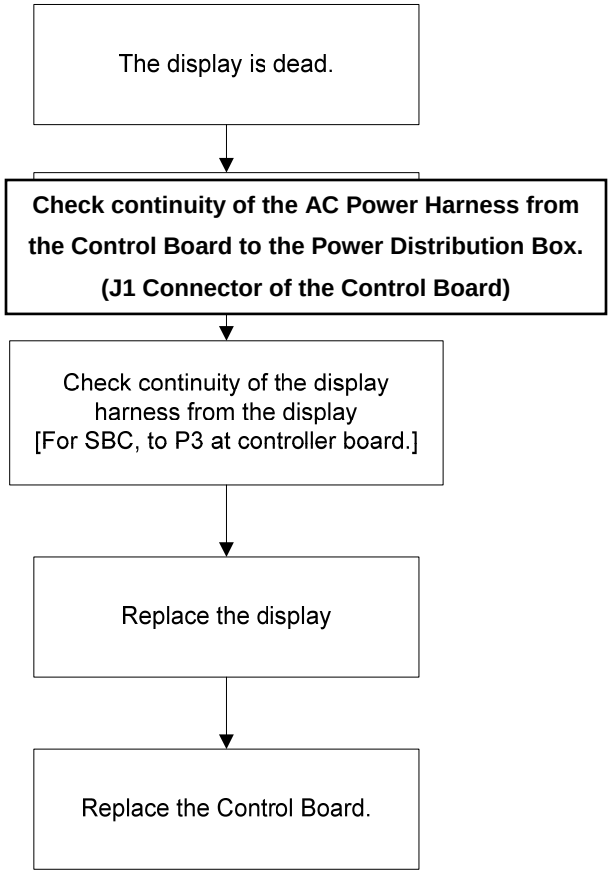
ONE OR MORE MOTORS RUN WHEN MAIN DOOR IS CLOSED
(Display Scrolls “PRIMING”)



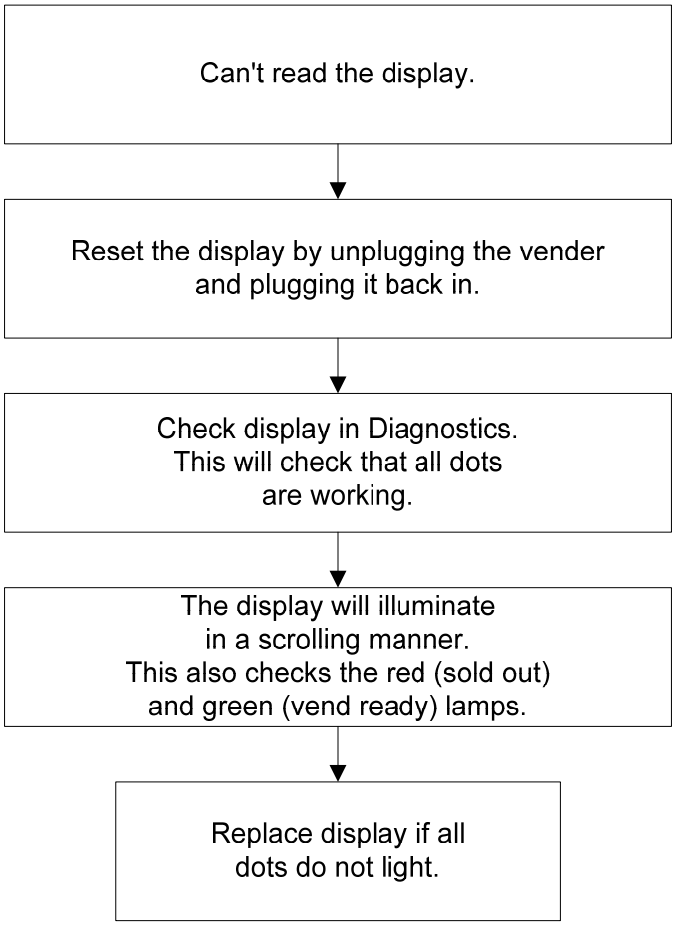
SOLD OUT


Vender is indicating Sold Out on a column that contains product.
Check Sold out chute sensor.
Replace if necessary.
Check harnessing and connections for continuity (from control board to chute sensor.
[For SBC (J4) at board.]
Replace the Board if necessary.

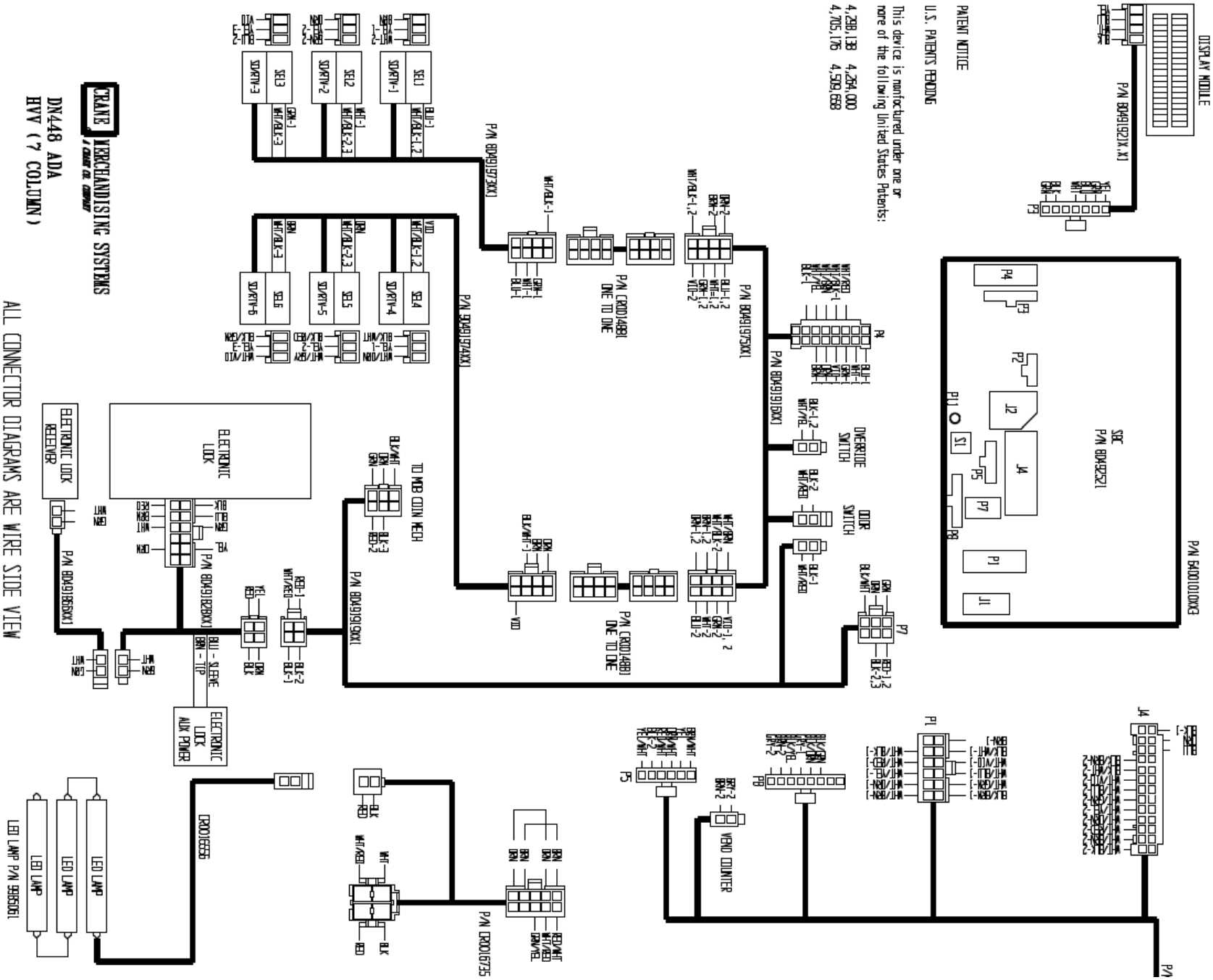
THE DISPLAY IS DEAD

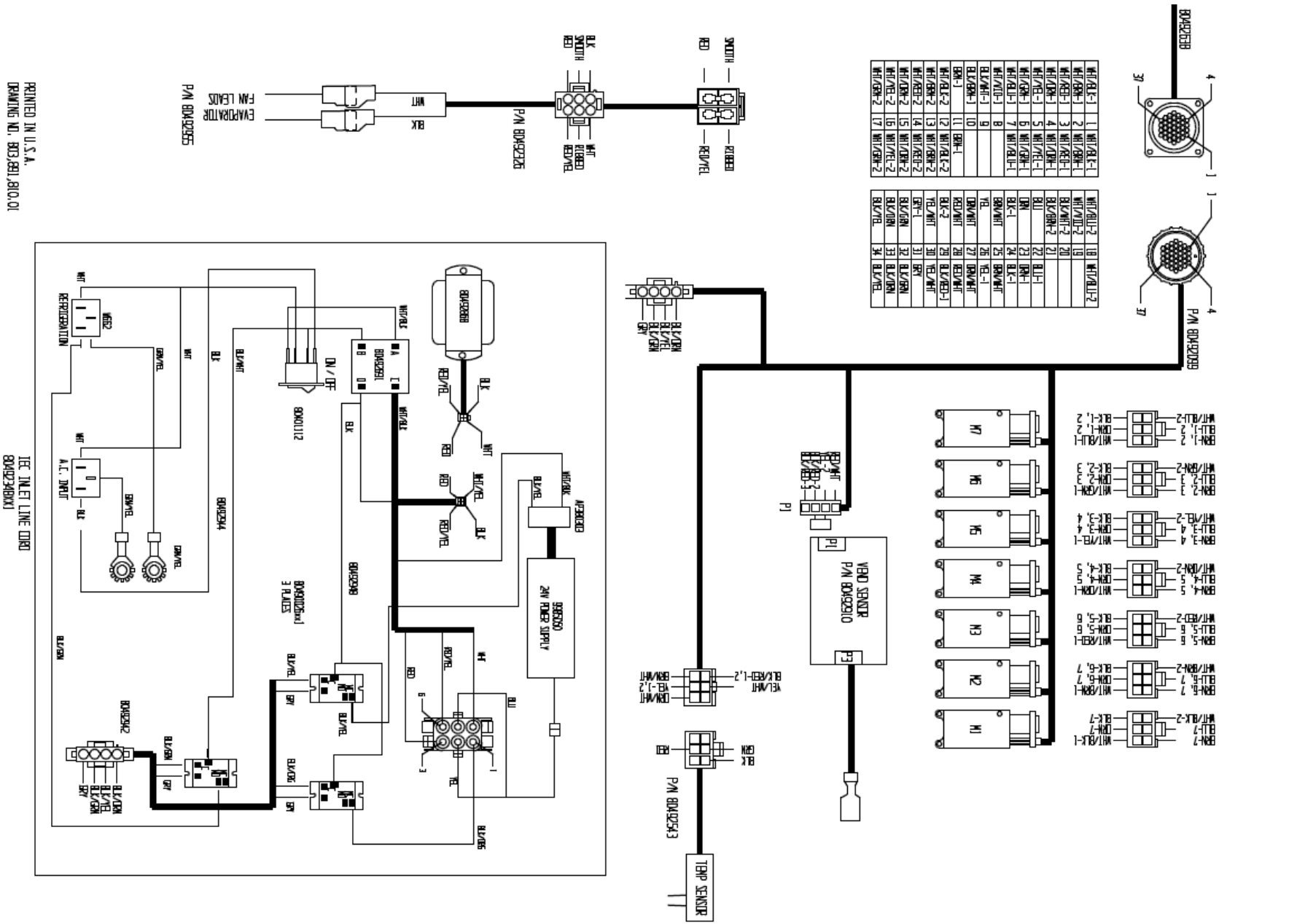


CAN'T READ THE DISPLAY

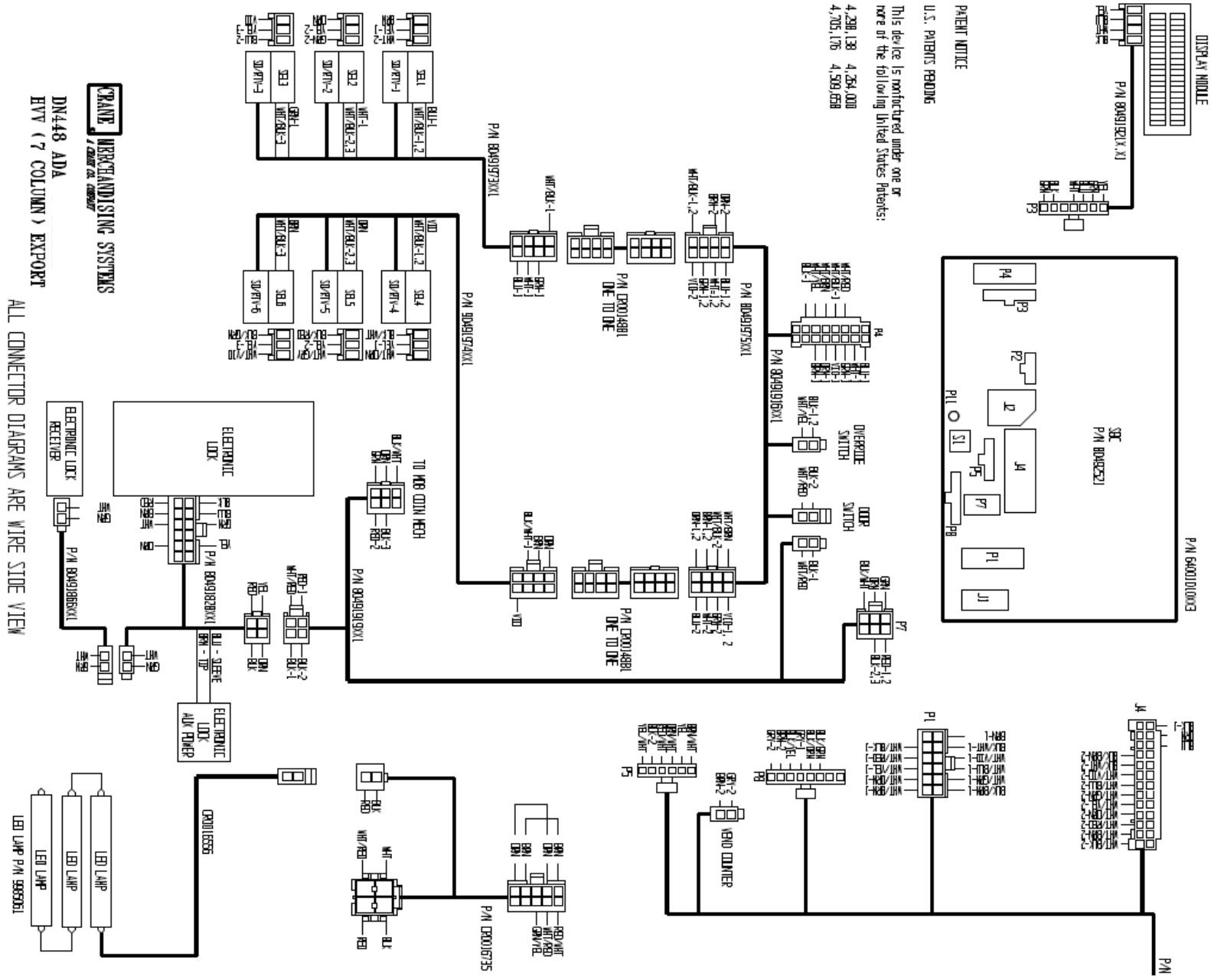


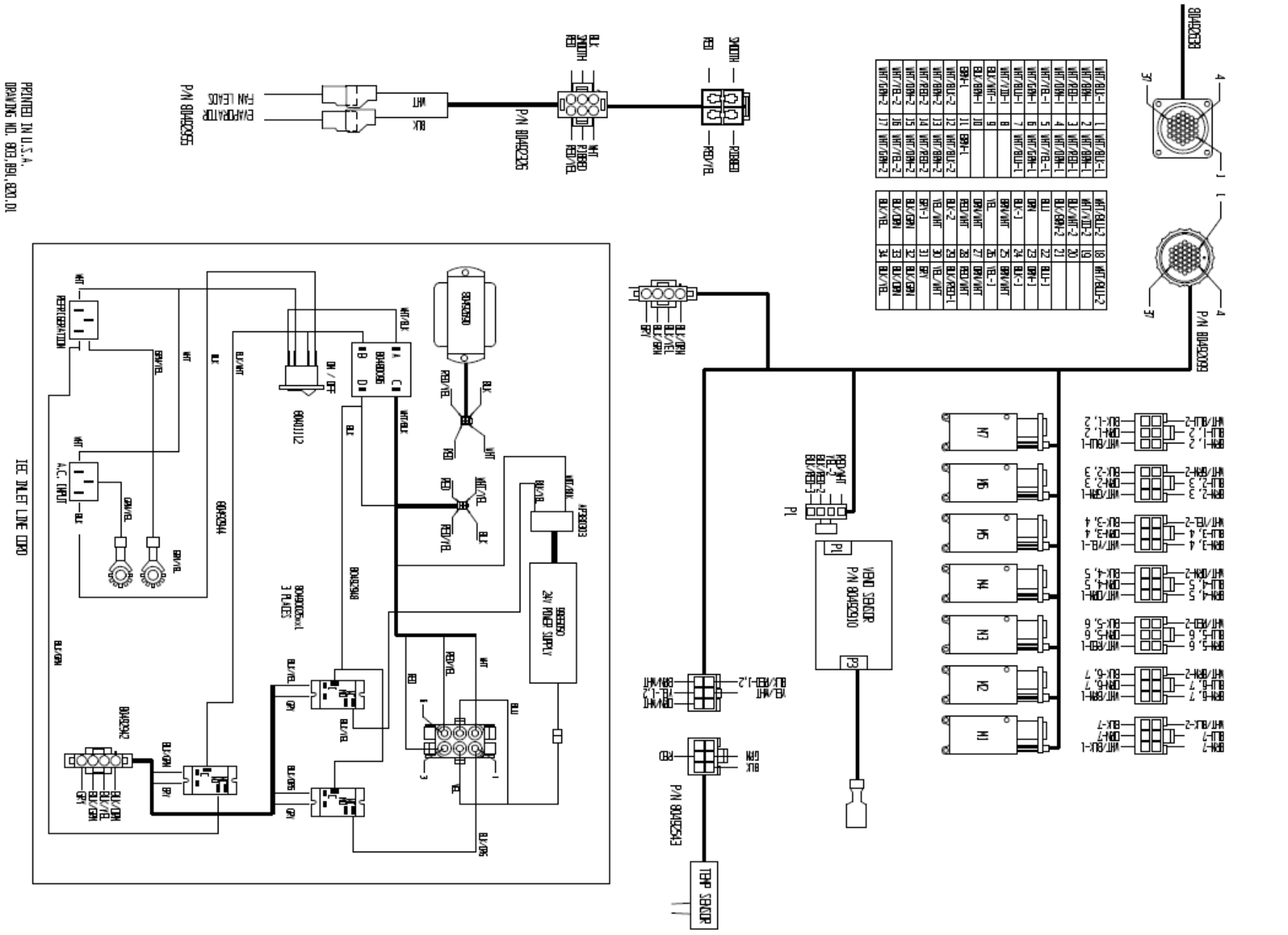
6 Select / 7 Column – Domestic DNCB 448 (80389181)



