

# Thermal Receipt Printer

## Thermal Receipt Printer User Manual



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Please keep user manual for reference



## Attention

- Put printer on stable surface. Choose firm, level surface where avoid vibration.
- Don't use and store printer in high temperature, high humid and serious polluted place.
- Connect power adapter properly to grounded receptacle. Avoid using the same socket with large power consumption devices that can lead to power fluctuation.
- Avoid water or other objects go into printer. Once happened, turn off printer immediately.
- Print without paper roll will damage printing head seriously.
- Unplug printer from power receptacle if do not use it for a long time.
- Only use approved accessories, never try to disassemble, repair or remodel it.
- Use standard power adapter.
- Use high quality paper, this ensures the printing quality and life of printer.
- Please turn off power before plug/ unplug cable.
- Printer is used only under 5000 meters.

## Applications

- \* POS system
- \* EFT POS system
- \* Gym, post, civil aviation system
- \* Inquiry, service system
- \* Instrument test
- \* Tax, Tab

## Packing

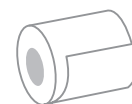
### Printer & accessories

User manual	1PC
Printer	1PC
Serial/USB power cable	1PC
Power adapter(24V)	1SET
Paper roll	1ROLL
Driver	1PC

## Features

- 260mm/s、300mm/s high printing speed.
- Support kitchen, network printing.
- 80-120mm large capacity paper house .
- High speed text and graphic printing, Excellent printing quality and reliable performance.
- Support printer status monitoring function, Control printer's status at any time.
- Avoid order missing.
- Receipt coming alarm and error alarm reminder.
- Driver high speed download printing mode, Support Linux system.
- Support black mark detection and overtype function.
- Support 256k Bytes NV logo download store and print.
- Serial + USB + Lan interface.
- Better sealing performance for mechanism and printer, Mechanism life can reach to 100km and Auto cutter life with 100 million cuts.
- Support QR Code Printing.
- Support Chinese GB18030.
- Multiple international can be optional, Simplified/traditional Chinese are convertible by command.
- Built in web page, Setup printer directly through IE port.
- 58MM/80MM paper roll can be optional.

Avoid order missing



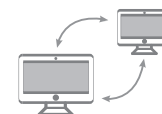
High printing speed



Support QR Code printing



Support network printing



Support OPOS driver



Support international languages

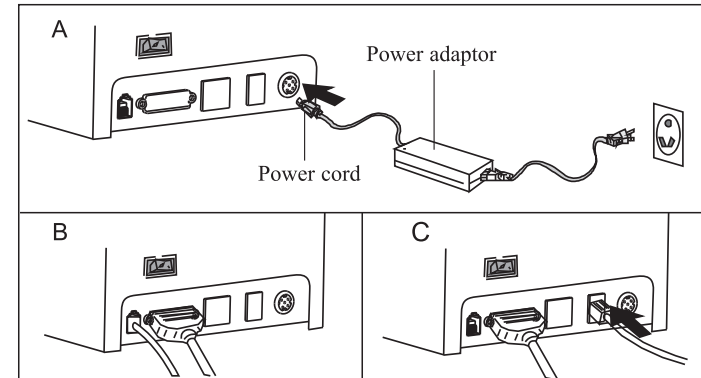


## Specifications

Printing method	Direct thermal
Printing speed	260mm/s、300mm/s
Black mark detection	Support
Network monitoring	Support
Roll paper	79.5 ± 0.5mm
Column capacity	576 dots/line or 512 dots/line
Character size	ANK, Font A: 12×24 dots Font B: 9×17 dots simplified/traditional Chinese: 24×24 dots
Command	Compatible with ESC/POS
Interface (optional)	Serial+USB+LAN, USB+Parallel
Auto cutter	Partial
Reliability	Printing head life:100 km
Barcode	UPC-A/UPC-E/JAN13(EAN13)/JAN8(EAN8)/ CODE39/ITF/CODABAR/CODE93/CODE128
Auto cutter	Full or Partial (optional)
2D Bar code	QR CODE
NV flash	256k Bytes
Input buffer	2048k Bytes
Paper thickness	0.06~0.08mm
Adaptor input voltage	AC 110V/220V, 50~60Hz
Power supply	DC 24V ≍ 2.5A
Printer input voltage	DC 24V ≍ 2.5A
Cash drawer control	DC 24V ≍ 1A
Working environment	Temperature (0~45°C), humidity (10~80%)
Storage environment	Temperature (-10~60°C), humidity (10~90%)
Drivers	Win 9X/Win 2000/Win 2003/Win XP/Win 7/Win 8/Win 10/Linux

