

POS video character overlay device

NE-POS-9801

Hardware Version: V1.0

File Version: V1.0



Jinan IEM Co.,Ltd produces and sells Dynamic video character superposition unit . We would like to provide customized service for our customers. Welcome manufacturers and dealers to OEM and ODM.

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1. Product introduction

1.1 Introduction

This machine is used to supervise and display supermarket cash register information. It is applicable to parallel and serial POS. This device can display all the information printed by POS on the TV monitor via parallel or serial data collection without changing the original equipment function.

It is helpful for the supermarket cashier personnel supervision to accurately know the supermarket POS machine current print information. At the same time, added information and video image can be saved to hard disk recorder. It will provide direct evidence for future reference and customer dispute.

1.2 Features

1. Adopting aluminum alloy shell, break resistant and anti extrusion;
2. Video loop function and surveillance video will not lose if on-screen display is power off;
3. All the printer signal lines are one-way chip transmission and it won't have any interference on POS machine;
4. Parallel port printer and serial printer are automatic recognition. It doesn't need to set up;
5. It is totally compatible with ESC/POS instruction set, supporting most of the POS machine. It can provide upgraded procedures for the uncommon POS print data format;
6. It is easy to set up, only need to access parallel or serial cable and video line to OSD;
7. Characters can be "black side shows, in the video is bright environment still can clearly see that shows character;
8. Can display up to 12 rows, 46 characters per row;
9. Easy installation, only will parallel or serial cable and video cable access equipment;
10. Video monitoring function, when monitoring video head bad or not access video source, equipment automatically generate a video signal for character superposition;
11. Video input and output adopt imported amplification chip processing , ensuring the signal quality;
12. Video connector is standard BNC connector, convenient construction;
13. Remote upgrade function: There is no need to return factory if the software of OSD changes. We will provide upgrade package for remote updating.

1.3 To solve two key problems in supermarket monitoring

1. To eliminate the cashier cheating effectively

As usual, we can only see cashier action in monitoring picture but in can't show whether the label has been replaced, product is scanned or not, and sell products in accordance with discount price. This system can display cash register information associated with video image. Thus it facilitates the security staff can be more intuitive, work more efficiently.

2. To solve customer disputes effectively

OSD could superpose all information printed by the printer to the video monitor screen and the information can be stored through hard dish recorder. When customer disputes occur, the video will be obtained to solve disputes.

1.4 Order model

Name	Model	Explain
POS video character overlay device	NE-POS-9801-P	Suitable for parallel printer
POS video character overlay device	NE-POS-9801-S	Suitable for serial port printer