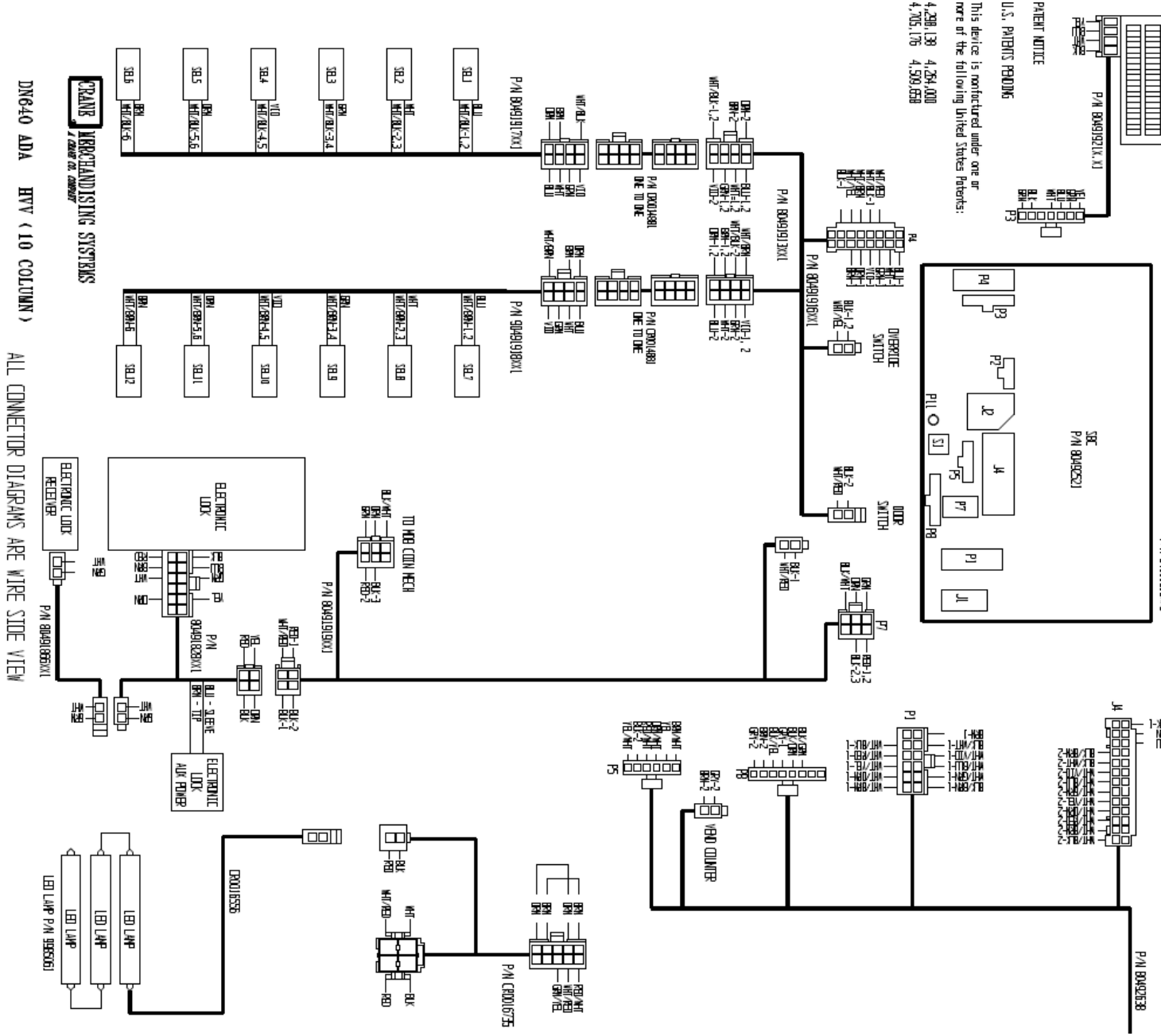


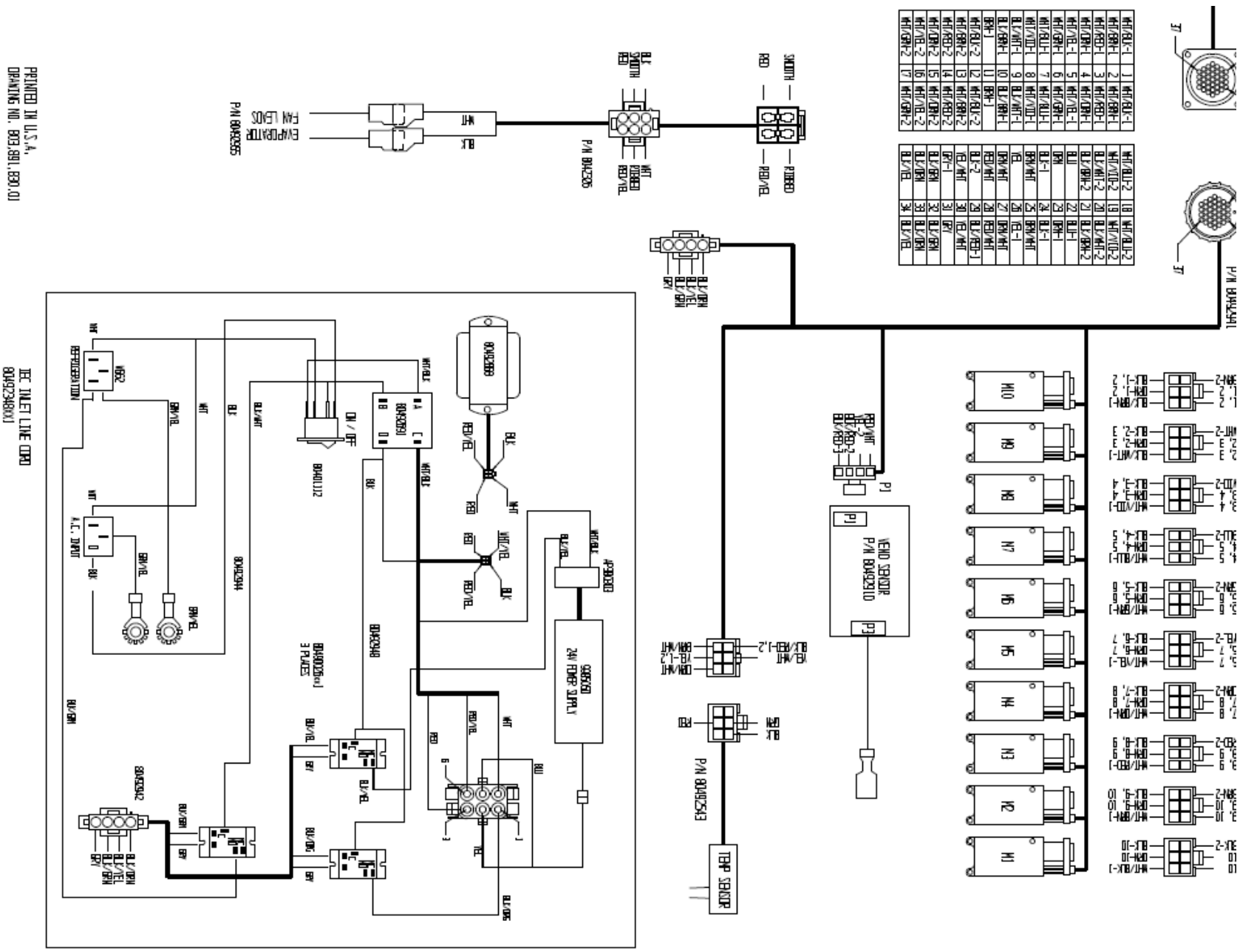
6 Select / 7 Column – Export DNCB 448 (80389182)



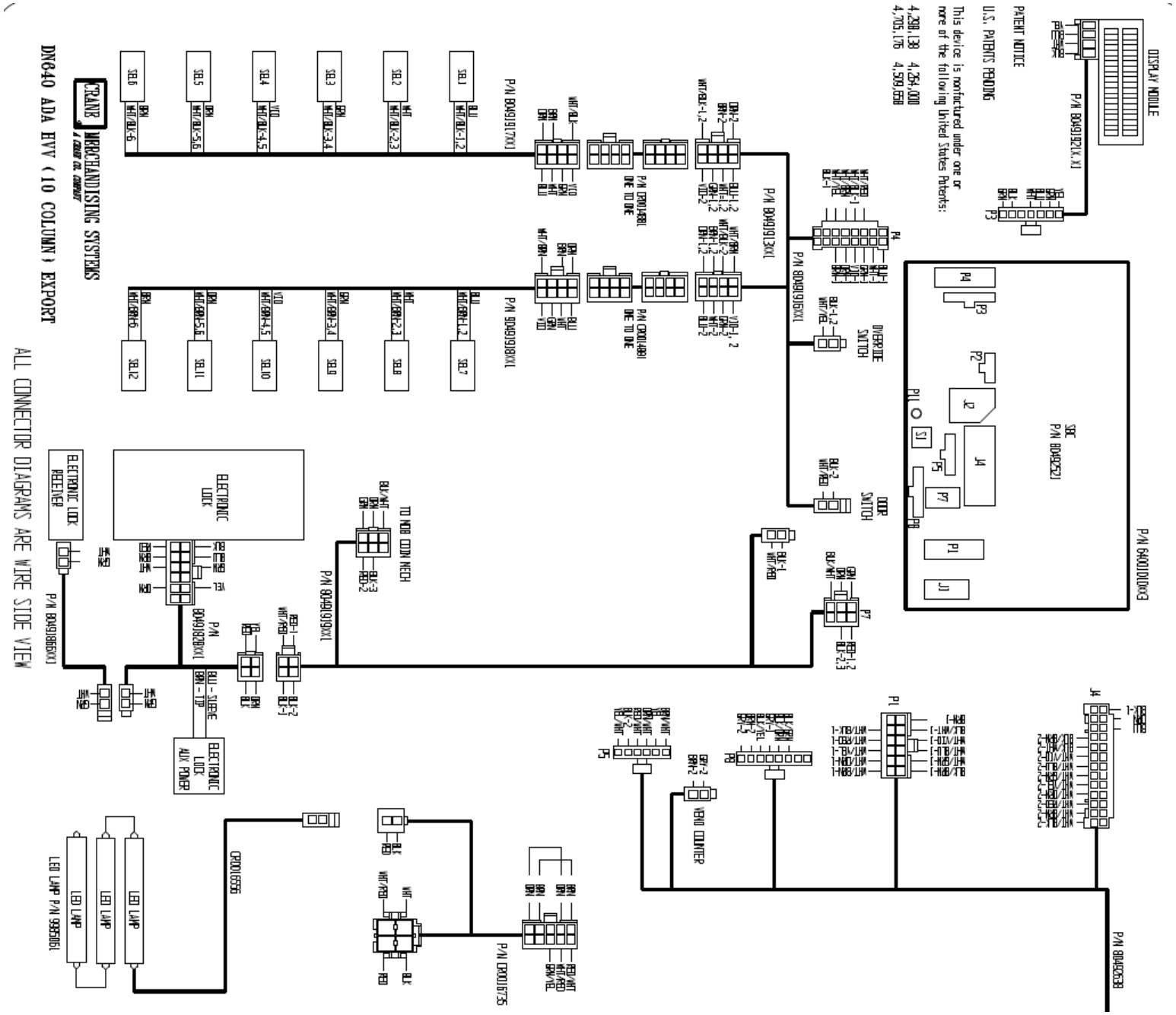


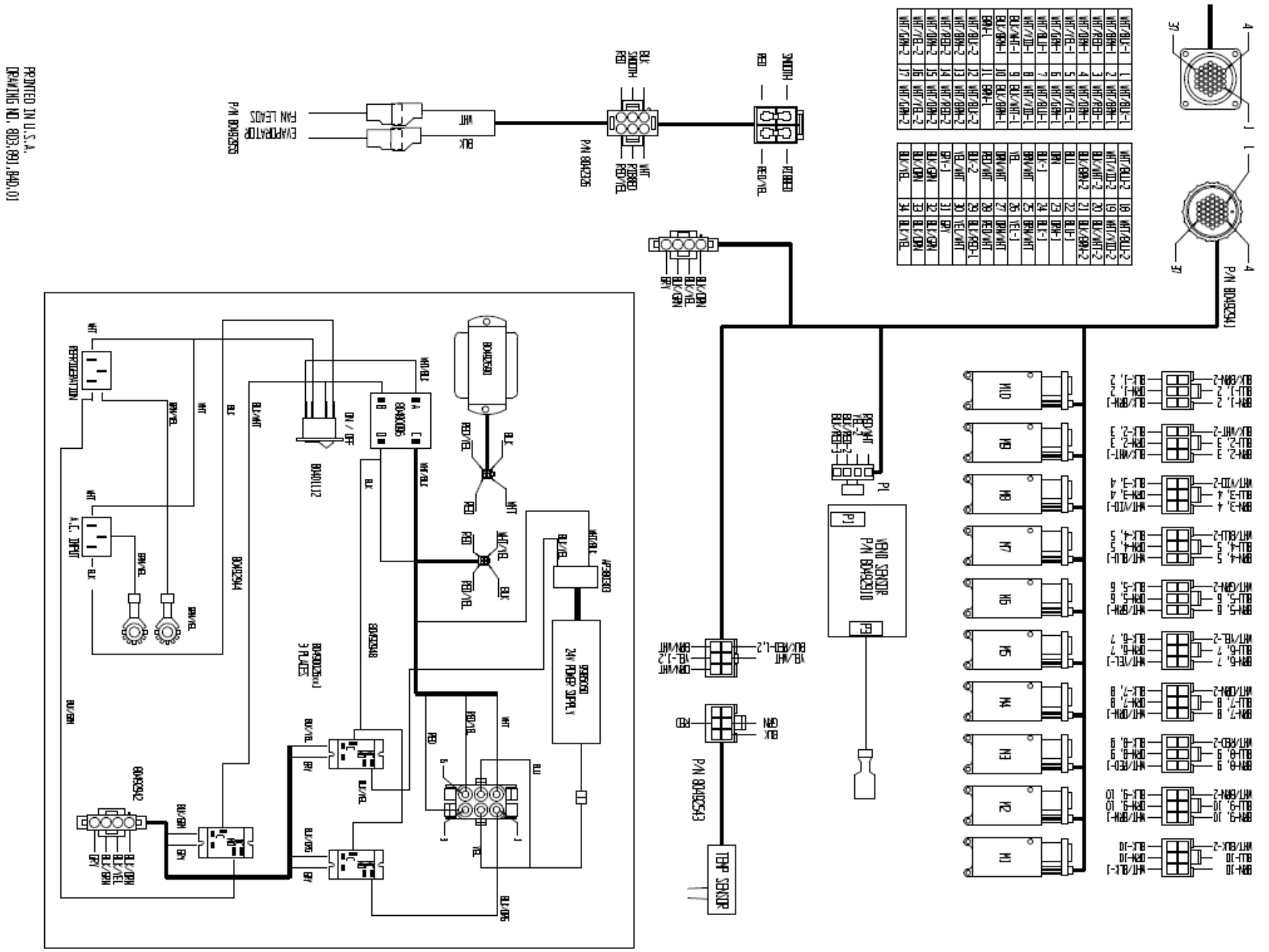
HVV 12 Select / 10 Column – Domestic DNCB 640 (80389183)



