VOLCORA

Thermal Receipt Printer

User Manual

(500203 500204)

Contents

Before Use

Please read this user manual carefully before using this printer. Keep this manual handy for immediate reference whenever necessary.

Safety Precautions

1. Only use the AC Adapter provided with the printer. Connection to an improper power supply may lead to equipment damage, electric shock or fire.
2. Do not touch the thermal head during printing or immediately after printing.
3. Touching the cutter blade may cause injury.
4. Only use approved accessories and do not try to disassemble, repair or remodel the printer by yourself.
5. Keep the product away from water or any other liquid.
6. Operational Environment

   ● Operation temperature: 0～50°C; Relative humidity: 10～80%

   ● Storage temperature: -20 ~ 60°C; Relative humidity: 10 ~ 90%

Warning
This is a class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.

What's in the Box

Thermal Receipt printer   1PC
Roll Paper   1PC
AC Adapter   1PC
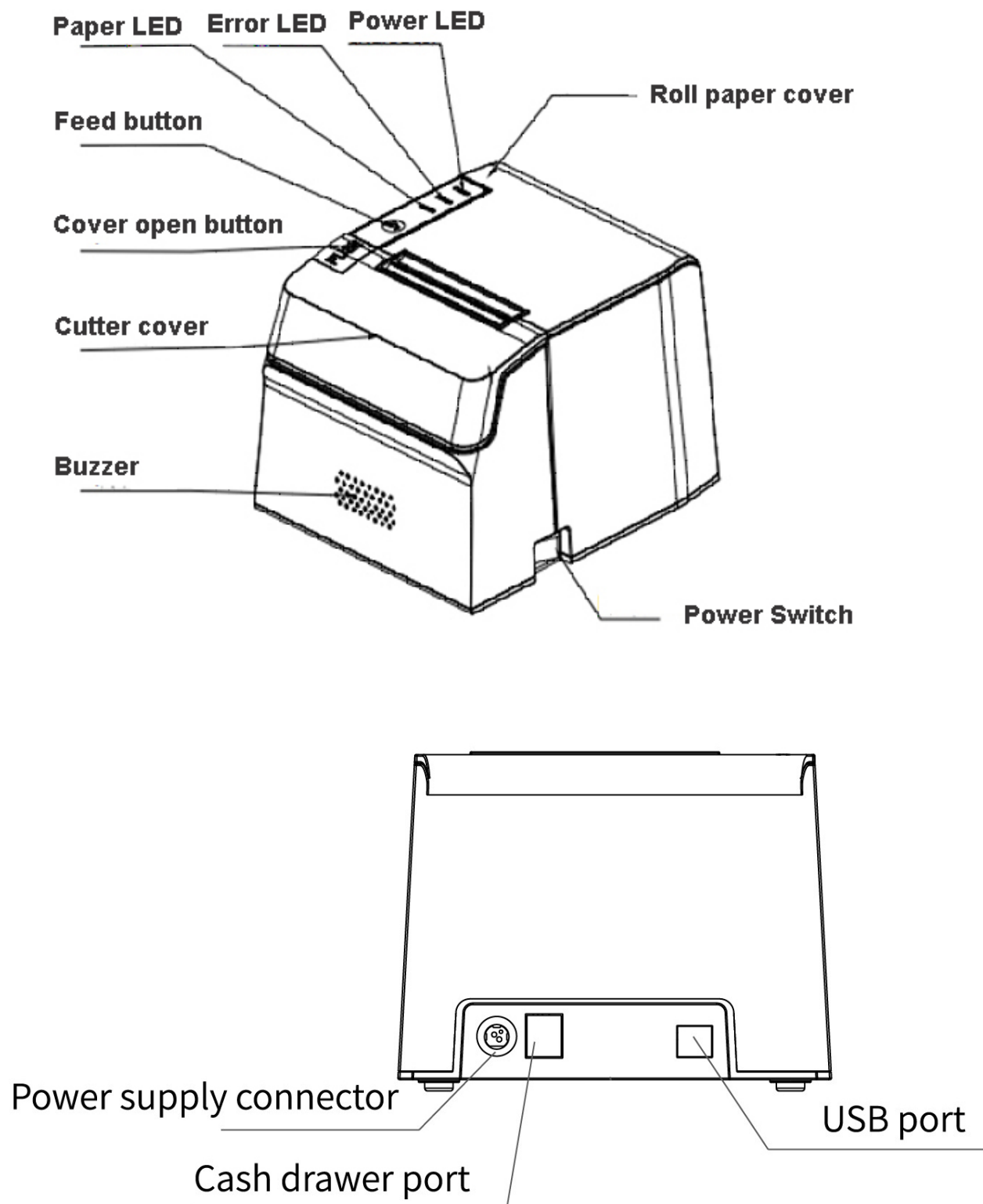AC Cable   1PC
USB Cable   1PC
CD   1PC
*CD contents
     Printer Driver
     User Manual
     Program Manual
     Setting Tool

