

VRX Company Inc.

Application Note: Installer Questions

Questions which will help CCTV security system installers and POS system installers determine the requirements for a Text Inserter for an application.

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Abbreviations and Phrases

ASCII	Standardized codes for characters used by most computers. For example the character "A" is code decimal 65.
BPS or bps	Bits Per Second
HEX	Short for Hexadecimal. A number system using base 16. Convenient for many computer numbers.
OSD	On Screen Display
PC	Personal Computer
POS	Point of Sale

Table 1 Abbreviations used in this manual

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Objective

The objective of this document is to help security system and POS system installers ask the questions necessary to determine the compatibility of the VR2003 Text Inserter and to identify accessories which are or may be necessary for the installation of the VR2003 Text Inserter.

POS type (or ATM or similar data system)

POS software vendor.

Please identify as much as possible about the POS vendor so that VRX Company can test compatibility for you.

POS System Hardware. _____

POS System Software. _____

Web site. _____

Exact name of POS vendor. _____

POS vendor

contact name, _____

phone number _____

and address. _____

POS hardware description

1. Serial or Parallel Pole display

Record manufacture _____

and model _____

2. Serial Printer

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Record manufacture _____
and model _____

3. Serial or Parallel JOURNAL Printer.

Record manufacture _____
and model _____

Description of physical instillation.

Serial interface. Description of CABLE connector,

Example DB9 Male, DB25 Male and Centronics connectors.



What is cable type and gender at POS and at peripherals.

Typical PC serial port has DB9 with male pins. So a typical serial pole display will have a female end on the connector.

Serial Port Setup

The serial COM port parameters of:

- BPS or Bits Per Second
- Number of data bits
- Parity, Even, Odd or None
- Number of stop bits.
- Flow Control also known as handshaking

The preferred setup is 9600 bps, 8 data bits, Parity none, 1 stop bit and no flow control for customer display (pole display) and hardware for Journal printers..

Handshaking requirements. To determine if the POS has hand shaking requirements, disconnect the serial pole display or serial printer and check the POS system for normal operation

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or an error messages caused by disconnecting the peripheral.
Caution: This test may not be fool proof. Some systems may not report an error message. Some POS send control codes to the printer to request printer status.

Serial Interface Settings by Epson Self Test.

For applications using the very common Epson serial printers the printer can make hard copy of the serial interface setup.

From an EPSON manual here is how to use the Self Test to find out.

Running the self test

1. Make sure the printer is turned off and the printer covers are closed properly.
2. While holding down the FEED button, turn on the printer using the switch on the front of the printer to begin the self test. The self test prints the printer settings and then prints the following, cuts the paper, and pauses. (The PAPER OUT light blinks.)
Self test printing.
Please press the PAPER FEED button.
3. Press the FEED button to continue printing. The printer prints a pattern using the built-in character set.
4. The self test automatically ends and cuts the paper after printing the following:
*** completed ***

The printer is ready to receive data as soon as it completes the self test.

Note:

If you want to pause the self test manually, press the FEED button. Press the FEED button again to continue the self test.

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Example receipts

Provide example of the receipts for all transaction types.

Normal transactions

Transactions with taxable and no taxable items

Transactions with Voids.

No Sale or cash drawer events.

Return or refund events.

Other unusual transactions.

Serial Data Capture

Use the methods suggested in the VRX application note [How To Capture Serial Port Data Using PC](#) at:

<http://www.vrxinc.com/documents/Application%20Note%20Serial%20Data%20Capture%20VRXINC%20.pdf>

Capture to files the receipts corresponding to all the example receipts suggested above.

HEX DUMPS

HEX Dumps on receipts corresponding the all the example receipts suggested above.

HEX DUMP mode on Epson printers.

To use the Epson hex dump feature, follow these steps:

1. After you make sure the printer is off, open the cover.
2. Hold down the FEED button while you turn on the printer.
3. Close the cover.
4. Run any software program that sends data to the printer.

The printer prints “Hexadecimal Dump” and then all the codes it receives in a two-column format. The first column contains the hexadecimal codes and the second column gives the ASCII characters that correspond to the codes.

Hexadecimal Dump

1B 21 00 1B 26 02 40 40 ! . . & . @ . @

1B 25 01 1B 63 34 00 1B . % . . c4 . .

41 42 43 44 45 46 47 48 ABCDEFGH

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A period (.) is printed for each code that has no ASCII equivalent.

During the hex dump all commands except **DLE EOT** and **DLE ENQ** are disabled.

5. Open the cover to set the printer off line, so that it will print the last line.
6. Close the cover and turn off the printer or reset it to turn off the hex dump mode.

Data capture with VRX EJournal(TM)

Please visit our web site to learn more about our Ejournal capture software.

Parallel interface setup

There are three common modes for the PC parallel port interface. You may need to try all of them to get error free data to your text inerter and the parallel peripheral.

Set for SPP or similar.

Loss of Power Requirements

Will your application best be powered by a USB or Wall transformer? To consider, when power to the Text Inserter is lost, there is no video pass through. So even if your cameras and DVR have battery power you will not have camera video. If you want camera video you need a UPS for the Text Inserter. You may achieve this three ways.

The POS may have a UPS and if so you may be able to get power from a USB port conveniently. You may also be able to get power to a wall transformer too to the POS UPS. Finally, a dedicated UPS for the Text Inserter may be used. UPS required?

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Inquire about DVR type

DVR System Hardware. _____

DVR System Software. _____

Web site. _____

Exact name of DVR vendor. _____

DVR vendor

contact name, _____

phone number _____

and address. _____

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Still Having Questions?

If you are still having understanding these questions or have a situation not anticipated by this document, please look for updated information on our web site at www.vrxinc.com

Contact the VRX Company Inc at support@vrxinc.com or by calling 1-866-543-8398 9-5 Eastern Time.

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