## Connection

- Connect AC power cord to power, DC power cord to printer.
- Connect printer and computer/ tablet.
- Connect cash drawer.

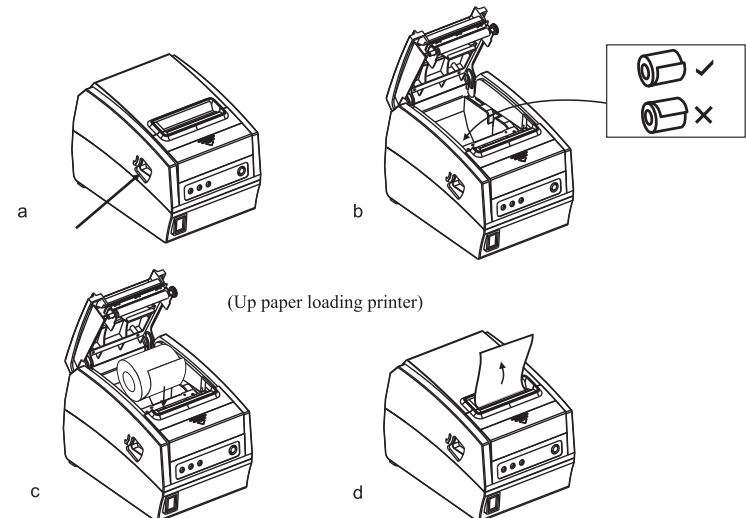


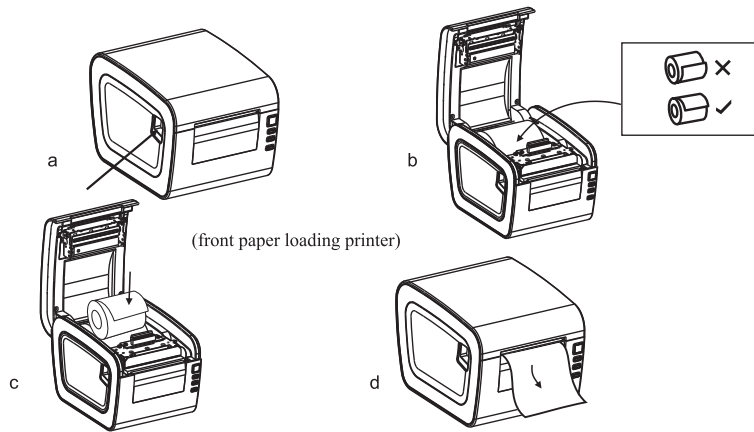
## Paper roll loading

80mm thermal paper roll recommended to 80mm series printers.

The method of paper loading is as below:

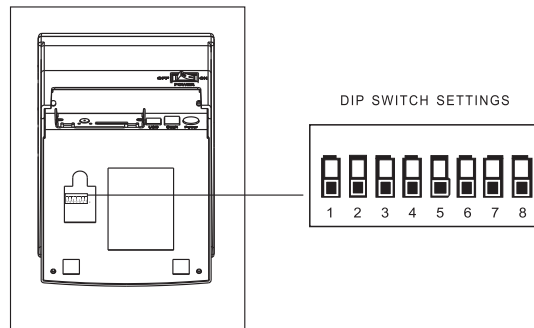
- Open top cover
- Drop paper roll in the hole as below
- Pull the paper into the paper holder, then close top cover
- Print one self-test to make sure paper correctly installed.





