

WIZARPOS Q2 REPALR MANUAL

Document number: WI-PD-007
Document version: V0.1

wizarPOS

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※iA - if any -Refers to this part or module as an optional choice, or whether this part or module exist is related to different product batch.

※IS - independent steps - This step is not directly related to the subsequent disassemble action. Skip this step if you do not need to repair or replace this part.

- C05-5 Replace the contactless antenna (IS)
- C06 Disassembly – Separate the Motherboard
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 - C06-2 Removing the fixing screws on motherboard
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※IS – independent steps – This step is not directly related to the subsequent disassemble action. Skip this step if you do not need to repair or replace this part.
※NS – Necessary Steps – Refers to the step that must be performed during the disassemble process, due to factors of stress or aging, etc.

WIZARPOS Q2 REPALR MANUAL



Problem & Solution

PROBLEM
D
DESCRIPTION

Device not booting up

A
ANALYSIS

1. The battery run out of power.

S
SOLUTION

1. Charge or replace the battery.



A
ANALYSIS

2. Check whether the PIN of the battery connector is broken

S
SOLUTION

2. Replace the battery connector

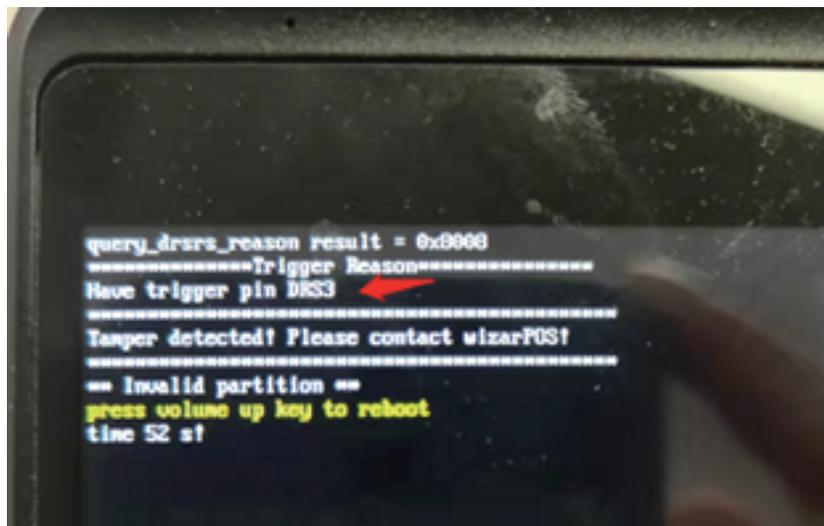
A
ANALYSIS

3. Firmware fault

S
SOLUTION

3. Upgrade the firmware

4. The security module triggered. If the security module triggered , there will be a warning message displayed on the screen, such as : "Have trigger pin DRS1 " , "Tamper detected! Please contact WizarPOS!"



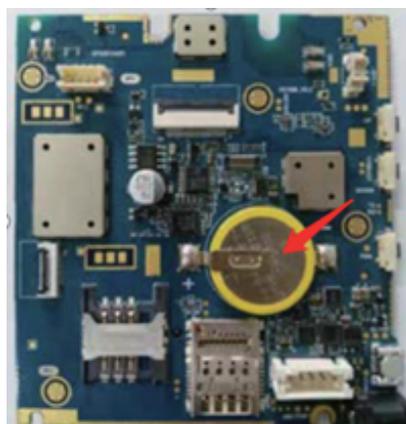
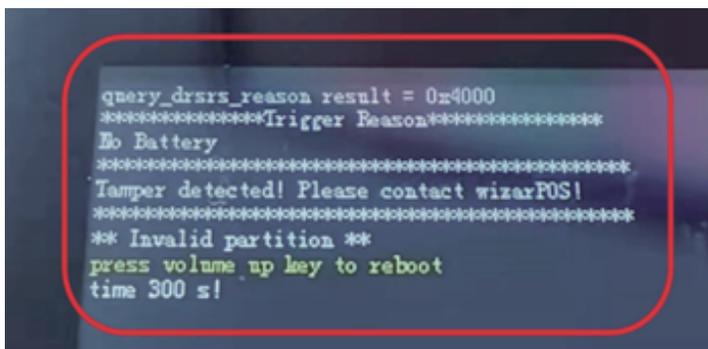
- 4.① Check if the carbon particles missing. if the carbon particles are lost, add the carbon particles
- ② Check if the screws on the back cover are loose. If so, tightened the screws



5. The small battery triggered. If the small battery triggered , there will be a warning message displayed on the screen, such as : "No Battery", "Tamper detected! Please contact WizarPOS!"



