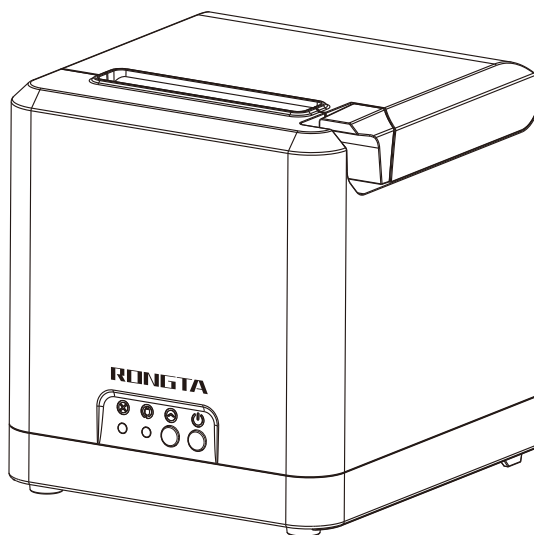


RONGTA

User Manual

58MM THERMAL RECEIPT PRINTER ACE G1N



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I. Product Introduction

Thank you for purchasing the ACE G1N thermal receipt printer produced by our company. This thermal receipt printer provides you with safe, reliable and efficient printing quality at a reasonable economic price. At the same time, ACE G1N is widely used in supermarkets, hospitals, restaurants, banks, gas stations, road and bridge toll collection and other fields due to its super functions and easy operation.



1.1 Main Features

- High printing quality
- Low noise
- Support cashbox drive
- Beautiful, stylish and generous
- Reasonable structure, simple use and maintenance
- Built-in data buffer that receives print data when printing
- USB port, parallel port, serial port, or Ethernet port can be selected for communication.
- The characters can be enlarged, bolded, underlined. And it can adjust the line spacing and the left-right spacing for printing.
- Supports bitmap downloading and graphic printing with different densities
- Realize high-speed printing equivalent to calling built-in and cartridge font in the mode of driver printing (dot map)
- Low power consumption and low operation cost (color tape and ink cartridge are not required)
- It is compatible with ESC/POS print instruction set

II. Safety Instructions

Before operating and using the printer, please carefully read the following items and strictly observe the use rules.

2.1 Safety warning

-  The print head will become very hot during printing, please do not touch the printhead and peripheral parts during printing and printing just finished.
-  Please do not touch the printhead and connectors, in case that static damages the printer head.

2.2 Instructions

 **Warnings: Violating following instructions may cause serious injury or death.**

- 1) Do not plug several products in one porous power outlet.
 - This may cause over-heat and a fire
 - If the plug is wet or dirty, dry or wipe it before using.
 - If the plug does not fit perfectly to outlet, do not plug in.
 - Be sure to use only standardized porous power outlet
- 2) You must use the supplied adapter.
 - It is dangerous to use other adapters.
- 3) Do not pull the cable by pulling.
 - This may damage the cable or cause a fire.
- 4) Do not plug in or unplug with your wet hands.
 - You may be electrocuted.
- 5) Do not bend the cable by force or leave it under any heavy object.
 - A damaged cable may cause a fire.

 **Note: Violating following instructions may cause slight damage of the appliance.**

- 1) If you observe a strange smoke, odour or noise from the printer, unplug it before taking following measures.
 - Switch off the printer and unplug the set from the mains.
 - After the disappearance of the smoke, call your dealer to repair it.
- 2) Install the printer on the stable surface.
 - If the printer falls down, it may be broken and you may hurt yourself.
- 3) Use the approved accessories only and do not try to disassemble, repair or remodel it by yourself.
 - Call your dealer when you need these services.
 - Do not touch the blade of auto cutter.