### Setting printing Mode( DIP Switches)

DIP switches can be changed settings, such as: cutter, languages, beeper, print density baud rate etc.



### DIP Switch functions

DIP Function					
No.	Function	ON	OFF		
SW-1	Select cutter	NO	YES		
SW-2	Select beeper	YES	NO		
SW-3	Select print density	DARK	LIGHT		
SW-4	Two-byte character code	NO	YES		
SW-5	Character per line	42	48		
SW-6	Cutter with cash drawer	YES	NO		
SW-7		ON	OFF	ON	OFF
SW-8		ON	ON	OFF	OFF
Transmission speed (bps) - bit/s	38400	115200	9600	19200	

### DIP Switch functions (several models only)

DIP Function				
No.	Function	ON	OFF	
SW-1	Select cutter	NO	YES	
SW-2	Select beeper	YES	NO	
SW-3	58mm	YES	NO	
SW-4	Two-byte character code	NO	YES	
SW-5	Character per line	42	48	
SW-6	Cutter with cash drawer	YES	NO	
SW-3	OFF	OFF	ON	ON
SW-5	OFF	ON	OFF	ON
Character per line	48/64CPL	42/56CPL	32/42CPL	32/42CPL
SW-7	ON	OFF	ON	OFF
SW-8	ON	ON	OFF	OFF
Transmission speed (bps) - bit/s	38400	115200	9600	19200

### Button name, indicator LED light and function

#### (1) FEED button

Press to FEED paper manually.

#### (2) Paper indicator(LED light)

Blue and red light are on means lack of paper, no alarm means all goes well.

#### (3) Power indicator

Light is on means connected properly.

#### (4) Error button

When out of paper, cutter error or printing head overheat occurred, the ALARM indicator twinkles.

### Self Test

Method: When printer is connected power, turn off , press “FEED” button and turn on at the same time, 2 seconds later release “FEED” button, a completed self test will be printed out to show printer settings.

### Method to enter hexadecimal mode

Method: When printer is connected power, press“FEED” button and turn on at the same time for about 10 seconds, release “FEED” button to enter data hex dump mode. it will print “Hexadecimal Dump”on the paper.

## Reset

Method: When printer is connected power, press“FEED” button and turn on at the same time for about 20 seconds, reset succeed if beeper peals.

## QR Code function

### 1、QR Code: Set unit size

[Command Code]

ASCII: GS (0 g n

Decimal: 29 40 107 48 103 n

Hex: 1D 28 6B 30 67 n

Function Description: Set the unit size of QR Code into "n"

Parameter Range:  $1 \leq n \leq 16$

Default n = 3

Note: N dot = Unit width = Unit height

The ESC @ command setup failed when printer is powered off and reset.

### 2、QR Code: Set up error correcting grade

[Command Code]

ASCII: GS (0 i n

Decimal: 29 40 107 48 105 n

Hex: 1D 28 6B 30 69 n

### 3、Function Description: Set up QR Code error correcting grade,

The meaning of parameter “N” is as below:

n	Instruction	Correct proportion (%)
48	Grade L	7
49	Grade M	15
50	Grade Q	25
51	Grade H	30

$48 \leq n \leq 51$  Parameter Range:

n = 48 Default:

Note: QR Code used RS algorithm to generating error correcting Code and the command setting will be expired when printer was reset and powered off.

## QR Code: Data transmission to code cache

[Command Code]

ASCII: GS ( 0 nL nH d1...dk

Decimal: 29 40 107 48 103 nL nH d1...dk

Hex: 1D 28 6B 30 80 nL nH d1...dk

Function Description: Setting QR Code data transmission to code cache

Parameter Range:  $4 \leq (nL + nH \times 256) \leq 2710$

$32 \leq d \leq 255$

Default: None

Note: After receiving, The data will be kept until reset of next time.

K byte d1...dk be regarded as coded data

D1...dk only can contain below data in the table.