Product Specification

Print method	Direct thermal line
Print speed	220mm/s
Interface	USB+Bluetooth®
Roll paper	Paper width:79.5±0.5mm Paper diameter: 83mm Paper thickness: 0.06 - 0.08mm
Print width	72 mm
Dot Density	8dot/mm, 576 dot/line
Character size	ANK Character, Font A: 12×24dots Font B: 9×17dots Chinese: 24×24dots
Printer command	Compatible with ESC/POS
Barcode type	UPC-A/ UPC-E/ EAN13/ EAN8/ CODE39/ ITF25/ CODABAR/ CODE93/ CODE128/ QRCODE/ PDF417/ Data matrix
Cash drawer	DC 24V/1A
Power supply	DC 24V/2A
Power adaptor	Input: AC 110V/240V, 50-60Hz Output: DC 24V/2A
Weight	1.00kg
Dimension	179*152*118mm(W*L*H)
Working	Temperature: 5-50°C Humidity: 10-80%
Storage	Temperature:-20-60°C Humidity: 10-90%
Reliability print	150km
Auto cutter	1.5 million cuts

Part Names and Functions

Paper LED Error LED Power LED

Feed button

Cover open button

Cutter cover

Buzzer

Roll paper cover

Power Switch

Power supply connector

Cash drawer port

USB port

| Name	Functions
Power Switch	To turn on/off the printer
Cutter	To auto cut the roll paper
Cutter cover	When cutter is locked and can't reset automatically, open this cover to adjust the cutter manually
Cover open button	To open the roll paper cover
Feed button	Press this button once to feed the roll paper for one line. Hold down this button to continue feeding the roll paper. Press this button and then turn on the printer to print the self-test.
Paper LED	On indicates the paper near end or out. Off indicates standby.
Error LED	On red indicates an error.
Roller paper cover	Open this cover to install/replace the roll paper.