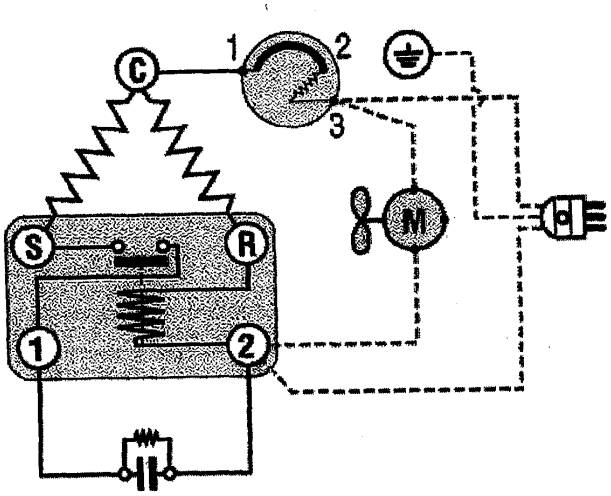


HVV 12 Select / 10 Column – Export DNCB 640 (80389184)





Refrigeration Circuit Diagrams



Symbol	Description
	Current Start Relay with Capacitor Connections
	Start Capacitor
	Overload Protector
	Fan
	Single Phase Motor
	Earth Connection
	Single Phase Supply
	Common
	Run
	Start
	Factory Made Connections
	Connections to be made

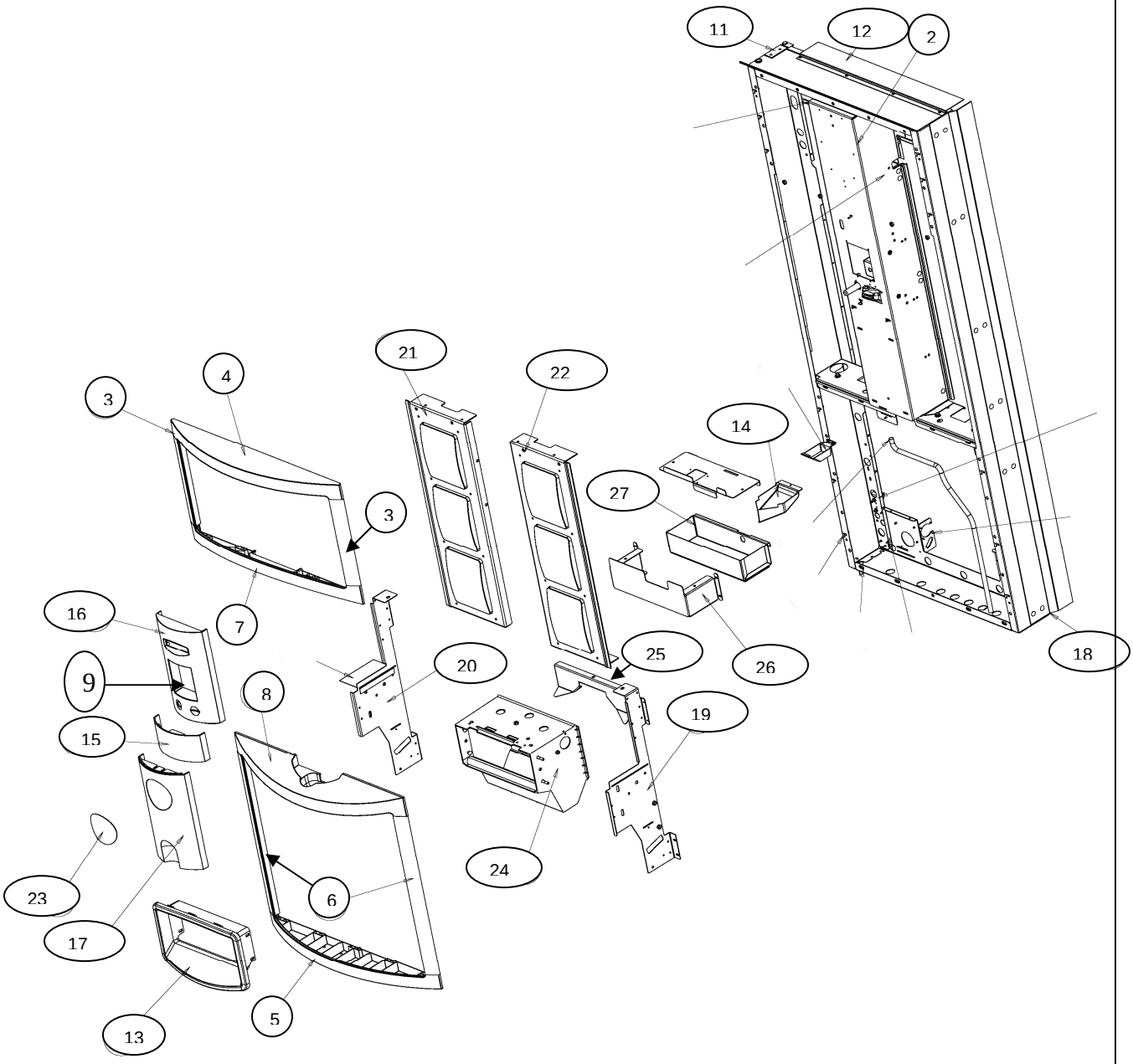
Refrigeration Circuit

PARTS LIST
Models DNCB 640/448

Main Door Exterior ……53 - 56
Main Door Interior (A) ……57 – 59
Main Door Interior (B) ……60
Select Panel ……61 – 62
LED Lighting……63 – 64
Electronic Components ……65 – 66
Inner Door ……67 – 68
Harnessing……69 - 70
Power Distribution Panel ……71 - 72
Cabinet and Vend Mechanism (Section 1) ……73 – 75
Miscellaneous Labels ……;;……76
Cabinet and Vend Mechanism (Section 2) ……77 - 78
Can/Bottle Chute Assembly ;;;;……79 – 80
Evaporator Fan Assembly..……81 - 82
Refrigeration System ……83 - 84
Screws ……85 - 86
Washers, Bolts, & Miscellaneous Hardware……87 - 88

Special Note: Crane Merchandising Systems Dixie-Narco part numbering has changed. Many of the 11 digit numbers are now 8 digit numbers. The last 3 digits were dropped in the new numbering system. An example of this is 800,102,970.01 is now 80010297.

MAIN DOOR EXTERIOR



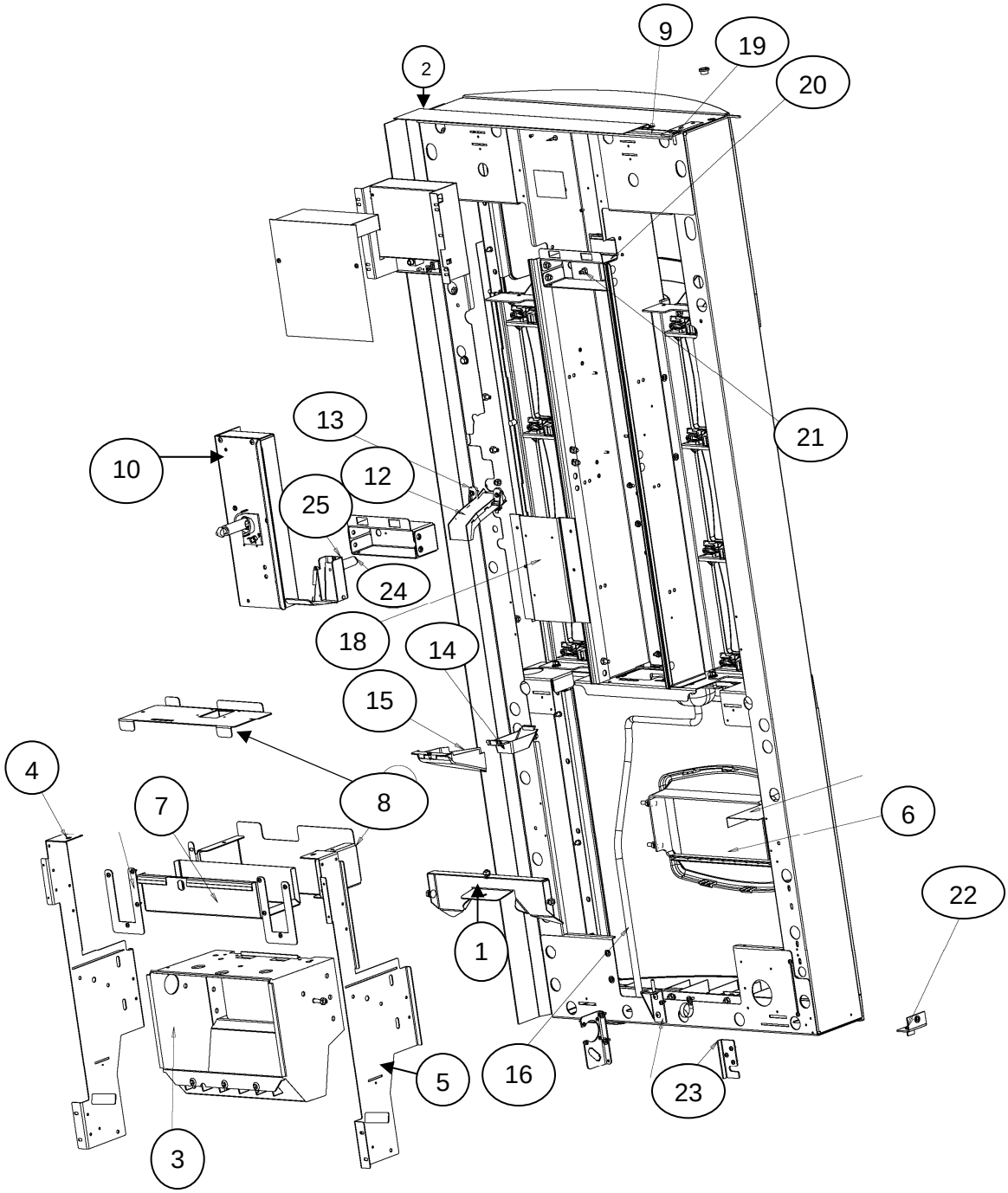
MAIN DOOR EXTERIOR			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Main Door Assembly - Specify Graphics		
	Blue	65805000	65805010
	Green	TBD	TBD
	Black	CR0013689	CR0014727
2	Door Weld Assembly (Specify Color)		
	Blue	CR0017623	CR0017626
	Green	TBD	TBD
	Black	CR0013676	CR0014726
3	Trim, Side Top		
	Blue	63105161	Same
	Green	TBD	Same
	Black	63105157	Same
4	Trim Cap, Top		
	Blue	*80181463	*80181499
	Green	*80181482	*80181507
	Black	*80181442	*80181768
5	Trim Cap, Bottom		
	Blue	*80181476	*80181501
	Green	*80181484	*80181509
	Black	*80181441	*80181771
6	Trim, Bottom		
	Blue	63105162	Same
	Green	TBD	Same
	Black	63105158	Same
7	Trim Cap, Selection Panel Top		
	Blue	*80181464	*80181503
	Green	*80181486	*80181512
	Black	*80181777	*80181769
8	Trim Cap, Selection Panel Bottom		
	Blue	*80181465	*80181505
	Green	*80181488	*80181514
	Black	*80181776	*80181770
9	Plate, Filler Bill Validator (Specify Color)	*36005072	Same
10	Sign		
	Pepsi-Cola ‘09, Top	80504755	80504751
	Pepsi-Cola ‘09, Bottom	80504757	80504753
	Mountain Dew, Top	TBD	TBD
	Mountain Dew, Bottom	TBD	TBD
	Gatorade, Top	TBD	TBD
	Gatorade, Bottom	TBD	TBD
	Aquafina, Gatorade Top	TBD	TBD
	Aquafina, Gatorade Bottom	TBD	TBD
	Aquafina, Top	TBD	TBD
	Aquafina, Bottom	TBD	TBD
Part number and description subject to change with out notice. NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part			

MAIN DOOR EXTERIOR - CONTINUED			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
11	Door Hinge Kit		
	Blue	*63115290	Same
	Green	*63115280	Same
	Black	*63905070	Same
12	Guard, Rain		
	Blue	*63105117	*63105116
	Green	*63105039	*63106260
	Black	*16415114	*16905034
13	Port Trim (Trim, Spacer Bezel)	*80181408	*80181522
14	Ramp, Coin		
	Blue	*80181435	Same
	Green	*80181491	Same
	Black	*80181765	Same
15	Center Column Cover	*80181370	Same
16	Top Column Cover	*80181413	Same
17	Bottom Column Cover	*80181330	Same
18	Vandal Panel (Specify Color)		
	Blue	*63105089	Same
	Green	*63105038	Same
	Black	*16515033	Same
19	Port Support (Right)	CR0013732	Same
20	Port Support Assy, (Left)	CR0013731	Same
21	Assembly, Select Panel Left		
	Blue	*63105170	*63105650
	Green	*63105510	*63106240
	Black	*63106370	*63106310
22	Assembly, Select Panel Right		
	Blue	*63105160	*63105680
	Green	*63105490	*63106220
	Black	*63106350	*63106290
23	Medallion		
	Pepsi	80388914	Same
	Mountain Dew	TBD	Same
	Aquafina	TBD	Same
	Gatorade	TBD	Same
24	Delivery Port Assembly	631,001,70x.x3	Same
25	Closure Strip	*60905014	Same
26	Shelf Cash Box	CR0013832	Same
27	Cash Box	CR0013845	Same
28	Gasket, Poron 1/8 x 1/8 x 36	80181427	NA
	Gasket, Poron 1/8 x 1/8 x 28.5	NA	80181540
29	Guard, Edge 18.75”	801,810,07x.x1	Same
30	Kit, Lower Door Lock	592,153,80x.x4	Same

Part number and description subject to change with out notice.
NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part

MAIN DOOR EXTERIOR - MISCELLANEOUS			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
A3	Screw, 8-18x1/2 SD Phillip Pan	80030418	Same
A4	Screw, 8-32x1/4 Phillips Pan Swage	80030434	Same
A13	Screw, 8-18x1/2 Phillip Pan SEM	80030423	Same
A14	Screw, 1/4-20x5/8 Hex Type F	80030436	Same
A41	Screw, HI-LO #8-5/8 Hex Washer	80030481	Same
A42	Screw, 10-32x1/2 Machine Truss	80020252	Same
B1	Nut, Hex #10-32	80080156	Same
B2	Nut, Hex 1/4-20	80080157	Same
B3	Nut, Hex 8-32	80080154	Same
B15	Nut, Hex 8/32 Flange	80080184	Same
D7	Bolt, T 8-32x3/4	80040061	Same
D8	Bolt, Carriage 1/4-20x3/4	80020247	Same
D9	Bolt, Carriage 1/4-20x1/2	80020245	Same
Part number and description subject to change with out notice. NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part			

MAIN DOOR INTERIOR (A)



MAIN DOOR INTERIOR (A)			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Closure Strip	*60905014	Same
2	Rain Guard		
	Blue	*63105117	*63105116
	Green	*63105039	*63106260
	Black	*16415114	*16905034
3	Delivery Port Assembly, ADA	631,001,70.X3	Same
4	Port Support (Right)	CR0013732	Same
5	Port Support Assy, (Left)	CR0013731	Same
6	Port Trim (Trim, Spacer Bezel)	*80181408	*80181522
7	Cash Box	CR0013845	Same
8	Shelf, Cash Box	CR0013832	Same
9	L Profile Gasket 35”	*80360112	NA
	L Profile Gasket 26”	NA	*80360111
10	Assembly, Electronic Lock	*80520244	Same
11	Light Pipe, Electronic Lock – Not Shown	*80181419	*80181542
12	Chute, Coin Insert	*80181440	Same
13	Cover, Coin Insert Chute	*80181439	Same
14	Chute, Lower Coin		
	Blue	*80181436	Same
	Green	*80181535	Same
	Black	*80181766	Same
15	Ramp, Coin		
	Blue	*80181435	Same
	Green	*80181491	Same
	Black	*80181765	Same
16	Drain Hose	*80190403	Same
17	Cover, Wire Plug – Not Shown	*63100092	*64005006
18	Coin Mech Mount	*63105013	Same
19	Door Hinge Kit		
	Blue	*63115290	Same
	Green	*63115280	Same
	Black	*63905070	Same
20	Rail, Center Column Support	*63105054	Same
21	Center Column Support	*63105044	Same
22	Door Stop		
	Blue	*63105124	Same
	Green	*63105125	Same
	Black	*63105126	Same

Part number and description subject to change with out notice.