Charactersheet	Including below character in the table
Figure	“0”~“9”
Letter and figure	“0”~“9”, “A”~“Z”, SP, \$, %, *, +, -, o , \ , :
Chinese Character	GB18030-2000, Shift-JIS, JISX0208 standard
8 bits data	00H~FFH

The ESC @ command setup failed when printer is powered off and reset.

## QR Code: Printing QR Code of code cache

[Command Code]

ASCII: GS ( 0 ?

Decimal: 29 40 107 48 129

Hex: 1D 28 6B 30 81

Function Description: Printing the encoding data of QR Code code cache

Parameter Range: None

Default: None

Note: If the QR code size beyond printing area, Printing will be cancelled

If the code cache data is empty, Printing will be cancelled.

## Cutter stuck maintenance

### Method (1)

Turn off the power and then restart.

### Method (2)

Turn the gear on printing head , cutter can be returned to its original position.

**⚠ Notice: To avoid the damage of the printing head and automatic paper cutter, please do not open cutter and mechanism violently.**

## USB port and Virtual Com Port exchange command set

Command code

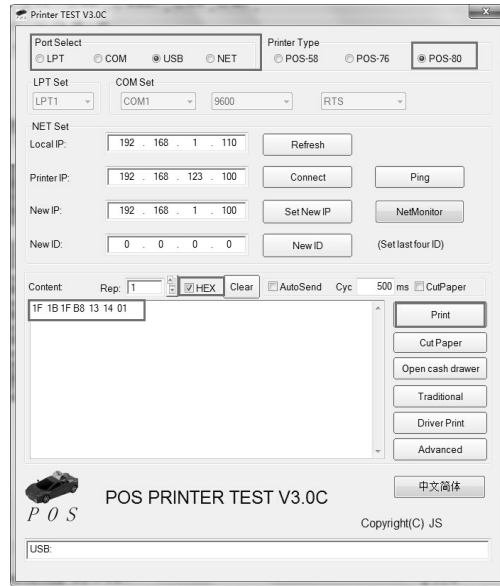
Decimal: 31 27 31 184 19 20 N

Hex: 1F 1B 1F B8 13 14 N

Description: Through above command sets could exchange Real USB port and Virtual Com Port

Range: N=0 USB;N=1 Virtual Com Port.

(Must printer connected accordingly) As shown in below picture.



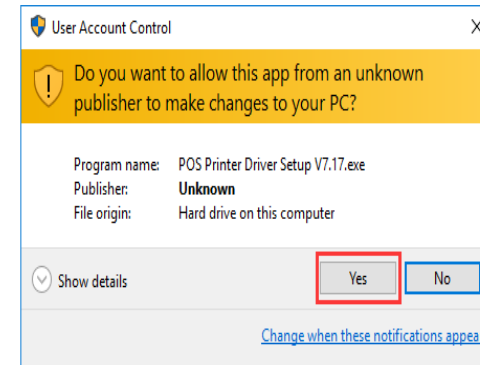
## Driver installation

Two method: 1) Install driver directly.

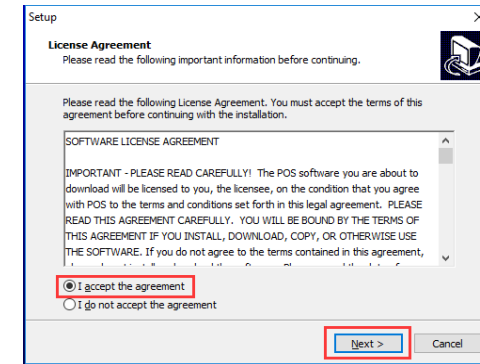
2) Printing via port directly.

### 1) Install driver under WINDOWS OS (Steps as below):

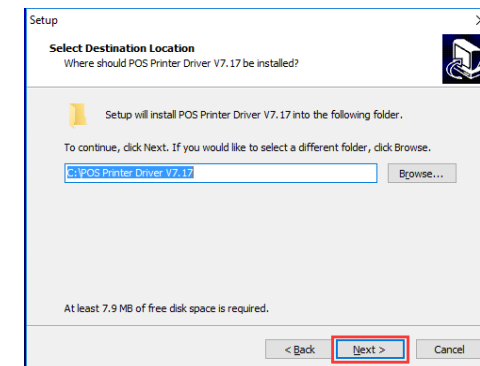
1.Double click driver.



