



12.3 PROGRAMMING

HVV

VEC 12.3 CONTROL BOARD OPERATIONS

NOTE: Some units may contain a European font display, in which case the “°” symbol will be replaced by the “ß” symbol. Example: 72°F will be 72 ß F.

The VEC 12.3 Controller uses a 3-button programming system:

- Row 1 (all selection buttons in top row) – Increase/Decrease
- Row 2 (all selection buttons in top row) – Enter and/or Save
- Row 3 (all selection buttons in top row) – Escape/Exit

In order to access Mode functions, open the door. Locate the Mode Button. Press the mode button one time. Row 1 will take you through the modes.

The available modes are:

Diagnostics
Coin Payout
Tube Fill
Test Mode
Cash Data
Sales Data
Set Price
Set Depth
Configuration
Space to Sales
Door Closed Password
Set Language
*Set Clock **
*Lighting **
*Refrigeration ***
*Sales Block 1 **
*Sales Block 2 **
*Discount **
*Override ***
Return

* These modes will only appear when the “Timing Features” in *Configuration* are turned ON.

** Limited options appear in these modes depending on whether the Timing Features are ON/OFF.

Diagnostics:

See inner door of vendor or Troubleshooting section for errors and how to clear them.

Coin Payout:

Allows you to payout coin tubes.

- Press (2) to enter into "Coin Payout" mode.
- Press (1) to choose denomination.
- Press (2) to dispense displayed denomination.
- Press (3) to exit mode.

Tube Fill:

Allows you to fill coin tubes via the external coin insert. This is the recommended way to fill the coin tubes because the control board is able to keep an accurate count of the coins.

- Press (2) to enter into "Tube Fill" mode.
- Insert coins into coin insert slot and the controller will "count" the number of coins going into the coin mechanism.

Test Mode:

Allows you to test vend a column, jog a column, test selection switches, display, refrigeration system, lights, and heater.

Vend Testing:

- At "Test Mode", press (2)
- Display will read column X
- Press (1) to choose desired column
- Press (2) to vend
 - If motor vends OK, DISPLAY will read "Test Mode - Vending Motor OK"
 - If motor does not test OK one of the following messages will appear:
 - "Test Mode - Vending Fail - Column Jam"
 - "Test Mode - Vending Fail - No Connection"
 - "Test Mode - Vending Fail - High Current"

Jogging a Column:

- At "Test Mode" press (2)
- At "Test Mode – Vending" press (1)
- Display will read "Test Mode - Jog"
- Press (2) and display will read "Column 1"
- Press (1) to choose desired column
- Press (2) to enter into column and display will read "Column X Forward" with X being the desired column.
- Press (1) to toggle between "Forward" or "Reverse"
- Press (2) to move/jog the motor in the desired position
- Press (3) to exit this mode

Test Mode Display:

Allows you to verify that all of the characters on the display illuminate.

1. At "Test Mode" press Button 4.
2. Press Button 2 or 3 to scroll until display reads "Test Mode - Display."
3. Press Button 4.
4. All of the characters on the display should illuminate.
5. Press Button 4 to exit.

Selection Switch Testing:

Allows you to test the selection switches.

1. At "Test Mode" press Button 4.
2. Press Button 2 or 3 to scroll to "Test Mode Switches".
3. Press Button 4
4. Press desired selection switch to be tested.
5. To exit press Button 1 and hold for 3 seconds

Test Mode - Relays:

Allows you to test the compressor, evaporator fan, lights and heater.

- At "Test Mode" press (2)
- Press (1) until display reads "Test Mode - Relays"
- Press (2)
- To advance through sub-modes, press (1)
- To test compressor, press (2) at "Compressor" prompt
- Press Button 4 at "Light" prompt to test lighting system.
- Press Button 4 at "Fan" prompt to test evaporator fan.
- To test optional heater, press (2) at "Heater" prompt
- To exit sub-modes, press (3)

Cash Data:

Allows you to retrieve historical information regarding the money accepted by the vendor. To clear the individual selection cash data, you must have the "MIS Auto Reset" in the "Configuration" mode turned to ON.

