

POS Integration



Point of Sale (POS) Compatibility

To know whether it is possible to integrate your POS system with our DVR, please check whether the type of printer the POS system supports match one of the condition below:

- Serial Epson Printers
- Parallel port Epson Printers using AVerDiGi POS Capture Box
- Serial printers that supports plain ASCII text printout
- Parallel printers that supports plain ASCII text printout using AVerDiGi POS Capture Box

AVerDiGi POS Capture Box

- Compatible with: AVerDiGi NV Series
- Input: RS-232 port from POS
- Input: Parallel port from POS
- Output: RS-232 port to printer
- Output: Parallel port to printer
- Output: RS-232 port to DVR
- Output: RS-485 (9600 to 19200bps)
- Baud Rate Setting: 9600, 19200, 57600, 115200 bps
- DC IN: DC 5V, 2A



The POS Capture Box is use as a serial splitter and parallel to serial converter. Additionally, it provides a RS232 and RS485 connection to the DVR.

Cables to Use

There are two kinds of serial cable: Straight pass-through and Null-Modem.

- If you are connecting the POS system directly to the DVR, you need to use Null-Modem cable.
- If you are using the POS Capture Box, you need to use the straight pass-through cable provided with the POS Capture Box.
- If you are using no flow control or software flow control, we recommend using the Null-Modem serial cable without handshaking.
- If using hardware flow control, we recommend using loop back handshaking.

Choose your null modem cable				
	Cable without handshaking	Loop back handshaking	Partial handshaking	Full handshaking
Software flow control only	+++	++	+	+
DTE/DCE compatible hardware flow control at low speeds	-	+++	++	-
DTE/DCE compatible hardware flow control at high speeds	-	+	+++	-
High speed communication using special software	-	-	++	+++

+++	Recommended cable
++	Good alternative
+	Works, but not recommended
-	Does not work

What are the possible methods to integrate the POS with Surveillance DVR?

Method 1

■ Criteria:

- POS System can print out to Serial COM port a.k.a. RS232 port.
- Surveillance DVR is within 10 meters.

■ Setup:

- Simply use a RS232 NULL Modem cable to connect the POS System directly to the Surveillance DVR.



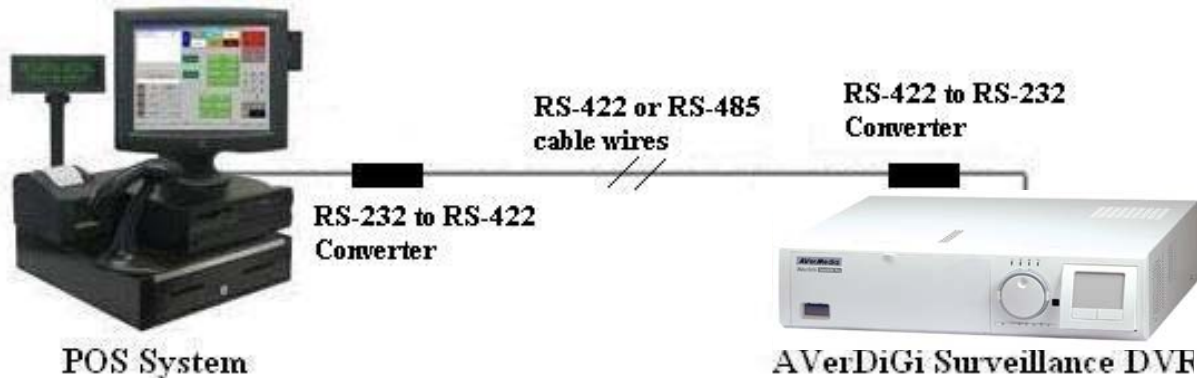
Method 2

■ Criteria:

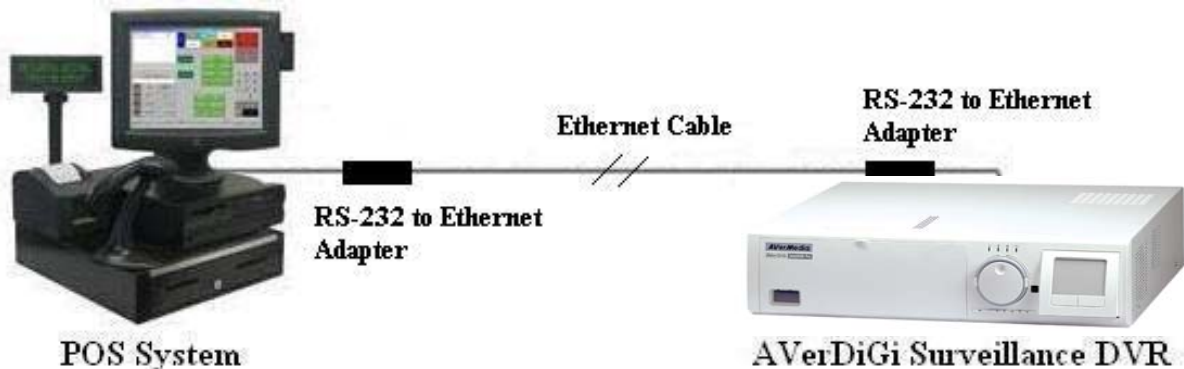
- ➔ POS System distance from the Surveillance DVR is greater than 4000 feet and POS supports serial / RS-232 protocol

■ Setup:

- ➔ Two RS-422 to RS-232 converters are needed.
 - The RS-422 to RS-232 converter will need to be purchased separately – <http://www.rs485.com/prs422s.html>



- ➔ Alternatively, you can use two RS-232 to Ethernet adapters.