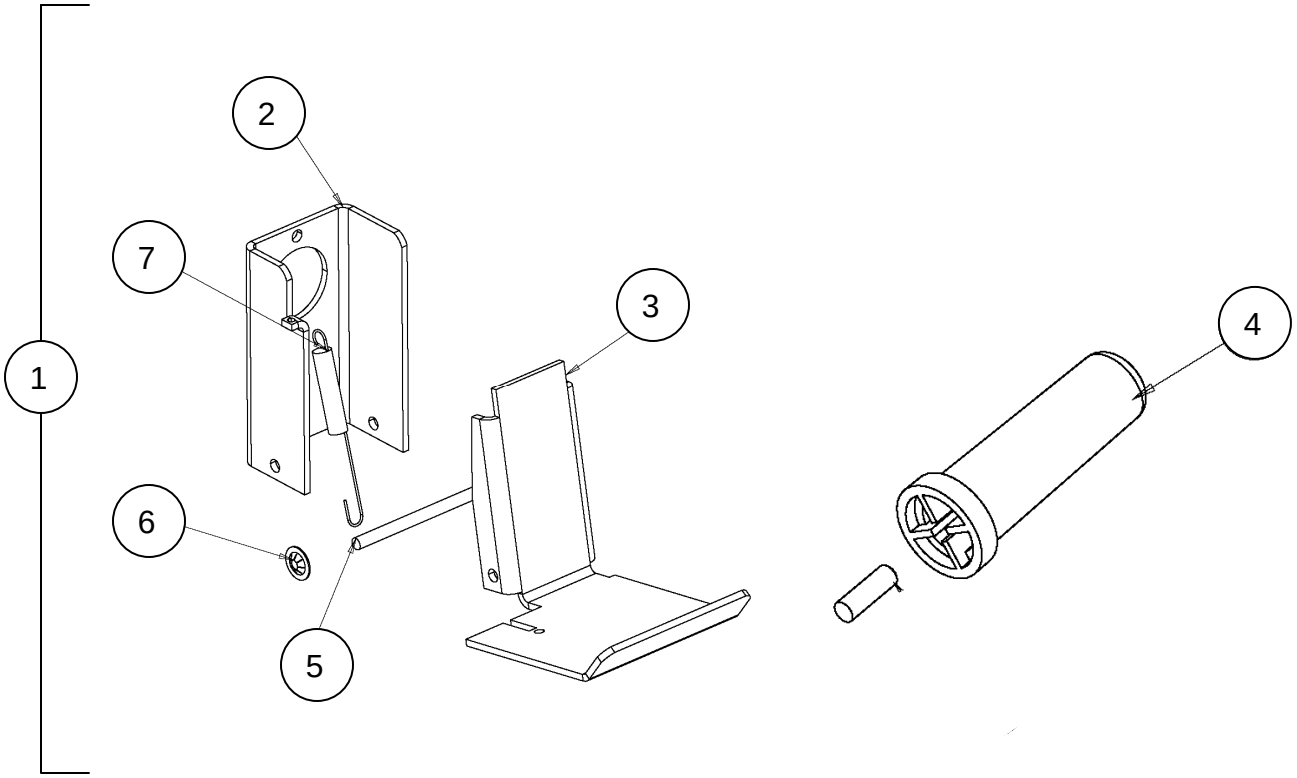
NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part

MAIN DOOR INTERIOR (A) CONTINUED			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
23	Bracket, Mounting Door Stop		
	Blue	TBD	Same
	Green	*63105041	Same
	Black	*59205119	Same
24	Coin Return Button Assembly	*80181422	Same
25	Coin Return Assembly	*63105200	Same
26	Gasket, Poron 1/8 x 1/8 x 36	8018127	NA
	Gasket, Poron 1/8 x 1/8 x 28.5	NA	80181540
27	Guard, Edge 18.75	801,810,07x.x1	Same
MAIN DOOR INTERIOR (A) - MISCELLANEOUS			
A3	Screw, 8-18x1/2 SD Phillip Pan	80030418	Same
A4	Screw, 8-32x1/4 Phillips Pan Swage	80030434	Same
A13	Screw, 8-18x1/2 Phillip Pan SEM	80030423	Same
A14	Screw, 1/4-20x5/8 Hex Type F	80030436	Same
A19	Screw, 8-18x1/2	80030431	Same
A41	Screw, HI-LO #8-5/8 Hex Washer	80030481	Same
A42	Screw, 10-32x1/2 Machine Truss	80020252	Same
A43	Screw, 6-20x3/8 Phillip Pan	80030477	Same
B1	Nut, Hex #10-32	80080156	Same
B2	Nut, Hex 1/4-20	80080157	Same
B3	Nut, Hex 8-32	80080154	Same
B15	Nut, Hex 8/32 Flange	80080184	Same
D7	Bolt, T 8-32x3/4	80040061	Same
D8	Bolt, Carriage 1/4-20x3/4	80020247	Same
D9	Bolt, Carriage 1/4-20x1/2	80020245	Same
H2	Tie, Cable 7 1/2"	90190201	Same
H6	Clamp, Cable 1” Heyco 3390	90190189	Same
H8	Tie, Cable 14"	90190244	Same

Part number and description subject to change with out notice.

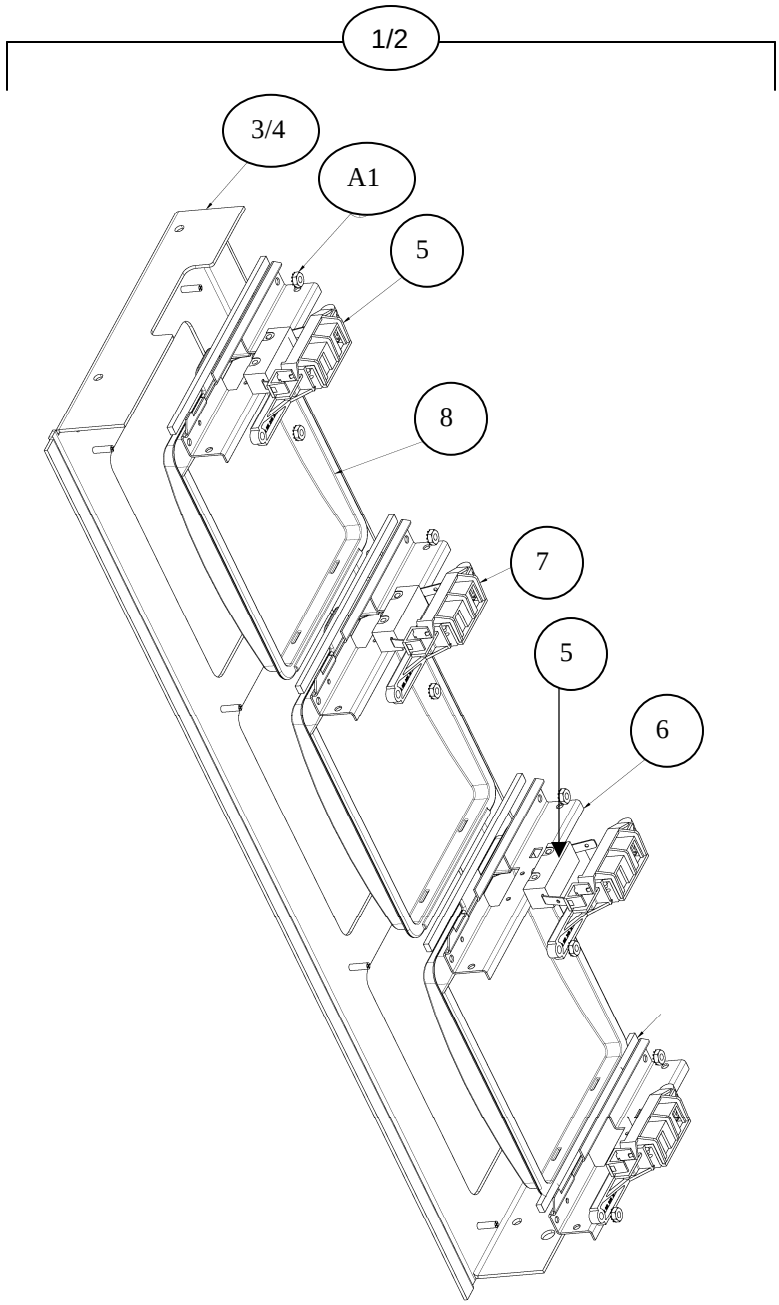
NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part

MAIN DOOR INTERIOR (B)



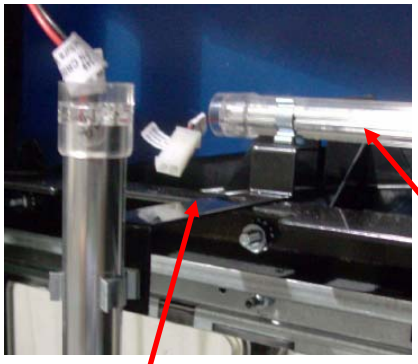
MAIN DOOR INTERIOR (B)		
ITEM	**PART DESCRIPTION**	**All**
1	Coin Return Assembly	*63105200
2	Bracket, Coin Return Mount	*63105018
3	Rocker, Coin Return	*63105017
4	Coin Return Button Assembly	*80181422
5	Roller Pin 5/32X2-3/8 ZINC	*80050378
6	Retainer, Roller Pin	*90090090
7	Spring, Coin Return Extension	*90170063
MAIN DOOR INTERIOR (A) - MISCELLANEOUS		
A3	Screw, Phillip 8-18x1/2	80030418
Part number and description subject to change with out notice. NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part		

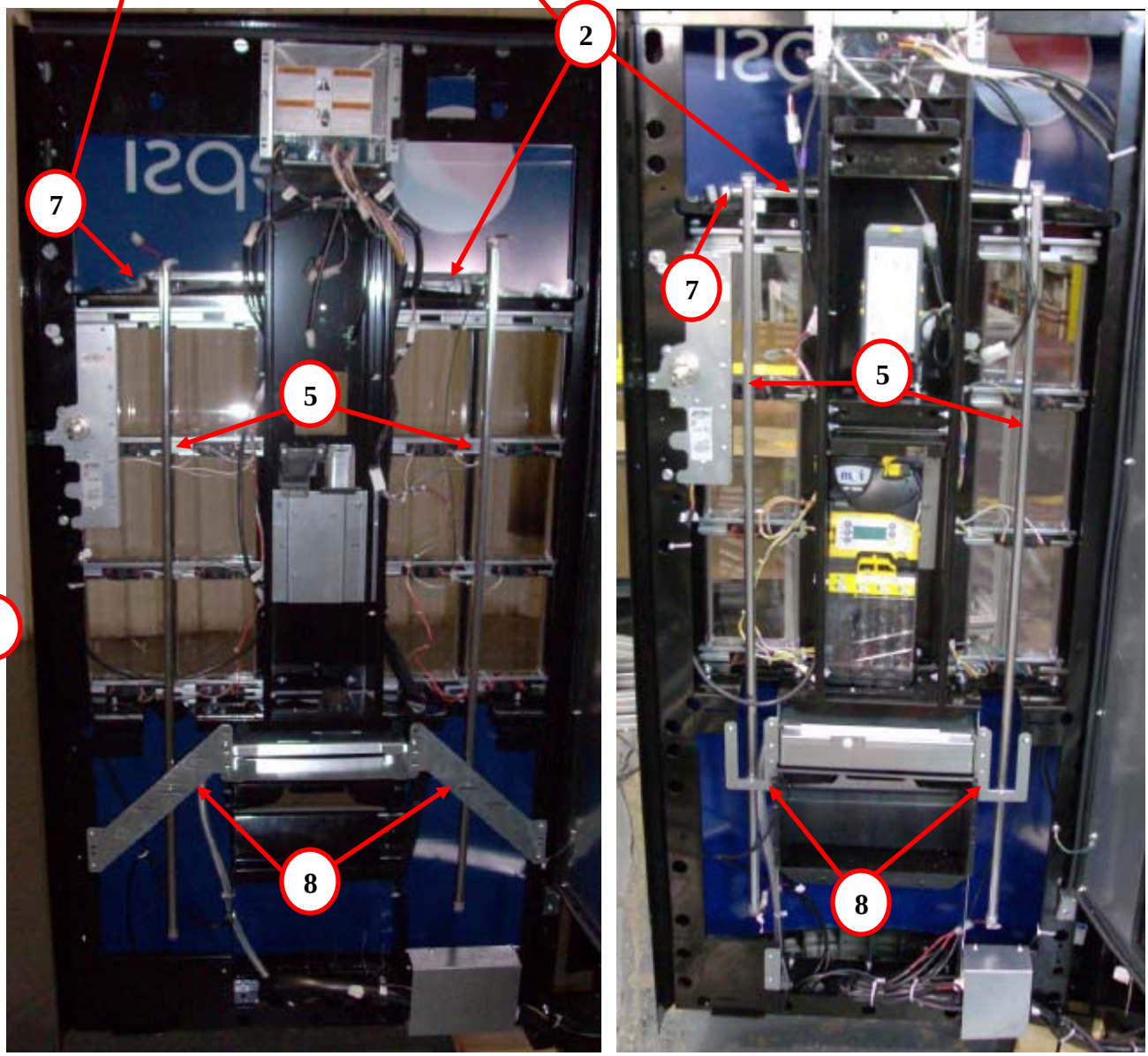
SELECT PANEL



SELECT PANEL			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Select Panel Assembly, Left		
	Blue	*63105170	*63105650
	Green	*63105510	*63106240
	Black	*63106370	*63106310
2	Select Panel Assembly, Right		
	Blue	*63105160	*63105680
	Green	*63105490	*63106220
	Black	*63106350	*63106290
3	Stud Assembly, Select Panel Left		
	Blue	*63105190	*63105670
	Green	*63105520	*63106250
	Black	*63106380	*63106320
4	Stud Assembly, Select Panel Right		
	Blue	*63105180	*63105690
	Green	*63105500	*63106230
	Black	*63106360	*63106300
5	Select Switch	*80410113	Same
6	Bracket, Selection Panel, Select Switch	*63105016	*63105064
7	Assembly, Select Switch and SO Holder	*80181533	Same
8	Select Button	*80181401	Same
9	Decal, Button – Not Shown	*80386925	Same
10	Gasket, Poron ¼ x .154 x 13	80181425	NA
	Gasket, Poron ¼ x .154 x 9 3/8	NA	80181609
11	Gasket, Poron ¼ x .154 x 6.75	NA	80181539
SELECTION PANEL - MISCELLANEOUS			
A13	Screw, 8-18x1/2 Phillip Pan SEM	80030423	Same
A44	Screw, TAP 1/4-20x1 Hex SEM	80030426	Same
B3	Nut, Hex 8-32	80080154	Same
D10	Bolt, Carriage 1/4-20x1	80020242	Same
Part number and description subject to change with out notice. NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part			