- Press (2) when the display reads "Cash Data"
- The non-resettable historical data is displayed
- To display resettable individual selections, press (1)
- To reset historical data, make sure the "MIS Auto Reset" is turned ON in the configuration mode.
- To exit mode, press (3)

Sales Data:

Allows you to retrieve historical information regarding the number of units sold by vendor. To clear the individual selection sales data, you must have the MIS Auto Reset in the "Configuration" mode turned ON.

- Press (2) when the display reads "Sales Data"
- The non-resettable historical data is displayed
- To display resettable individual selections, press (1)
- To reset historical data, make sure the MIS Auto Reset is turned ON in the "Configuration" mode.
- To exit mode, press (3)

Set Price:

Allows you to set the vend price of each selection. In this mode, you have the option of pricing each selection button at the same vend price or price each selection button independently.

- Press (2) when display reads "Set Price"
- Pressing (1) will allow you to choose selections or "All"
- Pressing (2) will start the current vend price flashing
- Press (1) to increase/decrease the price
- Press (2) to save your new programmed price
- Press (3) to exit mode

Set Depth:

Allows you to set the depth of each column. In this mode, you have the option of setting the columns for single, double, triple or quadruple depths.

- Press (2) when the display reads "Set Depth"
- Pressing (1) will allow you to choose columns or "All"
- Pressing (2) will enter you into the column and start the depth flashing
- Press (1) to scroll through the depth settings (1-4)
- Press (2) to save your new depth setting
- Press (3) to exit mode

Configuration:

There are various options that you can turn ON/OFF. Default options are underlined.

Multi-Price

ON = All selections can be programmed individually.

OFF = All selections will be set to the same price as Selection 1.

Timing Features*

ON = Gives you access to the "Clock" settings and its associated modes.

OFF = "Clock" settings and its associated modes are hidden.

Door Summary

ON = Sales and cash data are displayed as soon as the outer door is opened or by activating the door switch.

OFF = Sales and cash data are not displayed when the door is opened.

MIS Auto Reset

ON = Resets if the counter is checked and after the door is closed.

OFF = Does not reset.

Consumer Overpay

ON = A dollar bill will be accepted even if the correct change light is on and there is insufficient change in the coin tubes.

OFF = A vend will not be allowed when the correct change light is on and the consumer attempts to use the dollar bill validator.

Save Credit Timer

ON = Credit that is established will be displayed for five minutes unless someone either makes a vend or presses the coin return button - whichever comes first.

OFF = Credit that is established will remain indefinitely unless someone either makes a vend or presses the coin return button.

Force Vend

ON = The consumer will not be able to insert a dollar into the validator, hit the coin return and receive change without first attempting a vend.

OFF = The consumer can insert a bill into the validator, press the coin return button and immediately receive change.

Multi-Vend:

ON = The consumer may insert enough credit to make multiple vends. The credit will remain on the display until an additional vend is made or the coin return button is pressed.

OFF = The consumer is allowed to make a single vend and the credit (if applicable), will be returned after the completion of the vend.

Deny Escrow

ON = The validator will stack all bills received.

OFF = The validator will not stack the bills, rather it will hold them in escrow until a vend is complete.

SO Indicator

ON = A small symbol will appear in the lower right hand corner of the display when at least one column is sold out or the machine detects an error.

OFF = The symbol will not appear.

Count by Selection/Price

COUNT BY SELECTION = Individual sales and cash data will be reported in unit sales.

COUNT BY PRICE = Individual sales and cash data will be reported by vend price.

MIS Reset W/DEX

ON = MIS data will be reset with a DEX read.

OFF = MIS data will not be reset with a DEX read.

Depth Learning

ON = The control board will "learn" the depth setting after one row of product in the column is vended.

OFF = The control board will not "learn" the depth setting.

Display Temperature

ON = Display the refrigeration temperature.

