Raptor II PulseVend User Guide & Manual

Raptor II SERIES
Pulse Vending Stations
Operator's Manual

Original Rev Date: 04-15-11, Last Rev Date: 30-08-11

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Raptor II Series Pulse Vending Station Operator's Manual

Printed in the U.S.A.
Part number: 400588-002 (revised: 05/11)

Notice

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FCC Warning

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions in this manual may cause interference to radio communications.

This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at her/his own expense will be required to take whatever measures may be required to correct the interference.

Information to User

This equipment must be installed and used in strict accordance with the manufacturer's instructions.

VENDAPIN is not responsible for any radio or television interference caused by unauthorized modification of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by VENDAPIN. The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

Two-Year Warranty and Service Policy

VENDAPIN LLC. warrants to the purchaser that this VENDAPIN product, hereinafter called "the unit," is free from defects in materials and the workmanship for a period of two years from the date of purchase. If any such defect is discovered within the first 90 days of the warranty period, VENDAPIN LLC. will repair or replace the unit free of charge. If any such defect is discovered after 90 days and up to the end of the one-year warranty period, VENDAPIN LLC. will repair the unit free of charge plus the cost of shipping. All warranty repair and replacement actions are contingent on verification of the defect(s) or malfunction(s) and upon prepaid delivery of the unit to VENDAPIN LLC., 838 E. Jefferson Street, Brooksville, Florida 34601 by parcel post, common carrier, UPS, Fed Ex, DHL or other commercial means. This warranty does not apply to normal wear, to tampering or alterations resulting in cracked or broken components, or to units damaged by voltage, excessive heat, cold or moisture.

To preserve your rights under the warranty, you must provide proof of purchase for the returned unit. RETURNING THE PRODUCT REGISTRATION "CUT-OUT" CARD enclosed in this manual with the new unit will also register the warranty by serving as proof. Otherwise, a copy of the sales invoice showing the serial number of the returned unit must accompany the unit as proof of purchase.

If your unit is delivered to VENDAPIN LLC lacking proof of purchase, and we are unable to otherwise verify date of purchase, we will assume the purchase date of the unit was prior to the two-year warranty period. It will then be serviced under the terms of VENDAPIN LLC.'s Service Policy.

Our sole and exclusive liability for defects in materials and workmanship shall be limited to repair or replacement of the unit at our service center and we shall not be liable for incidental, contingent, or consequential damages.

This warranty does not obligate us to bear any of the costs of transportation charges in connection with repair or replacement of the unit or any defective parts of the unit.

This warranty is invalid if the damage or defect to the unit is caused by accident, Acts of God, customer abuse, misuse, unauthorized alteration or repair, or vandalism by third parties.

This warranty is made in lieu of any other expressed warranty and except for the foregoing warranty, which is exclusive, there is no other expressed warranty being made.

This warranty gives you specific legal rights. You may have other rights, which vary according to the state, or country in which the unit was sold.

Disclaimer

This equipment is serviceable by a trained and qualified technician.

Parts and Service Policy

This policy requires you to ship prepaid to us, the unit or major components of the unit, under a Return Authorization for repair. **VENDAPIN LLC shall not be obligated to service or supply parts for any unit after seven years from date of purchase.**

Charges for return shipping, parts and service will be incurred, as applicable, at the prevailing rates.

VENDAPIN LLC will enclose a copy of the return authorization (RA#) with your unit. This authorization details the work performed and the costs incurred. Please refer to the RA# in future communications with VENDAPIN LLC about this unit.

Currency acceptors, credit card accessories and standard coin changers are not manufactured or modified by VENDAPIN LLC. These accessories are not included in VENDAPIN LLC's Warranty or Service policy. Currency acceptors, credit card readers and changers not manufactured or modified by VENDAPIN LLC are warranted and serviced directly by their manufacturer.

This policy is for coverage within the continental U.S. only.

Return Authorizations

All units returned to VENDAPIN LLC must be shipped with a return authorization number (RA#) affixed to the outside of the shipping container and addressed to:

Technical Service Department

VENDAPIN LLC.
838 E. Jefferson Street
Brooksville, Florida 34601
Tel: 352-796-2693

VENDAPIN LLC reserves the right to refuse any incoming shipment not marked with an RA# on the outside of the shipping container.

VENDAPIN LLC will issue a Return Authorization Number upon receiving a written request at the above address or a request by phone at +(1) 352-796-2693 (customers should ask for the Technical Service Hotline). Please provide the **model number** and **serial number** of the unit or the unit that contained the component(s) you wish to return.

For non-warranty service, please be prepared to supply a purchase order, VISA, MasterCard or American Express authorization, or make other payment arrangements as required. Within the continental United States you may request that your serviced unit be returned to you on a C.O.D. basis.

Products Covered in This Manual

	MDB Coin Changer	MDB Bill Acceptor	MDB Credit/Debit Card Reader	RFID Card Reader (VendaCard)	Pulse Coin or Bill Acceptor	Receipt Printer
5097	No	Optional	Optional	Optional	Optional	Optional
5596SL	Yes	Optional	No	No	No	No
5596XL	Yes	Optional	Optional	Optional	No	Optional
5896	No	No	No	Included	No	No
5897	No	No	USA Technologies G8	No	No	No
5898	No	No	USA Technologies Edge	No	No	No

About the Product

What is the Pulse Vending Station?

The Raptor II Series Pulse Vending Station is a vending device that works in cooperation with any other device to control access to pools, door locks, or any other device that can be controlled with a relay closure. Customers can use Cash (Bills or Coins), Credit/Debit Cards, or VendaCards to pay for their products or services. The forms of payment that the Pulse Vending Station can accept depends on the acceptors/readers installed in the vending product. The Pulse Vending Station is part of VENDAPIN's Raptor II series, which encompasses a full line of vending products.

Vend price structure

The Pulse Vending Station supports up to eight vend prices based on products or services patrons pay for with Cash (Bills or Coins), Credit/Debit Cards, or VendaCards. The forms of payment that the Pulse Vending Station can accept depends on the acceptors/readers installed in the vending product.

System features

Power failures restore

In the event of a power failure during a transaction, a power-saving feature saves all data and restores them when power is restored.

Transaction history

The Pulse Vending Station offers an extensive capability for tracking vending activity. History meters can be viewed using the VendaCard MANAGER card or the integrated web server via a web browser.

Application programming interface (API)

The Raptor II family of Pulse Vending Stations supports an API command set through an on-board USB or RS-232 serial port that allows you to set parameters, and download meters right from your PC. The API allows the terminal to communicate with a PC while connected to a pulse vend device. This makes it possible to:

- Use the Pulse Vending Station with many of the pulse vending devices available today.
- Use Pulse Vending Stations as the payment device attached to host systems.

Setting up the unit

Connecting the unit to the host device

Installation instructions tailored to the product you ordered should have been included with the shipment of your unit(s).

Powering up the Pulse Vending Station

The Pulse Vending Station must be located near a socket outlet. Plug the DC power supply into the Pulse Vending Station. Then plug the power supply into a wall outlet. The unit cycles through its boot-up sequence, displaying the system version, software version, serial number, IP number, and location name. If you ever need to call or email VENDAPIN, LLC customer service, you may be asked to provide this boot-up information. Please note the displayed numbers and write them in the spaces provided on the last page of this manual. **Note:** The 5897/5898 does not include a display.

Version

This is the version of the software that has been issued with your unit.

Location

Each unit can be configured with the location name. The location name is displayed at boot-up. When the unit is configured at the factory, this parameter is set to "Front Lobby #1". You should assign each machine at your site a unique location name. This location name is useful when printing the receipts. For information on modifying parameters, see *Programming The Unit* section.

Custom Messages

You can customize the unit's display with the Custom Messages settings. The custom messages can be changed using a web browser connected to the on-board Raptor II built-in web server via Ethernet network.

Programming the unit

Modifying parameters

A set of programming parameters is available to customize the operation of the VENDAPIN, LLC Pulse Vending Stations. When the unit is delivered from the factory, the parameters are in their default state. There are two methods you can use to program the unit:

1. **VendaCard Access.** Pulsevend systems equiped with VendaCard readers can use the five (5) Control Cards to program the Pulsevend systems. The five control cards are **CODE, MANAGER, PASS, FORMAT,** and **POS**. Please see *Using the VendaCard Control cards to set the system parameters* chapter for details.

Figure 1
Front view of the VendaCard

2. **Web Access.** Use a web browser to connect to the PulseVend system via network to edit the parameters in real time. Please see *Using a web browser to set the system parameters* chapter for details.

Web Access Options

- Cross-over cable to connect directly to a laptop or computer
- Ethernet cable, when connected to customer LAN.

Figure 2
Raptor II Web Access Showing the List of Menus Screen-shot

Configuring the unit for pulse vending

Programming parameters are grouped under menus specific to the type of vending operation they apply to. When you enter program mode, you're presented with the top-level menus (using *web browser*), in the order shown in Table 1. This method allows you to skip over menus that aren't applicable to your operation, and to locate specific parameters quickly.

System Menu	Pulse Vending Type	Description
Home	✓	Current System Status Home – Web
Users	✓	Login accounts for Raptor II Web server
General	✓	Location, Currency, and Date/Time Settings
Readers	✓	Debit and Credit Card Readers settings Not applicable to all Vending Units
Prices	✓	Cash/Credit Card Prices Not applicable to all Vending Units
VendaCard System Settings – Vend Prices	✓	RFID system settings and prices for VendaCard cards Not applicable to all Vending Units
VendaCard Card Read / Format	✓	Shows total number of VendaCard uses and Allows user cards to be reformatted (repaired)
Timing	✓	Timing Operations for the 8 device channels
Product Names	✓	Name of products 1-8 displayed on the LCD, when they are selected
Parallel Bill/Coin	✓	Parallel Bill/Coin Acceptor settings Not applicable to all Vending Units
Coin Changer	✓	MDB Coin Changer settings Not applicable to all Vending Units
Coin Changer Tubes	✓	MDB Coin Changer coin counts Not applicable to all Vending Units
Coin Currency Conv.	✓	Coin Conversion Table setup for foreign currencies. Not applicable to all Vending Units
Bill Validator	✓	MDB Bill Validtor (Acceptor) settings Not applicable to all Vending Units
Bill Currency Conv.	✓	Bill Validator Table setup for foreign currencies. Not applicable to all Vending Units
System LCD Msgs	✓	System LCD Messages parameters
Status LCD Msgs	✓	Status LCD Messages parameters
Error LCD Msgs	✓	Error LCD Messages parameters
Receipt Printer	✓	Receipt Printer parameters Not applicable to all Vending Units
Net Settings	✓	Network settings
Resettable Meters	✓	Resettable counters/meters
Non-Resettable Meters	✓	Non-resettable counters/meters
System Stats	✓	System Status counters/meters
Log Out	✓	Log Out of Web Server

Table 1

Parameter listing

Table 2 through Table 23 lists the parameters in the order they appear on the unit, and also gives the acceptable range of values and default setting for each parameter.

Parameter	Description	Default	Range
Home	Main system status	N/A	
dd.mm.yyyy hh:mm:ss	Current Date/Time Read	For viewing only	N/A
System Mode	Firmware Series	For viewing only	N/A
Version	Software Version	For viewing only	N/A
S/N	Serial Number of the control board	For viewing only	N/A
Location	Name of location where the system is located. (Editable under General)	For viewing only	N/A
Status	Displays the system status	For viewing only	Ready / Disabled
Last Transaction	Displays the last vend transaction made by the pulse vend system.	For viewing only	N/A
Last Channel Selection	Displays the last channel transaction made by the pulse vend system	For viewing only	N/A
Last Total Paid	Displays the last total paid from vend transaction	For viewing only	N/A
Last Payment Type	Displays the last payment used. Three types of payments: Cash, Credit Card or VendaCard.	For viewing only	N/A
Escrow/Balance	Displays the current escrow/balance	For viewing only	N/A
Last No-Activity Amount	Displays the last no activity escrow and time-date stamp that the amount was removed from the current escrow/balance.	For viewing only	N/A
Channel#	Channel number to add credit to	1	1 through 8
Add Credit	The add credit can be posted to escrow/balance via web browser. Useful for front desk lobby when the customer reported that the escrow was emptied, or problems with pulse vend that would require credit to be made.	N/A	0-65000
Reset Channel	Resets the selected Channel#	Unchecked	Checked/ Unchecked
Print Last Receipt	Prints the last receipt – useful if the receipt printer has problems that has been corrected, and would need to print the last receipt as needed	Unchecked	Checked/ Unchecked

Table 2

Parameter	Description	Default UserName	Default Password
Users	Top level menu settings for user accounts, used for web access only	N/A	N/A
Manager	Sets the manager name/password	VENDAPIN	vendapin
Clerk	Sets the clerk name/password	VENDAPIN	password

Table 3

Parameter	Description	Default	Range
General	Top-level system settings	N/A	N/A
Location	Sets the location name	"Front Lobby #1"	Up to 20 chars
No Activity Timeout	Sets the length of time the unit waits before taking action when a patron has left money.	60 (seconds)	15-32000 (secs)
No Activity Payout	Can be set to pay out change when the no activity timer expires.	Unchecked	Checked / Unchecked
Enable Warning Buzzer	Allows the user to enable/disable the warning buzzer reminding user to remove the VendaCard after the No Activity Timout expires.	Unchecked	Checked / Unchecked
Enable Keypad Press Buzzer	Allows the user to enable/disable the buzzer for keypad presses	Unchecked	Checked / Unchecked
Enable Flashing Lamps	Allows the user to enable/disable the flashing lamps for channels 1-8	Unchecked	Checked / Unchecked
Interface	Type of user interface for PulseVend. – AutoVend (1 Channel Only) – NTS Keypad – POS Keypad – 8 Push Buttons – 4 Buttons/Drivers	**5096** – AutoVend, POS Keypad, 8 Push Buttons or 4 Buttons/Driver **5596SL/5596XL** – AutoVend, POS Keypad **5896** - NTS Keypad **5897/5898 –** Autovend	AutoVend(1 Channel Only), NTS Keypad, POS Keypad, 8 Push Buttons, 4 Buttons/Drivers
Opto 1 Monitor Option	Used when Opto isolator 1 must be monitored to determine when to turn off the pulse.	Unchecked	Checked / Unchecked
Currency Symbol	Sets the currency symbol based on 8 different symbols: Dollar ($), British Pound (£), Yen (¥), Euro (€), Chile (¢), Thailand Baht, Dinar (د), Aruba Florin (ƒ) or No Currency Sign Symbol	Dollar ($)	Dollar ($) - No Currency Sign Symbol
International Currency Code	Sets the 3 letters international currency code (ISO 4217) to display the 3 letters at the end of the escrow/balance value to appear on LCD screen or print receipt.	USD	Up to 3 chars.
Pre-Cursor	Sets the currency pre-cursor that will appear on the escrow/balance value.	Period (.)	Period (.), Comma(,) or None
Max Cash	Sets the maximum cash value.	9999 ($99.99)	0 - 65535 ($0 – $655.35)
Free Change	Sets to allow the system to dispense change (coin changer) without making any vend transactions.	Unchecked	Checked/ Unchecked
Auto Change	Set to automatically dispense change (coin changer) after a single vend on cash transactions.	Unchecked	Checked/ Unchecked
Coin Return	Set to dispense change when the coin return button is pressed	Unchecked	Checked/ Unchecked

Parameter	Description	Default	Range
	Top-level system settings	N/A	N/A
Disable this unit	Sets the system to go into enabled or disabled	Unchecked	Checked/ Unchecked
Date/Time	Sets date and time	Current Date-Time	Date-Time
API RS232/USB Baud Rate	Sets the baud rate for the serial and USB ports	19200	9600, 19200
Restore to Factory Default	Restores the settings to factory default settings	Unchecked	Checked or Unchecked

Table 4

Parameter	Description	Default	Range
Readers	Top level settings for readers	N/A	N/A
MDB Credit Card Reader Settings	Sub-level settings for MDB cashless/credit card reader	N/A	N/A
Status	Displays the reader status	For viewing only	Enabled/Disabled
Level	Displays the MDB level	0	N/A
Scale	Displays the MDB Scale	0	N/A
Timeout	Displays the MDB Timeout	10	N/A
Recently used	Displays the last transaction value	For viewing only	N/A
Enable MDB Credit Card Reader	Sets to turn on/off the MDB cashless/credit card reader	Unchecked	Checked/ Unchecked
Maximum Pre-Authorized Value	Sets the specific maximum pre-authorized value	2500 ($25.00)	1-65535 ($0.01 - $655.35)
Minimum Purchase Value	Sets the specific minimum for transactions	0	1-65535 ($0.01 - $655.35)
LCD Msg for Min Purchase Value	Sets the LCD display message for minimum purchase value with credit cards	Min Purch Value:	Up to 40 characters
Reset Credit Card Reader	Sets to re-initialize the MDB reader	Unchecked	Checked/ Unchecked

Table 5

Parameter	Description	Default	Range
Prices	Top level settings for prices Cash and Credit Card	N/A	N/A
Prices 1-8	Sets the Cash / Credit Card prices based on the Pulse Interface Mode: - AutoVend (1 device only) - NTS Keypad (up to 8 devices) - POS Keypad (up to 8 devices) - 8 Push Buttons (up to 8 devices) - 4 Buttons/Drivers (up to 4 devices) (Prices 5-8 only)	**Prices** 1 – 100 2 – 200 3 – 300 4 – 400 5 – 500 6 – 600 7 – 700 8 – 800	1-65535 **Note:** Every price is based on cents currency system. For example: 10 = 10 cents 100 = $1.00
Total Paid	Edits the total paid message that will appear on the receipt printer.	"Total Paid"	Up to 40 characters
Payment Type	Edits the payment type message that will appear on the receipt printer.	"Payment Type"	Up to 40 characters