1.5 Item List

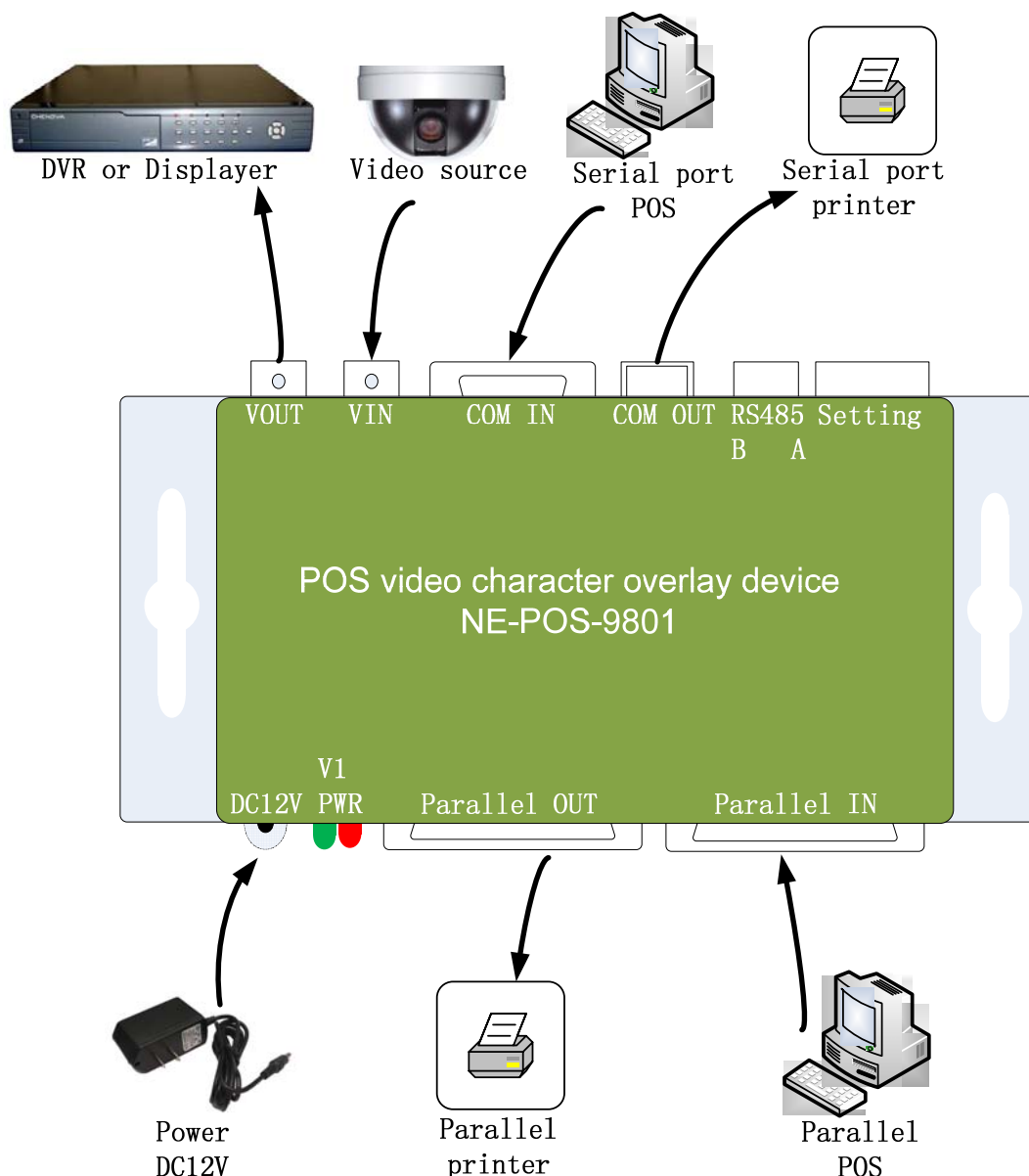
1. POS video character overlay device
2. DC12V power adapter
3. A parallel cable or serial cable (NE-POS-9801-P With parallel cable, NE-POS-9801-S With serial cable)
4. CD-ROM

2. Structure and parameters

2.1 Working principle

POS video character overlay device will the printer signal through the specific circuit and processing by microprocessor, then with the camera output video signal superposition for new graphic video signal, to display.

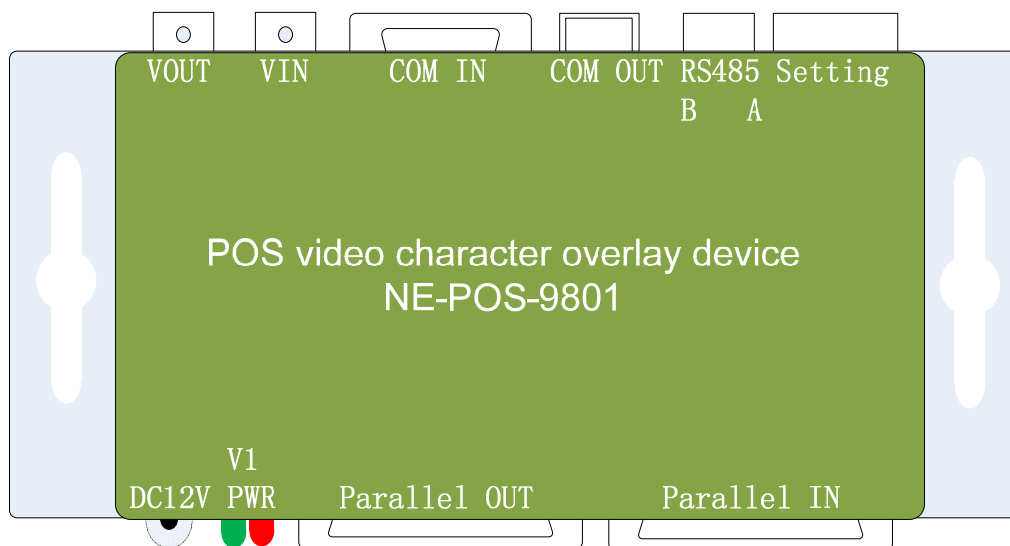
POS video character overlay device work structure schematic diagram as follows, just add a parallel cable or serial cable and access superposition unit in the original video signal line.