LED LIGHTING



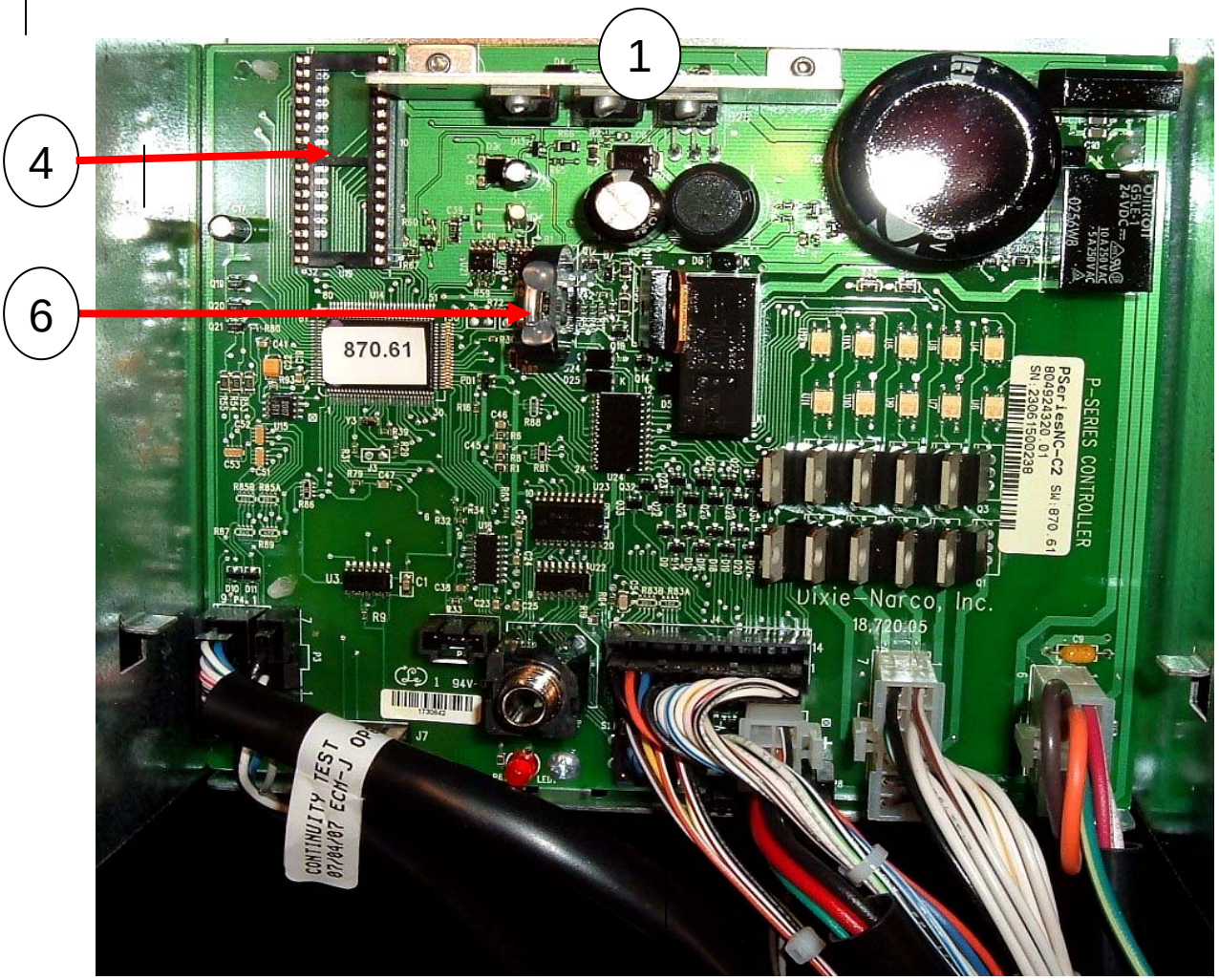


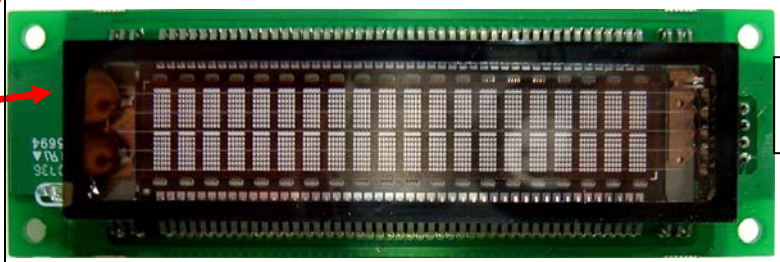
LED LIGHTING			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Assembly, Lighting LED	65801000	65801010
2	LED 600MM Assy. – 30 Horizontal (1)	9985061	NA
	LED 500MM Assy. – 24 Horizontal (1)	NA	1672174
3	Harness, AC Dist. Extended Long LED	CR0016735	Same
4	Harness, LED Extension	CR0016556	Same
5	LED Light Assy Vertical (2)	CR0010349	Same
6	Shield, Light, KYDEX – Not Shown	80190424	Same
7	Bracket, LED Lighting Assy.	CR0016289	Same
8	Bracket, Lamp Support (2)	63100126	63105061
9	Edge Guard, 18.75	801,810,07x.x1	Same
10	Edge Trim, Black	CR0005862	Same
11	Power Supply, Switch Mode Line-24vDC	9985050	Same
12			
13			
14			
15			
16			
LED LIGHTING - MISCELLANEOUS			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
A3	Screw, 8-18x1/2 Phillip Pan	80030418	Same
A11	Screw, 10-32x1 1/4 Phillip Pan Type F	80030428	Same
B2	Nut, Hex 1/4-20	80080157	Same
E8	Pop Rivet, Multi-grip Blind	90110053	Same
H2	Wire Tie 7.5”	90190201	Same

Part number and description subject to change with out notice.

NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part

ELECTRONIC COMPONENTS





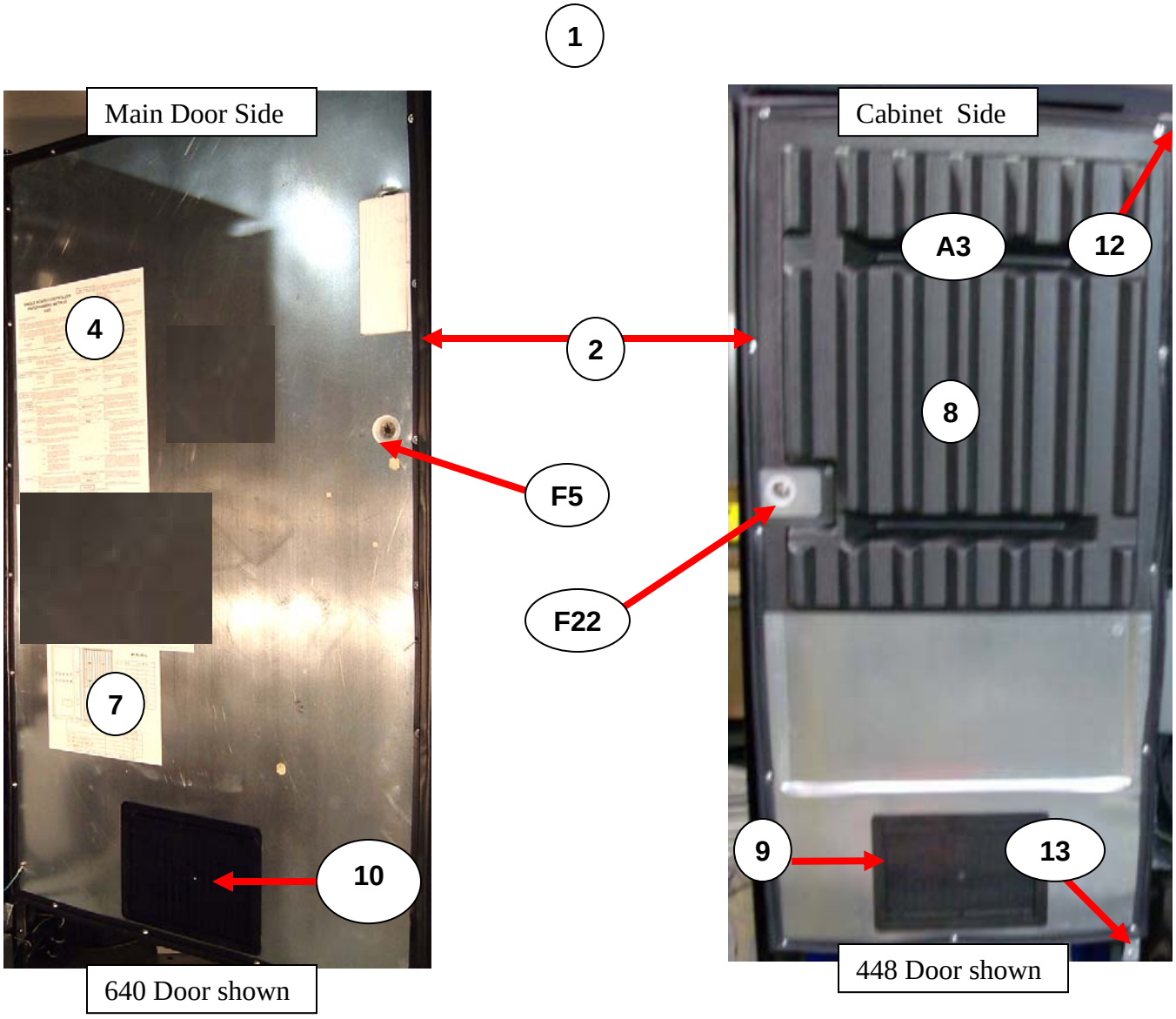
ELECTRONIC COMPONENTS			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Control Board Assembly SBC	*64001010	Same
2	Display Board	*80491869	Same
3	Controller Cover - Not Shown	*80130616	Same
4	EPROM	*80492087	Same
5	Rain Curtain, Control Board - Not Shown	*80190423	Same
6	Battery, 3V Lithium (CR2032)	*80492045	Same
7	Assembly, Electronic Lock – Not Shown	*80520244	Same
8	Light Pipe, Electronic Lock – Not Shown	*80181419	*80181542
9	Transformer, Class 2 Limited	80492514	Same
10	Assembly, Lock Strike, Electronic	*63905080	Same
11	Vend Sensor Assy.	*65107100	Same
12			
13			
14			

ELECTRONIC COMPONENTS - MISCELLANEOUS			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
A28	Screw, Pan Head #6-32 x 1/4	80020248	Same
F20	Standoff, Reverse Lock	80190421	Same

Part number and description subject to change with out notice.

NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part

INNER DOOR


1
Main Door Side
Cabinet Side
A3
12
4
2
8
F5
F22
7
9
13
10
640 Door shown
448 Door shown

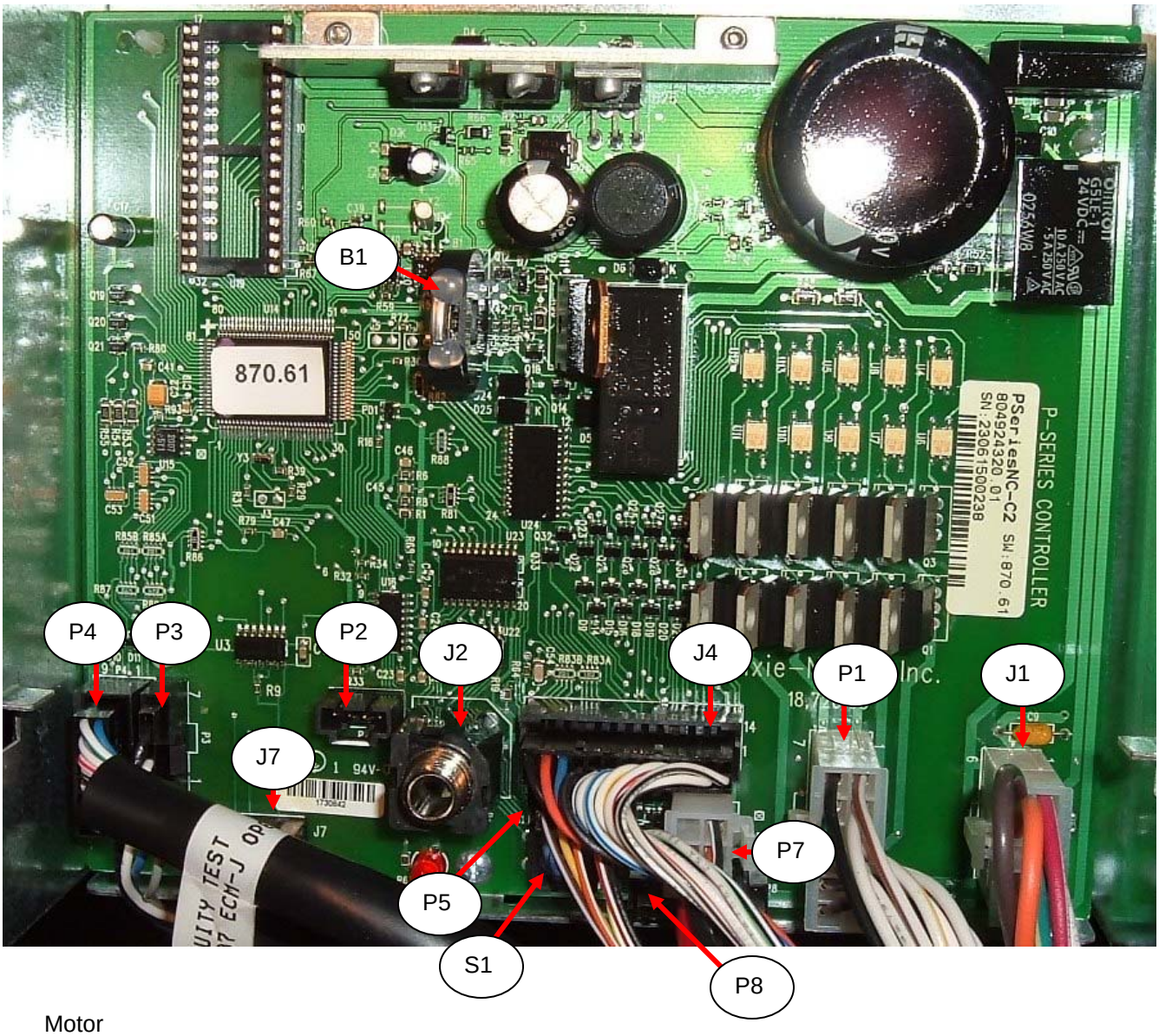
INNER DOOR			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Inner Door Assembly	CR0014520	CR0014524
2	Inner Door Gasket	80181230	80181229
3	Sub Assembly Inner Door	CR0008175	CR0017488
4	Label, Programming	*80387025	Same
5	Loading Instruction	*80388163	Same
6	Wiring Diagram (See Manual)		
	All Domestic	80389183	80389181
	All Export	80389184	80389182
7	Label, Button/Stack	*80388133	*80388132
8	Gate, Front Product Positioner	CR0014516	CR0014517
9	Discharge Frame Retainer	*801,809,15x.x1	Same
10	Assembly, Discharge Frame	*80180916	Same
11a	Assembly, Discharge Door	*801,809,17x.x1	Same
11b	Frame, Discharge	*801,809,14x.x1	Same
11c	Rod, Hinge (Not Shown)	*801,401,70x.x1	Same
12	Inner Door, Top Hinge, Weld Assembly	*16905300	Same
13	Inner Door, Bottom Hinge, Weld Assembly	*16905110	Same
14	Knob, Pull (Service Part Only)	*901,501,70x.x1	Same
15	Wood Block, Service Door Top Hinge	*80541113	Same
16	Inner Door Lock Kit	*631,151,20x.x4	Same

INNER DOOR - MISCELLANEOUS			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
A3	Screw, Phil Pan 8-18 x 1/2	80030418	Same
A13	Screw, SD Phil Pan Sems	80030423	Same
A42	Screw, 10-32x1/2 Machine Truss (4)	80020252	Same
B1	Nut, Hex #10-32 (4)	80080156	Same
D11	Bolt, Carriage 1/4-20x1 1/14 (Service Part Only)	80020243	Same
F5	Bushing Retainer	80180643	Same
F21	Plastic Bearing (Not Shown)	90180371	Same
F22	Inner Door Bushing (Bearing)	80180642	Same

Part number and description subject to change with out notice.

NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part

HARNESSING – SINGLE BOARD CONTROLLER (SBC)



P1	Motor
P2	Secondary DEX
P3	Display
P4	Select Switches
P5	Temp Sensor
P7	MDB
P8	Energy Management
J1	AC Power
J2	DEX
J4	Cam / Sold Out
J7	Optional
B1	Battery
S1	Service Switch

HARNESSING Single Board (SBC)			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Motor Harness (Stack)	80492941	80492950
2	Harness, Door 56” w Vend Sensor	80492951	Same
3	Harness, MDB and Lock Power	*80491919	Same
4	Jumper, Electronic Lock	80491866	Same
5	Harness, Selection Panel		
	Common Harness	*80491916	Same
	Left Panel	*80491973	*80491917
	Right Panel	*80491974	*80491918
6	66” DEX Harness - Domestic	*804,907,83x.x1	Same
7	Display Harness (P3 to display board)	80492945	Same
8	Secondary DEX Harness	*804,913,97x.x1	Same
9	Harness, Electronic Lock and Switch w/ Nut	*80492659	Same
10	Harness, AC Distribution – Domestic 33”	80492326	Same
11	Power Cord, Detachable GFCI	*65101000	Same
12	Key Switch Kit	*626,020,44x.x4	Same
13	Temperature Sensor, Encapsulated	*80492543	Same
14	Harness, Select Jumper	CR0014881	Same
15	Harness, Vend Sensor	80492952	Same
16	Harness, LED Extension	CR0016556	Same
17	Harness. Extended AC Dist. LED	CR0016735	Same
18	Harness, MDB	8092946	Same
19	Wire, Ground 4"	*80490261	Same

HARNESSING Single Board (SBC) - MISCELLANEOUS			
ITEM	**PART DESCRIPTION**	**DNCB448**	**DNCB640**
A7	Screw, 4-24x1/2 Phillip Pan Type B	80030479	Same
B4	Nut, DEX Harness	80080165	Same
H2	Tie, Wire 7 1/2"	90190201	Same

Part number and description subject to change with out notice.