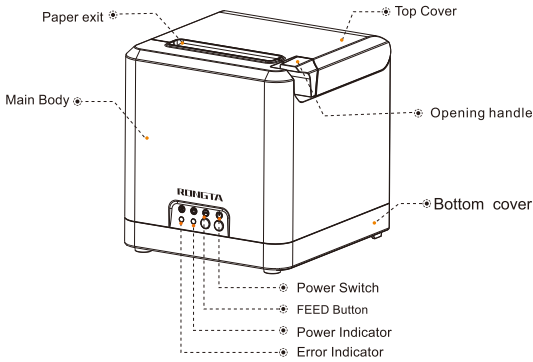
- 4) Do not let water or other foreign objects drop into the printer.
 - If this happened, switch off and unplug the printer before calling your dealer.
- 5) Do not use the printer when it is out of order. This can cause a fire or an electrocution.
 - Switch off and unplug the printer before calling your dealer.
- 6) Other considerations:
 - Place the printer on a solid and even base so that it cannot fall.
 - Leave enough space around printer for operation and maintenance.
 - Keep all liquids away from the printer.
 - Do not expose the printer to high temperatures, direct sunlight or dust.
 - Ensure the printer is connected to a socket with the correct mains voltage.
 - Switch off the printer POWER supply when it's not in use for a long time.
 - To ensure the printing quality and reliability, suggest use the same quality or recommend paper supplier.
 - Pls. switch off the POWER supply when connect/disconnect all the ports or it will cause damage to the printer control circuit.
 - Never carry out maintenance or repair work yourself. Always contact a qualified service Technician.
 - Keep this User Manual in a place which is easily accessible at all times.

2.3 Other Precautions

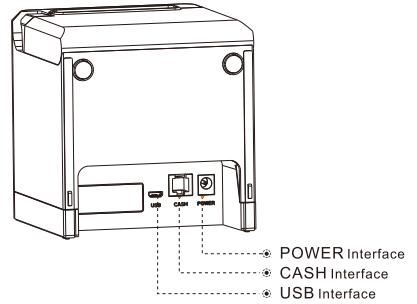
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III. Appearance and Components

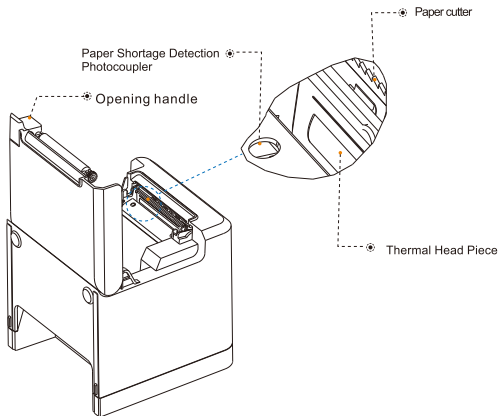
Front View



Rear View



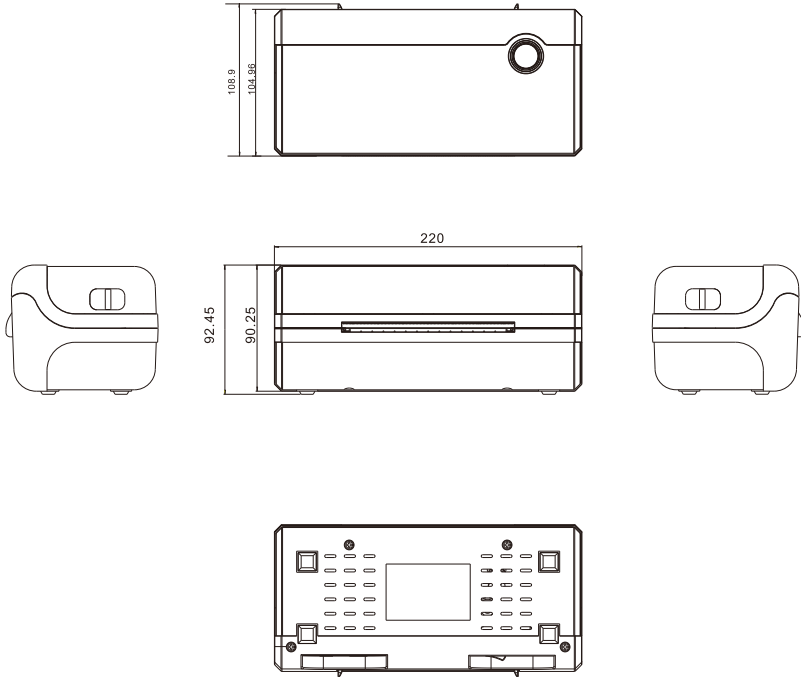
Inside View



Application Field

- ECR POS system receipt printing
- Query/service system receipt printing
- EFT POS system receipt printing
- Measuring instrument information printing
- Sports, postal and civil aviation receipt printing
- Tax receipt and bill printing