Table 6

Parameter	Description	Default	Range
VendaCard System Settings - Vend Prices	Top level settings for VendaCard System Settings and prices	N/A	N/A
5x96 RFID Series System Settings	Sub-level settings for Setting VendaCard RFID	N/A	N/A
Site Code	Site (location) code for VendaCard system	VENDAPIN	Any eight letter UPPERCASE word
Access Group Level	VendaCard security feature in case control cards are lost/stolen	0 0	0 - 255
Enable RFID Reader	Check box to enable the use of the VendaCard reader	Checked	Checked or Unchecked.
Auto-Reset Account Card	Resets the VendaCard system after each transaction with an Account Card	Checked	Checked or Unchecked.
Account Card Timeout	Amount of time in seconds that the Account Card will timeout if a transaction is not made Set to 0 to never timeout	3600	0-65535 Seconds
Vend Prices using VendaCard	Sub-level settings for Setting VendaCard Prices	N/A	N/A
Vend Prices using VendaCard 1-8	Sets the price based on the Pulse Interface Mode: - AutoVend (1 device only) - NTS Keypad (up to 8 devices) - POS Keypad (up to 8 devices) - 8 Push Buttons (up to 8 devices) - 4 Buttons/Drivers (up to 4 devices (only prices 5-8 are used))	**Prices** 1 – 100 2 – 200 3 – 300 4 – 400 5 – 500 6 – 600 7 – 700 8 – 800	1-65535 **Note:** Every price is based on cents currency system. For example: 10 = 10 cents 100 = $1.00

Table 7

Parameter	Description	Default	Range
VendaCard Read-Format	Top level settings for reading and formatting VendaCards	N/A	N/A
VendaCard RFID Card Data Read	Sub-level settings for reading VendaCard RFID data	N/A	N/A
SiteCode/Created Date	Site (location) code for the VendaCard currently inserted. Date the VendaCard was formatted	For viewing only	N/A
Group Level	Security encoded on the VendaCard currently inserted.	For viewing only	N/A
Total Card Uses	Total number of times the VendaCard currently inserted was formatted	For viewing only	N/A
Current Escrow/Balance	Balance on the VendaCard currently inserted	For viewing only	N/A
Format VendaCard RFID Cards	Sub-level settings for formatting VendaCard RFID data	N/A	N/A
Access Group Level	Security code to be encoded on the VendaCard	0 0	0 - 255
Escrow	Escrow/Balance to be encoded on the VendaCard	0	0 -9999 **Note:** Every price is based on cents currency system. For example: 10 = 10 cents 100 = $1.00
# of VendaCards to Format	Total number of VendaCards you wish to format	0	0 - 9999
Cancel VendaCard Card Format Now	Stop formatting VendaCards	Unchecked	Checked / Unchecked

Table 8

Parameter	Description	Default	Range
Timing	Top level settings for timing parameters	N/A	N/A
Mode	Shows the Interface in use: - AutoVend (1 device only) - NTS Keypad (up to 8 devices) - Keypad (up to 8 devices) - 8 Push Buttons (up to 8 buttons) - 4 Buttons/Drivers (up to 4 devices, Timing 5-8)	For Viewing Only. NTS Keypad	- AutoVend (1 device only) - NTS Keypad (up to 8 devices) - POS Keypad (up to 8 devices) - 8 Push Buttons (up to 8 buttons) - 4 Buttons/Drivers (up to 4 devices)
Channel Timer	Minimum debit pulse length for input pulses, all interfaces	1250mS	1-32000 milliseconds

Table 9

Parameter	Description	Default	Range
Product Name Messages	Top level settings for Product Names displayed on the LCD	N/A	N/A
Product Name 1 - 8	Sets the Product Name LCD messages to be displayed when a product is selected	**Product Name** 1 – Product Name 1 2 – Product Name 2 3 – Product Name 3 4 – Product Name 4 5 – Product Name 5 6 – Product Name 6 7 – Product Name 7 8 – Product Name 8	Up to 20 characters

Table 10

Parameter	Description	Default	Range
Parallel Bill/Coin	Top level settings for parallel bill/coin parameters and currency conversion	N/A	N/A
Status	Displays the device status	For viewing only	Enabled / Disabled
Recently used	Displays the last channel used	For viewing only	N/A
Enable Parallel Bill/Coin	Enable/disable the bill/coin acceptor	Unchecked	Checked / Unchecked
Channel 1-6	Sets the pulse value for each channel	1 – 5 2 – 10 3 – 25 4 – 100 5 – 500 6 – 1000	1-65535 **Note:** Every pulse value is based on cents currency system. For example: 10 = 10 cents 100 = $1.00
Currency Conversion Rate #1 & #2	Sets the currency conversion rate	#1 0.89 #2 1.2699	.01 – 100
Currency Code #1 and #2	Sets the currency codes, used for reference only.	#1 CAD #2 EUR	Up to 3 characters
Currency Conversion Channels 1-6	Turn on/off the conversion based on specific channel	Unchecked	Checked / Unchecked

Table 11

Parameter	Description	Default	Range
Coin Changer	Top level settings for MDB coin changer	N/A	N/A
Status	Displays the device status	For viewing only	Enabled / Disabled
Level	Displays the MDB level.	For viewing only	2 = Basic features 3 = Basic & Advanced features
Scale	Displays the MDB scale used for coin conversion	For viewing only	N/A
Recently used	Displays the last coin channel (deposited)	For viewing only	N/A
Enable MDB Coin Changer	Enable/disable the coin changer	Unchecked	Checked / Unchecked
Coin Channel 1-16	Lists the available coin channels	For viewing only	1-65535 **Note:** Every coin value is based on cents currency system. For example: 10 = 10 cents 100 = $1.00
Coin Value 1-16	Lists the coin values loaded from MDB coin changer	For viewing only	1-65535 **Note:** Every coin value is based on cents currency system. For example: 10 = 10 cents 100 = $1.00
Coin Enable 1-16	Set to enable/disable the coin channel	1-4 Checked 5-16 Unchecked	Checked / Unchecked
Reset Coin Changer	Resets the coin changer on the fly on request.	Unchecked	Checked / Unchecked

Table 12

Parameter	Description	Default	Range
Coin Changer Tube Status	Top level settings for MDB coin changer coin tubes	N/A	N/A
Tube	Displays the coin tube positions (1-6)	For viewing only	N/A
Value	Displays the coin tube value loaded from MDB coin changer	For viewing only	N/A
Count	Displays the coin tube counts	For viewing only	MDB Level 2: RaptorII uses of it's own coin tube counters. MDB Level 3: Coin changer's own coin tube counters.
Reset Coin Tube Counters	Resets to clear the coin tube counters or load the updated coin tube counters	Reset Button	N/A

Table 13

Parameter	Description	Default	Range
Coin Changer Currency Conversion	Top level settings for MDB coin changer currency conversion	N/A	N/A
Currency Conversion Value/Rate	Sets the currency conversion rate	1.04	.1-100
Currency Code	Sets the currency codes, used for reference only.	CAD	Up to 3 characters
Enable/Disable Conversion Channel	Set to turn on/off the conversion based on specific channel	Unchecked	Checked / Unchecked

Table 14

Parameter	Description	Default	Range
Bill Validator	Top level settings for MDB bill validator	N/A	N/A
Status	Displays the device status	For viewing only	Enabled / Disabled
Level	Displays the MDB level.	For viewing only	2 = Basic features 3 = Basic & Advanced features
Scale	Displays the MDB scale used for Bill/note conversion	For viewing only	N/A
Recently used/value	Displays the last note channel (accepted)	For viewing only	N/A
Enable MDB Bill Validator	Enable/disable the bill validator	Unchecked	Checked / Unchecked
Bill/Note Channel 1-16	Lists the available bill channels	For viewing only	1-65535 **Note:** Every coin/bill value is based on cents currency system. For example: 10 = 10 cents 100 = $1.00
Bill/Note Value 1-16	Lists the bill values loaded from MDB Bill Validator	For viewing only	1-65535 **Note:** Every note value is based on dollar/bill/note currency system. For example: 1 = $1.00 20 = $20.00
Bill Enable 1-16	Sets to enable/disable the bill channel	1-4 Checked 5-16 Unchecked	Checked / Unchecked
Reset Bill Validator	Resets the bill validator on the fly on request.	Unchecked	Checked / Unchecked

Table 15

Parameter	Description	Default	Range
Bill Validator Currency Conversion	Top level settings for MDB bill Validator currency conversion	N/A	N/A
Currency Conversion Value/Rate #1 and #2	Sets the currency conversion rate	#1 0.6456 #2 1.041	.1-100
Currency Code #1 and #2	Sets the currency codes, used for reference only.	#1 EUR #2 CAD	Up to 3 characters
Enable/Disable Conversion #1 and #2 Channel	Sets to turn on/off the conversion based on specific channel	Unchecked	Checked / Unchecked

Table 16

Parameter	Description	Default	Range
System LCD Messages	Top level settings for System LCD Messages	N/A	N/A
1st line Idle state	Sets the 1st line – idle message, state 1	"VENDAPIN LLC"	Up to 20 characters
2nd line Idle state	Sets the 2nd line idle message, state 1	"PulseVend Series"	Up to 20 characters
1st line Idle state 2	Sets the 1st line idle message, state 2	"Insert Coin"	Up to 20 characters
2nd line Idle state 2	Sets the 2nd line idle message, state 2	"Bill or Card"	Up to 20 characters
1st Please make your (Credit Card Only)	Sets to display the credit card message after the approval is made.	"Please make your"	Up to 20 characters
2nd selection (Credit Card Only)	Sets to display the credit card message after the approval is made.	"selection."	Up to 20 characters
1st line Escrow/Balance	Sets to display the Escrow message only when there is positive cash balance available for vends.	"Escrow/Balance:"	Up to 20 characters
1st line Please Remove	Sets to display the "Please Remove" message	"Please Remove"	Up to 20 characters
2nd line Your VendaCard	Sets to display the "Your VendaCard" message	"Your VendaCard"	Up to 20 characters
2nd line Press Enter Key	Sets to display "Press Enter" message	"Then Press ENTER"	Up to 20 characters
1st line RFID Card	Sets to display the remove message for the RFID card	"VendaCard"	Up to 20 characters
1st line Total Sales (Credit Card Only)	Sets to display "Credit Card" message, used for credit card transactions.	"Credit Card"	Up to 20 characters
1st Cash	Sets to display "Cash" message, used for receipt printing.	"Cash"	Up to 20 characters

Table 17

Parameter	Description	Default	Range
Status LCD Messages	Top level settings for Status LCD Messages	N/A	N/A
System – Ready	Sets the System – Ready message	“System-Ready”	Up to 20 characters
Enabled	Sets the Enabled message	“Enabled”	Up to 20 characters
Disabled	Sets the Disabled message	“Disabled”	Up to 20 characters
Exceeded Limit	Sets the Exceeded Limit Message	“Exceeded Limit”	Up to 20 characters
Bypass Mode	Sets the Bypass Mode Message	“Bypass Mode”	Up to 20 characters
Total Sales (Credit Card In Use)	Sets the Total Sales Message, used for credit card transactions	“Total Sales”	Up to 20 characters
Approved (Credit Card Only)	Sets the Approved message, used for credit card transactions.	“Approved”	Up to 20 characters
Declined (Credit Card Only)	Sets the Declined message, used for credit card transactions.	“Declined”	Up to 20 characters

Table 18

Parameter	Description	Default	Range
Error LCD Messages	Top level settings for Error LCD Messages	N/A	N/A
Error Message	Sets the error message to appear on 1st line	“*Error Message*”	Up to 20 characters
Unable to read card	Sets the Bad Card message, used for RFID/swipe card reader	“Reader is Offline”	Up to 20 characters
Insufficient!	Sets the Insufficient funds available message	“Insufficient!”	Up to 20 characters
Invalid Account	Sets the Invalid Account message	“Invalid Account”	Up to 20 characters
Out of Service	Sets the Out of Service message, used for payment devices reporting the error messages	“Out of Service”	Up to 20 characters
Not In Use	Sets the Not in Use message, used for payment devices not currently installed in the vending unit	“Not in Use”	Up to 20 characters
Use Exact Coins	Sets the Use Exact Coins message, used for when the coin acceptor has less than $1 in change	“Use Exact Coins”	Up to 20 characters
Out of Coins	Sets the Out of Coins message, used for when the coin acceptor runs out of change, while dispensing change to customer	“Out of Coins”	Up to 20 characters

Table 19

Parameter	Description	Default	Range
Receipt Printer	Top level settings for serial Receipt Printer	N/A	N/A
Use Printer	Sets the printer service to Disabled, AutoPrint or Manual (button)	Disabled	Disabled, AutoPrint or Manual (Keypad)
LCD Message Line #1	Sets the “Press Button to” LCD message for print services	“Press ANY KEY”	Up to 20 characters
LCD Message Line #2	Sets the “print receipt” LCD message for print services	“to Print RECEIPT”	Up to 20 characters
Credit Card Receipt Only	Sets to print the receipt only if credit card is used.	Unchecked	Checked/ Unchecked
Basic Print Format	Sets the Receipt Printer to print just the basic receipt format	Unchecked	Checked / Unchecked
Special Start Hex	Sets the hex codes used for logo (00 if not used)	1BFA01000002F0	Up to 20 characters
Printer Delay	Sets the Printer Delay to allow for brief pause for every printed line	30 (mS)	1-65535 mS
Start Header LineFeeds	Sets the number of Line Feeds before printing the Header messages	2	0-65535
Print Test Receipt	Test the receipt printing	Unchecked	Checked/ Unchecked
Header 1-8	Sets the Header messages to appear on the receipt	1 - VENDAPIN 2 - 21B Squires St 3 - Cortland, NY 13045 4 - Phone: 352.277.8179 5 - Fax: 775.514.7530 6 - Web: http://www.vendapin.com 7 - Email:support@vendapin.com 8 - ==========	Up to 40 characters (^ if not used)
Footer 1-5	Sets the Footer messages to appear on the receipt	1 - Thank you for your business! 2 - Any questions, please 3 - visit our front 4 - lobby at the door and 5 - ask for assistance.	Up to 40 characters (^ if not used)
End Footer LineFeeds	Sets the number of Line Feeds after the Footer messages	4	0-65535
BarCode Initization	Sets the bar code Initialization codes (00 if not used)	1D6824	Up to 10 chars
BarCode Print Code	Sets the bar code print codes. The 7F char is used for inserting the purchase details. (00 if not used)	1D6B067F00	Up to 10 chars
Special End Hex Chars	Set the hex codes used for paper cutter (00 if not used)	1CC034	Up to 10 chars

Table 20

Parameter	Description	Default	Range
Net Settings	Top level settings for Network Settings	N/A	N/A
Serial Number	Factory configured value	For viewing only	N/A
IP Address	Sets the IP Address	192.168.1.100	IP4 format
Network Port	Sets the network port number	1234	Up to 65535
Web Port	Set the web access port number	8080	Up to 65535
Subnet Mask	Set the Subnet Address	255.255.255.0	IP4 format
Gateway	Sets the Gateway Address	192.168.1.1	IP4 format
MAC	Displays the MAC Address	Hardware MAC (For viewing only)	N/A
Use Net API	Allows use of the network Application Programming Interface	Unchecked	Checked/ Unchecked
Server Host IP Address	Sets the Host Server's IP Address	0.0.0.0	IP4 format
Server Network Port	Sets the Host Server's Network Port	0	Up to 65535
Restart Network	Restart the network services based on the current network settings	Unchecked	Checked/ Unchecked

Table 21

Parameter	Description	Default	Range
Meters	Top level menu for meters (resettable and non-resettable)	N/A	N/A
Price Index 1-8	Displays the total Cash/Credit and RFID vends counter for each channel	For viewing only	N/A
Cash	Displays the total cash value (cash and bills)	For viewing only	N/A
Bills	Displays the total cash value (bills only)	For viewing only	N/A
Coins	Displays the total cash value (coins only)	For viewing only	N/A
Credit Card	Displays the total credit card purchases	For viewing only	N/A
Bypass Vends	Displays the total value of vends using the PASS card or Bypass key	For viewing only	N/A
No Activity	Displays the total no activity counters	For viewing only	N/A
Escrow Taken (No Activity)	Displays the total escrow value taken as resulted from the expired no activity timer	For viewing only	N/A
PC-Web Debits	Displays the total debits made by host	For viewing only	N/A
PC-Web Credits	Displays the total credits made by host	For viewing only	N/A
Cash → Account Transfer	Displays the total amount of Cash transferred to an account card	For viewing only	N/A
Clear Resettable Meters?	Allows resettable meters to be zeroed	“Clear” Button	N/A
Last Cleared	Shows the date and time that the Resettable Meters were last zeroed	For viewing only	N/A

Table 22

Parameter	Description	Default	Range
System Stats	Top level menu for system stats (resettable and non-resettable)	N/A	N/A
All Transactions	Displays the total transactions	For viewing only	N/A
Invalid Transactions	Displays the total invalid transactions	For viewing only	N/A
Card Swipes	Displays the total credit card swipes	For viewing only	N/A
Transactions via Net	Displays the total transactions done by network (web access)	For viewing only	N/A
Transactions via Serial	Displays the total transactions done by serial (RS-232 or USB)	For viewing only	N/A
Power-Ups	Displays the total power-ups	For viewing only	N/A
Printed receipts	Displays the total printed receipts	For viewing only	N/A
Cards Formatted	Displays the total number of VendaCards formatted	For viewing only	N/A
POS Card Uses	Displays the total number of times the POS Card was used	For viewing only	N/A
Clear Resettable Stats?	Allows resettable statistics to be cleared	“Clear” Button	N/A
Last Cleared	Shows the date and time that the Resettable Meters were last zeroed	For viewing only	N/A

Table 23

Resetting parameters to their default values

Using a Web browser to reset default parameters:

1. Log into Raptor II web server using your web browser with known IP address/port number.
   Note: Default IP address/port number is – http://192.168.1.1:8080
2. Log in Raptor II Web access using the **Manager** account.
   Note: Default passwords are shown in table 3.
3. Click on the **General** link
4. Check the **Restore to Factory Default** checkbox.
5. Press the **Restore** button.