Setup

Connecting the AC Adapter

1. Install the printer horizontally on a flat surface.
2. Make sure the printer is turned off.
3. Connect the AC cable to the AC adapter.
4. Connect the DC cable of the AC adapter to the power supply connector.
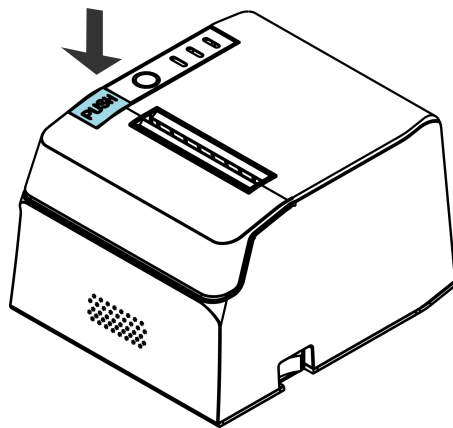5. Connect the AC cable plug to a power outlet.
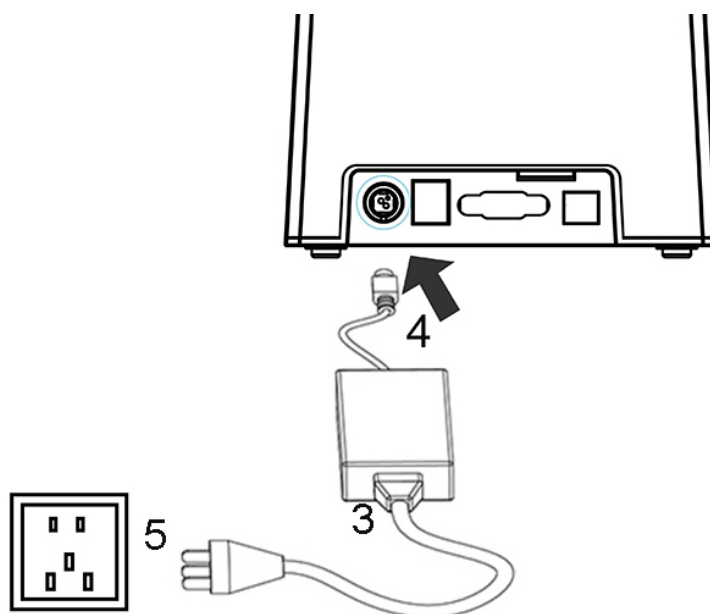
WARNING:

Only use the AC Adapter provided with the printer. Connection to an improper power supply may lead to equipment damage, electric shock or fire.

Connecting USB
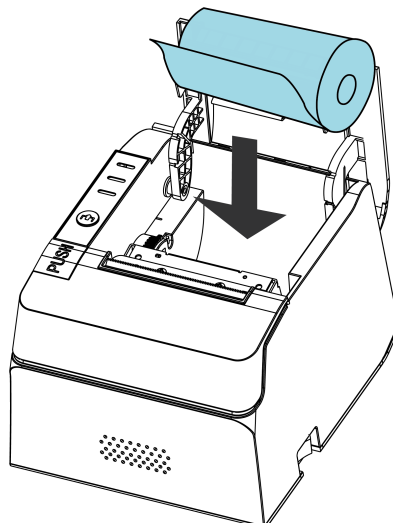
Power supply connector

Cash drawer port
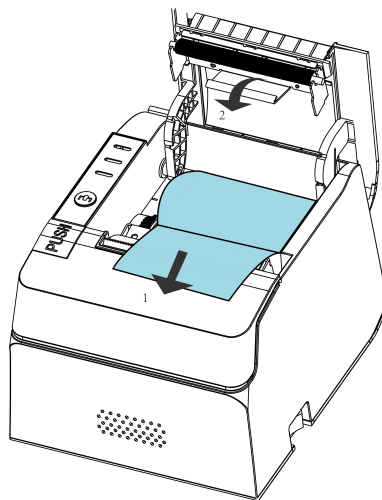
USB port
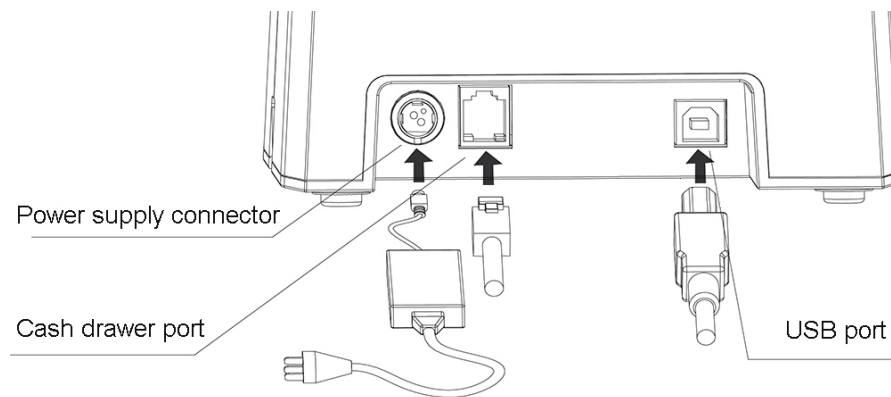
Installing/Replacing the Roll Paper