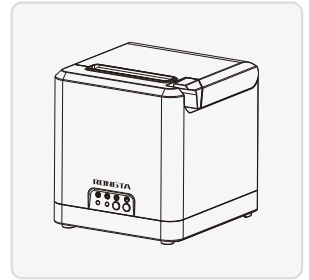
Dimension



IV. Technical Parameters

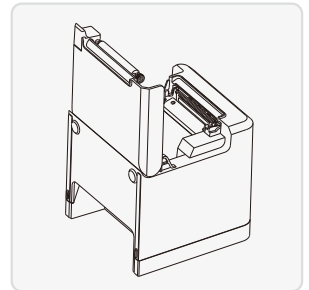
4.1 Printing Parameters

Model	ACE G1N
Printing method	Thermal line printer
Printing speed	90mm/s MAX
Printing paper width	57.5±0.5 mm
Effective resolution	203 dpi
Thickness of printing paper	0.06-0.08mm
Effective printing width	48mm
Dot density	384dot/line
Character size	ASCII Font A: 12x24 ASCII Font B: 9x17 Chinese character 24x24
Line space	3.75mm(Use the command to adjust the line space)
Size of receive buffer	2KBytes



Print character

ASCII character set	12x24 dot, 1.25 (width)X3.00 (height)mm
National Standard Class I and II Chinese Character Font	24x24 dot, 3.00 (width)X3.00 (height)mm
Type of bar code	One-dimensional code : UPC-A,UPC-E,EAN-13,EAN-8,CODE39, ITF, CODEBAR, CODE93, CODE128; QR code: QR CODE.
Extended character table	PC437, Katakana, PC850, PC860, PC863, PC865, WPC1252, PC866, PC852, PC858 etc., 10 international languages in total



Power supply

Power adapter	AC 100 ~ 240V
Input power supply	DC 8.5V 2 A
Cashbox output	DC 12V 2 A

Service life

Service life	The service life of print head (Remove the thermal printer mechanism): 50 kilometers
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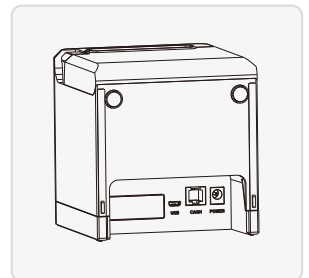
Environmental requirements

Working environment	Operating temperature: 0~ 45°C, operating humidity: 10~80%
Storage environment	Storage temperature:-10 ~ 60°C, storage humidity: 10~90%

Environmental conditions

Drive	XP,Win7,Win8,Win10,ios, Android, Linux,MacOS
Print command	ESC/POS command compatible
Character printing	It supports double width and double height printing of AN K characters, custom characters and Chinese characters; adjusts dot patterns of character spacing for printing;

printing of dot patterns It supports printing of dot patterns with different densities and downloaded graphics






The pictures are for reference only, please subject to practicality

4.2 Printer Indicators

Type of printing paper Thermal paper rolls recommended	Thermal printing paper
Type of paper rolls	Specifications: AF50KS-E Manufacturer: Jujo Thermal Oy(Finland) Specifications: TF-50KS-E Manufacturer: Nippon Paper Industries Co., Ltd ⚠ Attention (1) To get the best results from the printer, choose the recommended paper or other paper with equivalent quality, otherwise the printing quality will be affected and even the service life of thermal print head will be reduced. (2) Please do not use the paper roll that the end glued on the core of the paper roll, otherwise it may cause damage to the printer. (3) If the printing paper is contaminated by chemicals or oils, it may fade or reduce the sensible heat degree, and affect the printing effect. (4) Do not rub the surface of the printing paper with hard articles, otherwise it may cause fading. (5) The print paper will fade if the temperature is up to 70°C, keep it out of direct sunlight, humidity and high temperature.

