THERMAL RECEIPT PRINTER USER'S MANUAL

MODEL: S420

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1.Features and Performance

1.1 Printing performance

- Printing method: thermal line printing
- Printing paper width: 56mm ± 0.5mm
- Printing density: 203dpi
- Printing speed: about 60mm/s
- Reliability
  Print head lifespan: 50km
  Conditions of use:
  * Print 12x24 Western characters, 50 lines at a time, repeated intermittently
  * Print no more than 25% of each dot line simultaneously, vertical repeat print at the same point per character no more than 11 times
  * Use the designated thermal paper
- Effective printing width 48mm

1.2 Printing paper

- Thermal printing paper roll type
- Thermal paper roll size:
  Paper width————56mm±0.5mm
  Maximum outer diameter————50mm
  Paper thickness————0.06-0.08mm

1.3 Printing characters

- ANK character set
  12x24 point 1.5 (width) x3.0 (height) mm
- National Standard Level 1 and Level 2 Chinese Character Library
  24x24 point 3.0 (width) x3.0 (height) mm

1.4 Interface type

- USB Interface
- Power Interface

1.5 Print control command

- Character print command, support ANK characters, custom character and Chinese character double width and double height proofing, adjustable character and line spacing
- Dot plot print command: support dot plot printing with different densities and downloaded graphic printing
- GS barcode print command

1.6 Power requirements

- Internal power supply DC9V ± 10%, 2.5A, external power supply 220V AC

1.7 Working environment

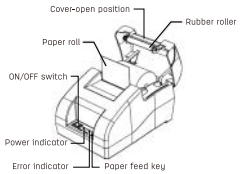
- Operating environment: -10~+50 ℃ Operating relative humidity: 10~80%
- Storage environment: -20~+60 ℃ Operating relative humidity: 10~90%

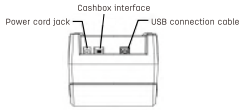
1.8 Overall dimensions

- (180)x(130)x(110)mm

2.Operating Instructions

2.1 Printer appearance





2.2 Paper installation

S420 printer uses a 56mm wide thermal paper roll

Installation steps for the thermal paper roll are as follows:

1.When the print head is out of paper, do not press the (FEED) key to avoid affecting the lifespan of the print head. As shown in Figure 2.1, pull up the paper bin knob to open the paper bin and replace the paper roll.

2.After the paper bin cover is closed, do not manually pull paper forward or insert paper backward.

2.3 Interface connection

1.USB interface: standard B-type USB interface (female port).

2.Power connection: S420 printer has an internal power supply of DC9V ± 10%, 2.5A, and an external power supply of 220V AC 1A.

3.Cashbox Interface: RJ11-6pin.

2.4 Indicator and key operation

Power switch: power-on or power-off.

Paper feed key: press once to feed 10mm of paper.

Status indicator: indicates various errors.

Please refer to the "S420 Indicator and FEED Key. pdf" document on the official website.

2.5 Self-test

Self-tests can detect whether the printer is operating normally. If the self-test sample can be printed correctly, it indicates that other parts of the printer are working normally besides the communication interface with the host. Otherwise, maintenance is required.

Self-test items include the software version number, communication interface information, and example characters, etc.

The self-test method is to hold down the (FEED) key, press the ON/OFF key to turn on the machine until the

red light flashes once and then release the key. At this point, the printer will print out the self-test list.

3.Driver Installation and Printer Program Upgrade

3.1 Driver Installation

Please refer to the "POS58 Driver Installation Manual.

3.2 Upgrade of printer program and word library

Please refer to the "S420 USB Updater and Word Library. pdf" document on the official website.

4.User Tools and Testing

4.1 User tools usage

4.1.1 Open "S420 Portsetting. rar" in the user tools folder and extract it to the current folder.

4.1.2 Please refer to the "S420 Parameter Setting Tool and Testing - Instructions for Use. pdf" document on the official website.

Appendix 1 Safety Instructions

Follow the following precautions when using the printer

⚠ Attention! Do not disassemble the printer by yourself. Please read this manual carefully before use.

⚠ Warning! Turn off the power immediately when a malfunction occurs. When you notice smoke or odor from the printer or power adapter, immediately unplug the power cord and be careful not to get burned.

⚠ Warning! Do not use the printer near flammable places such as gas stations and fuel warehouses.

⚠ Warning! When charging, be sure to place the printer and power adapter in a ventilated area with an ambient temperature of -5 ° C to 40 ° C, and be sure to use the power cord provided by the manufacturer. The use of unauthorized power cords may cause danger and violate the manufacturer's repair terms.

⚠ Attention! When the printer is printing, do not open the paper bin cover, otherwise, unexpected

situations may occur and damage the printer.

⚠ Attention! At the end of printing, the print head is still very hot. Do not touch it to avoid burns.

⚠ Attention! Do not use dissolved substances such as benzene, diluent or alcohol to wipe the printer casing. Keep the printer away from corrosive chemicals or cleaning agents. Only gently wipe the printer with a clean soft cloth.

⚠ Attention! Although the printer can operate stably at temperatures between -10 ° C and 50 ° C, excessively high ambient temperatures (45 ° C) or excessively low ambient temperatures (-5 ° C) can lead to a decrease in printing quality.

⚠ Attention! The retention time of handwriting after printing on thermal printing paper depends on the quality of the thermal printing paper. To print documents that require long-term storage, choose long-lasting thermal printing paper.

Warning! Only suitable for safe use in areas with an altitude below 2000 m.