1. Open the roll paper cover

2. Remove the used roll paper core/self-test receipt if any.
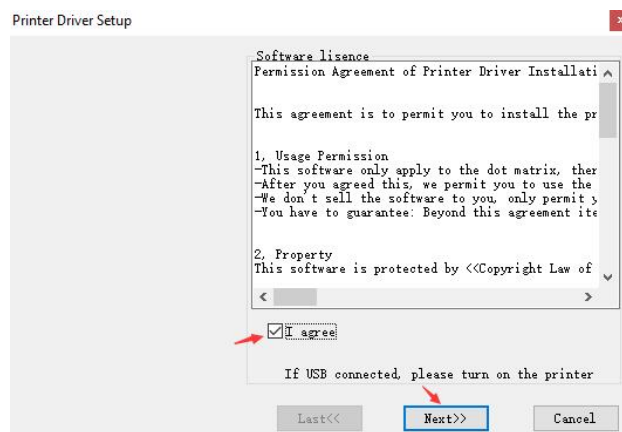3. Install the roll paper in the correct direction.

4. Pull out some paper and close the roll paper cover.
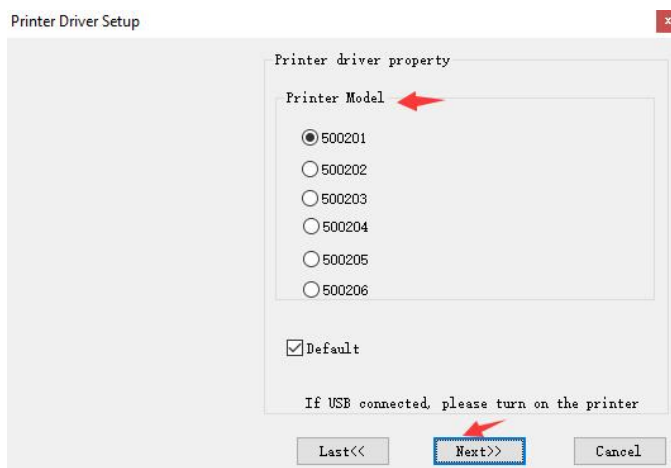

Driver Installation

1. Double click driver "VOLCORA_THERMAL_PRINTER.exe"
2. Click "I agree" and then click "Next"
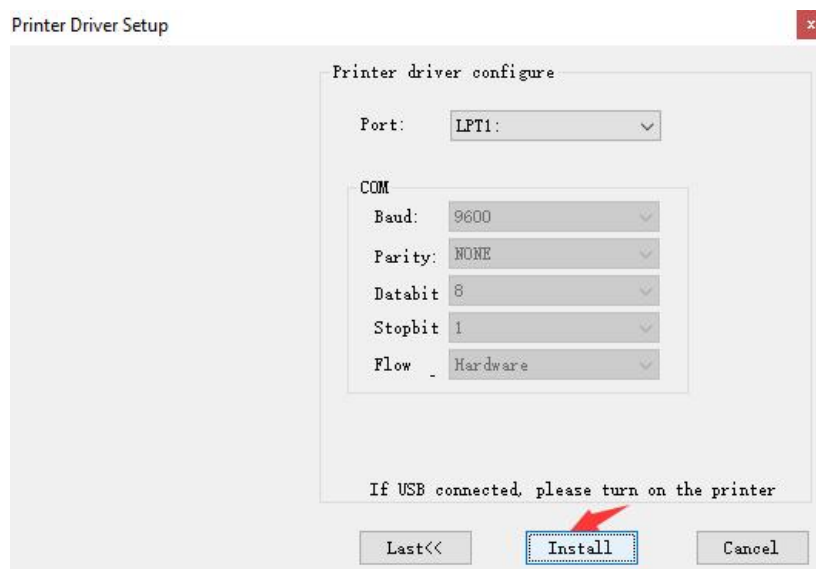