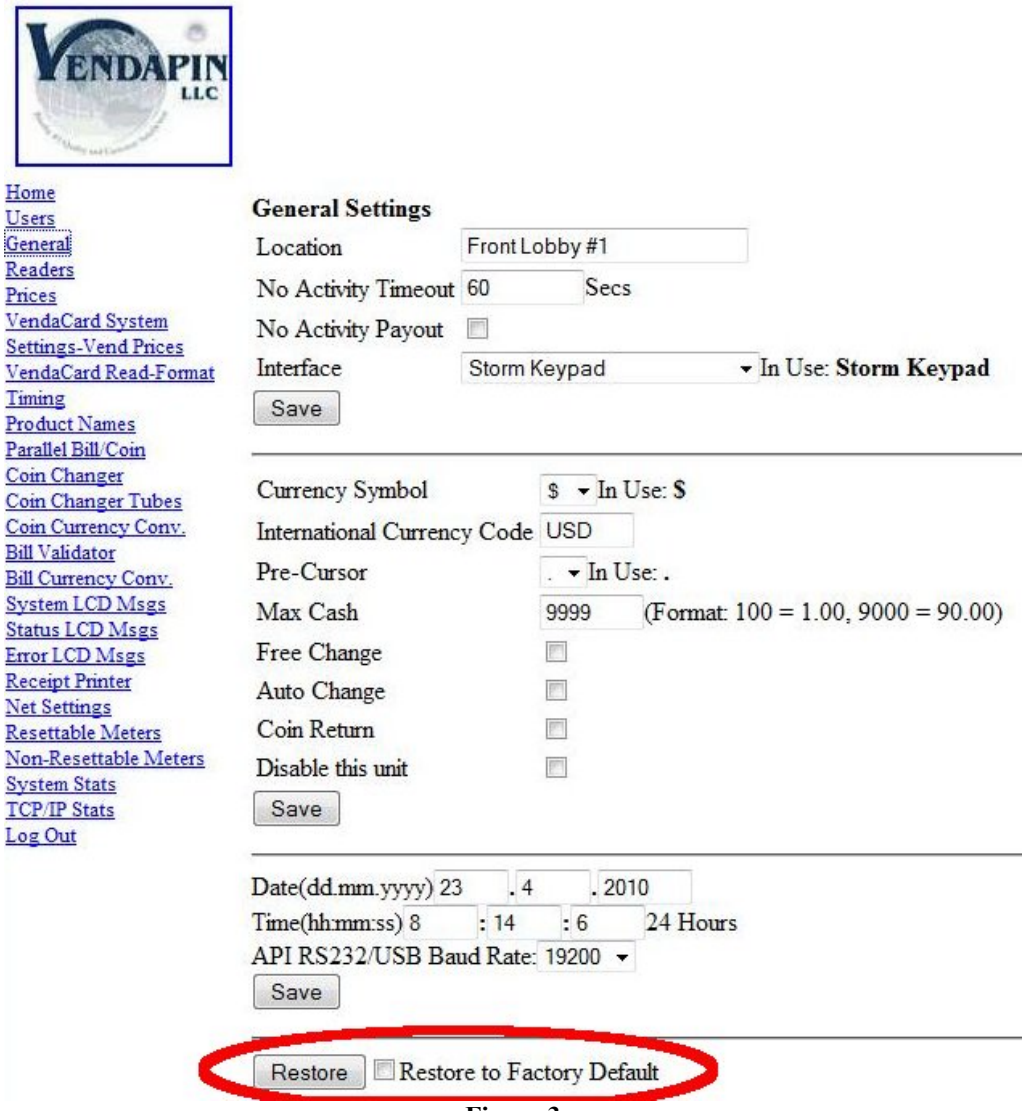


Figure 3
General Settings – Web Interface

Multi-Communication Interfaces

VENDAPIN's Raptor II multiple communication interfaces make use of Ethernet, USB or RS-232 for API communication service connected to a host system in real-time. The details for each interface are described here for reference.

Ethernet Interface Details:

HTTP Web Server:
Raptor II has a built-in web server that would allow access to all functions and parameters used by the Raptor II API commands. This web service is an excellent tool to allow the developer to test the API commands and then compare the results listed on the web pages generated by the Raptor II web server. This feature is also used as secondary access when the host system is off-line.

Features:

- HTTP port number: Required in order to access the Raptor II HTTP web server. Example: for access to Raptor II Web server: http://192.168.1.100:8080
  - **Note:** 192.168.1.100 is the default IP address
  - **Note:** 8080 is the default web port number
- Account levels: Manager and Clerk.
  - Manager has read/write access to all functions and parameters.
  - Clerk has "read only" access to all services, except for "post credit" function.
- The network settings are configurable by web services or API commands.

Web Access Usernames/Passwords
Manager Username: VENDAPIN
Manager Password: vendapin

Clerk Username: VENDAPIN
Clerk Password: password

Manager Username: vendapin (Backup if the manager username and/or password are lost.)
Manager Password: vendy123

USB Interface Details:
The USB interface used by Raptor II requires an USB driver (provided by VENDAPIN) to be installed on the host system. The USB drivers are available for Windows, Mac OS9/X and Linux. The USB driver will allow for the USB port to be treated as the "virtual COM" port to allow the host system to interface to the Raptor II USB port. The Raptor II USB port is treated as a "slave" device, just like a mouse or keyboard and cannot operate as a "host/master" USB port, per USB specifications (see http://www.usb.org for details).

USB Drivers Installation for PulseVend Series:

Before you plug the Raptor II USB port into a multi-port or single port USB bus, please ensure that you have followed these requirements:

1. Make sure that the power cord(s) and USB cable(s) for the PulseVend system(s) are unplugged.
2. Insert the *API Raptor II Setup Express* CD in the cdrom drive.
3. If plugging in more than one (1) PulseVend system into a USB port, please make sure that the multiple USB cables connected to the PulseVend systems are plugged directly into PC USB ports or use bus-powered (not self-powered) multi-port USB hub connected to PC.
4. When installing the USB drivers, please use the USB drivers that come with the *API Raptor II Setup Express* CD. The USB drivers, can be found in the *USB Drivers* folder on the CD. The "standard" Microsoft USB drivers may not work when dealing with multiple USB PulseVend systems.
5. Start with one USB PulseVend system connection and complete the USB driver installation first. Then install the additional USB PulseVend coin-op driver installation(s) ONE at a time until the USB drivers for all USB PulseVend systems are properly installed.
6. To avoid mixing up the Raptor II USB port(s) connected to multiple USB port(s) on the PC, make sure the cable(s) are labeled.
7. Set the baud rate for the USB port(s) to 19200.

RS-232 Interface Details:
The RS-232 serial communication interface used by Raptor II does not require any drivers. The default RS-232 communication protocol for PulseVend systems is: 19200, 8, N, 1 and no handshaking. The RS-232 serial port is also used for interfacing to the optional receipt printer.

Accessing Using the VendaCard Control Cards

The VendaCard Control Cards

For PulseVend systems that are equiped with a VendaCard (RFID) reader, a set of 5 (five) VendaCard Control Cards allow configuration and setup of the *VENDAPIN, LLC Pulse Vending Station*.

VendaCard CODE CARD

Figure 4 shows the VendaCard CODE card. This card is used to set the S*iteCode* of the PulseVend. The SiteCode programs the PulseVend system to only allow VendaCard User cards for one company or location. This prevents VendaCards from different companies or locations to be used at your location.

Figure 4
VendaCard Code Card

VendaCard MANAGER CARD

Figure 5 shows the VendaCard MANAGER card. This card is used to configure the *Pulse Vending Station* system settings.

Figure 5
VendaCard Manager Card

VendaCard PASS CARD

Figure 6 shows the VendaCard PASS card. This card allows unlimited free purchases on all channels for testing and demonstrations.

Figure 6
VendaCard PASS (Bypass) card

VendaCard FORMAT CARD

Figure 7 shows the VendaCard FORMAT card. This card allows the PulseVend system to setup user card(s) or reformat corrupted user card(s).

Figure 7
VendaCard Format Card

VendaCard POS CARD

Figure 8 shows the VendaCard POS card. This Point Of Sale card allows money to added (credit) or subtracted (debit) from user cards.

Figure 8
VendaCard POS (Point of Sale) Card

VendaCard USER CARD

Figure 9 shows the VendaCard USER card. This card is used by the customers to make a purchase with the Pulse Vending Station.

Figure 9
VendaCard User Card

Using the VendaCard CODE Card to set the Site Code

Figure 4 shows the VendaCard CODE card.

1. Insert the **VendaCard CODE Card** into the *Pulse Vending Station.*

   The site code will be set as shown in Figure 10.
   The *Pulse Vending Station* will beep and set the Site Code for your location.

2. Remove the VendaCard CODE Card.

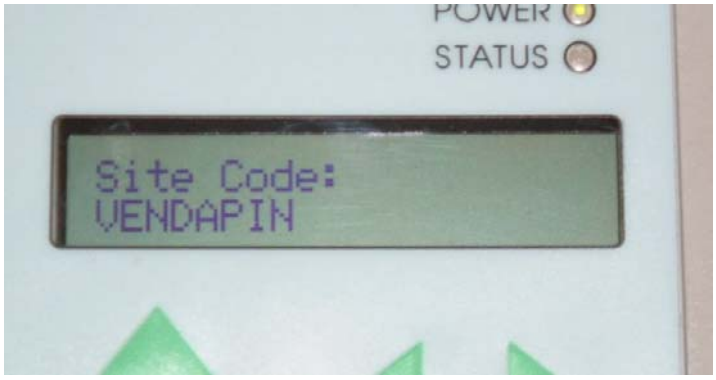


Figure 10
Site Code being set using VendaCard CODE card

Using the VendaCard MANAGER Card to set the system Parameters

Figure 5 shows the MANAGER Card.

1. Insert the **VendaCard MANAGER Card** into the *Pulse Vending Station.*

   The *Pulse Vending Station* will show the network settings as shown in Figure 11.

2. Remove the VendaCard MANAGER Card.

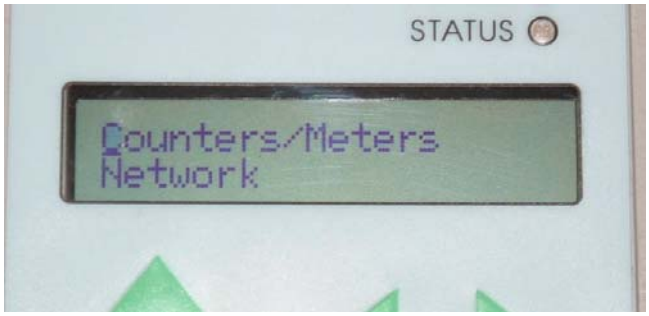


Figure 11
System Parameters

3. Use the up and down arrows on the keypad to cycle through the system settings:

   Counters/Meters
   Network
   Devices/Services
   General Settings
   Date – Time
   Prices
   Timing
   Interfaces
   Exit

4. Use the Return key to make a selection.
5. Select **EXIT** and press the Return Key, when you are done with the system settings.

Using the VendaCard PASS Card to operate the vending device.

Figure 6 shows the PASS Card.

1. Insert the **VendaCard PASS Card** into the *Pulse Vending Station.*

   The *Pulse Vending Station* will show the Bypass Mode as shown in Figure 12.

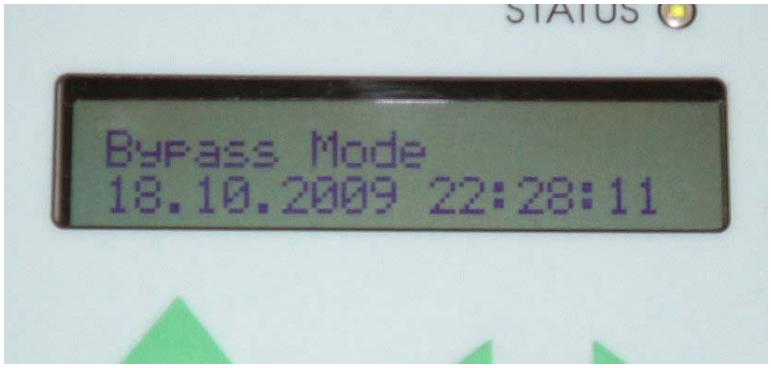


Figure 12
Bypass Mode

   While the **VendaCard PASS Card** is inserted all pulse station(s) will be active

2. Remove the **VendaCard PASS Card** when you are done to return the *Pulse Vending Station* to normal operation.

Using the VendaCard FORMAT Card to format user cards.

Figure 7 shows the FORMAT card.

1. Insert and remove the **VendaCard FORMAT Card** from the *Pulse Vending Station.*

   The *Pulse Vending Station* will show the **Credit Value:** window as show in Figure 13.

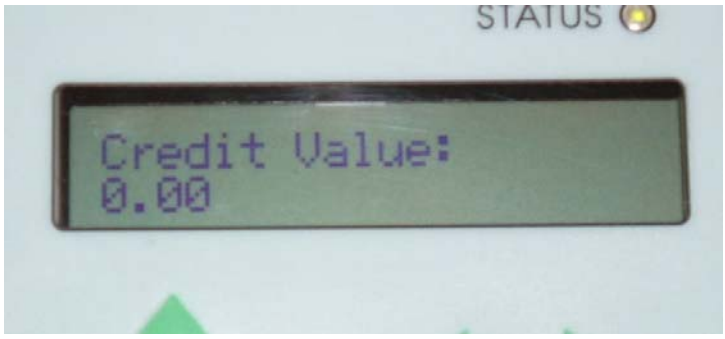


Figure 13
Credit (Add) Value to VendaCard

2. Use the keypad on the *Pulse Vending Station* to set the initial value on the card.
   Note: $0.00 is the default value.
3. Press the **Return Key** on the keypad
   The *Pulse Vending Station* will show the **Cards to Format** window as show in Figure 14

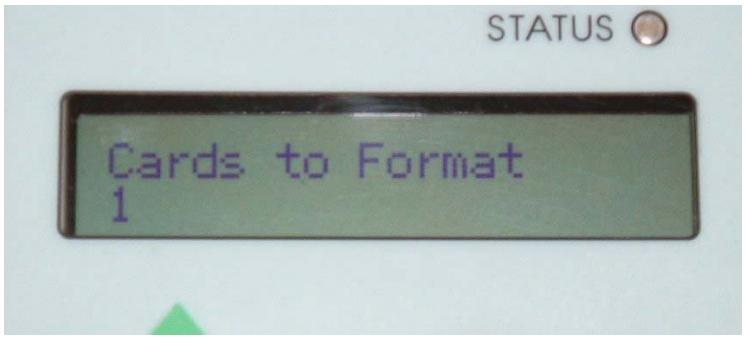


Figure 14
Number of Cards to Format

4. Use the keypad on the *Pulse Vending Station* to enter the number of cards to format
5. Press the **Return key** on the keypad
6. Insert the first **USER Card** to format.
7. When the *Formatting Done* Window appears, remove the user card.
8. Continue inserting more cards until all cards are formatted.

Using the VendaCard POS Card to credit or debit money from user cards

Figure 8 shows the POS card.

1. Insert and remove the **VendaCard POS Card** from the *Pulse Vending Station.*
   The *Pulse Vending Station* will show the **Debit Value:** screen.

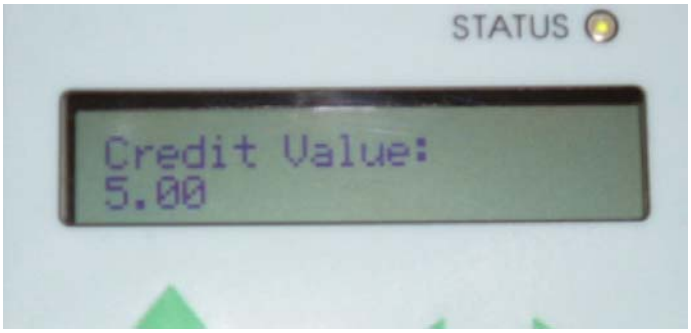


Figure 15
Credit Value Screen

2. If you wish to credit money to the user card, use the *plus* arrow on the keypad to show **Credit Value:** on the lcd. See Figure 15.
3. Press the number keys to enter the value to be debited or credited to the user card.
4. Press the **Return Key** on the keypad.

Using the VendaCard USER Cards to make purchases

Figure 9 shows the USER card.

1. Insert the **VendaCard USER Card** into the *Pulse Vending Station*.
   The display will show the amount of credit available on the card. See Figure 16.

Figure 16
Escrow available on VendaCard

   The user can now use the *Pulse Vending* Station as long as the card is inserted and contains sufficient value.