Warning! Only suitable for safe use in non-tropical climate conditions.

Appendix 2 Repair and Maintenance

Routine maintenance of printer

(1) Printer core cleaning: The printer core must be cleaned regularly, especially when the printing quality decreases. Gently wipe the printer core with an absorbent cotton dipped in anhydrous alcohol.

Use and storage of paper roll

(1) New printing paper should be stored away from direct sunlight or high temperatures, and the packaging paper should not be torn off during storage.

(2) The printed documents should be stored in a dim environment at around 20 ℃ to effectively extend the document retention time.

(3) If you need to retain the documents for a long time, choose long-lasting thermal printing paper.

Fault diagnosis

Fault phenomenon	Fault causes	Actions
The printer only feeds paper when printing, and no data is printed	Printing paper installed backwards	Install the printing paper in a different direction
Vague printing	Long term failure to clean the printer resulted in contamination of the printer core by dirt	Clean the printer core
	Poor color development of printing paper	Reset the printing blackness and printing speed to ensure printing paper can fully develop color development effect
Printing documents become illegible within several months or even several weeks	Poor printing paper	Choose thermal printing paper with a longer retention period
	Temperature of the storage and usage environment too high	Store them at room temperature of around 20℃
The red light flashes 8 times and repeats at intervals	Print head overheated	Stop printing until the printer has cooled down
The red light flashes 7 times and repeats at intervals	The paper bin cover is not closed properly (only applicable to S420)	Close the paper bin cover
The red light flashes 6 times and repeats at intervals	Printer out of paper or paper wander	Install the printing paper correctly
The red light flashes 5 times and repeats at intervals	Unknown error	Contact the customer service
The red light flashes 3 times and repeats at intervals	Inable to search for black mark	(Not applicable to S420)
The red light flashes 2 times and repeats at intervals	Cutter error	(Not applicable to S420)

Note: Inferior printing paper can lead to vague printing in a short period of time.

Appendix 3

Printer parameters

Printing parameters	
Printing method	Thermal line printing
Resolution	203dpi (8 points/mm)
Printing width	48mm
Printing speed	60mm/s (12.5% printing density)
LED display light	Printer status display
Print instructions	ESC/POS, Label, CPCL (Optional)
Print contents	Texts, images, curves, and one-dimensional barcodes: UPC-A, UPC-E, EAN-8, EAN-13, Codabar, Code39, ITF, Code128, Code93, etc. Dimensional codes: QR Code, PDF417, DataMatrix.
Communication parameters	
USB	USB Type-A/B Interface
Power adapter parameters	
Input	AC220V 50/60Hz 1A
Output	DC 9V±10%, 2.5A
Paper parameters	
Paper Type	Thermal paper ticket/thermal label paper
Paper form	Roll type
Paper specifications	Width 56 X Diameter 50 (mm)
Paper thickness	0.06mm-0.15mm

Other parameters	
External dimensions	180mm x 130mm x 110mm (length x width x height)
Location mode	Label detection
Supported platforms	32-bit and 64-bit Windows /Linux/Mobile/Android/ISO

Special Disclaimer:
While information of this manual has been rigorously checked and reviewed, we still cannot rule out the possibility of spelling mistakes and technical negligence and/or errors. Such negligence and/or errors will be corrected in the updated version(s) without further notice. The intellectual property of this manual belongs to our company, and no organization or individual is allowed to change the content.

CERTIFICATE

Inspector: _____

Date of Manufacture: _____

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KEEP FOR FUTURE USE

Version: 1.0
Date: 11-2023

WARRANTY CARD

Thank you for your purchase of our products. The interests of customers who purchase our products will be protected by the national laws and regulations. If quality problems, please contact authorized local dealers or service centers with this warranty card for repairing.

Warranty terms:

1. For product failures occur under normal operating conditions, free of charge repair and spare parts replacement service shall be provided by our company within one year commencing from date of purchase.
2. Customers should provide the product and the warranty card to the company or authorized repair centers upon request for warranty service. This warranty card shall be valid only after the following form is filled out in details and affixed with official seal of the dealer.
3. Our company shall not provide repair and service in the event of any of the following circumstances:
   (1) Expiration of the warranty period.
   (2) Damages caused by improper use, maintenance or storage not in accordance with the requirements of the instruction manual.
   (3) Failure or damage resulting from unauthorized disassembly, repair or modification.
   (4) Failure or damage caused by force majeure.
   (5) Wear parts or accessories.

This warranty card is being delivered with the product, one card for one product. Please keep this warranty card in proper condition for free warranty service. There is no replacement if lost.

Date of Purchase: _____ Y _____ M _____ D

Product information	Product Name		Serial Number		
	Product Model Number		Now Software Edition		
Customer information	Company Name			Contact	
	Address			Phone	
Dealer information	Dealer Name			Contact	
	Address			Phone	
	Date of Purchase			Invoice No.	
Maintenance Record	Maintenance Date	Maintenance Reason	Maintenance Content	Maintenance Technician Signature	Next Maintenance Date

This copy shall be cut along the dotted line and kept by the dealer.

Product information	Product Name		Serial Number		
	Product Model Number		Now Software Edition		
Customer information	Company Name			Contact	
	Address			Phone	
Dealer information	Dealer Name			Contact	
	Address			Phone	
	Date of Purchase			Invoice No.	
Maintenance Record	Maintenance Date	Maintenance Reason	Maintenance Content	Maintenance Technician Signature	Next Maintenance Date