5. Measure the voltage of small battery with a multimeter. If the voltage is higher than 2.8v, it means the small battery is OK, you only need to recover the trigger; else, replace the small battery.





6. Check if it is a button problem



6. Disassemble the machine and check if the power button is broken. If it is broken or has fallen off, please repair the power button and reassemble.



7. Motherboard fault



7. Replace the motherboard



PROBLEM
D
DESCRIPTION

Black/blurred display when booting

A
ANALYSIS

1.Firmware fault

S
SOLUTION

1. Upgrade the firmware

A
ANALYSIS

2.Display fault

S
SOLUTION

2.Replace the display (normally display and touch panel are replaced together).



3. Motherboard fault.



3. Replace the motherboard



PROBLEM
D
DESCRIPTION

Stuck at the boot interface and keep restarting

A
ANALYSIS

1.OS error.

S
SOLUTION

1. Reset to factory settings

A
ANALYSIS

2. Firmware fault.

S
SOLUTION

2. Upgrade the firmware

A
ANALYSIS

3.Motherboard fault.

S
SOLUTION

3. Replace the motherboard



PROBLEM
D
DESCRIPTION

Mobile network has no signal

A
ANALYSIS

1. SIM card fault.

S
SOLUTION

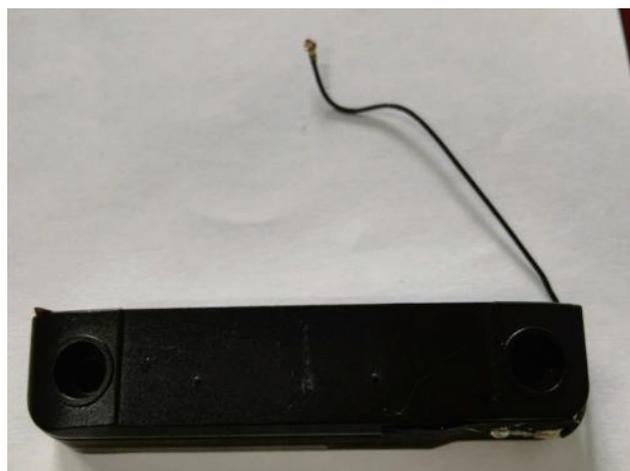
1. Replace the SIM card

A
ANALYSIS

2. Enter the Driver test to test the mobile network. If the signal is weak, the antenna is bad or the contact is poor.

S
SOLUTION

2. Reassemble the antenna or replace the antenna





3. Check whether the pin of the SIM card slot is damaged



3. Replace the SIM card slot or the motherboard



PROBLEM
D
PROBLEM

Cannot detect the SAM card

A
ANALYSIS

1. SAM card fault

S
SOLUTION

1. Test it with another SAM card

A
ANALYSIS

2. Check whether the SAM card slot is broken

S
SOLUTION

2. Replace the SAM card slot or the motherboard



PROBLEM

D

Ethernet fault

PROBLEM

A

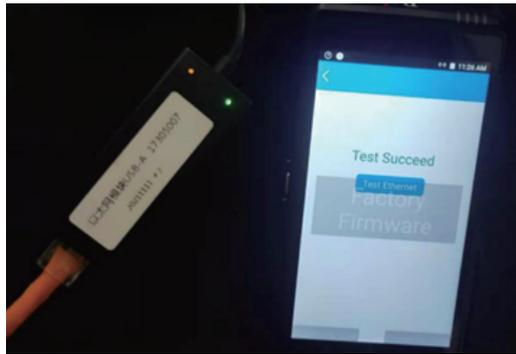
ANALYSIS

1. Ethernet adapter fault

S

SOLUTION

1. Check whether the light of Ethernet adapter is on. You can try to unplug or replace the Ethernet adapter



A

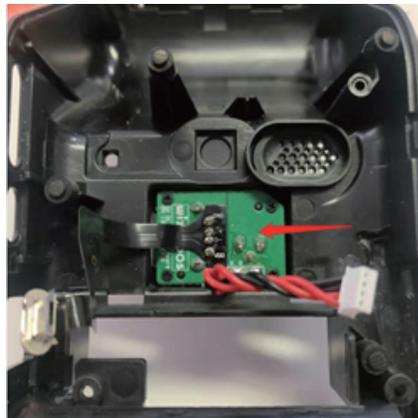
ANALYSIS

2. USB transfer board fault

S

SOLUTION

2. Replace the USB transfer board



A

ANALYSIS

3. Motherboard fault

S

SOLUTION