OFF = Do not display the refrigeration temperature.

of Selections 6/12

Number of Selections: 6 = 6 select vendor

Number of Selections: 12 = 12 select vendor

- To adjust any of the settings, press (2) at "Configuration" mode.
- Press (1) to scroll through modes.
- Press (2) to change the mode. The current setting will begin to flash.
- Press (1) to change current setting.
- Press (2) to save change.
- Press (3) to exit sub-mode.

DSP MSG

Pepsi = Displays brand name.

Beverages = Displays generic name.

Space to Sales:

Allows you to program which column will vend when you choose a desired selection button. There are 6 preset configurations (See inner door label for preset options). You also have the option of doing a custom space to sales. To change current setting:

- Press (2) at "Space to Sales" prompt.
- Press (2) to change current setting.
- Press (1) to scroll through available settings.
- Press (2) to save setting.
- Press (3) to exit mode.

To customize your space to sales:

- Press (2) at "Space to Sales" prompt.
- Press (1) until the display reads "Space to Sales - Custom."
- Press (2) and the display will begin to scroll the current configuration.
- To change a selection assignment, press (2).
- To assign (flashing) or unassign (no flashing/steady) columns, press (2).
- Pressing (3) will ask "Save?"
- Press (2) to save and (3) to exit the mode.

Door Closed Password:

Allows you to set a password to access Sales Data only when the door is closed. Please note that this function will not work if the password is set at 0000.

- Press (2) at "Closed Door Password" mode.
- The current password will be displayed.
- To change current password, press (1) while each digit is flashing.
- Press (2) to save and advance to next digit, valid digits are 1-6
- Press (2) after the 4th digit to exit mode.

Set Language:

Allows you to program different languages on the controller. The current languages available are English, Spanish, and French.

- Press (2) at "Set Language" mode.
- The current language will be displayed.
- To change current language, press (2) to start language flashing.
- Press (1) to choose a language.
- Press (2) to save the language change.
- Press (3) to exit mode.

Set Clock:

If the "Timing Features" in the "Configuration" mode are turned ON, you will have access to this mode. This mode allows you to set the current month, day, year, hour and minute.

To set the clock:

- Press (2) at the "Set Clock" prompt. You will be able to scroll through the following options by pressing (1).
 - "Enable ON/OFF" - This will turn the clock timer on or off.
 - "MM/DD/YYYY HH:MM" - This is the current time and date.
 - "Daylight Savings"
- To change current setting, press (2).
- The current setting will begin to flash.
- Press (1) to change current setting.
- Press (2) to save current setting.

Lighting:

If the "Timing Features" in the "Configuration" mode are turned ON, you will have access to this mode. This mode allows you to turn the lights on/off with the internal timer.

- Press (2) when the display reads "Start Time 1" or "Start Time 2."
- Press (2) at "Start Time 1" or "Start Time 2."
- Press (2) at "Start Day 1" or "Start Day 2."
- Scroll through the days of the week or "all" with (1).
- To change current setting, press (2).
- Change setting with (1).
- Save changes with (2).
- Press (1) at "Start 100.00" or "Start 200.00"
- Press (2) to change time.
- Press (1) to set time.
- Press (2) to save.
- Press (3) to exit mode.
- Repeat process with "Stop Time 1" or "Stop Time 2."

Refrigeration:

If 'Timing Features' in Configuration Mode are 'Off', you will only have access to the following modes:

Set Point Temperature

Sensor Reading

Degree Setting

Fan Energy Mode

Periodic Defrost Mode

To change the set point temperature:

- Press (2) when the display reads "Refrigeration."
- The display will read "Set Point XX" with the current setting displayed.

- To change the setting press (2) and the current set point temperature will begin to flash.
- Press (1) to increase or decrease the set point.
- Releasing (1) and pressing again will decrease the set point
- Press (2) to save your changes.
- Press (3) to exist and return to the display to "Refrigeration."