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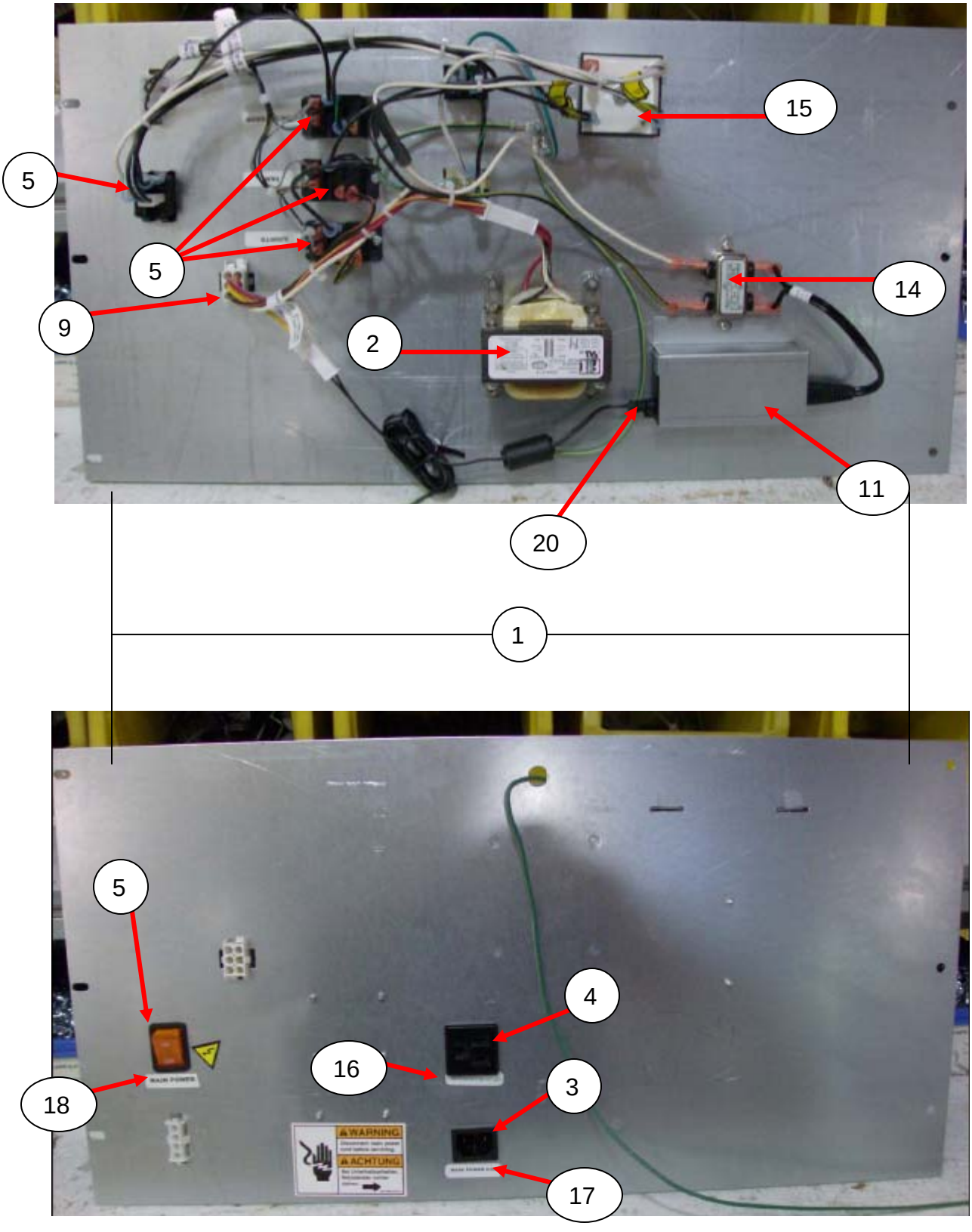
POWER DISTRIBUTION



POWER DISTRIBUTION			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Power Distribution Panel Assembly 115/60 Domestic LED	CR0010930	CR0010930
2	Transformer, Class 2 Limited	80492514	Same
3	Power Inlet Plug	*80491362	Same
4	Refrigeration Outlet	*W662	Same
5	Rocker Switch, DPST, Amber Illuminated	CR0010393	Same
6	Relay – Fan, Light, & Compressor	80420026	Same
7	Harness, AC Input	80492944	Same
8	Harness, AC Box Power Output - LED	80492948	Same
9	Harness, Power Distribution Relay	80492942	Same
10	Harness, AC Distribution LED Extended - 52”	80492949	CR0016735
11	Bracket, Mounting 24V Power Supply	CR0004946	Same
12	Power Cord, Detachable GFCI - 134”	65101000	Same
13	Harness, AC Distribution - Domestic – 33”	80492326	Same
14	Light Filter	AP380303	Same
15	Choke, Cap & Mov 120V	80492692	Same
16	Label, Refrigeration Outlet	80386804	Same
17	Label, Main Power	80386085	Same
18	Label, ON/OFF Rocker Switch	80387972	Same
19	Power Cord, Detachable GFCI	65101000	Same
20	Power Supply, Switch Mode Line 24VDC	9985050	Same

POWER DISTRIBUTION - MISCELLANEOUS			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
A28	Screw, Pan Head 6-32 x 1/4	80020248	Same
B3	Nut, Hex 8-32	80080154	Same
F1	Bushing, Heyco Nylon 2867	8019048	Same

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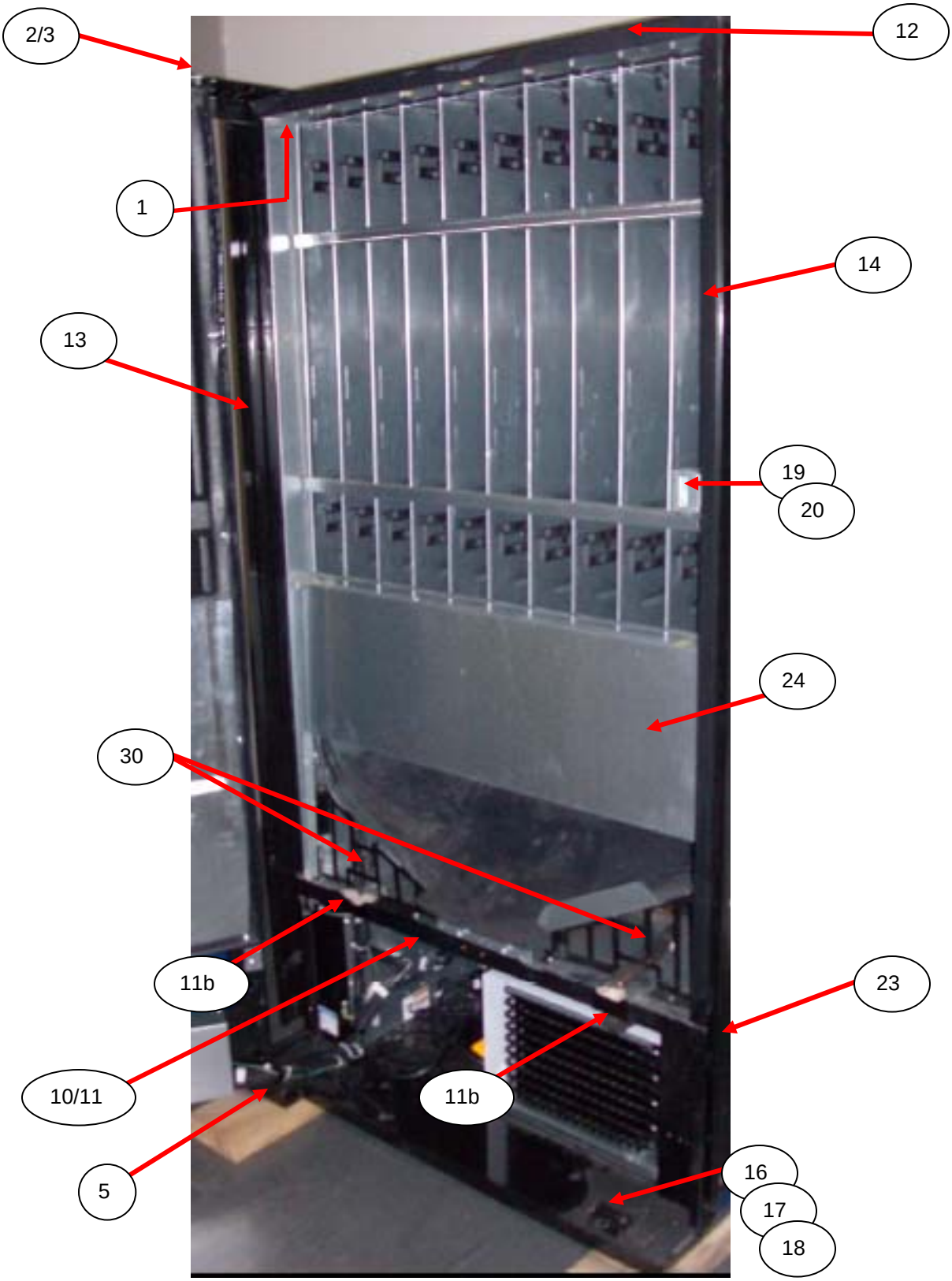
CABINET AND VEND MECHANISM
(SECTION 1)



CABINET AND VEND MECHANISM (Section 1)			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Cover, Hinge Pocket – Not Shown	*63105107	Same
2	Weld assembly Top Hinge (Main Door)		
	Blue	*63115630	Same
	Green	*63115620	Same
	Black	*63115610	Same
3	Door Hinge Kit		
	Blue	*63115290	Same
	Green	*63115280	Same
	Black	*63905070	Same
4	Hinge, Spacer	*16900015	Same
5	Hinge, Bottom Assembly (Main Door)	80130507	Same
6	Bottom hinge PIN	80050381	Same
7	Block, Foam	*90330077	Same
8	Stack Supports (4)	CR0007897	Same
9	Ingress Guard Assembly – Not Shown	59404027	59604005
10	Mullion	*801,806,23x.x1	*801,806,28x.x1
11a	Mullion Cap	*801,818,93x.x1	*801,818,92x.x1
11b	Mullion Cover (2 per)	80130383	Same
12	Breaker Strip - Top	CR0007871	CR0009657
13	Breaker Strip - Left	CR0007868	Same
14	Breaker Strip - Right	CR0007870	Same
15	Bearing, Hinge – Pin less	*80530067	Same
16	Roller, Main Door	*90180620	Same
17	Pin, Door Roller 5/32x2-3/8	*80050378	Same
18	Retainer, Door Roller Pin	*90090090	Same
19	Lock Housing Assembly	*63905080	Same
20	Receptacle, Electronic Lock, Vertical	*80520258	Same
21	Cabinet Assembly - Black	CR0007841	CR0009658
22	Plate, Protective Left Side (Specify Color)		
	Blue	*59402014	Same
	Green	*64900005	Same
	Black	*64900001	Same
23	Plate, Protective Right Side Cabinet (Specify Color)		
	Blue	*16500004	Same
	Green	*64900006	Same
	Black	*64900002	Same
24	Assy, Vend Motor Cover	*639,072,70x.x3	*640,071,70x.x3
25	Edge Trim, Black	CR0005862	Same
26	Side Decals		
	Pepsi-Cola ‘09	80388915	Same
	Mountain Dew	TBD	Same
	Gatorade	TBD	Same
	Gatorade/Aquafina	TBD	Same
	Aquafina	TBD	Same
27	Leveling Leg, 5/8-11x2 1/16"	80050379	Same
28	Hole Plug, Black Snap In - 1 1/8	80181969	Same
29	Edge Trim, Black	CR0005862	Same
30	Chute Support, Right/Left	CR0010204	CR0016325

Part number and description subject to change with out notice.

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CABINET AND VEND MECHANISM - MISCELLANEOUS			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
A3	Screw, Phil Pan 8 – 18 x ½ (1)	80030418	Same
A14	Screw, Sems ¼ - 20 x 5/8 Hex	80030436	Same
A44	Screw, Tap 1/4-20x1 Hex Type F	80030426	Same
B2	Nut, Hex ¼ - 20	80080157	Same
B16	Nut, Hex Jam 5/16 - 18	80080161	Same
C10	Washer, Door Hinge	80070173	Same
D11	Bolt, Carriage ¼ - 20 x ¼ (3)	80020243	Same
D12	Bolt, Carriage 5/16 – 18 x 1 ¼ (1)	80020254	Same
D13	Bolt, Carriage ¼ - 20 x 5/8	80030408	Same
E9	1/4 Drive Rivet	901,100,44x.x1	Same
E10	Rivet, 1/4" Aluminum	CR0010548	Same
H8	Wire Tie 14”	90190244	Same
H9	Clamp, P, 1/4"	90090232	Same
Part number and description subject to change with out notice. NA = Not applicable TBD = To be determined RB = Replaced by ***** = same as 720P & 504P part			

MISCELLANEOUS LABELS			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Kit, ID Number Labels	639,070,76x.x4	640,070,55x.x4
2	Label, Precaution Access Door	80383304	Same
3	Label, Main Power	80386085	Same
4	Label, Coin Mech MDB	80388677	Same
5	Label, Refrigeration Outlet	80386804	Same
6	Label, Programming	80387025	Same
7	Label, Vend Motor Cover	80387119	Same
8	Label, Upper Refill (Stack)	80387602	80387601
9	Label, Lower Refill (Stack)	80387604	80387603
10	Label, Main Power Inlet	80387684	Same
11	Label, On/Off Rocker	80387972	Same
12	Label, Button/Stack	80388133	80388132
13	Label, Loading Instruction	80387954	Same
14	Wiring Diagram – Domestic	80389183	80389181
	Wiring Diagram – Exports	80389184	80389182
15	Label, GFCI	80388542	Same
16	Label, Money Removed Daily	90380570	Same

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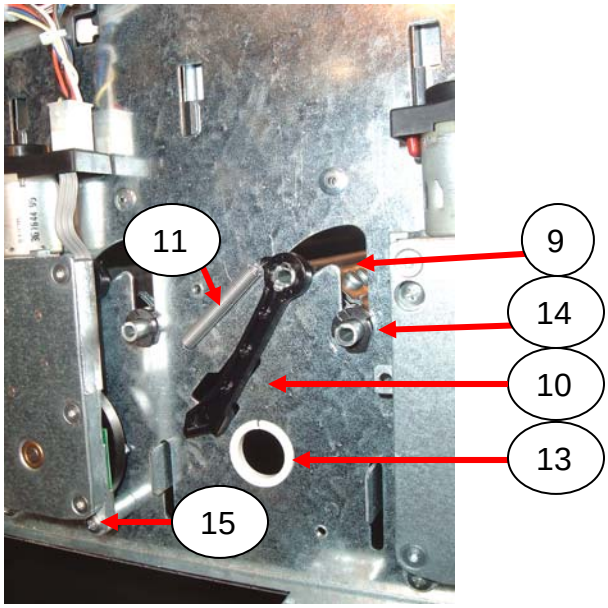
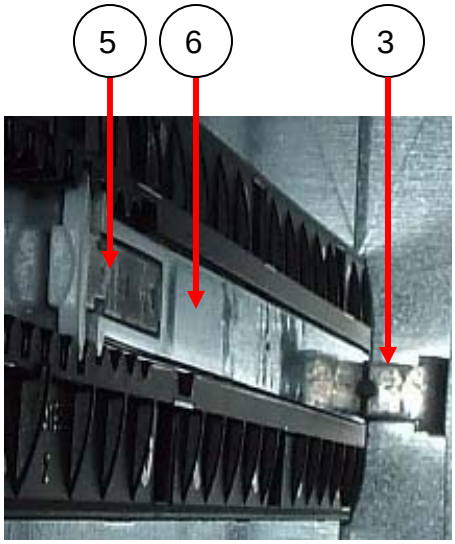
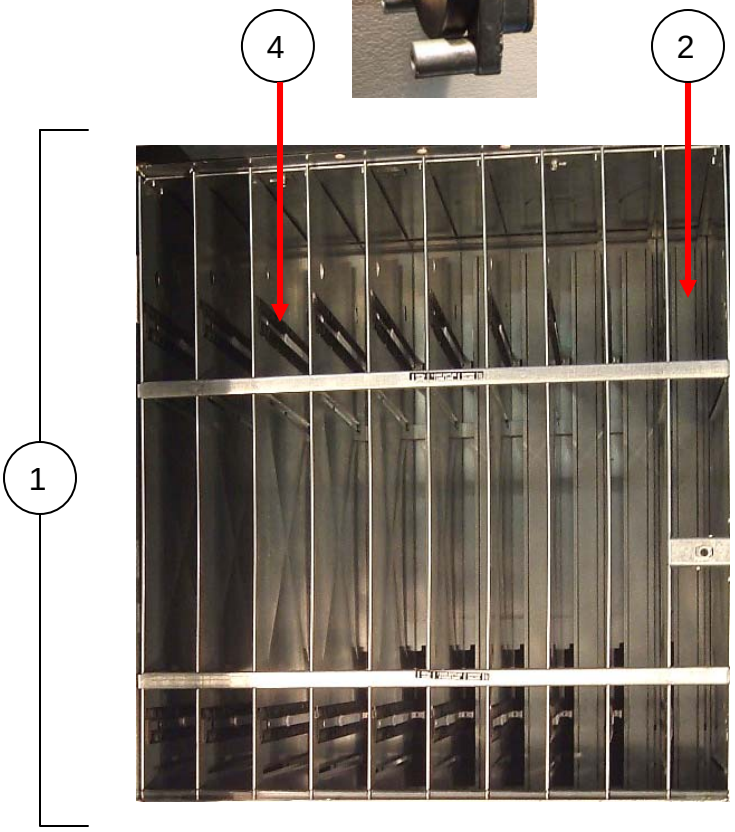
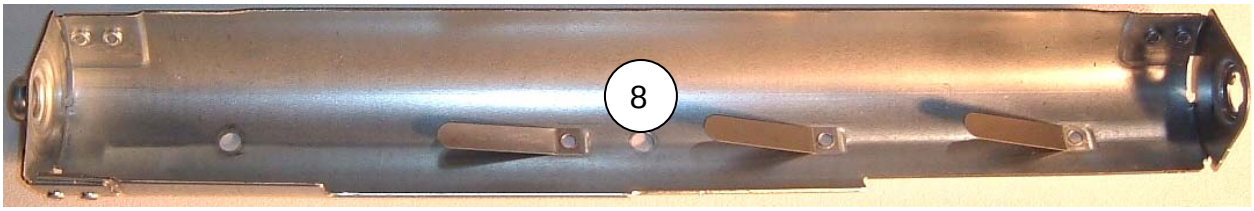
CABINET AND VEND MECHANISM
(SECTION 2)









CABINET AND VEND MECHANISM (Section 2)			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Stack Assembly	CR0008508	CR0009691
2	Assembly Rear Spacer Narrow	CR0008511	63907500
3	Bracket, Rear Spacer Narrow (2)	*80181956	Same
4	Guide, Channel Rear Spacer (2)	*80181959	Same
5	Latch, Rear Spacer (2)	*80181961	Same
6	Guide Arm Assembly (2)	*80520257	Same
7	Vend Motor - Narrow Column	*80450163	Same
8	Rotor	80130843	Same
9	Load Bar - Steel	*80130659	Same
10	Push Arm	*80181955	Same
11	Push Arm Spring	*80170151	Same
12	Nyliner .312 – Not Shown	*80181953	Same
13	Nyliner .750	*80181952	Same
14	Bushing, Load Bar .312	*80181954	Same
15	Vend Motor Cover – Not Shown	*63907270	*64007170
16	Front Gate Extension – Not Shown	*63907014	Same
17	Air Baffle, KYDEX – Not Shown	*63907068	NA
18	Shipping Base (Skid Board) 34 7/8”	805,410,19x.x1	Same

CABINET AND VEND MECHANISM - MISCELLANEOUS (Section 2)			
ITEM	**ITEM**	**ITEM**	**ITEM**
A2	Screw, Phil Pan Type 1 8 – 32 x 3/8	80030422	Same
A14	Screw, Sems ¼ - 20 x 5/8 Hex	80030436	Same
A47	Screw, Phil Pan 8-32x1 (3)	80030492	Same
E2	Pop Rivet, 1/8 Steel Zinc Plated	80110081	Same
E3	Pop Rivet, 3/16” Steel Zinc Plated	80110079	Same

Part number and description subject to change with out notice.