4.3 Printer Interfaces

Diagram	Type	Illustration
	USB	Universal USB Interface (Standard Micro USB)
	Cashbox control	The 6-wire RJ-11 socket, outputting DC 12V/2A power signal to drive the cashbox.
	Power interface	Power plug DC 8.5V.

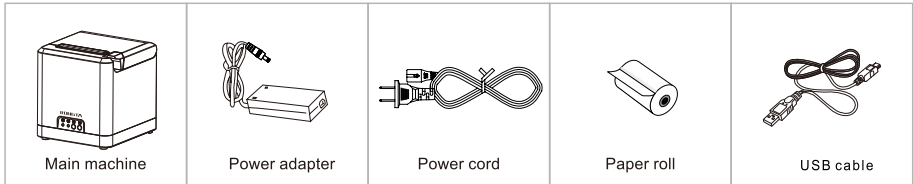
☹ **Note:** The interface is optional or customized, and the specific interface is subject to the actual object.

V. Installation and Operation of Printer

5.1 Printer Unpacking

Check the parts:

Before use, make sure the accessories are included in the package(the following picture is an example). If any thing is missing, contact the supplier or manufacturer. The specific accessories may not be included depending on the printer model.

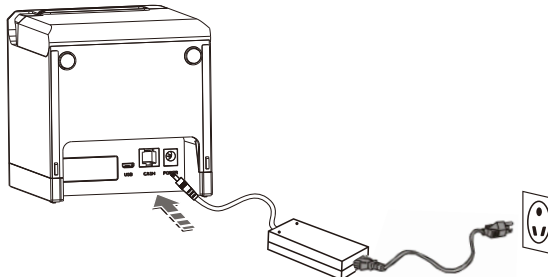


☺ The pictures are for reference only, please subject to practicality

5.2 Connecting the Printer

- (1) Make sure that both the printer and the PC host are turned on, plug the matching data communication cable into the printer's data interface, and plug the other end into the serial port/parallel port /USB/ network port of PC host.
- (2) If equipped with an electrically openable cashbox, insert the RJ-11 connector on the cashbox into the cashbox interface of the printer (the specifications of the cashbox must conform to the printer cashbox drive specifications).
- (3) Connect to the special power adapter of the printer.

**Use the special power adapter for the printer.
The connection diagram is as follows:**



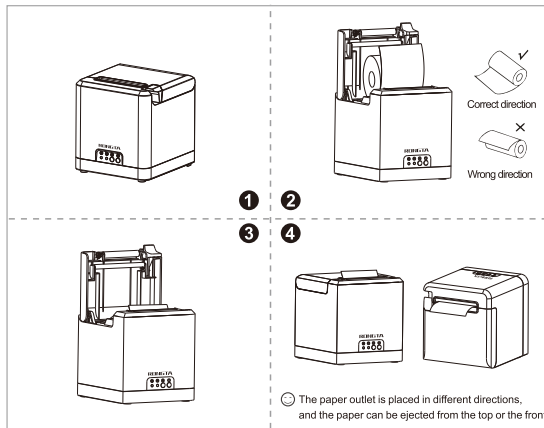
Attention:

- (1) First plug the power plug DC8.5V of the printer, then switch on the AC220V power supply, and then turn on the power switch. Do not reverse the sequence, otherwise the machine will be damaged.
- (2) Using an improper power adapter will make the printing quality worse and even damage the printer.
- (3) Do not connect the telephone line to the cashbox interface, otherwise the printer and telephone may be damaged.
- (4) When plugging in the printer power cord, please hold the arrow position of the printer power connector with your hand (do not plug in the cord of the printer power cord with your hand). Forcibly plucking the flexible cord of the printer power connector or pulling the printer power cord may cause damage to the printer or the power adapter.