2. Remove the **VendaCard USER Card** when finished with purchases.

Using a web browser to set the system parameters

A convenient way to configure the Pulse Vending Station parameters, in real-time, is to use a web browser.

Logging into the Raptor II Web Server:

Figure 17 shows the login screen after you open a web browser to access to Raptor II via network:

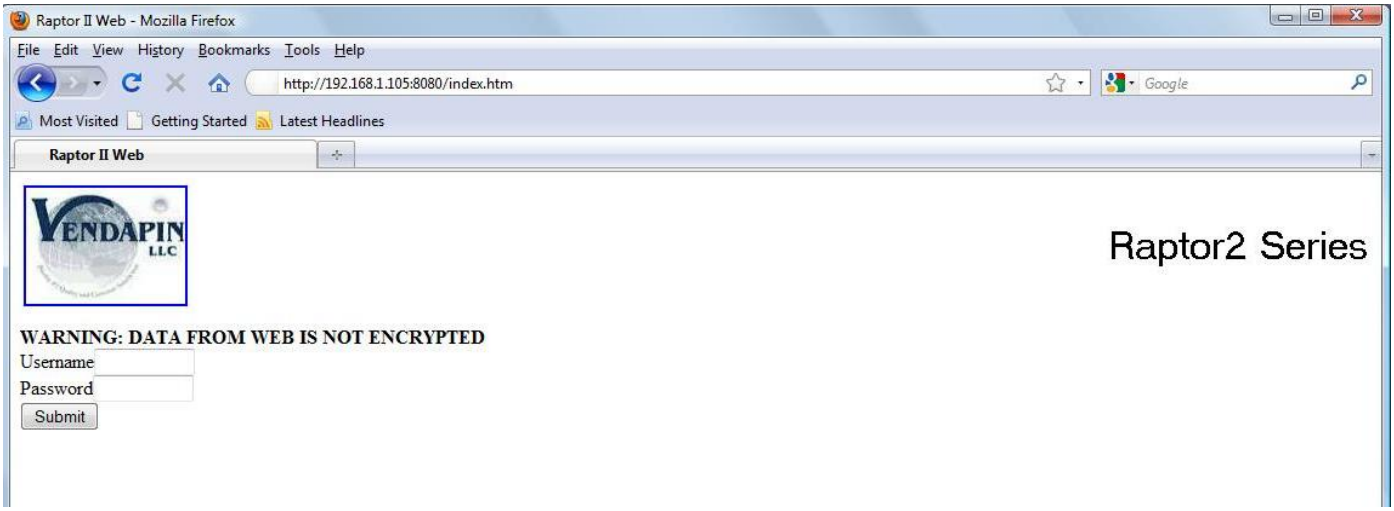


Figure 17
Web Interface login screen

The factory default accounts for manager and clerk are as following:

Manager:
Username: VENDAPIN
Password: vendapin

Clerk:
Username: VENDAPIN
Password: password

NOTE: The manager and clerk accounts passwords should be changed immediately for security purposes.

After you log in, you will see the Main Menu with *Home* web page as shown by default as shown in Figure 18.

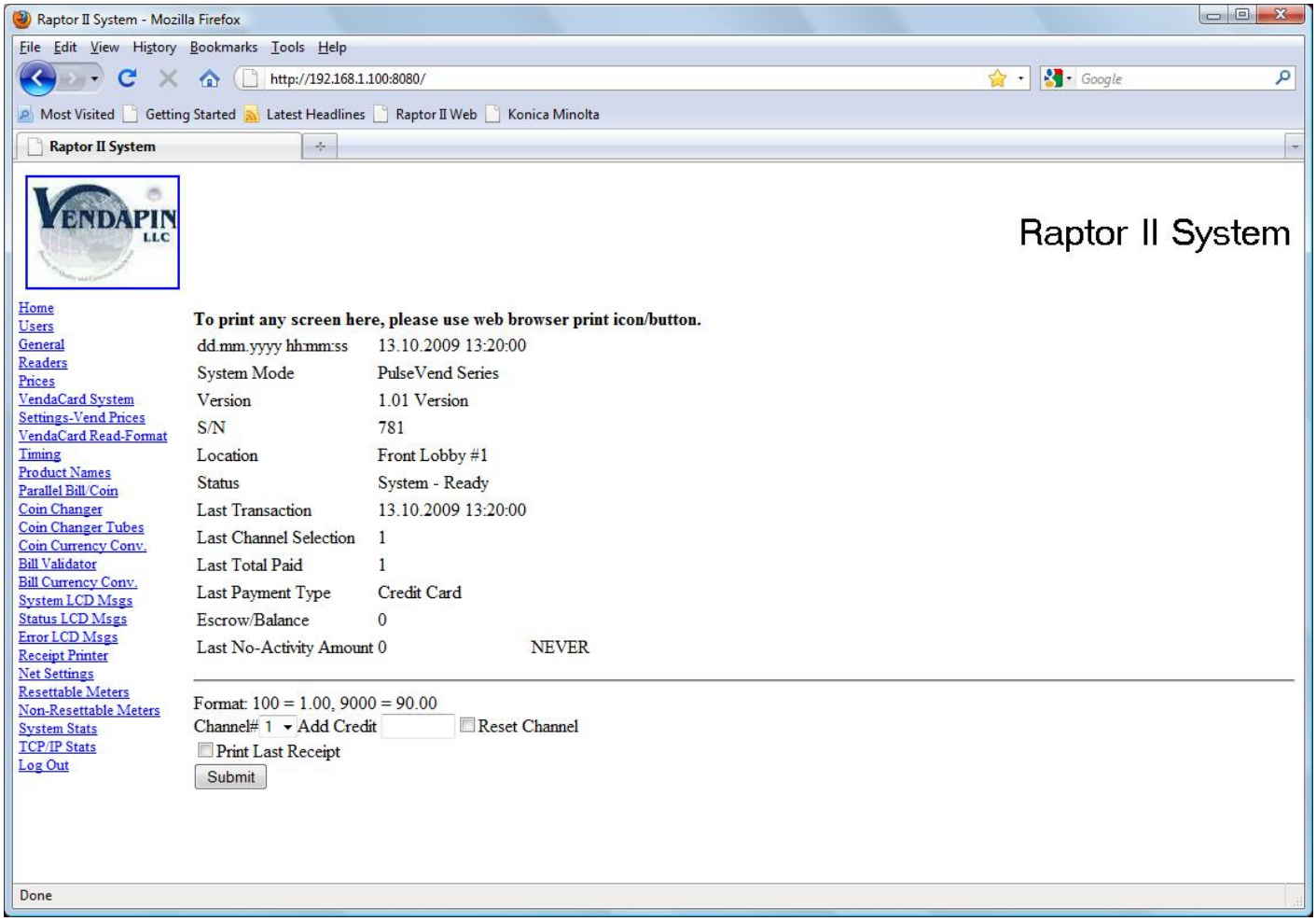


Figure 18
Raptor II Web Access Home Menu

The left column of Figure 18 contains the top-level menu selections. The right side of Figure 18 displays the details of the top-level menu selected.

The top-level menus are described in details under the *Your Unit* chapter.

There are two methods to configure the IP, Subnet Mask, and Gateway addresses:

1. Configure the network settings using a network cable
   Note: This method requires that 192.168.1.100 is not in use.

2. Configure the network settings using a cross-over cable
   Note: This method is useful if 192.168.1.100 is already in use.

1) Configuring the network settings using a Network Cable

Obtain the following information from your IT department:

- an available “static” IP Address
- Subnet Mask
- Gateway Address
- Web Port

Determine your computer's network settings:

On Windows XP, click **Start**
Click **run**
type in **cmd**
Click **OK**
In the *Command Prompt* window, type **ipconfig** and press the *Enter* key
The following information will be displayed pertaining to your computer
IP Address
Subnet Mask
Default Gateway.
Type **exit** and press the *Enter* key to close the *Command Prompt* window.

If your computer's IP Address is 192.168.1.X (Subnet is: 255.255.255.0, Gateway is 192.168.1.1, which is typical), you can configure the PulseVend network settings by opening a web browser.

Open a web browser
Type **http://192.168.1.100:8080** into the address bar and hit the **Enter** key.

The *Raptor II Login Window* will now be displayed.

- Log in using the **Manager** account.
- Click on **Net Settings** (on Raptor II Web access)
- Change the IP, Subnet and Gateway addresses.
- Click **Restart Network** checkbox
- Press the **Save** button.

2) Configure the network settings using a cross-over cable

Note: These instructions were written assuming Windows XP as the installed operating system.

1. Unplug the network cable from your desktop (or laptop).
2. Right mouse click on the *Local Area Connection* Icon next to the clock. See figure 19

Figure 19
Windows XP Network Connection Status

3. In the *Network Connections Window*, Right mouse click on the **Local Area Connection** icon. See figure 20

Figure 20
LAN Network Connection Icon

4. Click on **Properties**

5. In the *Local Area Connection Properties*, select **Internet Protocol (TCP/IP)**
6. Click on the **Properties** button. See figure 21

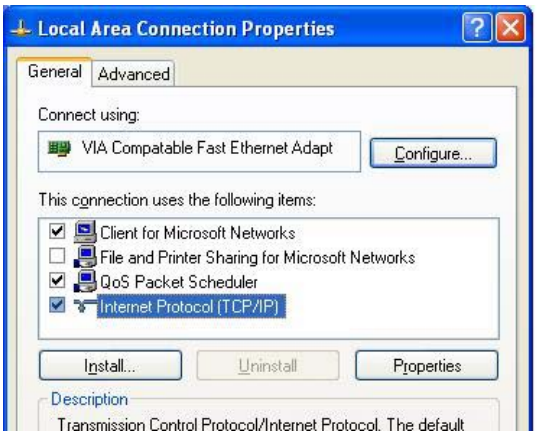


Figure 21
LAN Properties

7. In the *Internet Protocol (TCP/IP) Properties*, select the **Use the following IP address** radio button. See figure 22

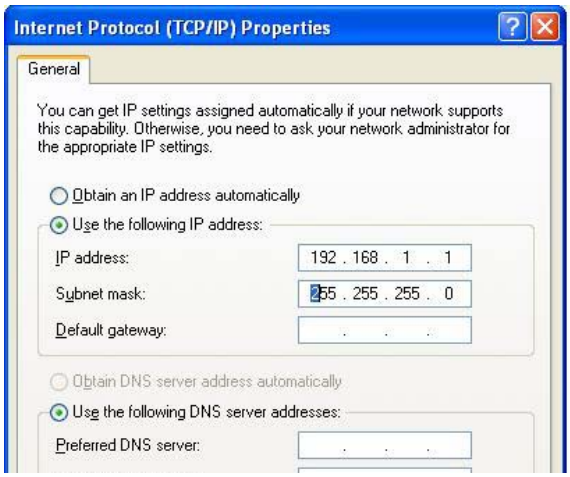


Figure 22
TCP/IP Properties

8. Enter **192.168.1.1** for the IP address.
9. Subnet mask should be **255.255.255.0**

10. Click **OK**
11. Click **Close**
12. Close the *Network Connections* window

13. Plug in the Crossover Cable.
14. Open a web browser
15. Type **http://192.168.1.100:8080** into the address bar and hit the **Enter** key.
16. The *Raptor II Login Window* will now be displayed.
17. Log in using the **Manager** account.
18. Click on **Net Settings**
19. Change the IP, Subnet and Gateway addresses.
20. Click **Restart Network** checkbox
21. Press the **Save** button.
22. Close your Web Browser
23. Change your PC network settings back to the original settings and save the network settings.

More details about the IP address use can be found at the end of the manual.

Configuring the Unit for Operation

Configuring the Unit

Location, Currency, Cash Settings, Date-Time and Others
The following parameters are located under the **General Menu**.

Location
This is the where the Pulse Vending Station is located. It is useful to set this value to tell apart Pulse Vending Stations, when multiple stations are present.

No Activity Timeout
This is the amount of time, between 1 second and 65,535 seconds, during which nothing will happen when a patron has left escrow in the unit.

- If there is escrow in the unit immediately after the vend or deposit was made, the No Activity timer has started. Then the fate of that escrow depends on how the No Activity Payout parameter is set (see below).

Setting the No Activity timer
Set the time parameter for the amount of time the unit should wait before taking action.

Disabling the No Activity timer
Setting No Activity Timer to **0** will disable the no activity timer.

No Activity Payout
This parameter is available only if No Activity is set. It determines what happens to the escrow when the no activity timer expires.

- If checked, the unit pays the balance
- If unchecked, the escrow is absorbed by the unit and added to the No Activity meter.

Interface
This parameter sets the interface based on the type and number of devices. At default, the interface is set to AutoVend, which uses the FDI (Foreign Device Interface) to connect the opto-relay circuit to enable/pulse vend operations. Please contact VENDAPIN if you require different interfaces.

Defining currency display
The following parameters are located under the **General Menu**. They determine how currency (Example Currency format: $1.00USD) appears on the display and in printouts as described here:

Currency Symbol
Set this parameter to specific currency symbol to display the currency symbol character next to currency. The existing currency symbols are listed here:

- Dollar ($)
- British Pound (£)
- Yen (¥)
- Euro (€)
- Chile (₵ with 2 forward diagonal lines)
- Thailand Baht (฿ with vertical line in middle)
- Dinar (د)
- Aruba Florin (*ƒ*)
- No Currency Sign Symbol

International Currency Code
Set this parameter to configure the 3-letter international currency code (ISO 4217) to be displayed after the currency value.

Pre-Cursor
This parameter selects two currency separators (comma or period) or none. This separator will be seen in all menus, displays, and printouts.

Setting cash, credit card and debit card limits
The following parameters are located under the **General Menu**.

Max Cash
This is the maximum cash value a patron can insert into the cash acceptance device. The maximum cash value is $655.35.

Exceeding the cash acceptor's limit
Different types of cash acceptors react differently when the last coin or bill inserted exceeds the cash or card value.

If your unit uses a MDB acceptor
If the patron tries to exceed the maximum value, the bill acceptor rejects the money and an error message will be displayed on screen. The Pulse Vending Station adds the escrow amount, card value, and denomination of coin or bill in the acceptor every time a patron inserts cash. If the value exceeds the limit, the last bill will be rejected.

If your unit uses a parallel or pulse acceptor
This type of coin or bill acceptor cannot reject a coin or bill once it has been inserted into the acceptor. The result is that if the cash or card limit is exceeded, the unit disables the acceptor instead of simply returning the money. It then holds the money in escrow until the escrow drops below the limit again.

- If money is inserted when there is no card in the reader, the cash limit will be exceeded. The escrow must be reduced by making vend purchases in order to re-enable the acceptor. For this reason, you might want to set the cash/card limit slightly higher than the cash limit (by the value of the highest bill or coin, for example).

Max Debit/PIN Card-Account/Max Pre-Authorized Credit Card Value
This is the maximum card value the machine will accept: $655.35 (or 65535).

Free Change
If this parameter is *checked*, the unit will act as a change machine. If you insert a $1 bill, then hit the coin return, you will receive $1 in change, without making a purchase.

Auto Change
This parameter determines whether change is paid out after a cash transaction is performed. When checked, change will automatically be returned within 15 seconds of transaction.

Coin Return
This parameter enables or disables the coin return option.

Disable this unit
This parameter allows the manager or clerk to disable the unit remotely.

Date/Time
Set this parameter to configure the real-time date and time clock. The real-time date-time clock is used for time-date stamp on all transactions.

API RS232/USB Baud Rate
This parameter controls the speed of the serial ports (RS232 and USB) on the Pulse Vending Station. The serial ports support 9600 and 19200 baud, 8 bits, No Parity, 1 Stop, No Flow Control.

Restore to Factory Default
Set this parameter to restore all parameters to Factory Default.

Determining how credit card reader and/or debit PIN card/device operate
The following parameters are located under the **Readers Menu**. Use them to configure for specific parameters for these credit card reader and debit/PIN reader/device.

Determining how cash acceptors operate
The following parameters are located under the **Coin Changer, Bill Validator and Parallel Bill/Coin Acceptor Menus**. Use them to configure for specific parameters for these coin and bill acceptors.

Coin Changer
The Coin Changer Menu incorporates parameters for enabling/disabling international currency values. The coin types are downloaded to the Raptor II memory automatically every time the coin changer is initialized at power-up. This type of feature will allow for any MDB international coin changers to be plugged in to the Raptor II MDB bus and configures the currency channels automatically.

Bill Acceptor/Validator
The Bill Validator Menu incorporates parameters for enabling/disabling international currency values. The bill types are downloaded to the Raptor II memory automatically every time the bill acceptor is initialized at power-up. This type of feature will allow for any MDB international bill acceptors to be plugged in to the Raptor II MDB bus and configure the currency channels automatically.

Pulse Bill/ Coin Acceptor (1 - 6 channels)
The Pulse Bill/Coin Acceptor can be plugged in the parallel bill/coin port on the Raptor II board and then the pulse values can be configured for each channel.

Determining how Credit Card reader/device operate

The following parameters are located under the **Readers Menu**. Use them to configure for specific parameters for the Credit Card reader/device.

MDB Credit Card Reader Settings

The parameters in the **Readers Menu** govern all credit card transactions.

Status:

This parameter determines if the credit card reader is activated.

Enable MDB Credit Card Reader

This parameter determines if the credit card reader is to be activated.

Maximum Pre-Authorized Value

This parameter determines the maximum amount that the credit card reader sets aside until the final bill is settled.

Minimum Purchase Value

This parameter determines the minimum amount that the credit card user will be charged per transaction. It is recommended that this value be set high enough to cover credit card transaction fees.