3. Select the printer model number and then click "Next". Model number can be found at the bottom of the machine.
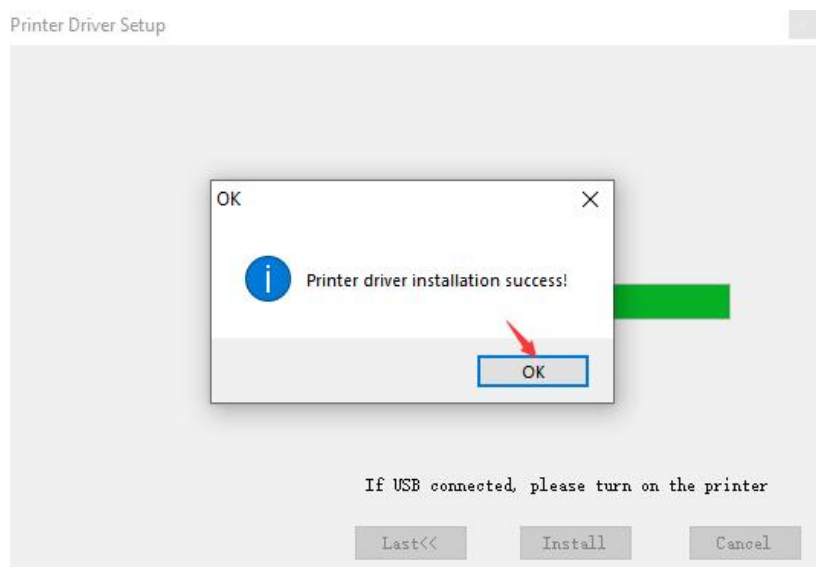
4. Click "Install"

5. When "Printer driver installation success!" pops up, click "OK" to finish the installion.

Interfaces:

USB Interface

PIN descriptions of Mini-USB

Pin	Function	Notes
1	V Bus	Power +5V
2	Data-	Data-
3	Data+	Data-
4	GND	Ground

Bluetooth® Interface

Any devices, either wire or wireless, with Bluetooth® interfaces can be paired with VOLCORA Bluetooth® printer through Bluetooth®.

Bluetooth® Core Specification: Classical/BDR/EDR Proprietary double-mode RF SOC

Effective Range: 10m

Default Bluetooth® Name: VOLCORA 500203(VOLCORA 500204)
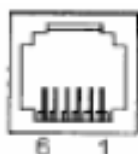
Default Password: 1234

Pairing Instructions:
1. Power on printer
2. Search for available devices on your device and select the printer under the list of devices
3. Enter the default password "1234" to pair your device

Cash Drawer Interface

The cash drawer interface adopts RJ-11 6-pin socket.

Pin assignments:

Pin No.	Signal	Direction
1	Chassis Ground	——
2	Cash drawer driver signal 1	Out
3	Cash drawer on/off status signal	In
4	+24VDC	——
5	Cash drawer driver signal 2	Out
6	Signal ground	——

Power Connection

VOLCORA printer uses the external power supply adopter as 24V±10％,2A,
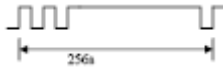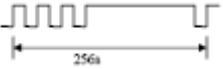
power socket is A-1009-3P model,
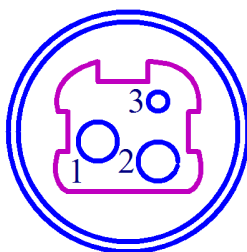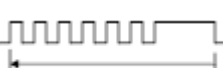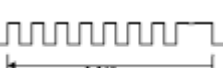
The pin assignment:

Pin No.	Signal
1	+24VDC
2	Ground
3	NC
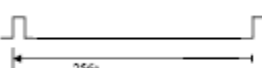
Paper Out LED Status and Errors

1. Non-recoverable error, the LED flickers several times, then persistent lighting. The times of flickering means the error type.