5.3 Loading Paper

The 58mm thermal receipt printer uses 58mm thermal paper rolls and adopts an easy paper loading mechanism, which is very convenient for paper loading.

The Installation Method of Thermal Paper is as Follows:




- (1) Open the upper cover of the printer (figure 1).
- (2) Insert the roll paper as shown in the 2 illustration.
- (3) Pull out a part of paper, and close the cover as shown in the 3 and 4 illustration.
- (4) Tear off the paper with the cutter (figure 4).

VI. The Switch, Key and Indicator Light of Printer

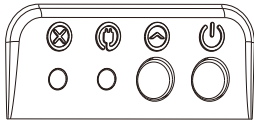
6.1 Power Switch

The power switch controls the flow of power to the printer. The power switch is located In front of the printer. When you press the power button, turn on the printer, the power indicator light will be green, press the power button again, Then turn off the printer and the power indicator light goes out.

 Attention: Make sure the power supply is connected before turningb on the printer.

6.2 Keys and Indicators

 The keys and indicator panel as shown in the following figure:



 The function description of keys and indicators:

Press the FEED button once to advance paper o hold down the FEED button to feed paper continuously.

Hold down the FEED buttonand turn on the product at the same time to print the self-test.

POWER Indicator:It is always on when connected to the power supply

ERROR Indicator:The ERROR indicator will flash in case of printer error, such as paper shortage, paper jam, overheating of print head, print head error or other abnormalities.

VII. Self-test of Printer

Self-test can detect whether the printer is working normally. If the Self-test list sample can be printed correctly, it indicates that everything is normal except the connection interface with the host computer, otherwise overhaul is required. In the self-test, it will print the software version number, print density, interface type, English characters and some Chinese characters in sequence.

The operation method of self-test is: after the printer is connected, press and hold the feed key first and then turn on the power supply of the printer. First, the printer will reset and detect, and release the feeding button less than 5 seconds after the reset is completed. At this moment, the printer will carry out self-test and print the self-inspection list sample.

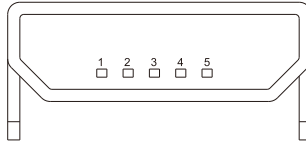
The printer prints the following content after self-test:

Selftest

**** Completed ****

VIII. USB Interfaces

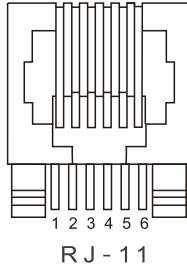
The printer's USB interface slot is a standard Micro USB



PIN	SIGNAL NAME
1	VBUS
2	D-
3	D+
4	NA
5	GND

IX. Cashbox Interfaces of Printers

The cashbox interface of the printer adopts RJ-11 standard, 6-wire socket, and outputs DC 12V/2A power signal to drive the cashbox. Insert the RJ-11 crystal connector of the cashbox into the cashbox interface to open the cashbox through the printer.



The functions of each pin of the cashbox interface of the printer are defined as follows:

Pin number	Signal	Description
1	NC	NC
2	Dk1	Negative pole of cashbox 1#
3	DK-1N	Start detection
4	PWR	Positive pole of power supply/cashbox
5	Dk2	Negative pole of cashbox 2#
6	NC	NC

☺ Select the interface definition above to purchase a cash drawer.

X. Cleaning the Printer

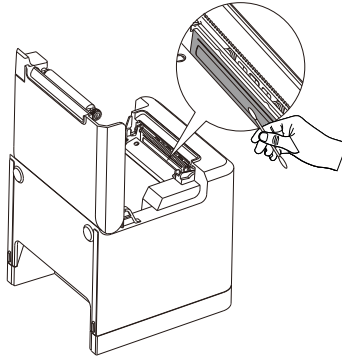
10.1 Cleaning the Printer Head

Clean the print head when one of the following conditions occurs to the printer:

- (1) Printing is not clear;
- (2) A vertical column of the printed page is not clear;
- (3) The paper feeding noise is high.

