

venSTATION Unattended Pay Station & System Management Software

TECHNICAL SPECIFICATIONS AND STANDARD FEATURES

1 General Features:

1. The *venSTATION* is capable of accepting the following forms of payment:
 - a. \$1, \$5, \$10, \$20, & \$50 dollar bills (optional)
 - b. nickels, dimes, quarters, dollar coins, tokens and special coins (optional)
 - c. credit card (optional)
 - d. ISO 7816 SmartCards (optional)
 - e. Gift/Loyalty Card (optional)
2. Features a paper audit trail, supported by an electronic record of all transactions.
3. Able to function as a single unit or operate in a networked environment using IP-based communications technology (digital cellular or Ethernet).
4. Supported by software applications allowing user manipulation of rate structure, system configuration, monitoring and transaction recording from a local or remote site.
5. Supported by software applications for real-time credit card authorization and settlement with end-customer's financial institutions.
6. Powered using a 40 amp hour 12 VDC battery. It is capable operating using battery power only or by continually recharging the battery using solar or A/C power.

2 Pay Station Specifications:

2.1 Cabinet:

1. *Cabinet* constructed of 10 gauge cold rolled steel with ¼" stainless steel security reinforcement around the lock area of door.
 - a) Optional: Stainless Steel cabinet
2. *Cabinet* design is large enough to allow for easy removal of internal components; bill acceptor, coin acceptor, printer, etc.
3. *Cabinet* color textured semi gloss gray (standard).
 - a) Optional: Custom colored powder coat
4. Front of case includes an area 13-1/2" x 14-1/4" where graphic is applied for display of instructions and additional information
5. *Cabinet* door features a flush mounted clear Lexan cover providing protection for the display.
6. *Cabinet* has one locking point that actuates a five point stainless steel locking system, requiring a key and a hex wrench to open.
7. *Cabinet* is designed to bolt to the ground or a 6" tall steel pedestal using 5/8" anchor bolts.
8. *Cabinet* is able to accommodate three separate conduit connections.
9. The door open sensor is set to activate when the front door is opened 1/8" or more.
10. Internal temperature is thermostatically controlled utilizing a 110V strip heater to maintain the correct operating temperatures.

11. Case dimensions are: 21" W x 58" H x 14-3/4" D with an approximate weight of 225 lbs., with internal components installed.
12. *Cabinet* lock is a Medeco Lock keyed with a proprietary combination exclusively for new installations.
13. *Cabinet* contains interior insulation.

2.2 Front Display:

1. The system utilizes a front-facing display that measures 6" x 3 3/8".
2. The display technology is Liquid Crystal Display (LCD).
3. The display is mounted on the back side of the 10 GA steel door. The display opening at the front of the cabinet measures approximately 2-3/4" x 5-1/8"
4. The display is slightly recessed into the cabinet to eliminate glare. The display is mounted behind a clear 1/4" thick, anti-glare Lexan cover.
5. The display is back-lit for improved readability during low/no light conditions.
6. A fan system is included for proper ventilation in high heat environments.
7. Display character font size is an extra large 22.5 point for exceptional visibility for the elderly and the vision impaired

2.3 Buttons and Keypad:

1. A 1 X 4 push button keypad is positioned to right of display in "ATM-style".
2. The display interface clearly designates one of the 1 x 4 buttons as the "Cancel" function.
3. [PBS Option] A three by four numeric keypad is used by patrons to enter space numbers and by enforcement personnel to obtain enforcement reports.

2.4 Coin/Ticket Cup:

1. Constructed of stainless steel.
2. Mounted to the front door.
3. Includes a clear lexan door.
4. Features the ergonomic use of a single cup for dispensing receipts, change and coin return.
5. Drain hole to allow water or condensation to escape.

2.5 Bill Acceptor:

1. Manufactured by either a U.S. or Canadian based company.
2. Bill acceptor has a double-locking lockable, removable bill cassette (LRC).
3. Easily removed for servicing using a screwdriver.
4. Utilizes 12 VDC @ 2 Amp (max) for operation.
5. Capable of accepting \$1, \$5, \$10, \$20, & \$50 dollar bills.
6. Bill denomination acceptance is configurable.
7. Bills are stacked in a vertical position.
8. Bill acceptor is capable of stacking approx. 1000 bills.
9. Bill acceptor is able to accept bills in all four orientations.