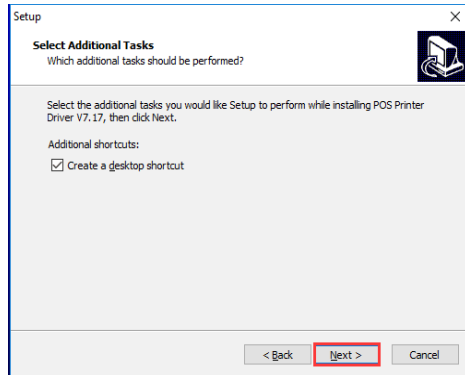
2.Select: I accept the agreement.



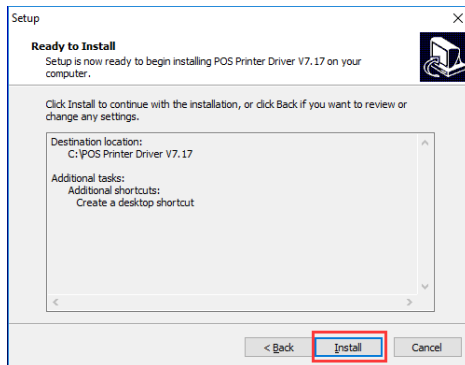
3.Default installation folder.



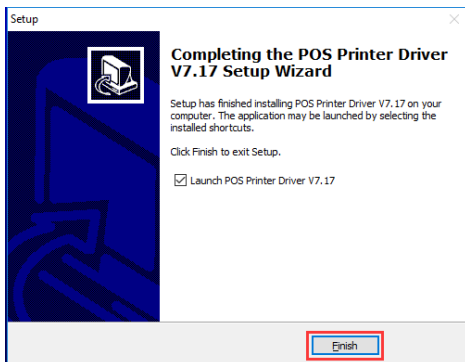
4. Create a shortcut on the desktop.



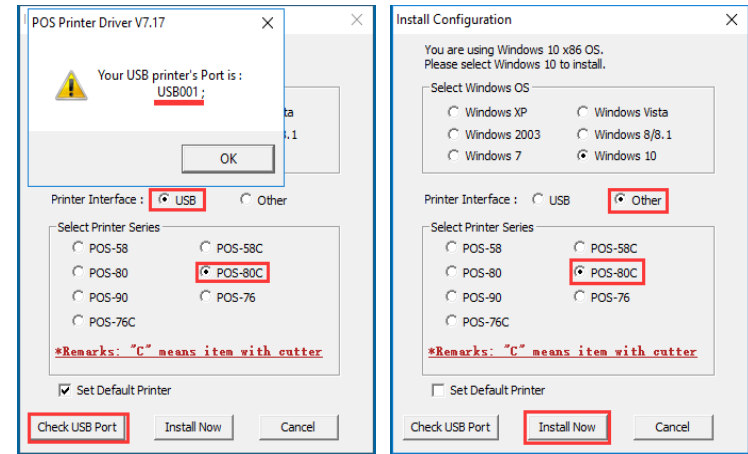
5. Install by below instruction:



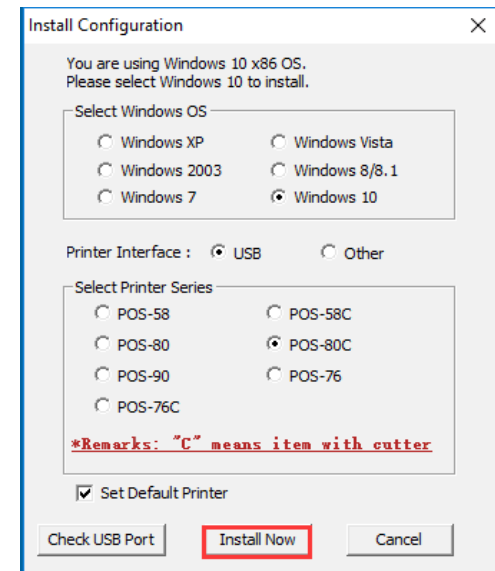
6. Finished.