3. Replace the motherboard

PROBLEM
D
DESCRIPTION

WIFI fault

A
ANALYSIS

1. May be too many wifi connections

S
SOLUTION

1. Switch other Wifi to check

A
ANALYSIS

2. Enter the Driver test for the wifi test. If the signal is weak, the wifi antenna is bad or the contact is poor.

S
SOLUTION

2. Reassemble or replace the wifi antenna.





3. Enter the Driver test to perform the wifi test. If the test fails, it is determined that the motherboard is defective.



3. Replace the motherboard



PROBLEM
D
DESCRIPTION

Poor/fault charging

A
ANALYSIS

1. Plug the charger into the machine. If the charging light does not light up or flashes, you can cross-validate the charger first, then cross-validate the battery to determine the fault.

S
SOLUTION

1. Replace the charger or the battery

A
ANALYSIS

2. Disassemble the device and check whether the DC connector is damaged

S
SOLUTION

2. Replace the DC connector or the motherboard



PROBLEM
D
DESCRIPTION

Not printing, Incomplete printing, messing/error/garbled printing.

A
ANALYSIS

1. check whether the printing paper is reversed

S
SOLUTION

1. reposition the printing paper

A
ANALYSIS

2. Check if the print roller is missing or damaged.

S
SOLUTION

2. Replace the print roller.





3. Check if the paper cover is damaged



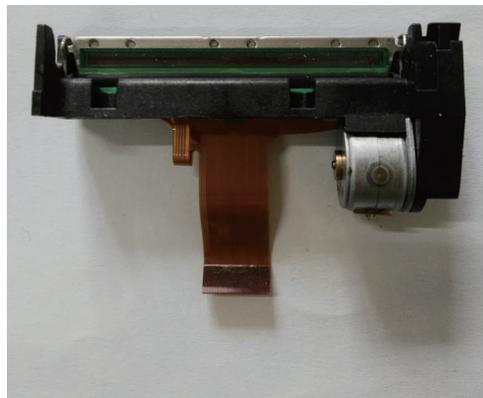
3. Replace the paper cover.



4. Check if the print module gear for damage



4. Replace the print module.



A

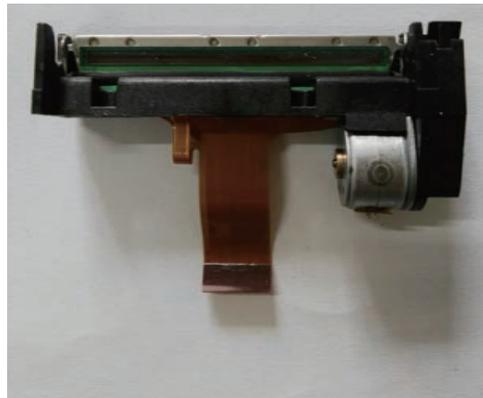
ANALYSIS

5. Enter the Driver test to test the print. If there is a partial blank in the print result, check the print module TPH for dirt. If there is no dirt, determine the print module fault.

S

SOLUTION

5. Clean the TPH of the print module with a clean cloth dampened with alcohol, remove the machine, and replace the print module.

**A**

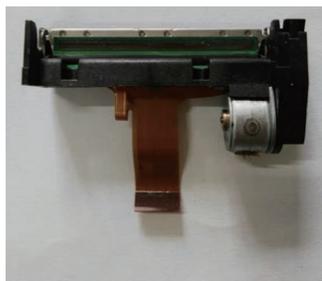
ANALYSIS

6. Enter the Driver test to print the test. If the print fails and does not print, you can disassemble the machine and check if the FPC cable of the printer is off, due to assembly is not in place. If there is no problem in assembly, please cross-test the print module and the motherboard to check the cause.