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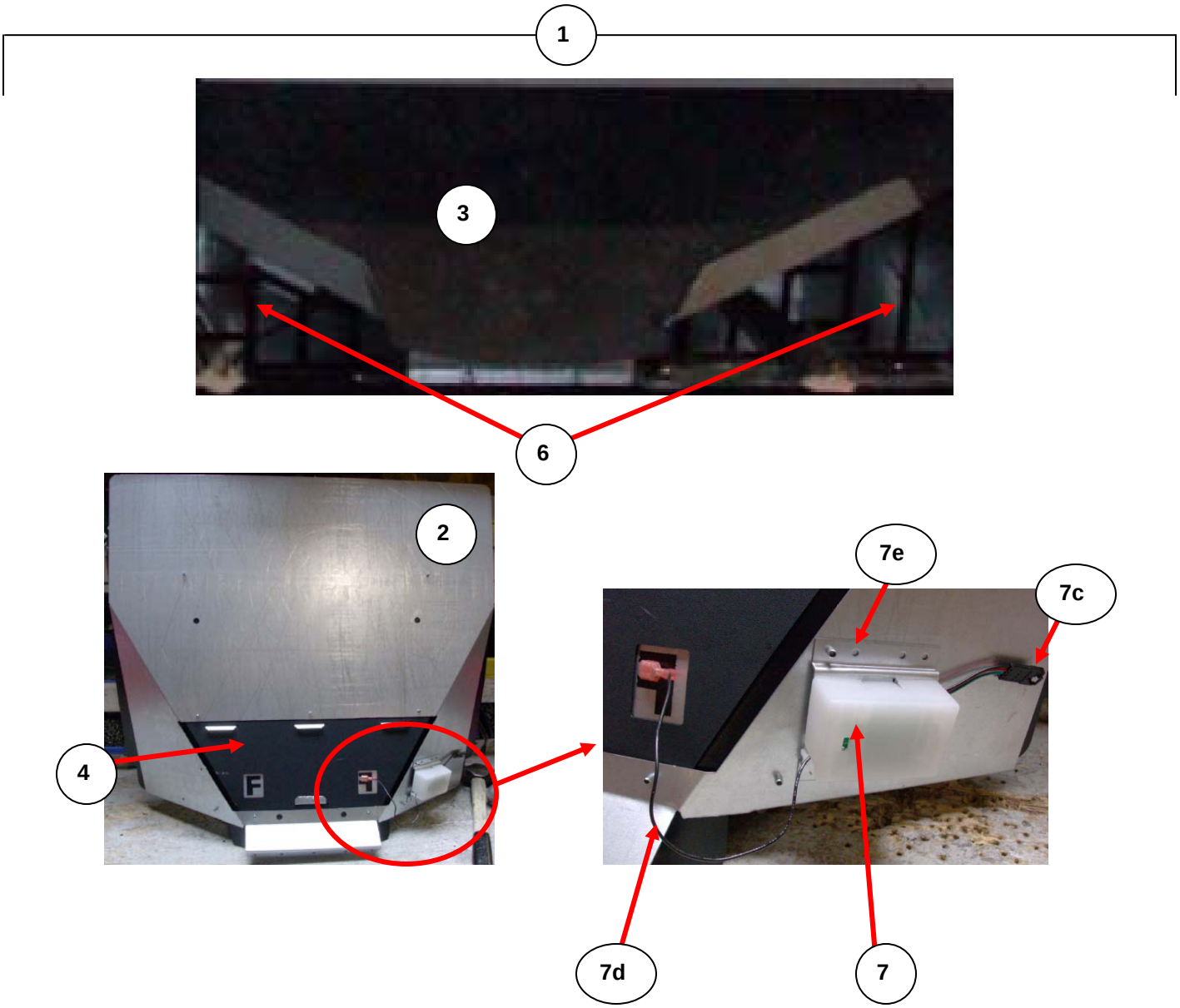
CAN / BOTTLE CHUTE ASSEMBLY



CAN / BOTTLE CHUTE ASSEMBLY			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Chute Assembly	CR0009054	CR0015427
2	Chute, Center	CR0015251	CR0015344
3	Liner, Chute	CR0009049	CR0015343
4	Support, Sensor Plate, Kydex	63907033	CR0016285
5	Vend Sensor Plate, Metal	63907034	CR0016286
6	Chute Support, Right & Left	CR0010204	CR0016325
7	Vend Sensor Assembly	*65107100	Same
7a	Housing, Vend Sensor	*CR0002214	Same
7b	Board, Vend Sensor	*80492910	Same
7c	Harness, Vend Sensor Adapter	*80492911	Same
7d	Harness, Sensor - Black	*80492878	Same
7e	Vend Sensor Bracket	*63907104	Same
CHUTE ASSEMBLY - MISCELLANEOUS			
A45	Screw, 8-32x3/8, Hex w/ washer	80030438	Same
E2	Rivet, 1/8" Steel (9)	80110081	Same

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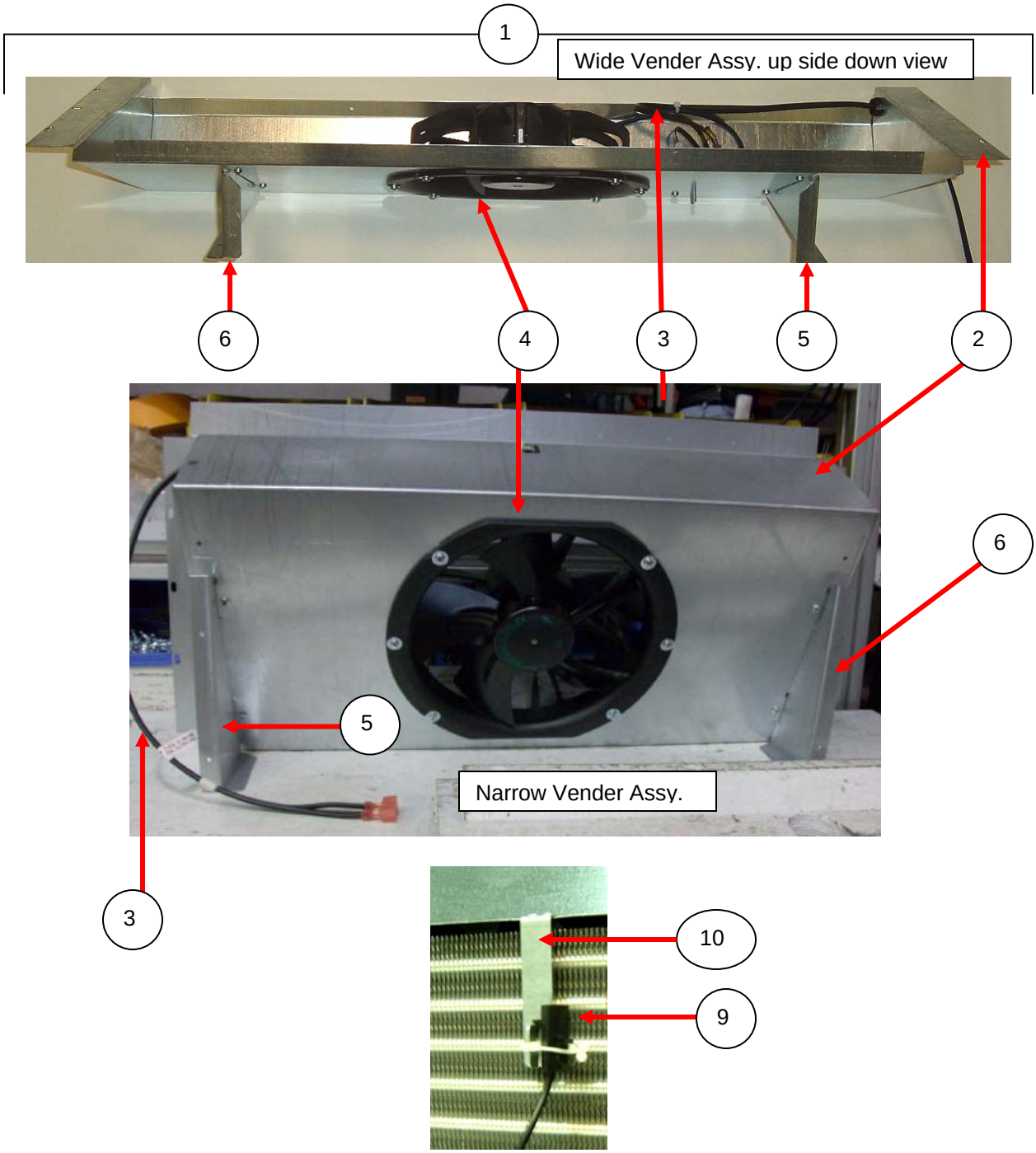
EVAPORATOR FAN ASSEMBLY



EVAPORATOR FAN ASSEMBLY			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
1	Evaporator Fan Shroud Assembly	CR0009270	CR0009665
2	Evaporator Fan Shroud	CR0009256	
3	Harness, Evaporator Fan	*804,926,33x.x1	Same
4	Evaporator Fan Motor Assy.	*804,501,54x.x1	Same
5	Bracket, Evaporator Fan Panel Left Hand	CR0010225	Same
6	Bracket, Evaporator Fan Panel Right Hand	CR0010224	Same
7	Cover, Evaporator Top	*640,040,09x.x3	Same
8	Poly Foam Rear Air Stop Assembly – Not Shown	640,040,60x.x3	NA
9	Temperature Sensor	*804,925,43x.x1	Same
10	Bracket, Temp Sensor	*63904004	Same
11			
12			
13			
14			

EVAPORATOR FAN ASSEMBLY - MISCELLANEOUS			
ITEM	**PART DESCRIPTION**	**DNCB640**	**DNCB448**
A3	Screw, Phil Pan 8 - 18 x 1/2" (4)	80030418	Same
A11	Screw, 10 – 32 x 1 1/4" Phil Pan Type F B	80030428	Same
A14	Screw, ¼ - 20 x 5/8 Hex Self Tapping	80030436	Same
A45	Screw, 8 – 32 x 3/8, Hex washer	80030438	Same
B3	Hex Nut, #8-32" (6)	80080154	Same
E2	Rivet, 1/8" Steel	80110081	Same
F23	Bushing, ¾" split Heyco	901,902,17x.x1	Same
H2	Wire Tie, 7.5 "	90190201	Same
H10	Clamp, Cable, 3/8" Nylon	90090243	Same

Part number and description subject to change with out notice.

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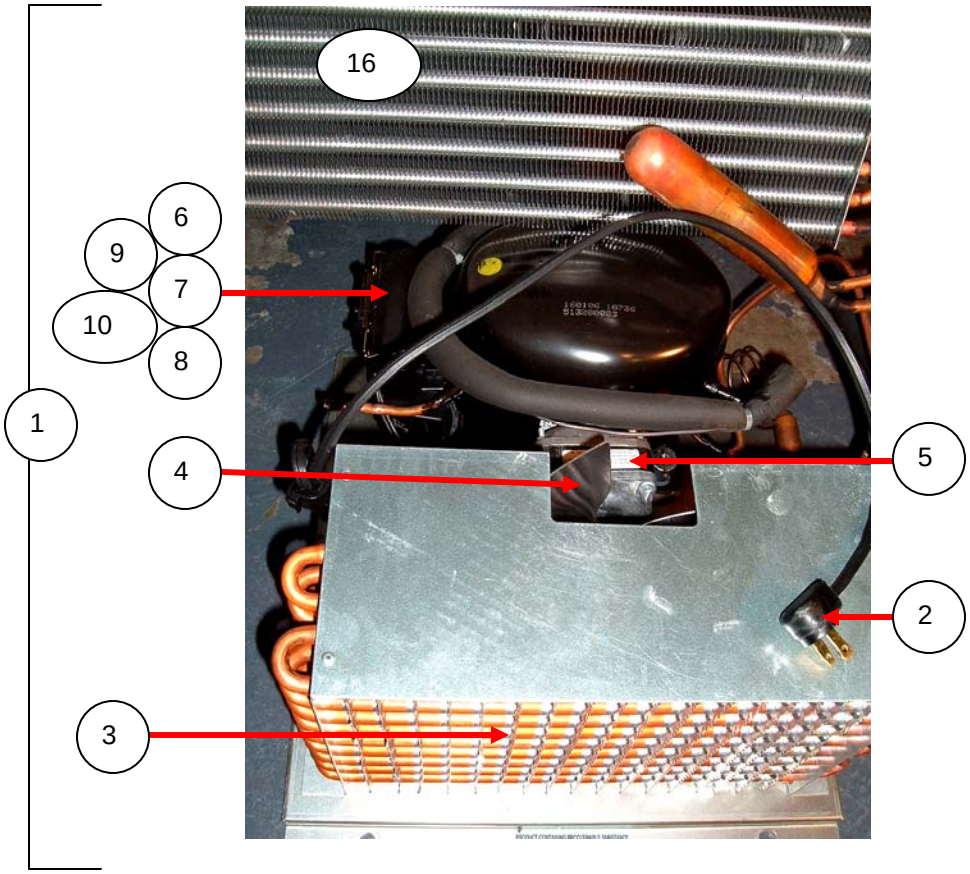
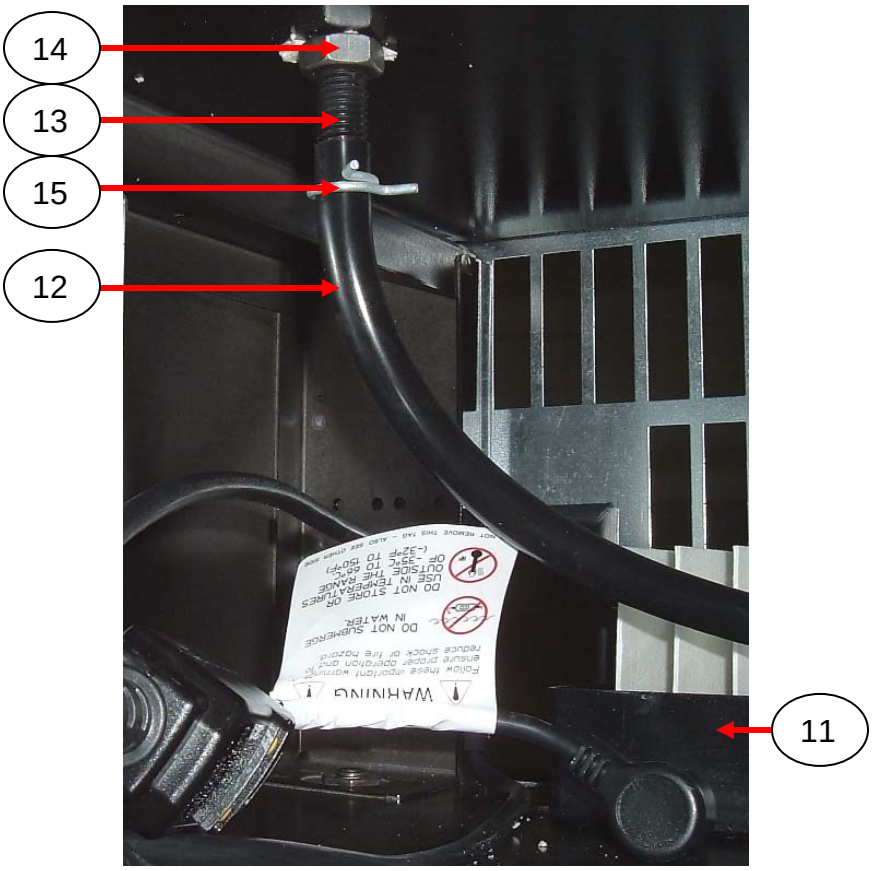
REFRIGERATION SYSTEM