ERROR Type	ERROR Description	ERROR Indicator Flickering Type
Non-recoverable error	LED Flickers once: Internal memory reading and writing error	256a
	LED Flickers twice: over-voltage	256a
	LED Flickers three times: under-voltage	256a
	LED Flickers four times: CPU execution error (wrong address)	256a
	LED Flickers five times: UIB error	256a
	LED Flickers six times: FLASH writing error	2.56S
	LED Flickers seven times: parameter writing error	2.56S
	LED Flickers eight times: Temperature testing circuit error	256a

2. Recoverable error, LED flickers constantly, then persistent off for one period.

ERROR Type	ERROR Description	ERROR Indicator Flickering Type
Recoverable error	LED Flickers once: Cutter position error	256a

3. Auto-recoverable error, LED flickers constantly, including printing head over-heat error and upper case cover opening error during printing.

ERROR Type	ERROR Description	ERROR Indicator Flickering Type
Auto-recoverable error	LED Flickers constantly: printing head over-heat; upper case cover opening error during printing	⎍⎍⎍⎍⎍⎍⎍⎍⎍ ⊢⊣⊢— 160ms

Appendix A

This appendix is the method to set the printer parameter according to button operation.

Setting introduction: Press 【Paper cover】 button to choose setting, when press it once , the set become the next one and it will print the present set value; use 【FEED】 button to set the set value, when press it once , the set become the next one and it will print the present set value.

General Setting Flow:
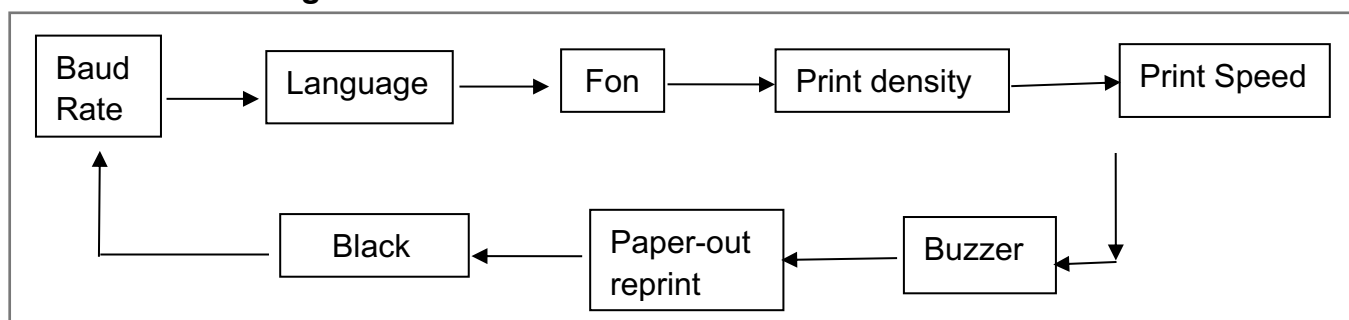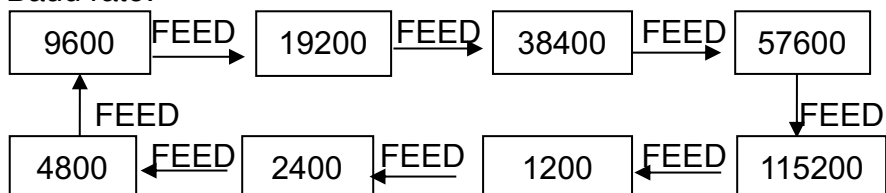
```
Baud Rate  →  Language  →  Fon  →  Print density  →  Print Speed
     ↑                                                      ↓
   Black  ←  Paper-out reprint  ←  Buzzer  ←────────────────┘
```
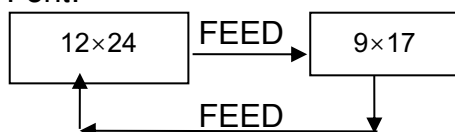
Baud rate:

```
9600  --FEED→  19200  --FEED→  38400  --FEED→  57600
  ↑ FEED                                          ↓ FEED
4800  ←FEED--  2400  ←FEED--  1200  ←FEED--  115200
```