LCD Msg for Min Purchase Value

This is the display parameter that notifies the customer of the minimum value that will be charged to their credit card.

Reset Credit Card Reader

This parameter allows the credit card reader to be reset.

Determining how cash acceptors operate

The following parameters are located under the **Coin Changer, Bill Validator and Parallel Bill/Coin Acceptor Menus**. Use them to configure for specific parameters for these coin and bill acceptors.

Coin Changer

The Coin Changer Menu incorporates parameters for enabling/disabling international currency values.

Bill Acceptor/Validator

The Bill Validator Menu incorporates parameters for enabling/disabling international currency values.

Pulse Bill/ Coin Acceptor (1 - 6 channels)

The Pulse Bill/Coin Acceptor can be plugged in the parallel bill/coin port on Raptor II board and then configure the pulse values for each channel.

Setting Cash/Credit Vend Prices

Using the Price Menu

The *Price Menu* is used to set the 8 vend prices used for cash or credit card purchases.

To set the price parameters

1. Click on the **Prices** link. Figure 23.
2. Configure the 8 prices for vends.
3. The price parameters used are dependent on the *Interface* setting that is being used:
   - AutoVend – Only Price 1 is used.
   - NTS Keypad – Prices 1-8 are available.
   - POS Keypad – Prices 1-8 are available.
   - 8 Push Buttons – Prices 1-8 are available.
   - 4 LED Push Buttons/Drivers – Only Prices 5-8 are available.

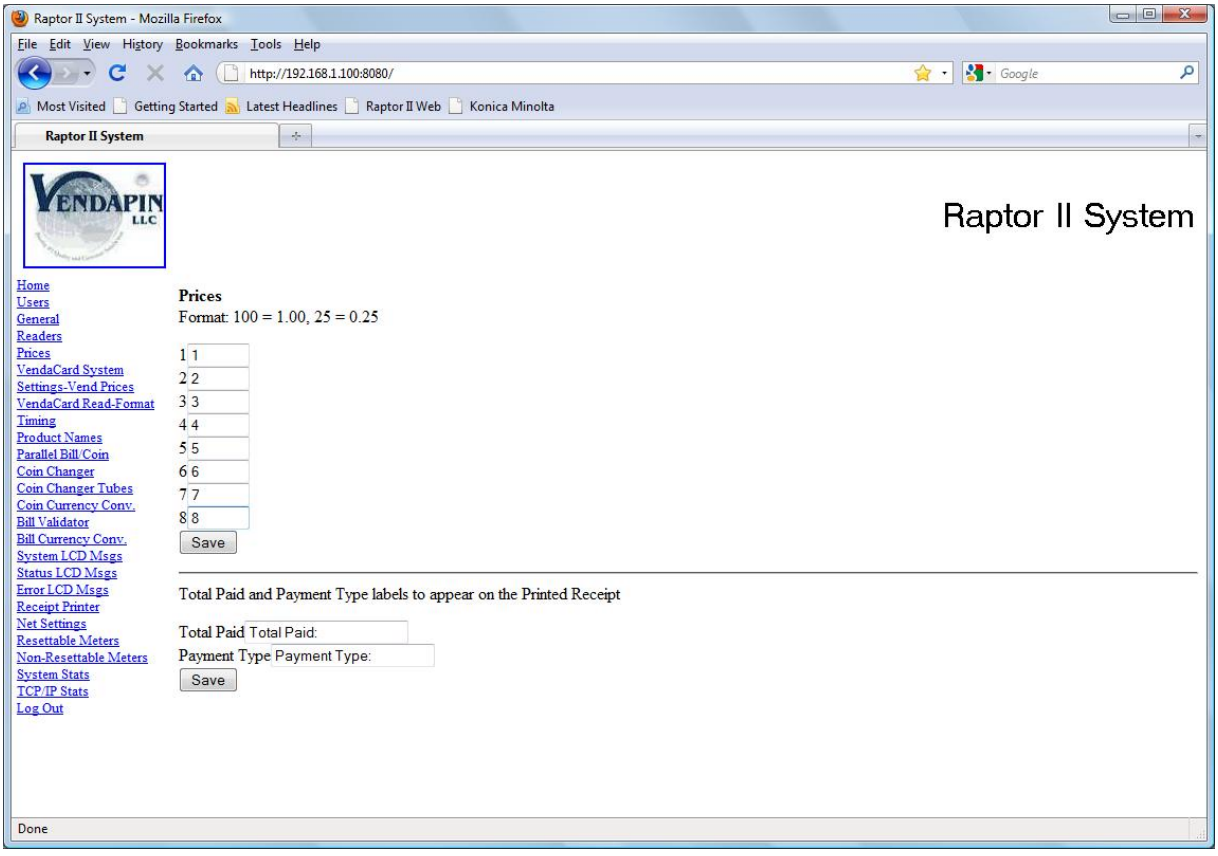


Figure 23
Web Browser – Price Settings

Setting VendaCard System Settings and Prices

Using the VendaCard System Settings-Vend Prices Menu

The Pulse Vending Station allows up to 8 prices depending on the interface mode.

To set the price parameters

1. Click on the **VendaCard System Settings-Vend Prices** link. Figures 24.
2. Configure the prices 1-8 based on device connected.
3. The price parameters used are dependent on the *Interface* setting that is being used:
   - AutoVend – Only Price 1 is used.
   - NTS Keypad – Prices 1-8 are available.
   - POS Keypad – Prices 1-8 are available.
   - 8 Push Buttons – Prices 1-8 are available.
   - 4 LED Push Buttons/Drivers – Only Prices 5-8 are available.

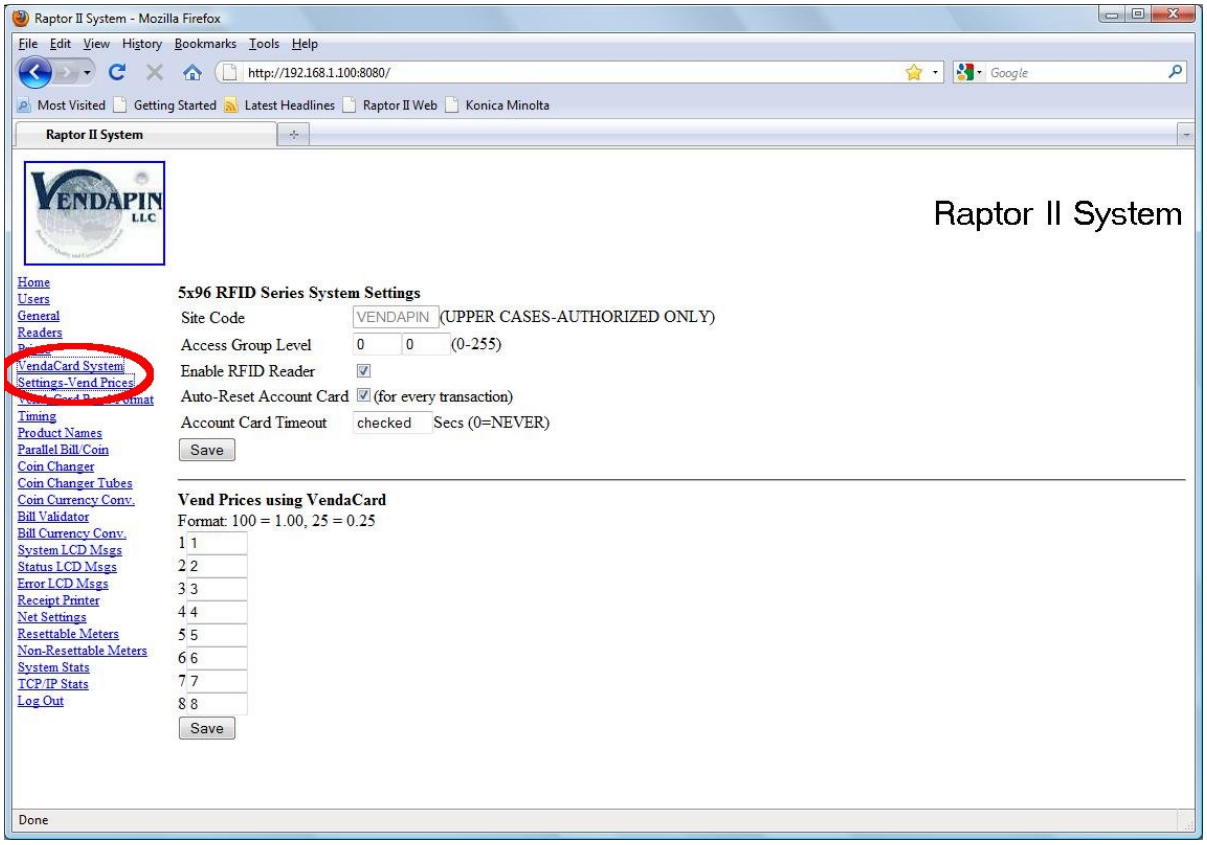


Figure 24:
Web Browser – VendaCard Price Settings

Coordinating Timing with the Device(s)

Setting the timing parameters using Timing Menu

Re-configuring timing parameters

The timing parameters in the Pulse Vending Station should be set to match the timing requirements of the vending device(s). (These values should be published in the host product's documentation.) If you're experiencing problems that indicate that the timing is off between the VENDAPIN system and host-vending device, try fine-tuning the timing parameters.

To modify the timing parameters

1. Select Timing Menu.
2. Change the timing parameters appropriate to the particular symptom you're witnessing.

Timing parameters

Channel Timer (1-8)

This parameter is set in 1-millisecond increments, ranging from 1 to 65535 milliseconds. At default, the 1250mS time value is used. This is the minimum length of time a pulse will remain active.

Using Counters/Meters

About counters/meters

All vending activity is recorded with an extensive set of internal electronic meters. There are two sets of meters available:

- Resettable meters. Allow for periodic recording of transactions. They are usually viewed, then reset on a regular basis.
- Non-resettable meters. Provide a tamper-proof record of all transactions made on the system.

Viewing and resetting counters / meters

You can view, reset, and print the meters in a *web browser*, using the **Resettable Meters** or **Non-Resettable Meters** selection.

Using System Stats

About system stats

Total counts of transactions is recorded with an extensive set of internal electronic meters. There are two sets of meters available:

- Resettable Total. Allow for periodic recording of transactions. They are usually viewed, then reset on a regular basis.
- Non-resettable Totals. Provide a tamper-proof record of all transactions made on the system.

Viewing and resetting counters / meters

You can view, reset, and print the meters in a *web browser*, using the **Resettable Meters** or **Non-Resettable Meters** selection.

Setting up a Receipt Printer

Configuring the serial printer

You can hook up a serial printer to the Pulse Vending Station to print out receipts.

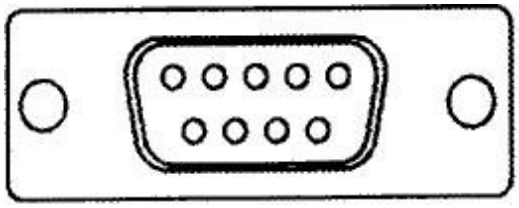


Figure 25
DB-9 Female Serial Port

1. Connect a serial printer to the DB9 port (J9) on the back of the controller board. See Figure 25
2. The printer should be configured to operate with the parameters listed in Table 24. Read the printer user's manual that accompanied the serial printer to find out how to set them.
   Note: The *Raptor II vending controller* is also capable of 9600 baud.
3. Configure the Copy Vending Station using a *Web browser* and set the *Receipt Printer* parameters under **Receipt Printer** menu.

Printer Serial Settings	
Baud Rate:	19200
Parity:	None
Data Bits:	8
Stop bits:	1
Flow Control:	None

Table 24
Default Serial Settings

Accessing the DB-15HD Interface

DB-15HD Interface Connector

VENDAPIN, LLC's Vending Access Control products use a DB-15HD connector to interface with third-party vending devices. The DB-15HD connector is a VENDAPIN, LLC standard for interfacing to system devices. Pre-assembled harnesses with installation instructions from VENDAPIN, LLC are available.

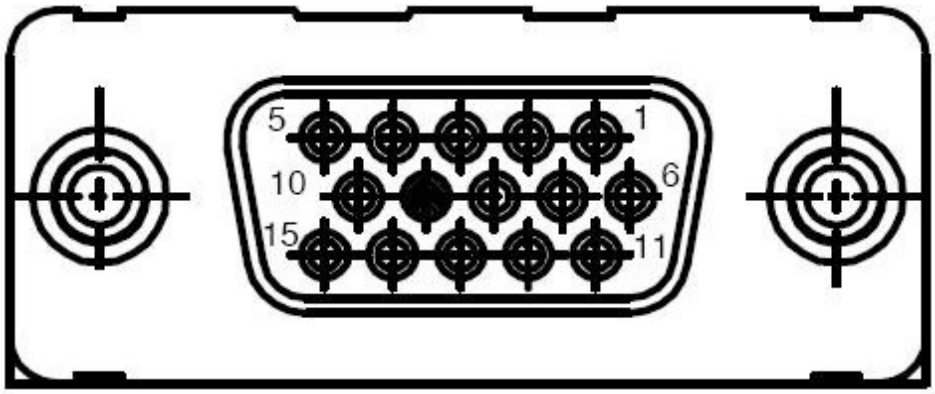


Figure 26
DB-15HD Interface Female Connector

Table 25 shows the pinout settings for the DB-15HD connector.

Pinout for J2 DB-15HD Interface Connector	
PIN	**Description**
1	Opto 1 Monitor Option
2	Opto 1 Monitor Option Return
3	N/A (Not Used)
4	Enable Relay 2 N/O (Available only if K2 Relay is installed)
5	N/A (Not Used)
6	N/A (Not Used)
7	N/A (Not Used)
8	Enable Relay 2 COMMON (Available only if K2 Relay is installed)
9	Enable Relay 1 N/C
10	Enable Relay 1 COMMON
11	Input Source for Driver to Onboard Resistors
12	N/A (Not Used)
13	Enable Relay 2 N/C (Available only if K2 Relay is installed)
14	N/A (Not Used)
15	Enable Relay 1 N/O
GND	Shield Ground – Not Connected, Used for Return Loop

Table 25

Button/LED Lamp Interface

Accessing the Button/Lamp Interfaces

Molex 12 pin Connector

VENDAPIN, LLC's Pulse Vending Control products can also use the two Molex 12 pin connectors to interface with up to eight third-party devices. Each Molex 12 pin connector is a VENDAPIN, LLC standard for interfacing with up to four pulse vend products using a relay assembly. By using both connectors a total of eight pulse vend products can be controlled directly or by using a relay assembly. Pre-assembled harnesses with installation instructions from VENDAPIN, LLC are available. Each Molex 12 pin connector can also be used to connect up to four lighted push buttons.

Pinout for J13 and J14 Molex 12 pin Interface Connectors	
PIN	Description
1	Ground
2	Button 1
3	Button 2
4	Button 3
5	Button 4
6	LED Lamp 1 (pull to ground)
7	LED Lamp 2 (pull to ground)
8	LED Lamp 3 (pull to ground)
9	LED Lamp 4 (pull to ground)
10	+5v DC
11	+12v DC (recommend use of +12V LED lamps)
12	+24v DC

Table 26

Note: The LED Lamp lines can only support 350 milliamps. If you need more current capacity, then an external relay MUST be used**. Incandescent lamps are in excess of 350milliamps.**

Note: All DC voltages are not available on all products. DC voltages available are dependent on the power supply used with the PulseVend system.

PulseVend Configurations

PulseVend available Configurations

There are several different configurations available for PulseVend firmware with the Raptor 2 vending controller.

- AutoVend
  - Single Relay Interface (J13 or J2)
- NTS Keypad
  - Single Relay Interface (J13 or J2)
  - Four Relay Interface (J13)
  - Eight Relay Interface (J13 and J14)
  - Five Relay Interface (J13)
- POS keypad
  - Single Relay Interface (J13 or J2)
  - Four Relay Interface (J13)
  - Eight Relay Interface (J13 and J14)
  - Five Relay Interface (J13)
- Four LED Push Button/Driver Interface, used with 4 push buttons and 4 relays (J13 and J14)
- Eight Button Interface, used with 8 push buttons (J13 and J14)

AutoVend

The AutoVend option will automatically vend the item when price level 1 is reached. The AutoVend option does not require any keypad or push button to allow a single item to be vended. AutoVend can use either the *J13 Single Relay Interface* or the *J2 Single Relay Interface*.

NTS and POS Keypads

Raptor 2 PulseVend firmware is capable of using two different keypads for customers that require a keypad in their application. The NTS keypad is a membrane keypad that is commonly found on the 5896 Pulsevend Vending System (see figure 27). The POS keypad is a metal keypad that can be adapted to many of the Raptor 2 based Pulsevend systems (see figure 28).

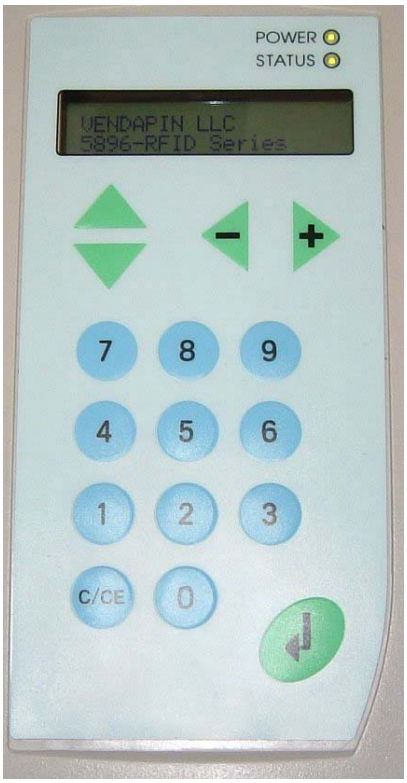


Figure 27
NTS Keypad

Figure 28
POS Keypad

Single Relay Interface

The Single Relay Interface is used with either the NTS or POS keypads. The *Interface* mode of the PulseVend firmware will be set to either the NTS keypad or the POS keypad in **General** of the web interface of the Raptor II PulseVend system.