REFRIGERATION SYSTEM			
ITEM	**PART DESCRIPTION**	**DOMESTIC (All)**	**EXPORT**
1a	Assy., Refrigeration Unit, Service Kit	65904000	65904010
1b	Assy., Refrigeration Unit	CR0008547	65804020
1c	Compressor, 115V/60Hz - FFU130HAX	80250288	NA
	Compressor, 220V/50Hz – NEK6212Z	NA	80250285
2	Harness, Compressor Lead	90490061	80492574 (Euro)
3	Condenser FP19X1225X4	80260069	Same
4	Fan Blade, Condenser - FV900CW30S	80130665	Same
5a	Motor, Condenser Fan 9W CW	80450122	80450137
5b	Bracket, Condenser Fan Motor	63904005	Same
6	Bracket, Capacitor	80240217	80240174
7	Start Capacitor, FFU130HAX	80240218	NA
	Start Capacitor, Emb. 77-88mfd/330V	NA	80240169
8a	Capacitor Cap	80240220	80240162
8b	Cover, Electronic Components	80240214	80240173
9	Overload, FFU130HAX	80240213	NA
	Overload, Emb. TO741/G9	NA	80240172
10	Assy, Relay 15A 115V FFU130HAX	80240216	NA
	Assy, Relay Export Emb. #9660041155	NA	80240170
11	Drain Pan w/Soakers	*80580071	Same
12	Hose, Drain - Black	*90190050	Same
13	Tube, Drain Nylon	*80180605	Same
14	Nut, Drain Tube	*80030427	Same
15	Clamp, Drain Hose, HC-12	*80090327	Same
16	Evaporator Coil, Short	80260037	Same
17	Dryer, Extended Outlet	80240129	Same
18	Accumulator	80240046	Same
REFRIGERATION SYSTEM - MISCELLANEOUS			
A2	Screw, Phil Pan 8 -32 x 3/8	80030422	Same
A46	Screw, Machine Brass 6 – 32 1/4	80020244	Same
B5	Speed Nut	90080085	Same
C9	Washer, Flat 15/32ID X 59/64OD	80070146	Same
C11	Silencer	*90210029	Same
H14	Tie, Cable Panduit 5.5”	*90190283	Same

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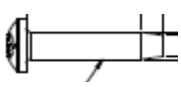
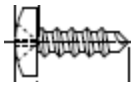
SCREWS & NUTS

(diagrams are for shape reference only)



A1

A2



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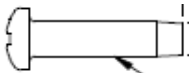

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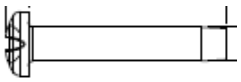

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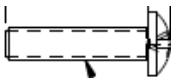

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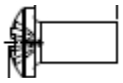

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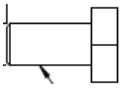

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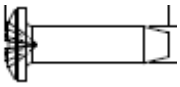

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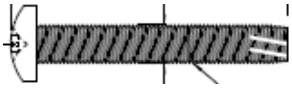

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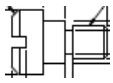

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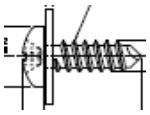
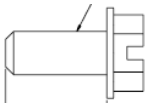


A13

A14



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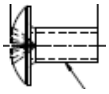

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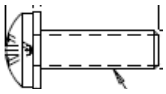

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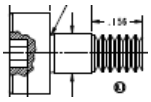

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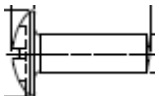

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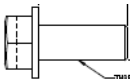

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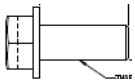

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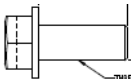

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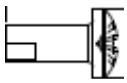

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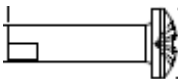

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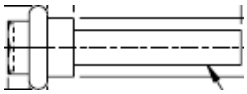

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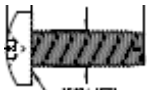

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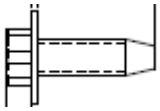

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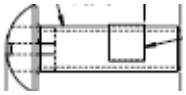

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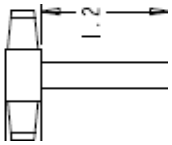

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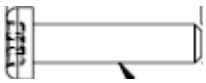

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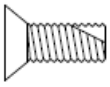

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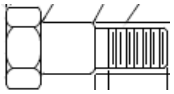

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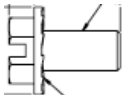

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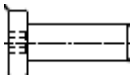

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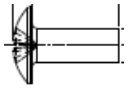

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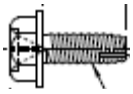

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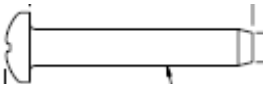

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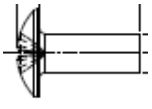


A47

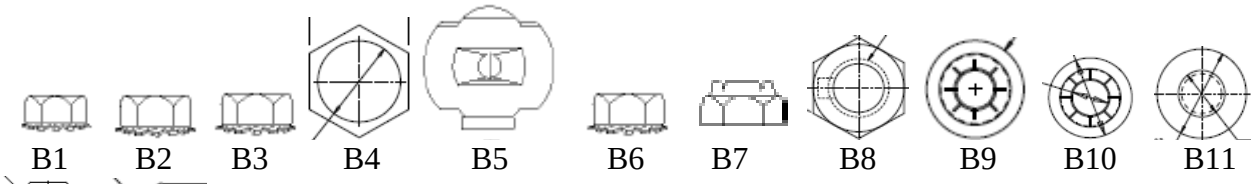
A48

SCREWS

ITEM	PART NUMBER	PART NAME AND DESCRIPTION
A1	80030446	Screw, Phil Pan Head 1/4 - 20 x 1 ¼"
A2	80030422	Screw, Phil Pan #8 - 32 x 3/8"
A3	80030418	Screw, Phil Pan w/out washer self drilling, #8 - 18 x 1/2"
A4	80030434	Screw, Phil Pan Swage Form #8 - 32 x 1/4"
A5	80030499	Screw, Phil Pan #2-32 x 3/8"
A6	80030501	Screw, Phil Pan, #2-32 x 1/2"
A7	80030479	Screw, Phil Pan #4-24 x 1/2"
A8	80020257	Screw, Pan Head 8 - 32
A9	80020284	Screw, Hex Head ¼-28 X .5
A10	80030494	Screw, Phil Pan #8 - 32 x 5/8"
A11	80030428	Screw, Phil Pan Form #10 - 32 x 1 1/4"
A12	80020255	Screw, Fl Flstr Shoulder #10 - 32 x 1/4"
A13	80030423	Screw, Phil Pan Sems with washer, #8 - 18 x 1/2"
A14	80030436	Screw, Self Tapping, 1/4 - 20 x 5/8"
A15	80030468	Screw, Hex Washer 8x5/8”
A16	80020265	Screw, Phil Truss #10 - 32 x 3/8"
A17	80030503	Screw, Phil Pan with lock washer #4 - 40 x 3/8"
A18	80020236	Screw, Shoulder #4-40
A19	80030431	Screw, Phil Pan #8-18x1/2"
A20	80030454	Screw, Hex Head 10-16x .50
A21	80030449	Screw, Hex Tapping .250-20
A22	80030452	Screw, Hex Washer Head ¼-20
A23	80030497	Screw, Phil Pan #8-18x.375"
A24	80030502	Screw, Phil Pan #8-18x5/8”
A25	80030417	Screw, 4-24 HiLo
A26	80030421	Screw, Phil Pan Swage Form #8-32x1/2"
A27	80030451	Screw, Hex Washer Head #8-18x1/2"
A28	80020248	Screw, Pan Head #6-32 X ¼
A29	80030415	Screw, Nylock #8-32x1/2"
A30	80030529	Screw, Wing ¼ - 20 x 1 ¼ molded nylon (for shipping bracket)
A31	CR0002205	Screw, Nylon (Circuit Board Support – Display)
A32	80030541	Screw, TEK Zinc #20 X .750
A33	AP13100035	Screw, Fl. Torx Tap ¼-20 X ½
A34	80030488	Screw, Hex w/ washer 8-32 x 3/8
A35	80030433	Screw, Phillips Flat 10-32 X .5
A36	80050387	Screw, Shoulder ¼-20 X .35
A37	80030540	Screw, Machine w/ lock 10-24 X 3/8
A38	1572269	Screw, Hex w/ Head, Hi-Lo #6 X ½
A39	80020250	Screw, Hex Button Head 10-32 X 5/8
A40	80020285	Screw, 10-32 X 1.375
A41	80030481	Screw, Hi-Lo Hex Washer 8-5/8
A42	80020252	Screw, Machine Truss 10 – 32 x ½
A43	80030477	Screw, Phil Pan 6 – 20 x 3/8
A44	80030426	Screw, Tap Hex Sem ¼ - 20 x 1
A45	80030438	Screw, Hex w/ Washer 8 – 32 x 3/8
A46	80020244	Screw, Machine Brass 6 – 32 x 7/4
A47	80030492	Screw, Phil Pan Zinc 8 – 32 x 1
A48	80020252	Screw, Machine Truss 10 – 32 x 1/2

Part numbers & descriptions are subject to change with out notice.
NA = Not applicable TBD = To be determined RB = Replaced by

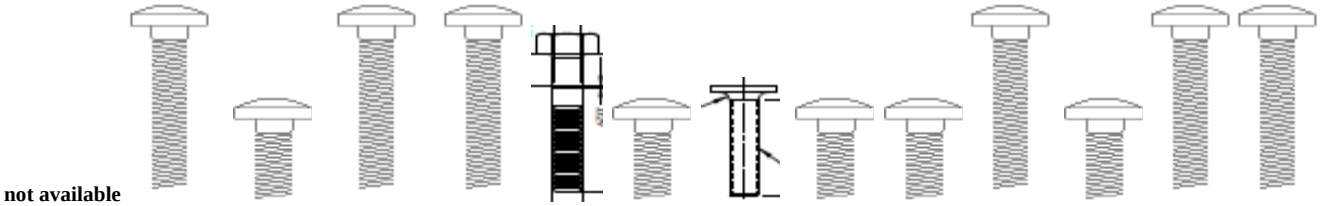
NUTS, WASHERS, BOLTS, & MISC. HARDWARE
(diagrams are for shape reference only)



B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11

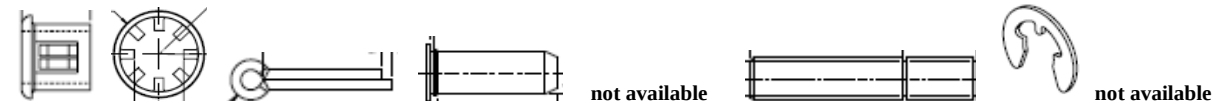
B12 B13 B14 not available B15 B16

C1 C2 C3 C4 C5 C6 C7 C8 C9 not available C10



not available C11 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13

E1 E2 E3 E4 E5 E6 E7 E8 E9 E10



F1 F2 F3 F4 not available F5 F6 F7 not available F8

F9 F10 F11 F12 F13 F14 F15 F16

F17 F18 F19 not available F20 not available F21 not available F22 not available F23 H1

H2 H3 not available H4 H5 H6 not available H7 H8 H9 H10 H11 H12

not available H13 not available H14

WASHERS, BOLTS, & MISC. HARDWARE

ITEM	PART #	PART NAME AND DESCRIPTION	ITEM	PART #	PART NAME AND DESCRIPTION
B1	80080156	Hex Nut, #10 - 32	E1	90110054	Pop Rivet, Black 1/8"
B2	80080157	Hex Nut, 1/4 - 20	E2	80110081	Pop Rivet, Steel (Zinc Plated) 1/8"
B3	80080154	Hex Nut, #8 - 32	E3	80110079	Pop Rivet, Steel (Zinc Plated) 3/16"
B4	80080165	Hex Nut, Dex Plug	E4	80110065	Pop Rivet, Aluminum 1/8" White
B5	90080085	Speed Nut	E5	48909023	Pop Rivet, SS 187
B6	80080166	Hex Nut with washer, #10 - 24	E6	19609043	Rivet, Bulbex 3/16 Black
B7	80080155	Elastic Stop Nut, #8 - 32	E7	80110066	Pop Rivet, Steel 3/16 Black
B8	80080152	Nut Jam Lock 5/16	E8	90110053	Pop Rivet, Multi-Grip Blind
B9	80090297	Push Nut .187 X .437	E9	90110044	¼ Drive Rivet
B10	80090302	Push Nut ID .250	E10	CR0010548	Rivet, Aluminum ¼"
B11	80080147	Push Nut Washer Cap Type	E11		
B12	80030478	Nylon Insert Lock Nut ¼ - 20	F1	80190448	Nylon Bushing, Heyco 2867
B13	80080195	Nut, 10-32 Nylock	F2	80090351	Retaining Ring
B14	80080178	Nut, ¼-20 Pemnut C420-1	F3	80090329	Cotter Pin .076 dia. .5 long
B15	80080184	Hex Nut, Flange 8/32	F4	80100176	Pin Self Clinching .250 x ¾
B16	80080161	Nut, Hex Jam 5/16 – 18	F5	80180643	Bushing Retainer
B17			F6	80050375	Pin Belt Tensioner Idler PVT
			F7	80090336	E Ring Ext ¼ #E-25
C1	80070156	Washer, Lock .261 ID	F8	80190380	Standoff Richo RLCBSR401SR
C2	80070139	Washer, Nylon .189 x .375 x .031	F9	80100177	Pin Self Clinch .250 x 1
C3	90070122	Washer, .260 ID x .687 OD Flat	F10	80100175	Standoff, Clinch 8 – 32 5/8
C4	90150308	Washer, Hex #29-34 (T-Handle)	F11	80181813	Nylon Spacer #8 ID, .312 OD, .5
C5	80070152	Washer, .191 ID x .5 OD x .054T Flat	F12	80090249	Tinnerman Clip, U-Nut ¼ - 20
C6	48909130	Washer, SS Flat #10	F13	80090273	Clip, Canoe 254-12020-99
C7	80070144	Washer, Flat 18 Gauge 17/64ID x 5/8OD	F14	80140197	Belt Tensioner Spring
C8	80070165	Washer, Flat 3/8 Steel	F15	80190489	Standoff, Circuit Board
C9	80070146	Washer, Flat 15/32ID X 59/64OD	F16	80090361	Clip, Canoe Natural (Lens)
C10	80070173	Washer, Door Hinge	F17	90090188	Clip, Retainer Compressor
C11	90210029	Silencer	F18	80530071	Spacer, 1/4ID X .275
C12			F19	80090299	Clip, Pine Tree Rivet
C13			F20	80190421	Standoff, Reverse Lock
C14			F21	90180371	Plastic Bearing
			F22	80180642	Inner Door Bushing
D1	80020249	Bolt, Carriage ¼ - 20 x 2.5	F23	90190217	Bushing, ¾ Split Heyco
D2	80020251	Bolt, Carriage 10-24 x .82	H1	AP420040	Plug, Dome Black .50
D3	CR0004761	Bolt, ¼-20 X 1.75	H2	90190201	Wire Tie, 7 1/2"
D4	80030542	Bolt, Carriage ¼-20 X 2	H3	90190100	Wire Tie, 4"
D5	80040071	Bolt, Hex ¼-20 X 1.25	H4	W223	Wire Tie, Twist
D6	80020256	Bolt, Carriage 10-24 X .82	H5	80090251	Clamp, Nylon 5/16" White
D7	80040061	Bolt, T 8 – 32 x ¾	H6	90190189	Clamp P 1" Heyco 3390
D8	80020247	Bolt, Carriage ¼-20 X ¾	H7	CR0004146	Clamp, .250 Push Fin Base
D9	80020245	Bolt, Carriage ¼-20 X ½	H8	90090244	Wire Tie, 14"
D10	80020242	Bolt, Carriage ¼-20 X 1	H9	90090232	Clamp, P ¼
D11	80020243	Bolt, Carriage ¼-20 X ¼	H10	90090243	Clamp, Cable Nylon 3/8"
D12	80020254	Bolt, Carriage 5/16-18 X 1¼	H11	90190106	Wire Tie 5.5"
D13	80030408	Bolt, Carriage ¼-20 X 5/8	H12	90090027	Wire Tie, White 6"
D14			H13	90190055	Clamp, Nylon Cable ¾"
D15			H14	90190283	Tie, Cable Panduit 5.5"

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