10. Capable of verifying bill, transmitting information to controller, and holding bill in a non-stacked escrow position, pending approval to stack the bill, from the system controller. Otherwise, bill is returned.
11. Is upgradeable to accept changes in bill currency introduced by the government.

2.6 Coin Acceptor:

1. Manufactured by a U.S. based company.
2. Validates U.S. nickels, dimes, quarters and dollar coins.
3. Easily removed for serviceability -- no tools are required to remove coin acceptor.
4. Utilizes 12 VDC @ 1.1 Amp max for operation.

2.7 Credit Card Reader:

1. Manufactured by a U.S. based company.
2. Reads Track II encoded magstripe cards.
3. Easily removed for serviceability

2.8 Hybrid Card Reader (optional equipment):

1. Manufactured by a U.S. based company.
2. Reads Track II encoded magstripe cards and ISO 7816 SmartCards.
3. Easily removed for serviceability

2.9 Coin Bag:

1. Constructed of red canvas with a metal attachment mechanism to install below the coin acceptor.
2. Utilizes a locking system to prevent unauthorized entry.
3. Capable of holding a minimum of \$600 in coins.
4. Includes a locking system which, when removed, and is padlocked, will not allow access to the coins nor allow the bag to be re-inserted until the padlock is opened, and the locking mechanism within the coin bag is reset.
5. Activates a micro-switch which, when bag is removed, automatically signals the Pay Station to print a cash report and notify the Central Control Unit (if so configured) of the event.
6. Includes a clear plastic slot underneath the bag to store cash box tickets as they are issued during the coin collection process.

2.10 Thermal Printer:

1. Printer utilizes thermal printing technology.
2. Printer stores the dot pattern structure in an EPROM & FONT prom.
3. Printer is easily removed for servicing.
4. Printer paper roll is capable of dispensing a minimum of 4,500 receipts per roll.
5. Printer utilizes thermal paper capable of not turning black below 180°F.
6. Receipt length is adjustable with a standard width of 2 3/8".

2.11 Processor:

1. ARM7 processor
2. Ultra low-power operation

2.12 Power Supply:

1. Provides power to all internal components if AC main power fails.
2. Works battery back-up.
3. Utilizes “quick disconnect” type connectors on all interface cables.
4. On/off switch functions as a re-settable circuit breaker.
5. Red LED used to indicate power is ON.
6. Features power surge suppression/energy absorption.

2.13 Solar Power (optional equipment):

1. One 20Watt solar panel and mounting hardware

2.14 Security Sensor Suite (optional equipment):

1. Detects door opening and sends event to Central Control Unit.
2. Detects case intrusion, shock or vibration and sends event to Central Control Unit or Terminal Control Unit (if so configured).
3. Configurable sensitivity to guard against false alarms or false event notification.

2.15 Operating status monitor (optional equipment):

1. Detects and sends event messages to Central Control Unit, including printer/paper faults, coin acceptor faults, bill acceptor faults, coin hopper faults, power management faults and change level warnings.

2.16 Transaction Storage:

1. Pay Station data is automatically communicated to the Central Control Unit (for consolidation and storage).
2. Separate data structures are assigned for storage of transactions, operating status, system configuration, security, diagnostic and other types of data.

2.17 Transaction Processing:

1. The system supports a minimum of three transaction processing modes; on-line, networked and off-line.
2. During off-line conditions, Pay Stations continue to function in an off-line configuration and support the exchange of printed tickets for fee payment.

2.18 Pay Station Software:

1. The Pay Station software provides the following functions:
 - i. Network access
 - ii. Customer interface
 - iii. Enforcement user interface
 - iv. Currency handling

- v. Credit / smart card processing
 - vi. Printer interface
 - vii. Pay Station diagnostics
 - viii. Local database management
2. Pay Station maintenance, audit reports and stall information is accessible from the front display/keyboard.

2.19 Enforcement Reports:

Enforcement reports are printed by entering a user-definable password and can be obtained without unlocking the Pay Station door.

Enforcement reports can be obtained by space paid or by space unpaid.