When setting up a Single Relay Interface PulseVend system you have two different connection options available.

- 1-4 Button/Lamp interface port (J13)
- Foreign Device Interface (FDI) (J2)

Note: To use the J2 interface the K1 relay must be installed on the Raptor II board.
Note: To use the J13 interface, the U7 chip (UDN2695) must be installed on the Raptor II board.

1-4 Button/Lamp – J13

To use the 1-4 LED Button/Lamp – J13 interface the U7 chip (UDN2695) must be installed on the Raptor II board. The UDN2695 chip can only support 350 milliamps. If you need a higher current capability, then an external relay must be installed as shown if figure 29.

Note: The protection diode attached across the external relay's input is there to prevent the voltage spike that is produced when the relay is switched off. If the diode is not present, then there is a good possibility the UDN2695 chip will be destroyed.

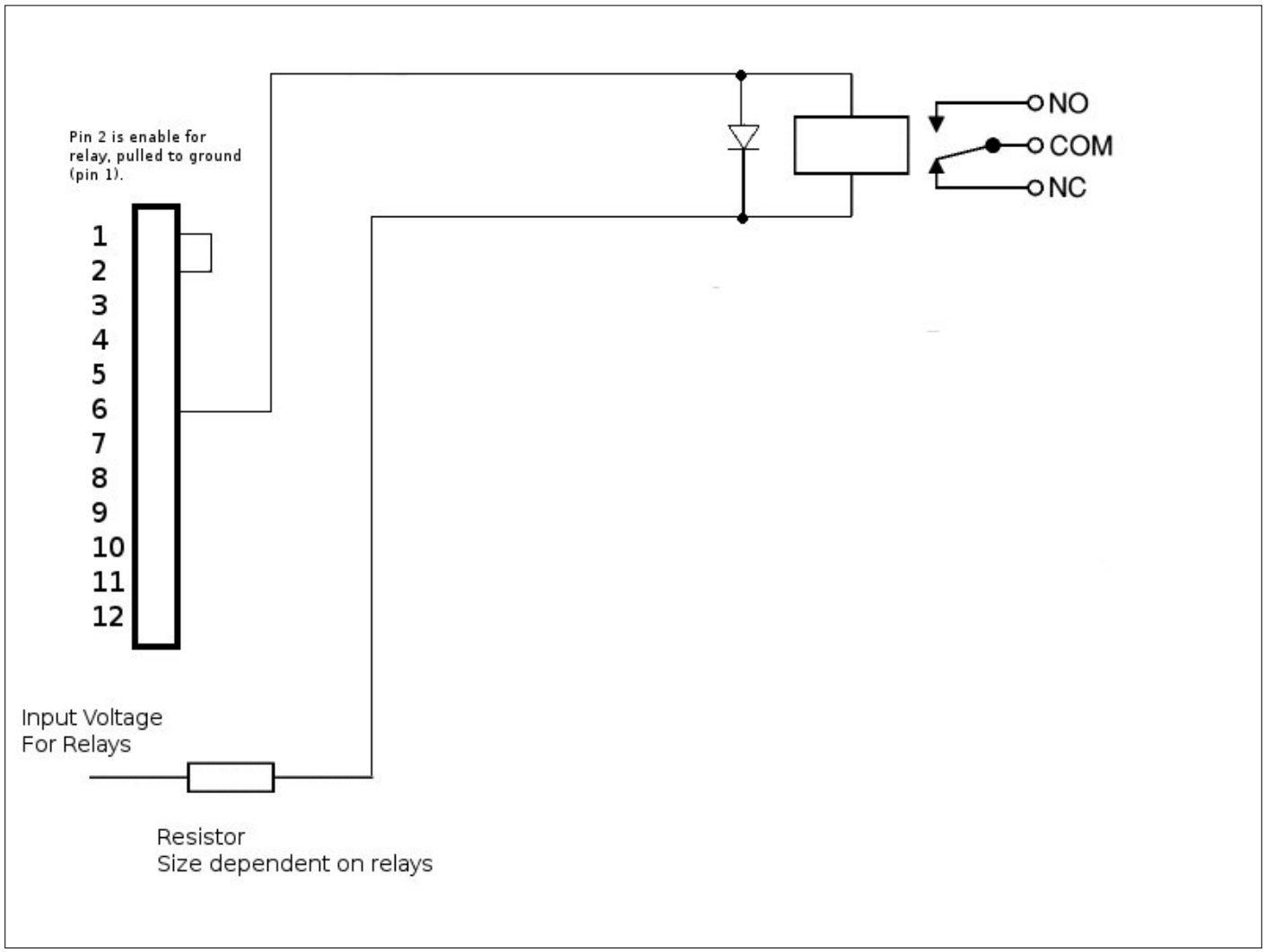


Figure 29
J13 - Single Relay Interface

Foreign Device Interface (FDI) – J2

To use the Foreign Device Interface (FDI) – J2 the K1 relay must be installed on the Raptor II board. The K1 relay can only support 2 amps. If you need a higher current capability, then an external relay must be installed as shown if figure 30.

Note: The protection diode attached across the external relay's input is there to prevent the voltage spike that is produced when the relay is switched off. If the diode is not present, then there is a good possibility the K1 relay will be destroyed.

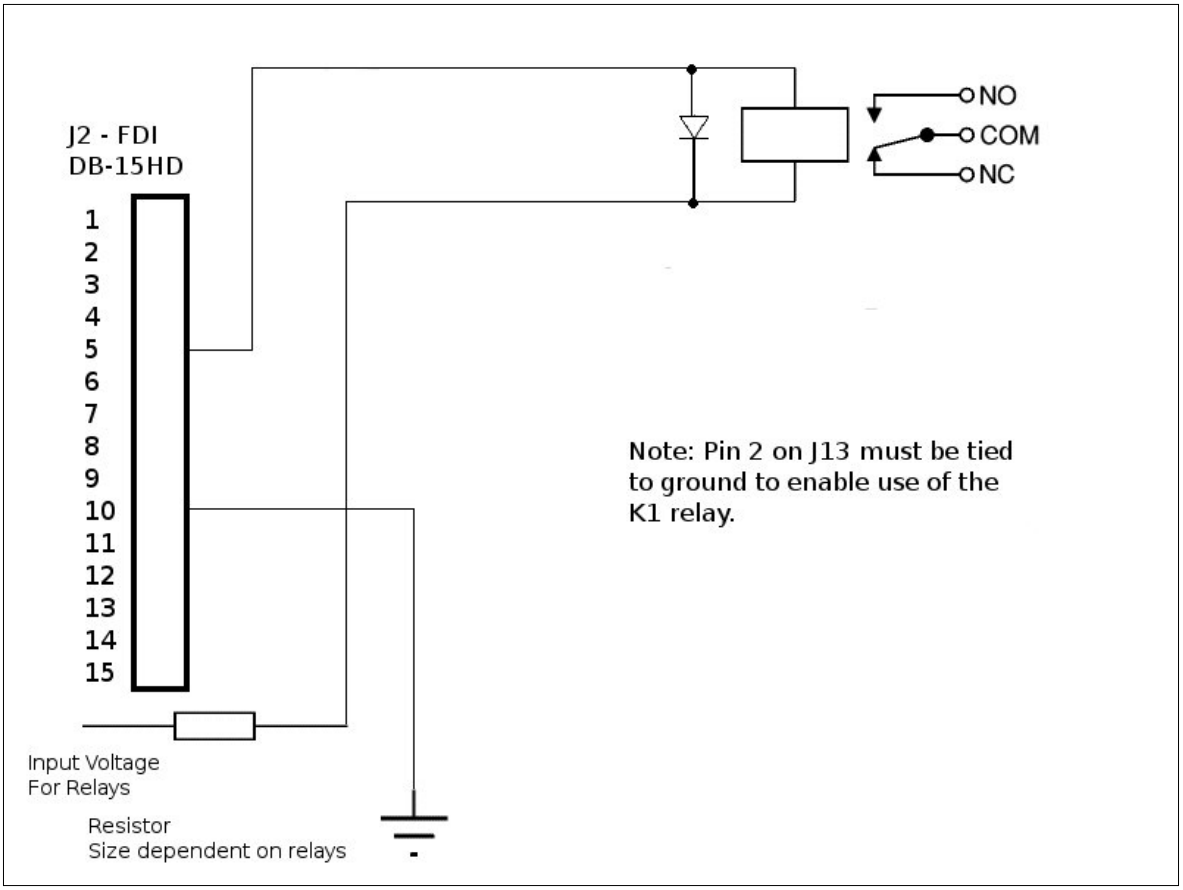


Figure 30
J2 – Single Relay Interface

4 Relay Interface or 8 Relay Interface

Both the 4 Relay Interface and 8 Relay Interface are used when either the POS keypad (metal) or NTS keypad (membrane) are present.

- Only the *1-4 Button/Lamp interface port (J13)* is used when setting up a 4 Relay Interface.
- Both the *1-4 Button/Lamp interface port (J13)* and the *5-8 Button/Lamp interface port (J14)* are used when setting up an 8 Relay Interface

1-4 Button/Lamp – J13
5-8 Button/LED Lamp - J14

To use the *1-4 Button/Lamp – J13* and the 5-*8 LED Button/Lamp – J14* interface the U7 chip (UDN2695) must be installed on the Raptor II board. **The UDN2695 chip can only support 350 milliamps.** If you need a higher current capability, then external relays must be installed as shown if figure 31.

Note: The protection diode attached across the external relay's input is there to prevent the voltage spike that is produced when the relay is switched off. If the diode is not present, then there is a good possibility the UDN2695 chip (RevB board) or ULQ2003 (RevC board) will be damaged.

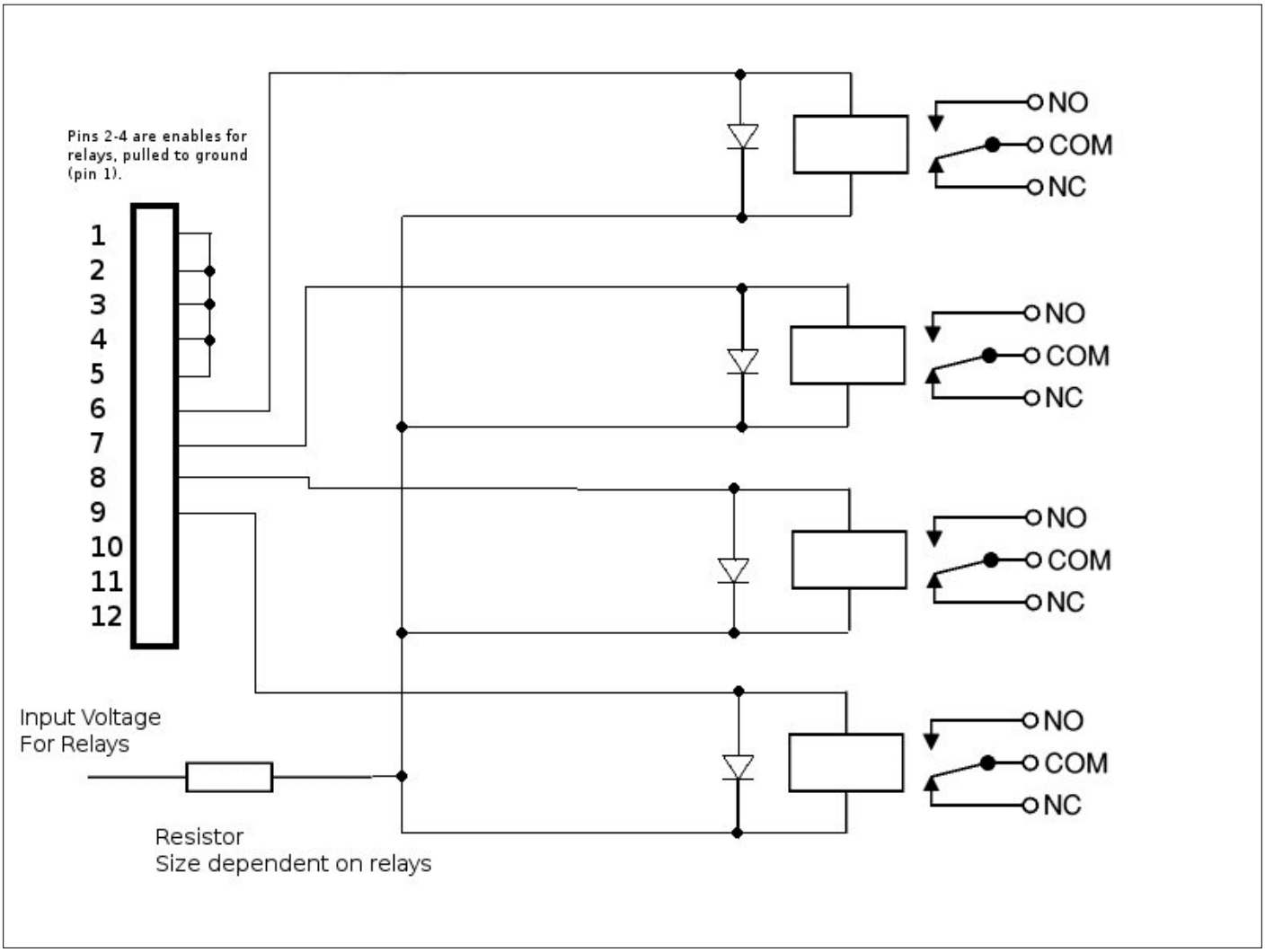


Figure 31
J13, J14 – 4 Relay Interface

5 Relay Interface

The 5 Relay Interface is used when either the POS keypad (metal) or NTS keypad (membrane) are present. This interface configuration is useful when you need to trigger a relay common to all four channels.

Whenever any of relays 1 through 4 are activated, relay 5 will also be activated.

- Only the *1-4 Button/Lamp interface port (J13)* is used when setting up a 5 Relay Interface.

1-4 Button/Lamp – J13

To use the *1-4 Button/Lamp – J13* interface the U7 chip (UDN2695) must be installed on the Raptor II board. The UDN2695 chip can only support 350 milliamps. If you need a higher current capability, then external relays must be installed as shown if figure 32.

Note: The protection diode attached across the external relay's input is there to prevent the voltage spike that is produced when the relay is switched off. If the diode is not present, then there is a good possibility the UDN2695 chip will be destroyed.

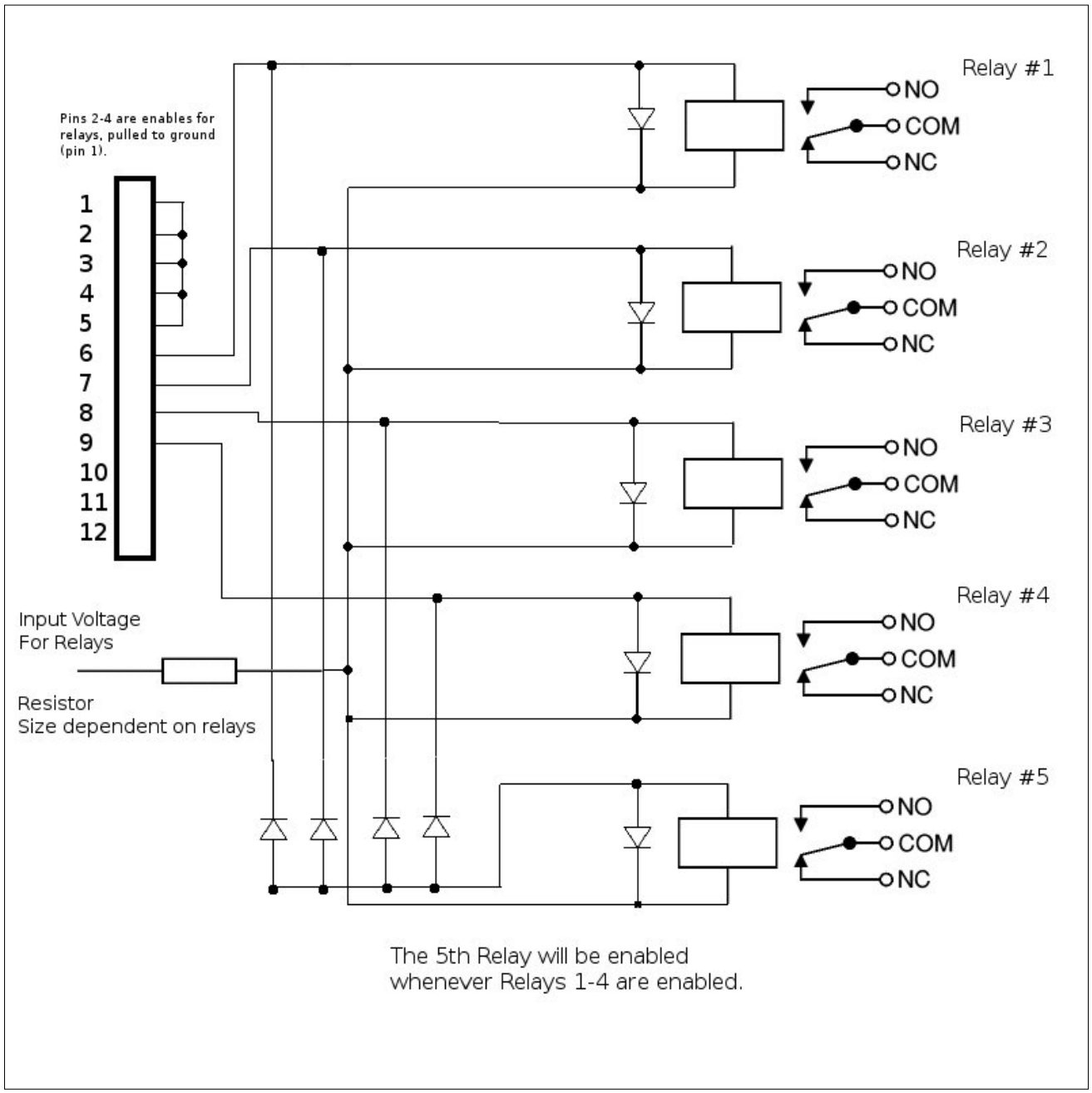


Figure 32
J13 – Five Relay Interface

Four Buttons/Drivers Interface

The *Four Buttons/Drivers Interface* is used when a keypad not wanted and you need buttons and relays. This is useful for a four card dispenser system.