The print head cleaning steps are as follows:

- (1) Disconnect the power cord, open the upper cover and remove the paper if exists.
- (2) If printing has just been completed, wait for the print head to cool completely;
- (3) Clean the printer head with a soft cotton moistened with ethyl alcohol.
- (4) After waiting for absolute ethyl alcohol to volatilize completely, close the cover and try printing again.



10.2 Cleaning the Sensor

Clean the paper shortage sensor when one of the following conditions occurs to the printer:

- (1) In the printing process, the printer occasionally stops printing and alarms for paper shortage;
- (2) It does not give alarms for paper shortage.

The paper shortage sensor cleaning steps are as follows:

- (1) Turn off the power supply of the printer, open the upper cover, and remove the paper if there is any;
- (2) Wipe off the dust and stain on the sensor surface with soft cotton cloth (which should be dried) dipped in absolute ethyl alcohol.
- (3) After waiting for absolute ethyl alcohol to volatilize completely, close the cover and try to start the machine again.

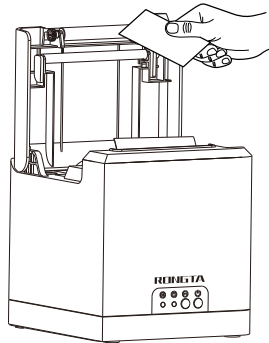
10.3 Cleaning the Printing Rubber Roller

When one of the following conditions occurs to the printer, the printing rubber roller should be cleaned:

- (1) Printing is not clear;
- (2) A vertical column of the printed page is not clear;
- (3) The paper feeding noise is high.

The printing Rubber Rollers cleaning steps are as follows:

- (1) Turn off the power of the printer and open the upper cover;
- (2) Use a soft cotton cloth (which should be dried) dipped in a neutral detergent to wipe off dust and stains on the surface of the printing rubber roller;
- (3) Close the upper cover after the cleaning agent is completely volatilized.



⚠ Attention:

- (1) The power supply must be turned off during the daily maintenance of the printer.
- (2) Do not touch the surface of the print head with hands and metal objects, and do not scratch the surface of the print head, printing rubber roller and sensor with tweezers and other tools.
- (3) The organic solvents such as gasoline and acetone shall not be used.
- (4) Wait until absolute ethyl alcohol is completely volatilized, then turn on the power supply to continue printing.

XI. Troubleshooting

When the printer fails, it can be handled according to the method in this section. If the problem cannot be solved, please contact the distributor or manufacturer.

11.1 The indicator on the control panel is not on

Check whether the power cord is properly plugged into the printer, power adapter, and power outlet or not. Check if the printer's power switch is on.

11.2 The indicator is normal, while the printer does not work

Run the self-test to check whether the printer can work properly. If you cannot perform self-test, please contact your distributor or the technical service personnel.

If the self-test can be performed normally, check the following:

- (1) Check the interfaces at both ends of the connection line between the printer and the computer. At the same time, confirm whether the connection meets the specifications of printer and computer.
- (2) The data transfer settings between the printer and the computer may be different. You can use self-test to print out the printer's interface settings. If the printer cannot print, please contact your distributor or the technical service personnel.

XII. Driver Installation

There are two ways to drive the printer, one is to install the driver directly under WindowsXP,Win7,Win8,Win10,ios, Android, Linux, MacOS .
the other is to use USB direct drive.

12.1 Installation for Windows

Add the printer to Windows and assign the driver files in the driver disk to Windows. You can start printing only by calling the print command in the program. In this way, the printer driver of Windows actually converts characters into graphic dot matrix for printing.

12.2 The Port direct drive

In this way, there is no need to use a driver, only the characters need to be directly output to the port, and the built-in and cartridge font inside the printer is used to realize the conversion and printing of the characters. Using the port direct drive way, the printing mode is also changed from page printing mode to line printing mode, making printing control more convenient. If the port direct drive mode is used, the instruction set needs shall be used to control the printing of the printer, and the ESC/POS command set has been integrated inside the 58mm thermal receipt printer.



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