2.20 Pedestals.

2.20.1 In-Ground Mount:

1. 6" x 6" x 20" square tubular steel with welded 1/4" thick mounting plate containing an opening for pulling power/communication lines through to pedestal top.
2. Color to be: Flat black.
3. Pedestal height is 20".

2.20.2 Surface Mount:

1. 6" formed steel with 1/8" top plate and hollow center for pulling power/communication lines through top of pedestal.
2. Color to be: Flat black.
3. Pedestals height is 6".

2.21 HARDWARE OPTIONS:

2.22 Power Management Unit:

1. Provides power to all internal components if AC main power fails.
2. Enables battery back-up.
3. Utilizes "quick disconnect" type connectors on all interface cables.
4. On/off switch functions as a re-settable circuit breaker.
5. Red LED used to indicate power is ON.
6. Features power surge suppression/energy absorption.

2.23 Card Reader Option:

1. Magstripe Card reader option can be supplied with any VENSTATION and can be mounted, using two screws, directly to the VENSTATION faceplate.
2. Hybrid Card reader is capable of accepting ISO 7816-3 Smart Cards and credit cards (Visa, MasterCard and American Express).

3 Management Software Options

3.1 General Specifications:

3.1.1 Hosting Software (Entry-level option):

1. Windows-compatible, requiring a commercial grade PC workstation.
2. Allows user to select options at the end of a rate period to include; clear/not clear money accumulated at the end of a shift/rate period, allow/not allow purchase of time exceeding the shift/rate maximum, allow/not allow purchase of time past the end of a rate/shift period, allow/not allow user to purchase time through a specified shift down time at no charge, allow/not allow purchase of time through a closed day at no charge, allow discounts based on the amount of time purchased.
3. Allows the user to select the rate for each individual day and have the ability to designate a day closed, or free parking day.
4. Allows user to configure a secondary daily rate structure to be activated by a specified day.
5. Allows time to be purchased in 15 minute blocks or by the minute.
6. Includes at least 6 rate tables for editing (optionally expandable).
7. Includes a minimum of 3 shifts per rate table (optionally expandable).
8. Rate tables allow user to select from the following options; select the time of day that each individual shift will begin, set the maximum amount of money that will be accepted in a given shift, set the expire time of a given shift, allow the purchase of multiple days, allow multiple day purchases to be either 24 hours from purchase date or 24 hours from expire time of a shift, allow for a period of time during a shift that the system will shut down, able to set a per minute rate, able to select the number of 15 minute blocks per hour and the rate to be charged for the 15 minute blocks, and is able to automatically print a receipt .
9. Allows rates to be edited by the hour (optional: by the minute).
10. Allows user to assign a three character, alpha numeric, designation for each Pay Station.
11. Allows a "minimum time" purchase to be set.
12. Able to set the start of a day.
13. Allows for an option to print/not print receipts.
14. Able to set a maximum number of tickets to be sold in a day.
15. Able to set an amount, that no bills above that amount will be accepted.
16. Able to set the maximum amount of money that will be accepted.
17. Able to set the maximum change to be given.
18. Able to use a token in place of the U.S. dollar coin and set the value of that token.
19. Able to select what to do in the event of a printer error.
20. Featured change options include; change only, no refund tickets, refund tickets only, no change, change first then refund tickets, reject bills over maximum available change when lit.
21. Able to set/modify credit card parameters to include; enable/not enable credit cards, accept/not accept American Express, MasterCard and Visa, accept/not accept a credit card when off-line, set minimum/maximum credit amounts and set a default amount.

22. Able to accommodate a minimum of 9000 spaces.
23. Able to vary rates by stall range, with a minimum of 5 changes.
24. Able to set an expiration window to show expired/going to expire stalls, on enforcement reports.
25. Able to set an enforcement access code.
26. Able to set an inactivity time-out for the backlight on the display.
27. Able to select, allow/not allow customer to extend time.
28. Able to modify the top line of printed receipts with 24 characters.
29. Able to modify 3 lines, 24 characters per line, on a refund ticket.
30. Able to set an "out of service" phone number.
31. Able to preset 97 days per year, to charge a special rate.