To display the temperature:

- Press (2) when the display reads "Refrigeration."
- Press (1) until the display reads "Sensor Reading."
- Press (2) and the current temperature will be shown in Fahrenheit or in Celsius.
- Press (3) to exit and return the display to "Refrigeration."

To change the degree scale:

- Press (2) when the display reads "Refrigeration."
- Press (1) until the display reads "Degree Setting."
- The display will show the current degree scale (Celsius or Fahrenheit).
- Press (2) and the degree scale will begin to flash.
- Press (1) to choose setting.
- Press (2) to save setting.
- Press (3) to exit and return the display to "Refrigeration."

To change the Fan Energy Savings mode:

- Press (2) when the display reads "Refrigeration."
- Press (1) until the display reads "Fan."
- The display will read "Fan X" with the current setting displayed.
- To change the setting press (2) and the current Fan mode will begin to flash.
- Press (1) to increase the Fan mode.
- Releasing (1) and pressing again will decrease the Fan mode.
- Press (2) to save changes.
- Press (3) to exit and return the display to "Refrigeration."

The refrigeration system shall have three types of fan mode operation (energy conservation modes) – **This requires fan relay needs to be installed.**

Fan Mode 0 (Disable)

The refrigeration system shall have a fan mode of operation in which the evaporator fan will be turned on/off based on the activation of compressor. When the fan mode 0 is activated through the Service Modes, the controller shall always turn on evaporator fan.

Fan Mode 1

The refrigeration system shall have a fan mode of operation in which the evaporator fan will be turned on/off based on the activation of compressor. When the fan mode 1 is activated through

the Service Modes, the controller shall turn off evaporator fan after the delay for 5 minutes after the compressor is turned off. And when the compressor is turned on, the controller shall turn on evaporator fan at same time.

The fan mode 1 does not function for 24 hours from the pull-down mode start.

Fan Mode 2

The refrigeration system shall have an fan mode of operation in which the evaporator fan will be turned on/off based on the number of vended product per unit hour . When the fan mode 2 is activated through the Service Modes the controller shall turn on/off the compressor and evaporator fans, based on the following method.

When the number of vended product per one hour is equal or less than five, the controller should enter the fan mode 1. This causes the controller to work as fan mode 1 without any setting change.

When the number of vended product per one hour is more than five, the controller should enter the normal operation mode.

The fan mode 2 does not function for 24 hours from the pull-down mode start.

To change the Periodic Defrost Mode:

1. Press (2) when the display reads "Refrigeration."
2. Press (1) until the display reads "Periodic Defrost."
3. The display will show it on or off.
4. Press (2) and the setting value will flash.
5. Press (1) to choose your setting.
6. Press (2) to save setting.
7. Press (3) to exit and return the display to "Refrigeration."

If the "Timing Features" in the Configuration mode are turned ON, you will have additional access to the following modes:

Enable

Start Time 1 or Start Time 2

Start Day 1 or Start Day 2

Start 100.00 or Start 200.00

Stop Time 1 or Stop Time 2

Stop Day 1 or Stop Day 2

Stop 100.00 or Stop 200.00

Sales Block 1 and 2:

Allows you to program the machine to turn off and on at regular intervals.

To program the blocking feature, you must enter the following information:

Start Time- When the machine turns off

Start Days

Stop Time- When the machine turns back on

Stop Days

Selections

Discount:

Allows you to program the machine to discount beverages at regular intervals.

To program the "Discount" feature, you must enter the following information:

Start Time- When the discounting begins

Start Day

Stop Time- When the discounting ends

Stop Day

Selections

Amount- Amount subtracted/discounted from original vend price

Override:

Allows various items to be enabled or disabled depending on the status of an attached override switch.

Each of the following items can be enabled by setting an ON or disabled by setting an OFF.