Note: the same time only allow access one POS machine.

2.2 POS video character overlay device structure and function

According to the function is divided into video parts, power section, the data parts, lamp parts, as follows.



Label name	Function declaration
DC12V	Equipment power supply interface, the use of 12 v dc power supply
PWR	Equipment power light (Red led)
V1	Equipment work lamp (green led)
Parallel OUT	Using parallel POS machine, connect the printer parallel
Parallel IN	Using parallel POS machine, joint POS machine parallel port
VOUT	Normal operation, the output video with superimposed text, NE-OSD-9801 does not work (such as power failure), it can still output the video signal (without superimposed text), to ensure that the video signal is not lost.
VIN	Video signal input port
COM IN	Use serial POS machine, joint POS machine serial interface
COM OUT	Use serial POS machine, connect the printer serial port
RS485 B	NC
RS485 A	NC
Setting	NC

Equipment front view



Equipment rear view

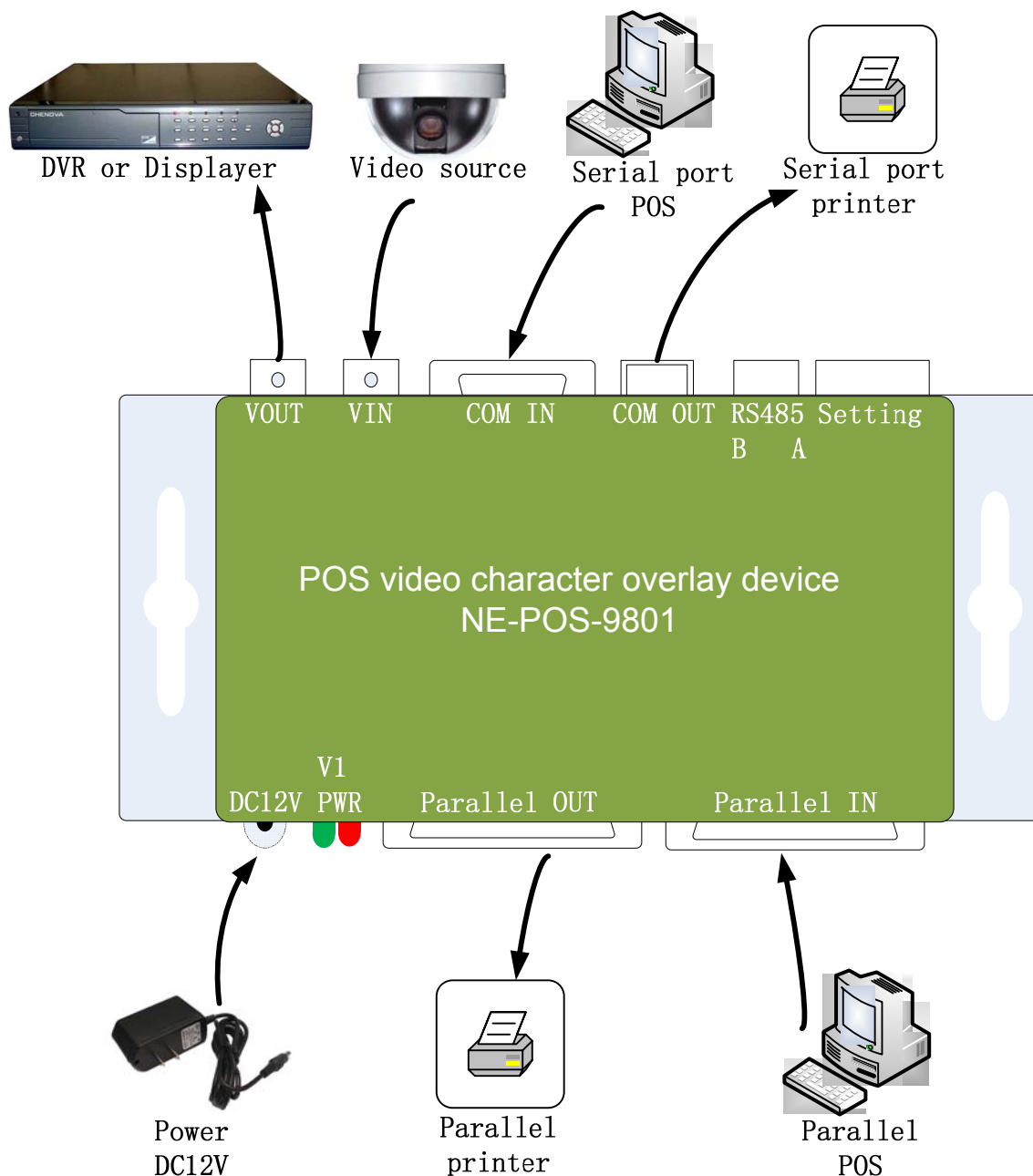


2.3 Technical parameters

Video Input	BNC, 1Vp-p(75Ω)
Video Output	Normal operation, the output video with superimposed text, NE-OSD-9801 does not work (such as power failure), it can still output the video signal (without superimposed text), to ensure that the video signal is not lost.
Amplifying circuit	Level 3 amplification
Frequency response	10Hz ~6MHz ±3dB
Color signal	500 metres; 6 MHZ (- 5 coaxial cable)
clamp	Average
Compensation gain	0~105dB
Low frequency compensation	1kHz~0.5MHz, 0~30dB
Intermediate frequency compensation	0.5MHz~2MHz, 0~30dB
High frequency compensation	2MHz~6MHz, 0~30dB
anti-interference	Data correction redundancy technology