3.1.2 Central Control Unit and vendVIEW User Interface (Premium-level option):

1. System data (including transactions, security events, bank settlements, audit reports and enforcement information) is stored in a relational database.
2. Standard report interface contains a minimum of five (5) categories, including System Statistics, Revenue Reconciliation, Transaction Look-up, Pay Station Data and Enforcement (custom reporting is optional):
 - i. System Statistics reporting includes parking volumes for a user-defined time period.
 - ii. Revenue Reconciliation reporting includes lost sales, bank settlements, payments, daily transactions and monthly sales.
 - iii. Transaction Look-up reporting includes smart card use, sales transactions and lost cards.
 - iv. Pay Station Data reporting includes maintenance, card rejection, event status, cash pick-up and audit.
 - v. Enforcement reporting includes parking enforcement and stall transactions.
3. Logic in the Central Control Unit:
 - i. Warns of possible credit card reader faults or system level faults based on historic daily activity statistics.
 - ii. Supports the "velocity check" feature, limiting transactions per credit card in one business day.
4. Additional software features include:
 - i. Send configuration tables to the TCU & Pay Station, including but not limited to diagnostic levels and bad card files.
 - ii. Designate the time a new TCU or Pay Station configuration will take effect.
 - iii. Set the diagnostic level to none, error, warning or information.
 - iv. Send a bad credit card file to update credit cards that are to be rejected at the Pay Station.
 - v. Maintain an interactive list of declined credit cards to avoid attempts to re-authorize declined cards (financial institutions charge for each authorization attempt).
 - vi. Set the date and time.
 - vii. Consolidate and synchronize all Pay-by-space data sets to allow the use of any Pay Station to add time to a selected stall.
 - viii. Check the status of a selected stall.

- ix. View network status and indicate which Pay Stations are currently on-line or off-line.
- x. Remotely monitor the following areas; status, cash box, audit, power, and version.
- xi. View the amount of change available and the amount of money currently in the coin bag and bill vault.
- xii. View the current audit totals and current grand totals to include; cash, credit card, smart card, refunds and overpayment.
- xiii. View the current status of the following items; Bill Acceptor: disabled, jammed/not jammed, Bill Stacker: full/not full, Coin Acceptor: enabled/disabled and jammed/not jammed, Card Reader: present/not present, Cash Bag: installed/not installed, Door: open/closed, Lock: open/closed, Peripheral Power: on/off, Watchdog Timer: enabled/disabled and Change light: on/off.
- xiv. View information concerning the current software version being utilized.
- xv. Modify passwords required to initiate entrance to communications software and access and log on to remote systems

3.1.3 Rate Testing (All System Software options):

1. Software allows for testing the operation of a rate structure for cash, credit card and smart card payment.

4 Credit Card Support Software

4.1 General Specifications:

4.2 Data processing:

1. Credit card transactions are certified for various encrypted authorization formats, clearing houses and financial institutions.
2. Transactions can be processed in “online” (real-time) or batched in “offline” mode.
3. Visa, MasterCard and American Express are supported.
4. Processing software generates a log of all transactions and allows the log to be printed.
5. Transactions are stored in a relational database with powerful report generation capabilities.
6. Standard reports include but are not limited to:
 - i. a summary of revenue collections by lot or individual machine during a specific time period,
 - ii. summary of revenue generated in a lot or individual machine for a specified time period,
 - iii. report lot usage by specified purchase increments and time of purchase for a specified time period,
 - iv. report a detailed listing of all transactions for a lot or individual machine for a specified time period,
 - v. graph the number of paid stalls for a lot or individual stall for a specific time period,

- vi. graph daily lot or individual machine usage by total daily revenue for a specified time period,
 - vii. graph average paid stalls for a group of machines or lots for a specified time period.
7. All summaries, graphs, and charts can be set to differentiate between cash, credit card and smart card transactions.

5 Communications Software

5.1 General Specifications:

5.1.1 Digital Cellular or DSL Communications Software:

1. Communications software includes the following features; register with Internet, CDPD, GSR or 1XRTT digital cellular network, transmit/receive secure data packets, error checking and correction.
2. Password protected set-up and configuration.
3. In online operation all transactional and event data are transmitted to the Central Control Unit in real-time.