Language:

```
China  --FEED→  China-BIG5  --FEED→  English
  ↑                                      ↓
  └──────────────FEED────────────────────┘
```

Font:

```
12×24  --FEED→  9×17
  ↑               ↓
  └──────FEED─────┘
```

Print density:

```
┌──────────┐   FEED    ┌────────┐   FEED    ┌────────┐
│  MEDIUM  │ ────────▶ │  HIGH  │ ────────▶ │  LOW   │
└──────────┘           └────────┘           └────────┘
     ▲                                            │
     │                    FEED                     │
     └─────────────────────────────────────────────┘
```

Print speed:

```
┌──────────┐  FEED   ┌──────────┐  FEED   ┌──────────┐   FEED    ┌──────────┐
│ 220mm/s  │ ──────▶ │ 250mm/s  │ ──────▶ │ 150mm/s  │ ────────▶ │ 200mm/s  │
└──────────┘         └──────────┘         └──────────┘           └──────────┘
     ▲                                 FEED                            │
     └────────────────────────────────────────────────────────────────┘
```

Buzzer:

```
┌────────┐  FEED   ┌──────────┐  FEED   ┌──────────┐   FEED    ┌──────────┐
│  OFF   │ ──────▶ │ Error ON │ ──────▶ │  Cut ON  │ ────────▶ │  ALL ON  │
└────────┘         └──────────┘         └──────────┘           └──────────┘
     ▲                               FEED                            │
     └───────────────────────────────────────────────────────────────┘
```

Paper-out reprint:

```
┌────────┐   FEED    ┌────────┐
│  OFF   │ ────────▶ │   ON   │
└────────┘           └────────┘
     ▲       FEED        │
     └───────────────────┘
```

Black mark mode:

```
┌────────┐   FEED    ┌────────┐
│ close  │ ────────▶ │  open  │
└────────┘           └────────┘
     ▲       FEED        │
     └───────────────────┘
```
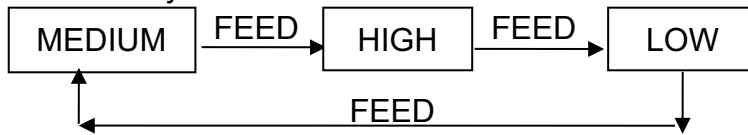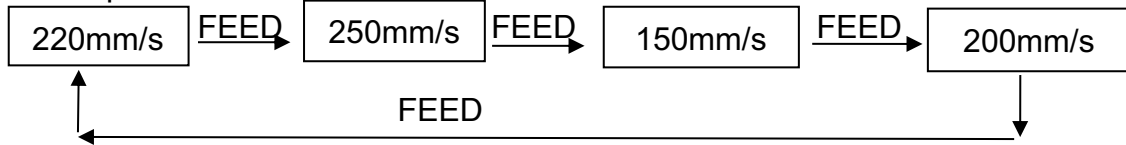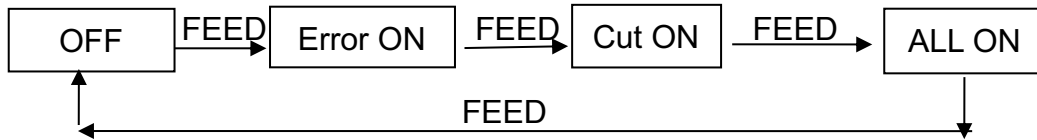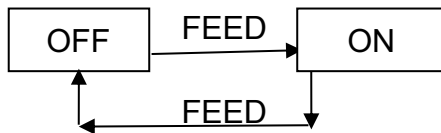
FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commer cial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

The contents of this document are subject to change without notice.

For more information, visit: www.volcora.com
Contact support: support@volcora.com