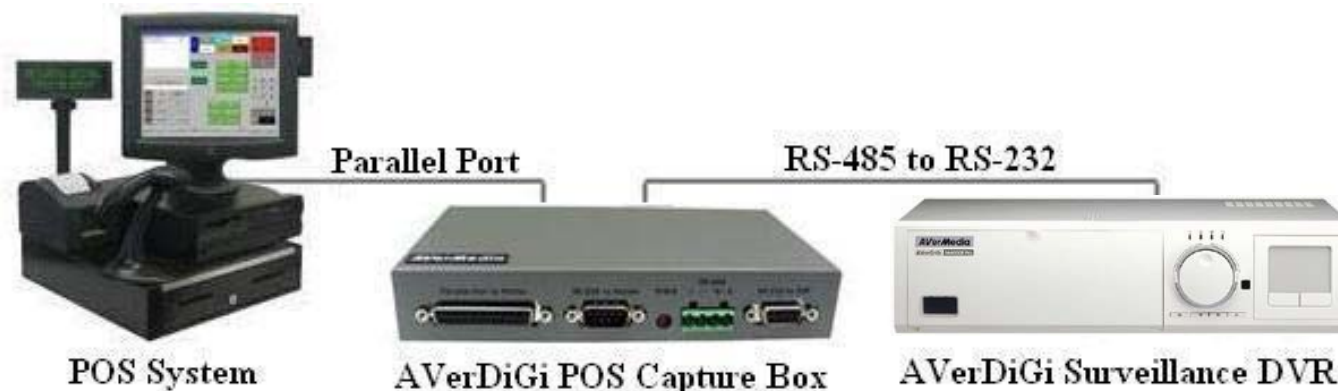
Method 3

■ Criteria:

- POS System using Parallel printer port requires our AVerDiGi POS Capture Box.

■ Setup:

- Connect the POS System's parallel port to the AVerDiGi POS Capture Box, using the provided cable packaged with the POS Capture Box.
- Set AVerDiGi POS Capture Box DIP switch to Parallel mode, DIP 3 = ON. DIP 4 = OFF
- Connect the AVerDiGi POS Capture Box RS-485 to the DVR's RS232 a.k.a. Serial COM port, using an RS-422 to RS-232 converter.
 - If the DVR is within 10 meters from the POS System, you can also use a straight pass-through RS232 cable to connect from the AVerDiGi POS Capture Box to the DVR.



Method 4

■ Criteria:

- No Serial or Parallel printer port available on the POS System.

■ Setup:

- All POS System have pole display, which is typically a serial out. You can split the pole display using a Serial Y-splitter and run one end into the COM port on the DVR system.

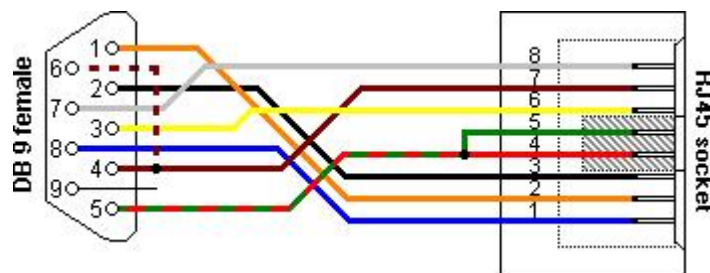
Method 5

■ **Criteria:**

- POS System using RJ45 printer port with standard serial signal. If the Ethernet port is sending TCP/IP protocol packets, then it is not supported.

■ **Setup:**

- You will need to buy a RJ45 to RS232 converter or create one using the diagram below.



- Use the RJ45 to RS232 converter and a RS232 Null Modem cable to connect the POS System to the Surveillance DVR



Setting up the DVR

Step 1: Run the NV DVR program.

Step 2: In the Preview/Advanced screen mode, click on Setup.

Step 3: When the NV DVR configuration setup selection appears, click System.

Step 4: In the System Setting window, click on Setting under POS section.

Step 5: In the POS Console Setting window:

- Click on Add to set a new POS setting
- Modify to change the POS setting
- Delete to remove the selected POS setting
- Click OK to save and close POS Console Setting

Step 6: In the POS Mapping window:

- **POS Name:** Enter a name to identify the POS
- **Protocol:** Select General for Epson compatible printer or for TP_3688
- **Use COM:** Select the COM port number to where it is connected
- **Setup...:** Set the COM Properties. Change the Bits per second or flow control, if it is necessary.
- **Skip first:** Set the number of lines you want to be removed.
- **Map to Channel:** Select to which camera number to display the transaction text
- **Text Filter:** Enter the text that you want to be removed

Troubleshoot

- Step 1:** Download and extract RS232_Capture.exe to your desktop from http://www.aver.com/software/RS232_Capture.zip
- Step 2:** Connect a NULL Modem cable from the POS system to the DVR's serial COM port.
- Step 3:** Configure the POS system to 9600 baud rate, 8 data bits, 0 parity, 1 stop bits, none flow control.
- Step 4:** Run RS232_Capture.exe and Connect using the same configuration as Step 2.
- Step 5:** Do a POS transaction to print out the receipt.
- Step 6:** Disconnect on the RS232_Capture.exe
- Step 7:** A file captureXX.dat is created with the data that is captured from the serial / COM port. This file is in the same location as the RS232_Capture.exe.
- Step 8:** Use Windows WordPad to open the captureXX.dat file. If the POS receipt data is seen in the captureXX.dat, then the POS is sending data to the DVR serial port. Otherwise, check to see if the correct cable is used and POS Settings are correct.

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