S

SOLUTION

6. Reassemble the printer, or replace the print module, or replace the motherboard.



PROBLEM
D
DESCRIPTION

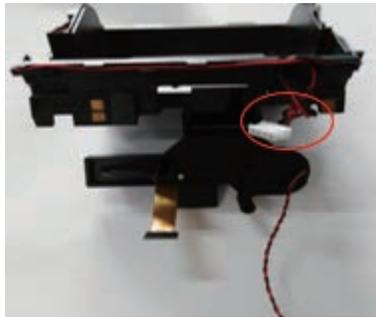
Fail to read contactless card

A
ANALYSIS

1. Enter the Driver Test and perform a non-card test. If the card does not respond, you can disassemble the machine and check if the antenna is in contact with the motherboard.

S
SOLUTION

1. Reassemble the antenna.

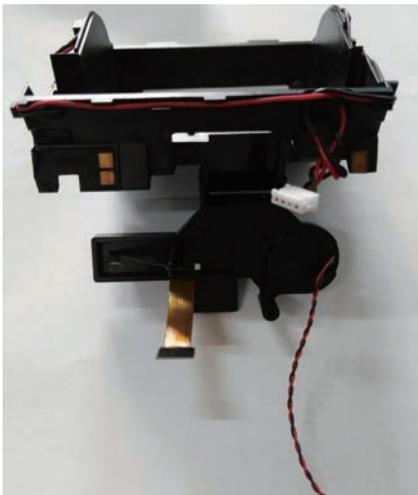


A
ANALYSIS

2. If there is no problem with the contact, cross-test the antenna and the motherboard to determine the cause of the defect.

S
SOLUTION

2. Replace the antenna or replace the motherboard.



PROBLEM
D
DESCRIPTION

Poor card swiping

A
ANALYSIS

1. Check the card for dirt and impurities.

S
SOLUTION

1. Remove dirt and impurities.



A
ANALYSIS

2. Enter the Driver Test and perform a swipe test. If there is a defect, check whether the magnetic head or the FPC of the magnetic head are installed in place after disassembling.

S
SOLUTION

2. Reassemble the magnetic head or the FPC



A

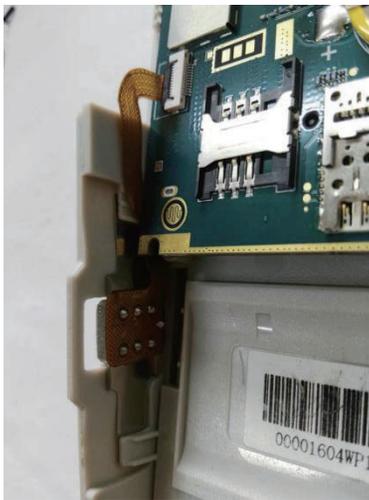
ANALYSIS

3. After the disassemble, cross-test the magnetic head and the motherboard

S

SOLUTION

3. Replace the magnetic head or the motherboard.





IC reading fault



1. IC card fault



1. Replace another IC card



2. Check if there is any foreign matter in the IC card slot.



2. remove foreign matters.



3. Enter the Driver Test and perform the IC card test. If there is a defect, it is determined that the motherboard is defective.



3. Replace the motherboard

PROBLEM
D
DESCRIPTION

Security module trigger (terminal interface will be prompted)

A
ANALYSIS

1.Security module trigger (the terminal interface will have relevant information prompts)

S
SOLUTION

1.Replace the top cover or replace the lower cover. If the screw is missing, add the screw.



A
ANALYSIS

2.After disassemble the machine, check if the carbon particles are assembled in place and the PCBA is free of dirt.

S
SOLUTION

2. Reassemble the carbon particles and clean the PCBA.

A

ANALYSIS

3. After disassembling, use the multimeter voltage file to test the small motherboard battery on the motherboard. The test voltage is between 2.8V and 3.2V. If the small battery is out of power, it is determined that the small battery is defective.