- The *1-4 Button/Lamp interface port (J13)* is used to setup the four relays or card dispensers (Figure 33)
- The *5-8 Button/Lamp interface port (J14)* is used to setup the four lighted push buttons (Figure 34)

1-4 Button/Lamp – J13
5-8 Button/LED Lamp - J14

To use the *1-4 Button/Lamp – J13* and the 5-*8 Button/Lamp – J14* interface the U7 chip (UDN2695) must be installed on the Raptor II board. **The UDN2695 chip can only support 350 milliamps.** If you need a higher current capability, then external relays must be installed as shown if figure 33.

Note: The protection diode attached across the external relay's input is there to prevent the voltage spike that is produced when the relay is switched off. If the diode is not present, then there is a good possibility the UDN2695 chip will be destroyed.

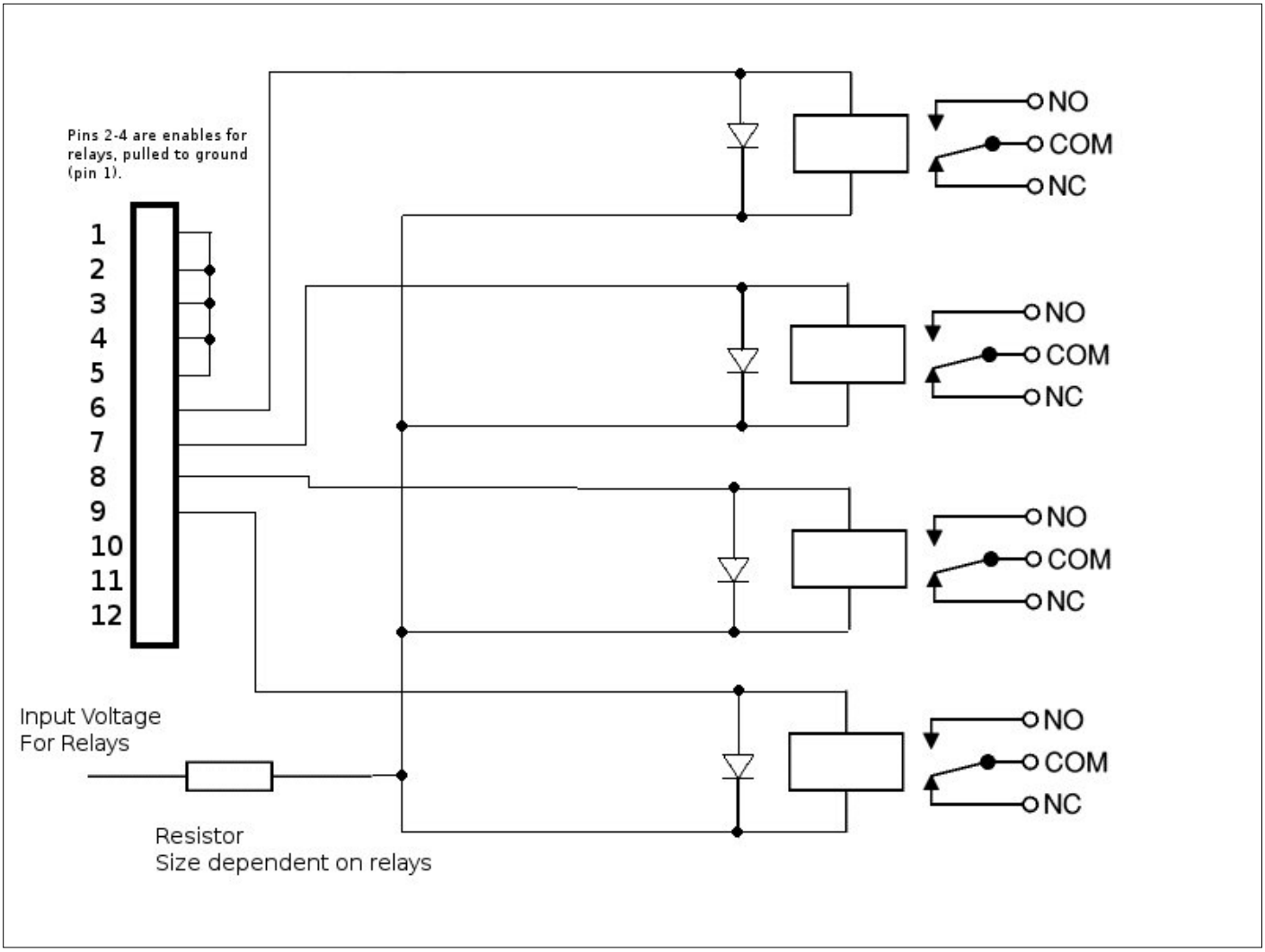


Figure 33
J13 – Four Relay Interface

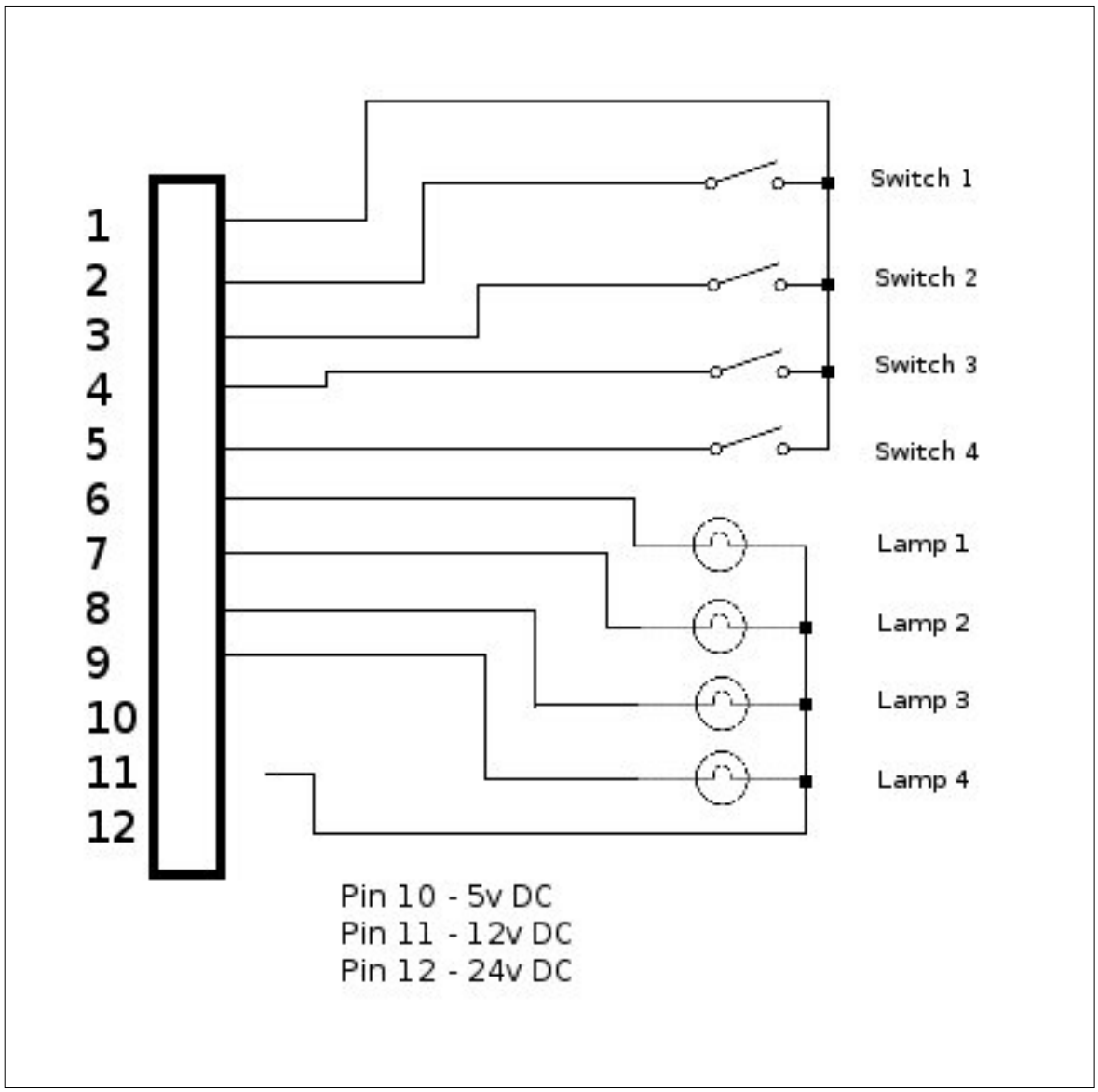


Figure 34
J14 – Four Lighted Push Buttons

Eight Push Buttons Interface

The *Eight Push Button Interface* is used when a keypad not wanted and you need only buttons. This is useful when you need product that prints only receipts. i.e. recycling centers.

- The *1-4 Button/Lamp interface port (J13)* is used to setup four lighted push buttons (Figure 35)
- The *5-8 Button/Lamp interface port (J14)* is used to setup up to eight lighted push buttons (Figure 35)

1-4 Button/Lamp – J13
5-8 Button/LED Lamp - J14

To use the *1-4 Button/Lamp – J13* and the 5-*8 Button/Lamp – J14* interface the U7 chip (UDN2695) must be installed on the Raptor II board. **The UDN2695 chip can only support 350 milliamps.**

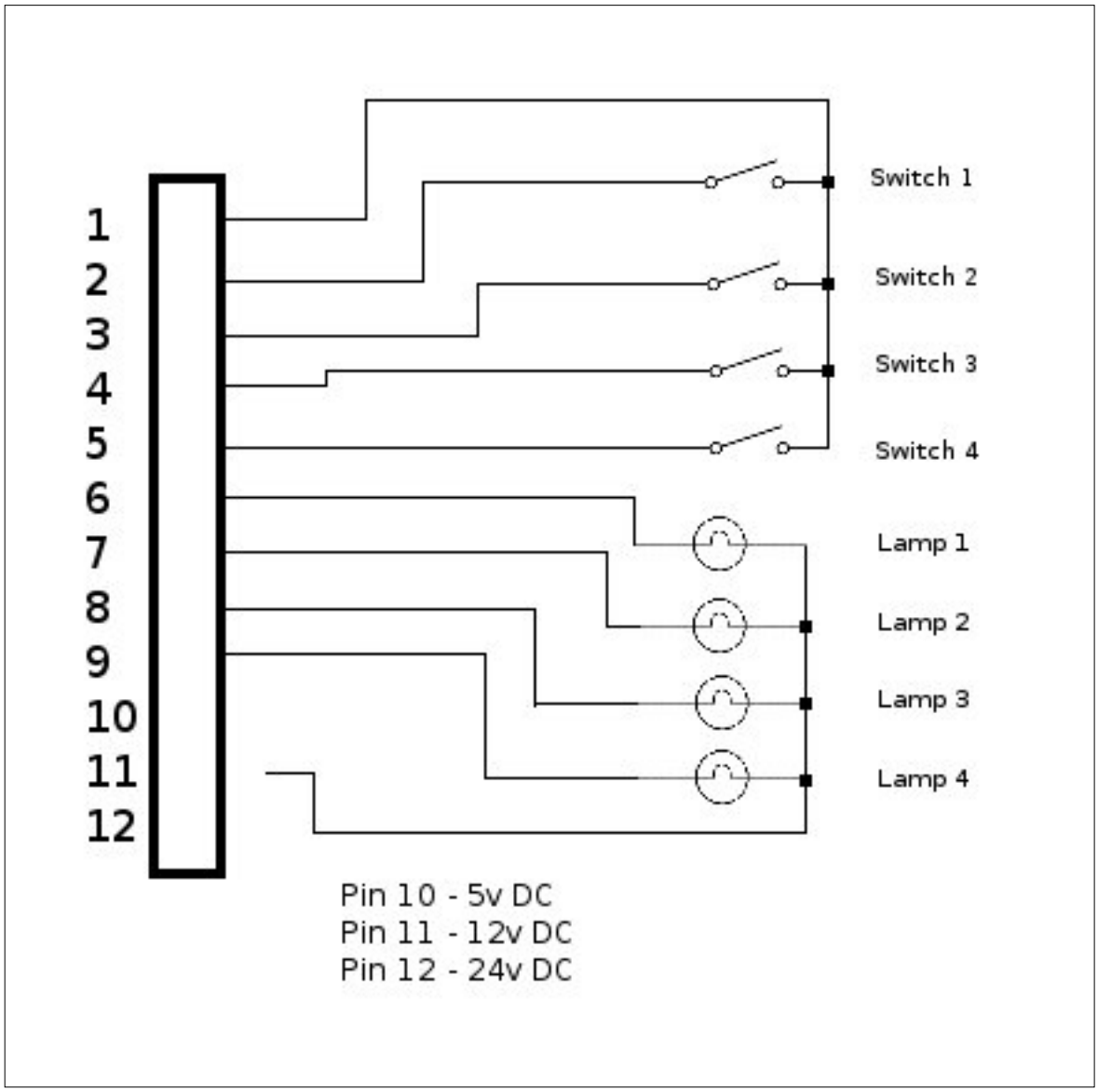


Figure 35
J13, J14 – Four Lighted Push Buttons

Opto 1 Monitor Option

The Opto 1 Monitor option is available in all Interface modes. The *Interface* mode of the PulseVend firmware will be set to either the NTS keypad or the POS keypad in **General** of the web interface of the Raptor II PulseVend system.

When setting up the Opto 1 Monitor option, the PulseVend system uses the Foreign Device Interface (FDI) (J2)

The Opto 1 Monitor option is used when the feedback/active line from the vending system such as spiral motors is used to shut off the relays/lamp-driver lines controlled by Raptor2 system.

Foreign Device Interface (FDI) – J2

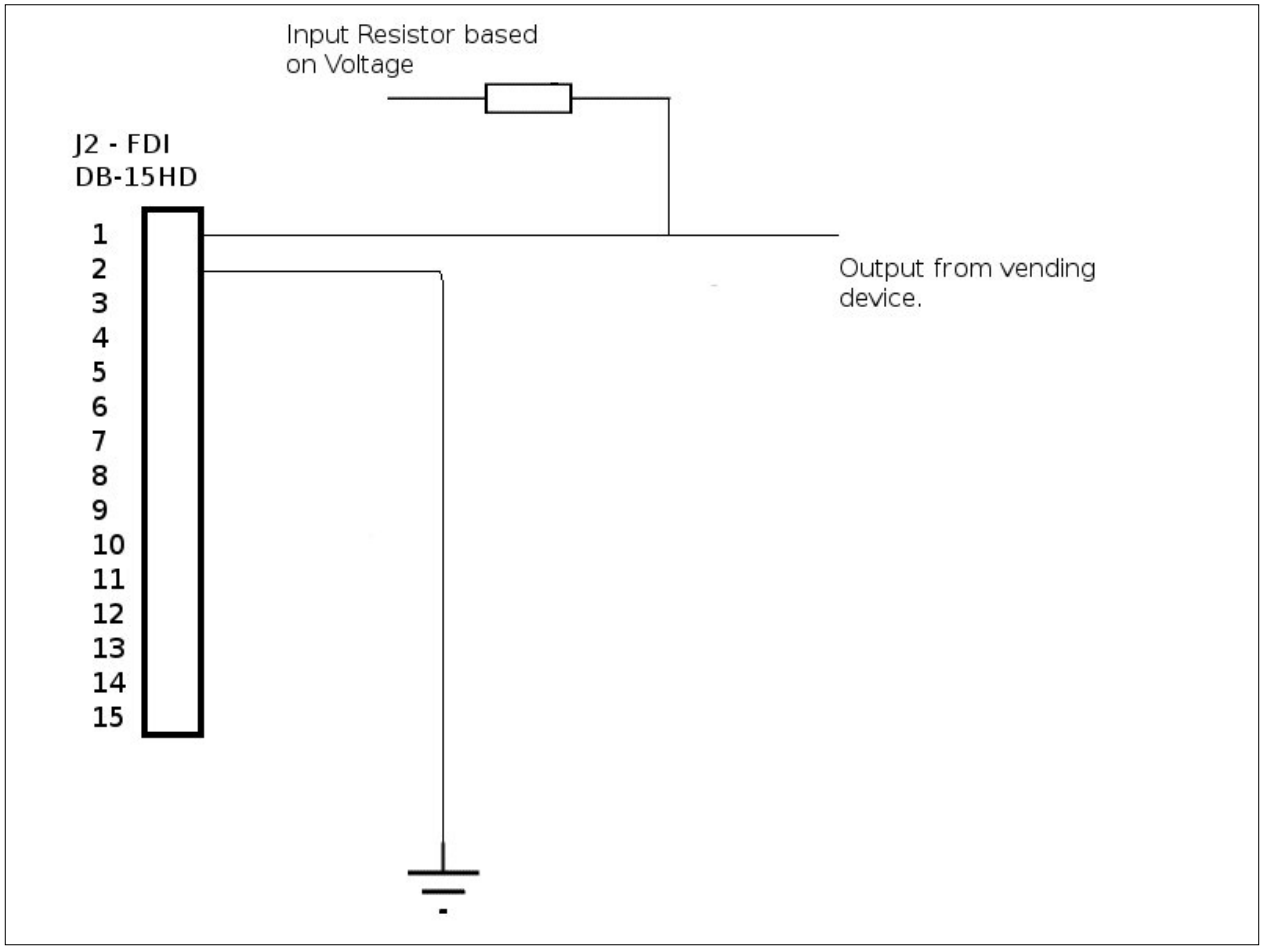


Figure 36
J2 – Opto 1 Monitor Option

Error Messages, Troubleshooting & Misc.