Character frequency	Broadband 6 MHZ, can with any video signal superposition
Power supply voltage	DC12~24V
Work consumption	<5W
Environment temperature	-40℃ - 50℃
Relative humidity	< 90%
Host size (mm)	114 (L) X 129 (W) X 30 (H)

3. How to Install

This system comes with flexible and default setting up. Users can install the device directly without configuration. Please refer to the following pictures.



Note: The POS device with parallel port mustn't be joined up to superimposer together with POS with serial port.

3.1 Power

The system has its special anti-interference and stable-voltage circuit. The input power ranges from 12v to 24v. One power adapter which can change voltage from 220V to 12V will be available. If the device is powered normally, the PWR will turn red and V1 will glint.

3.2 Video signal connection

Disconnect the original monitor and video server. Use BNC to connect the monitor with POS video character overlay device.

3.3 How to install POS with parallel port

1. How to install parallel POS

Disconnect the original parallel line between POS and the printer and connect it to input port of the superimposer.

Use the factory equipped parallel line to connect the parallel output port and the printer.

Supply power for superimposer.

2. How to install serial POS

Disconnect the original serial line between POS and the printer and connect it to input port of the superimposer.

Use the factory equipped serial line to connect the parallel output port and the printer.

Supply power for superimposer.

4. Contact

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5. Update History

Established Version V1.0 on July 10th,2012.