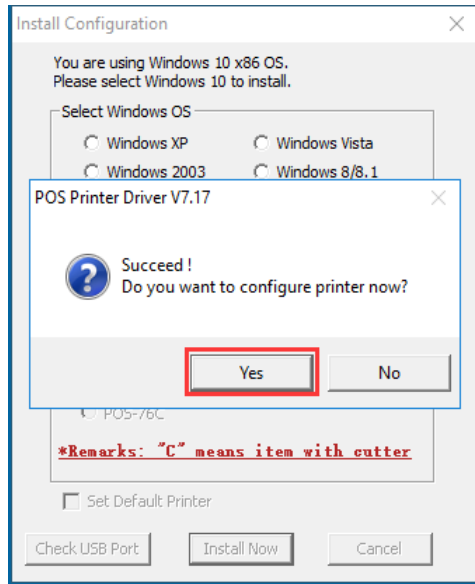
7. Choose the right port, shown as below:



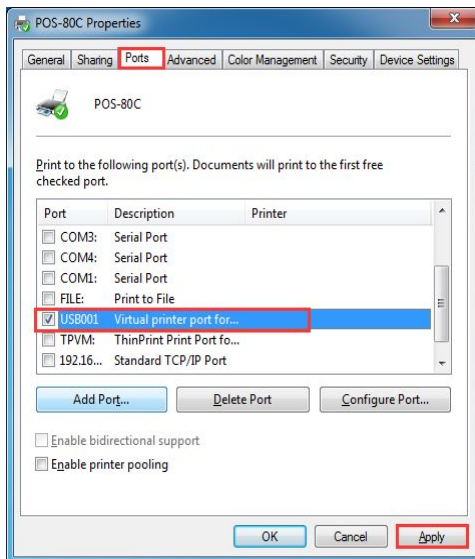
8. Choose the right series, shown as below:



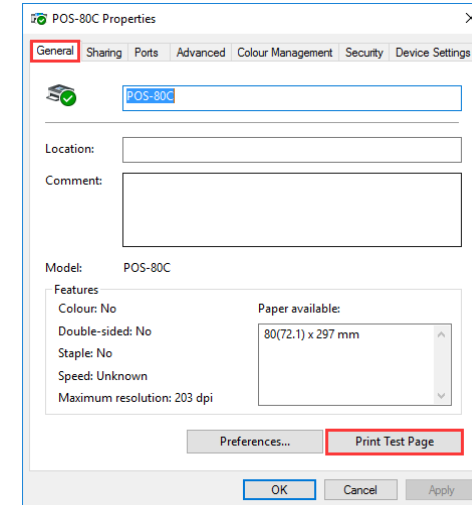
9. Click “OK” to configure the port.



10. Choose the detected USB001, click apply, shown as below :



11. Select general and print test page.



## 2) Printing via port directly

- No need to install printer driver. Directly choose a right port (i.e., USB, LAN, Serial, Parallel) in software.
- Printing via port needs commands to control printer, ESC/ POS commands are integrated directly itself.

## Clearance

One of the followings occurred, please clean printing head.

- Printing is not clear
- Any vertical column is not clear
- Paper feed noisily.

## Printing head cleaning steps:

- Turn printer off, release power cord. Open top cover, take out paper roll.
- Wait till printing head cooling if it just finished printing.
- Clean printing head completely using swab with alcohol (without water).
- Until alcohol completely volatilized, close top cover.
- Connect power again, print self test to check if it is clean.

### ⚠ Notice:

- Please make sure power off when maintaining printer.
- Don't touch or scratch printing head surface, roller and sensors.
- Avoid gas, acetone or other organic solvent.
- Wait till alcohol completely volatilized, close top cover and connect power again. Try print self test to make sure it works properly.