Error messages

LCD Message	Cause	Solution
Out of Service	The bill acceptor/coin changer is disabled because the software has received a full, jam, or stacker open message from them. This message appears only once, when the event occurs.	Remove all money and clear the bill and coin path of foreign objects.
Exceeded Limit	The escrow in the machine, plus the last bill inserted exceeded the unit's cash limit. The bill is ejected.	Insert a smaller bill or coins. The Max Cash parameter can be increased, to prevent this from occurring
Out of Coins	The unit is holding escrow because there is not enough money in the coin tubes to pay out the requested change.	Refill the coin tubes.
Use Exact Coins	The bill acceptor is rejecting the notes	Refill the coin tubes.
Declined	The purchase price has exceeded the maximum pre-authorized value.	Increase the maximum pre-authorized value and contact the merchant account to increase the limit.

Table 27

Troubleshooting guide

Pulse Vending Station problems

Table 28 describes problems that may occur in the Pulse Vending Station, and provides the steps you should take to resolve the behavior.

Problem	Cause	So
No letters on LCD display screen	• LCD screen intensity too low. • System problem. • No main power to unit.	• Adjust the LCD display contrast using the trimpot (clockwise) located on bottom/front/right side of board next to LCD connector. • Power down for few seconds, then power up again (unplug & replug the unit power cord from electrical outlet). • Check electrical fuse.
All blocks on LCD display screen	• LCD screen intensity too high. • System problem. • Reset condition.	• Adjust the LCD display contrast using the trimpot (counter-clockwise) located on bottom/front/right side of board next to LCD connector. • Power down for few seconds, then power up again (unplug & replug the unit power cord from electrical outlet). • Contact VENDAPIN technical support.
Serial port or USB port not working	• Wrong baud rate. • Wrong cable.	• Host and Print/Copy Vending Station must be set to same baud rate (19200). • Use standard off-the-shelf 9-to-9 serial cable. • Re-install USB drivers and check the COM port on host machine.

Table 28

Restoring data after a power failure

In the event of a power failure during a transaction, the unit will save the following information.

- Escrow amount
- All last transactions

When the unit regains power, the data listed above is restored. If there was escrow before the power outage, that amount will be restored and the display updated. The patron can then continue with the transaction.

Miscellaneous

Loading coin tubes

You can load the coin tubes in one of two ways without impacting the meters:

1. Loading coin tubes using the bypass key (bypass card).

Enter bypass mode with the bypass key switch (or PASS card). Deposit the change through the coin slot and turn off the key switch. The escrow will be cleared.

While the bypass key switch is activated, the unit is in bypass mode. During this time the coin changer is enabled, and the remaining payment devices will be disabled. Each time the operator inserts or manually dispenses coins, the total coin tube balance will be displayed on LCD screen.

Clearing escrow

In the event that unwanted escrow is left on the LCD, it is possible to remove it without impacting the meters by turning on the bypass key (or inserting PASS card), which will reset the escrow to zero balance.

2. Loading the coin tubes using the reset method.
Note: This method is not available on the CoinCo 9302-GX Coin Changer.

Place the coins in their corresponding coin tubes. Make sure at least ten (10) of each coin in each tube.

Using the *web interface* to load the coin tubes
Login to the *web interface* using the **manager** account
Select the **Coin Changer Tubes** menu at the left of the screen. See Figure 36.
On the *Coin Changer Tube Balance Counters* screen, select the **Reset** button. See Figure 36.

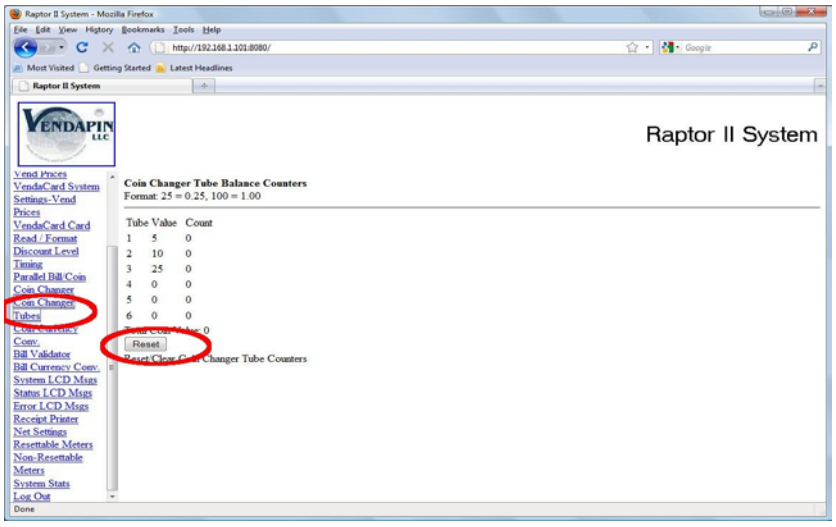


Figure 36

The coin changer will automatically determine the number of coins in each tube

What is an IP Address? (Static IP, Dynamic IP)

An IP address identifies a computer or other network attached device to the network. Every device on a network needs to have its own unique address. That way, data is sent to the correct device. There are global IP addresses that are used by the whole Internet and local IP addresses that are only used behind a router.

Q: Why isn't there One Set of IP Addresses for the Whole World?

A: It might be nice if every computer had its own IP address. Unfortunately, computers are replaced frequently — millions are added, removed, or rearranged every day. It would be impossible for everyone in the world to keep up with the changes.

To avoid this problem/ the Internet community does a number of things:

- They use one set of global addresses for the whole world.
- A group of private address spaces were set aside for use in a private network behind a router.
- Some addresses are used only temporarily. When the computer is turned off, the address is given to someone else.
- Subnet masks were created to break large networks into smaller more manageable groups.

Whether for the whole world, or just for your home or office, an IP address always looks like this (four numbers separated by three periods):

192.168.1.1

The subnet mask has the same format. The subnet masks on your own home network will almost always have exactly these numbers:

255.255.255.0

Don't change the subnet mask without being sure what it does!
You need to keep a record of these IP addresses:

1. The one your IT department gives you. This one is used by the whole world to access your network.
2. The address of your PulseVend system unit on your own network. By default VENDAPIN sets the IP address to 192.168.1.100. That's the IP address you type in an Internet browser to log in your PulseVend unit.
3. There are situations where you will need to know IP addresses of other devices in your network.

What's the Difference Between Static and Dynamic IP Address?

The IP addresses from your IT department are assigned one of two ways:

- Static IP address. The device is assigned an IP address that never changes.
- Dynamic IP address. The device is assigned a temporary IP address, which can change according to the policy set by your IT department's DHCP router.

Because a Static IP address does not change, most networking equipment requires a static IP.

Dynamic IP addresses are used in large networks where computers are frequently reconfigured or moved.

CARD DISPENSER:

CTD-100 Series Card/Ticket Gate Adjustment

Figure 5

Figure 6

Loosen the Gate Lock Screws on both metal side frames (see Figure 5) The white plastic gate will slide up and down.

1. Slide ONE card forward under the gate tip, until it will not go any farther forward. (See Figure 6)
2. Raise and lower the white gate (Figure 6) until the gate tip barely presses on the top of card. (See Figure 6)
3. Gently slide a 2nd card (see Figure 6) over 1st card to gate tip area to ensure that it will not go under the gate tip.
4. Tighten the Gate Lock screws on both sides of the left and right metal side frames.
5. Test the CTD-100 series card dispenser with at least 5 cards and re-adjust the gate tip if necessary.

CTD-200 Series Card/Ticket Gate Adjustment

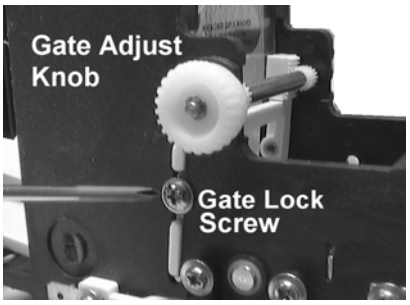


Figure 8

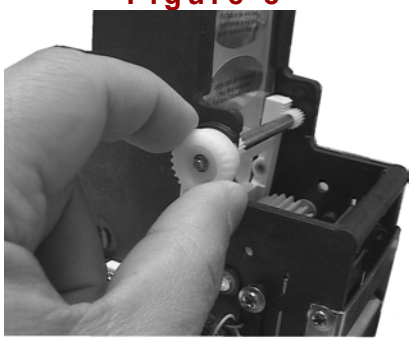
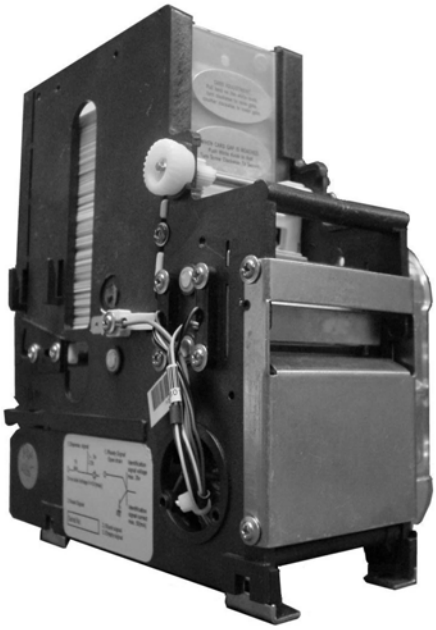


Figure 9

Figure 10

1. Loosen Gate Lock Screws on both sides (see Figure 8)
2. Slide ONE card forward under the gate tip, until it will not go any farther forward. (See Figure 10)
3. Pull out & turn the Gate Adjust Knob (Figure 9) until the gate tip barely presses on the top of card. (See Figure 10) Raise or lower gate on the CTD-100 series.
4. Gently slide a 2nd card (see Figure 10) over 1st card to gate tip area to ensure that it will not go under the gate tip.
5. Push in the Gate Adjust Knob, and tighten the Gate Lock screws on both sides of the frames.

Test the CTD-200 series card dispenser with at least 5 cards and re-adjust the gate tip if necessary.



CTD-100/200 Series Card/Ticket Dispenser Versions

CTD-100/CTD-200 – Standard TTL Dispenser
Power Supply Requirement: +24VDC 1A
CTD-101/CTD-201 **– Accumulator Dispenser**
Power Supply Requirement: +12VDC 1A

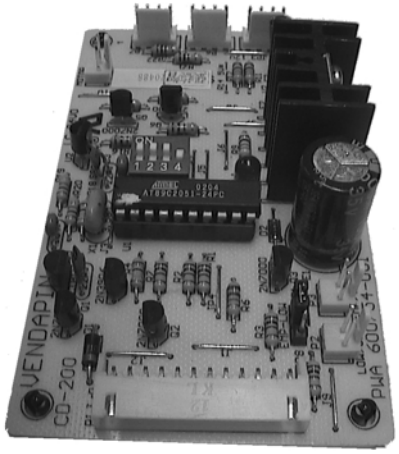


Figure 1: VCB-1 Board

CTD-102/CTD-202 – USB Card/Ticket Dispenser
CTD-103/CTD-203 – RS-232 Card Dispenser
Power Supply Requirement: +5VDC/+12VDC 1A Max.

Figure 2: VCB-2 Board

VCB-1 TTL Pinout Details

Pin #	Wire Color	Connector	Description
1	Black	Ground	P.S. Ground
2	Orange	+24VDC	P.S. +24VDC Input
3	Black	Ground	Dispense/Vend Switch to Ground
4	Brown	/Vend or /Dispense	Dispense/Vend Card after 30mS+ to Gnd
5	White	/Reset	Reset card dispenser after 30mS+ to Gnd
6	Yellow	/Low	Card/Ticket low switch option (LED)
7	Green	+12VDC w/ 1KΩ	For Ready signal (#8)
8	B/W	/Ready	Ready signal – (connected to LED to #8)
9	Blue	+12VDC w/ 1KΩ	For Stuck signal (#10) – connect to LED
10	Yellow	/Stuck	Stuck signal – (connected to LED to #9)
11	Violet	+12VDC w/ 1KΩ	For Empty signal (#12) – connect to LED
12	Yellow	/Empty	Empty signal – (connected to LED to #11)

Note: PIN #1 – left side of VCB-1 board (see Figure 1)

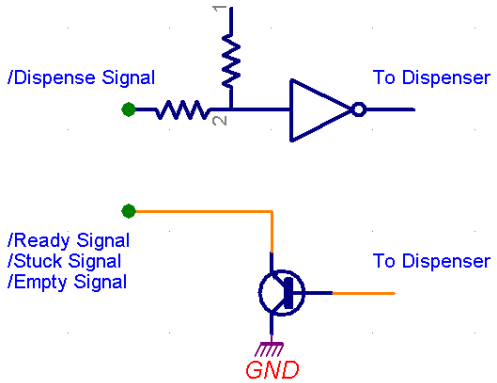


Figure 3: TTL Logical Diagram

VCB-1 Dip Switch Position:

Position 1	Position 2	Position 3	Position 4
API Set On/Off (Default:OFF)	Reserved (Default:OFF)	Reserved (Default:OFF)	Card Hold On/Off (Default:OFF)

API Set: Standard = OFF, CECB4 API = ON (Default: OFF)
Card Hold: Default – OFF (fully ejects the card), ON to hold the card.

Rear of VCB-2 Interface Board

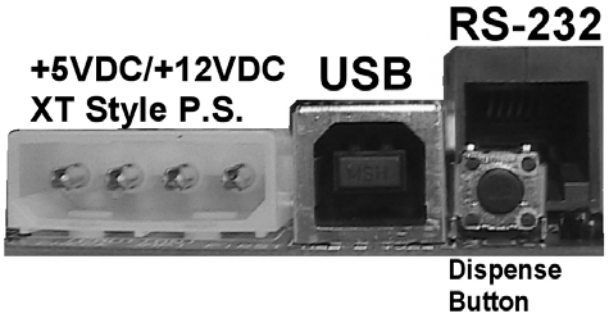


Figure 4: VCB-2 Ports

VCB-2 XT Style Connector:

PIN #	Description
#1 (Left)	+12VDC
#2	Ground
#3	Ground
#4	+5VDC

VCB-2 USB Type B

Use USB Type A to USB Type B cable for connecting to PC USB Type A port.

VCB-2 True RS-232 RJ-12 Port

PIN #	Description
#1 (Left)	Ground
#2	Data Receive
#3	Data Transmit

VCB-2 Reset Button (see Figure 2, near green LED)

VCB-2 Empty/Ready LED Header (see Figure 2)

VCB-2 Dispense Button

This dispense button is used for:

- To test the general card dispenser operation
- To set the card dispenser status to "READY" after the first dispense to allow the card to move to cover the rear card sensor (**Note:** EMPTY status is set by default if no cards are in card dispenser stack.).
- Adjust the card gate adjustment.

Communicating to Card/Ticket Dispenser

Please refer to the API V1.12 or highter protocol documentation on the API CD. You will need to add the function routines to your host application software before it can communicate with the card dispenser via USB or RS-232 protocols. We recommend you use the Card Dispenser API Tester software to test the USB / RS-232 card dispenser operation. Additional documentation can be found on the CTD-202/203 Card Dispenser API Tester CD.

VCB-2 Dispense Button

This dispense button is used for:

- To test the general card dispenser operation
- To set the card dispenser status to "READY" after the first dispense to allow the card to move to cover the rear card sensor (**Note:** EMPTY status is set by default if no cards are in card dispenser stack.).
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Communicating to Card Dispenser

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VENDAPIN LLC Product Registration Card

2 Year Raptor II CPU Warranty

To better serve our customers, we are enclosing a “cut-out” Warranty Registration card here, which when filled out and returned to VENDAPIN LLC, will permanently register your equipment for warranty repairs and technical services.

VENDAPIN Model Number:	
Serial Number:	
Software Type:	
Revision:	
Ship Date:	
Company Name/Location	
ddress:	
City/State/Zip:	
Phone:	
Email:	
Purchased From:	
Host Machine (Copy/Print Machine) Make/Model	
Received in good condition?	
Problems installing?	
System satisfactory?	
Suggestions or problems:	

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CTD-100/200 Series Web Site:
www.VENDAPIN.com/carddispenser.html

General Web Site:
www.VENDAPIN.com