"Override Free Vend"

"Override Sales Blocking"

"Override Discount"

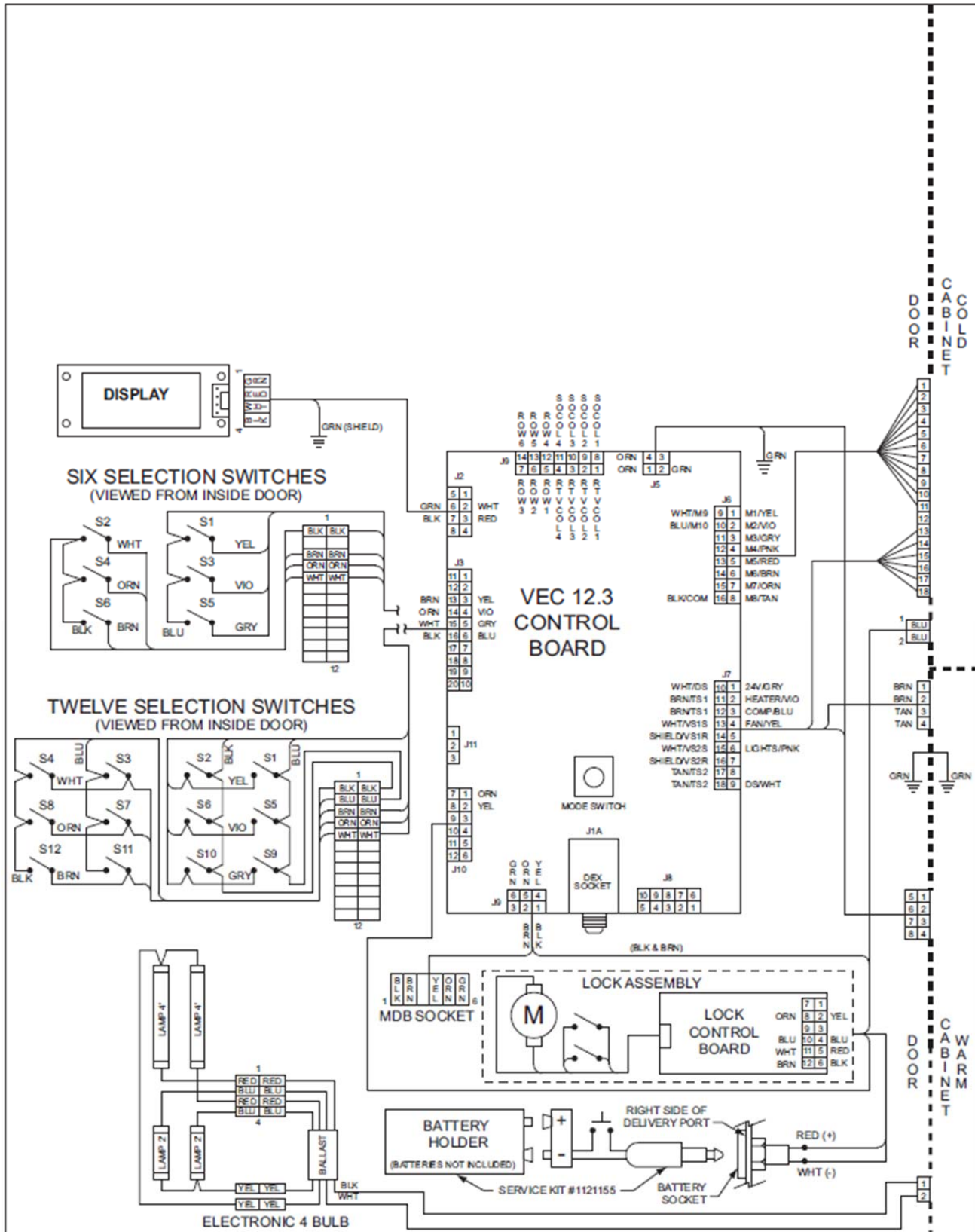
"Override Light Timing"

"Override Refrigeration"

Return:

Exits the programming mode and returns the vendor to stand-by.

12.3 WIRING DIAGRAM



12.3 WIRING DIAGRAM