S

SOLUTION

3. Replace the small battery.



A

ANALYSIS

4. After disassembling, cross-test the carbon particles and the motherboard to determine the cause of the defect.

S

SOLUTION

4. Replace the carbon particles or replace the motherboard..



PROBLEM
D
DESCRIPTION

Poor Camera

A
ANALYSIS

1. Enter the Driver test for scanning test. If there is blurring, please check if the camera lens is dirty. If there is no dirt, you can cross-test the camera and motherboard to determine the cause of the defect.

S
SOLUTION

1. Clean the camera lens, replace the camera, or replace the motherboard.



PROBLEM

D

PROBLEM

LED fault

A

ANALYSIS

Check whether the liquid entered and corroded the motherboard

S

SOLUTION

Replace the motherboard



PROBLEM
D
DESCRIPTION

Button fault

A
ANALYSIS

1. Check if it is a button problem

S
SOLUTION

1. Disassemble the machine and check if the buttons are fallen off. If so, please repair the buttons or replace the motherboard



PROBLEM

D

DESCRIPTION

Tax Control fault

A

ANALYSIS

1. Tax control FPC fault

S

SOLUTION

1. Replace the Tax control FPC

A

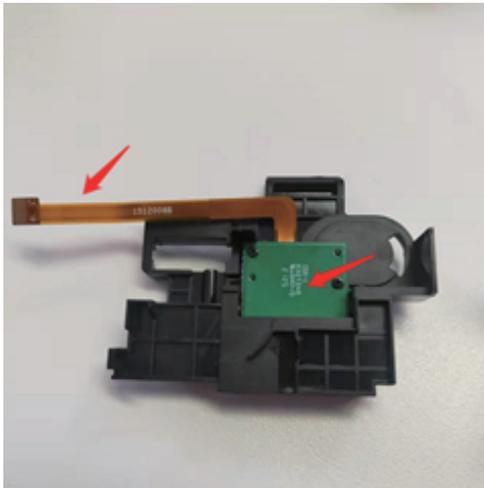
ANALYSIS

2. Tax control board fault

S

SOLUTION

2. Replace the Tax control board





3. Tax control fixture



3. Replace the Tax control fixture



4. Motherboard fault



4. Replace the motherboard

PROBLEM
D
DESCRIPTION

Fingerprint fault

A
ANALYSIS

1. Fingerprint FPC fault

S
SOLUTION

1. Replace the fingerprint



A
ANALYSIS

2. Fingerprint module fault

S
SOLUTION

2. Replace the fingerprint module

A
ANALYSIS

3. Motherboard fault

S
SOLUTION

3. Replace the motherboard

WIZARPOS Q2 REPAIR MANUAL



B01 Setting Up the Environment

1. USB Driver Installation

- Install the driver Qualcomm-ADB&USB-driver(8916).zip, after the



B01-2 Download the tool and firmware package for the preparation

- Download tool: 8x10-12downloadV1.0.zip
- Firmware package: YYYYMMDD-Q2-factimage-pcbX-efuse(Exp3).zip

△ FTP address of the tool:

[ftp://sdkuser:wizsdkar@ftp.wizarpos.com/Qualcomm-ADB&USB-driver\(8916\).zip](ftp://sdkuser:wizsdkar@ftp.wizarpos.com/Qualcomm-ADB&USB-driver(8916).zip)

<ftp://sdkuser:wizsdkar@ftp.wizarpos.com/Q2-update-tool-1.7.1.zip>

<ftp://sdkuser:wizsdkar@ftp.wizarpos.com/>

B02 Force burn-in the firmware

- Requires windows system environment support;
-
- File: Q2-update-tool-1.7.1.zip;
-
- Run the program:

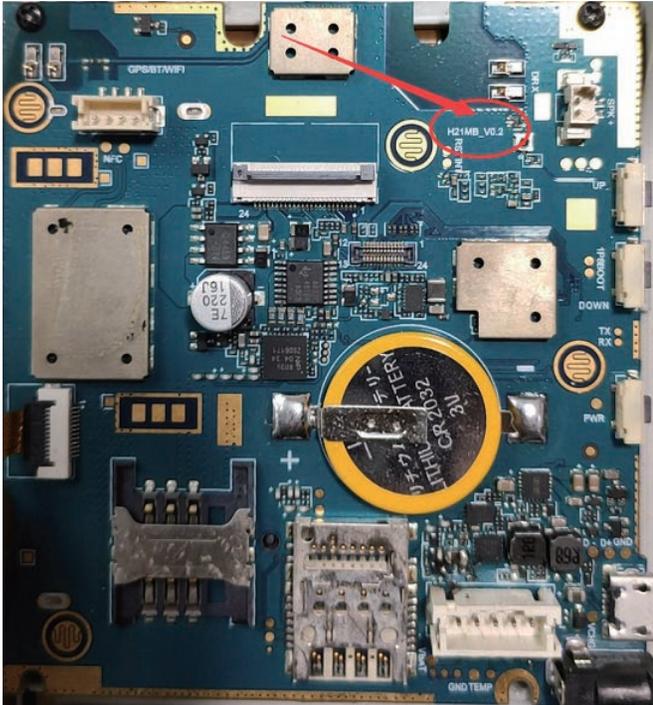


B02-1 How to select firmware of B02-1?

How to Distinguish PCBB and PCBC Board and Firmware Selection
As shown in the following figure:

H21MB_V0.2 is PCBB board and select PCBB firmware.

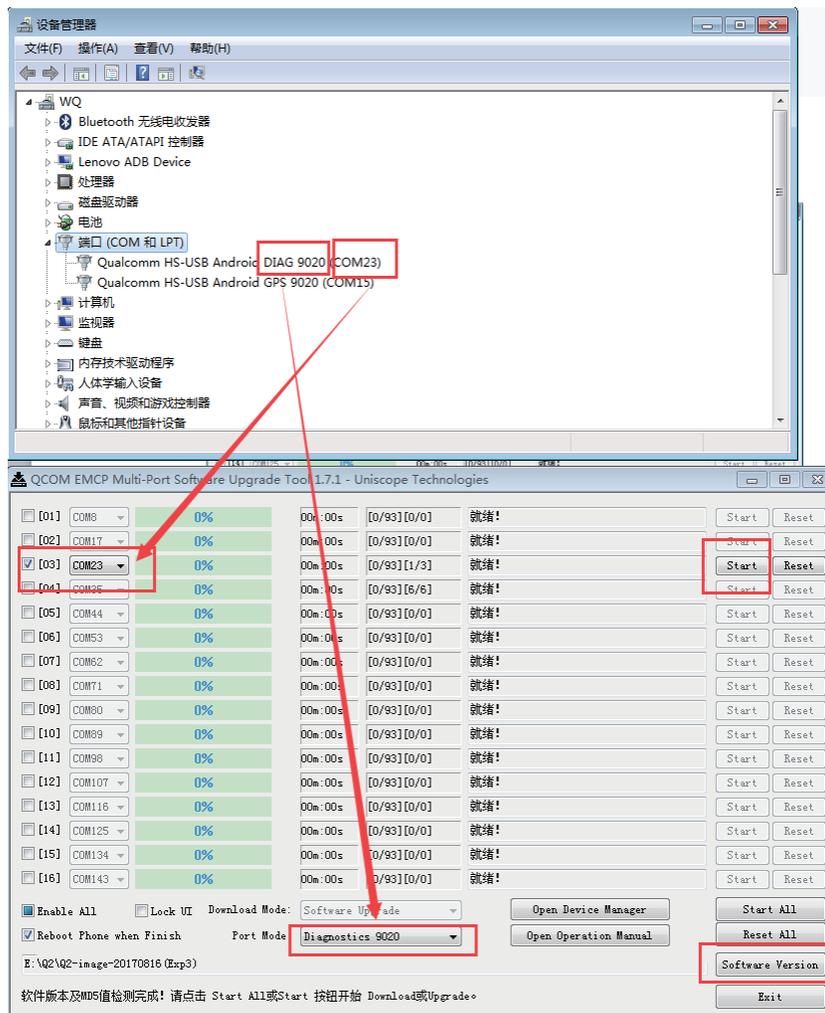
H21MB_V0.3, H21MB_V0.4 and H21MB_V0.5 are PCBC boards, select PCBC firmware.



B02-1 Burning method

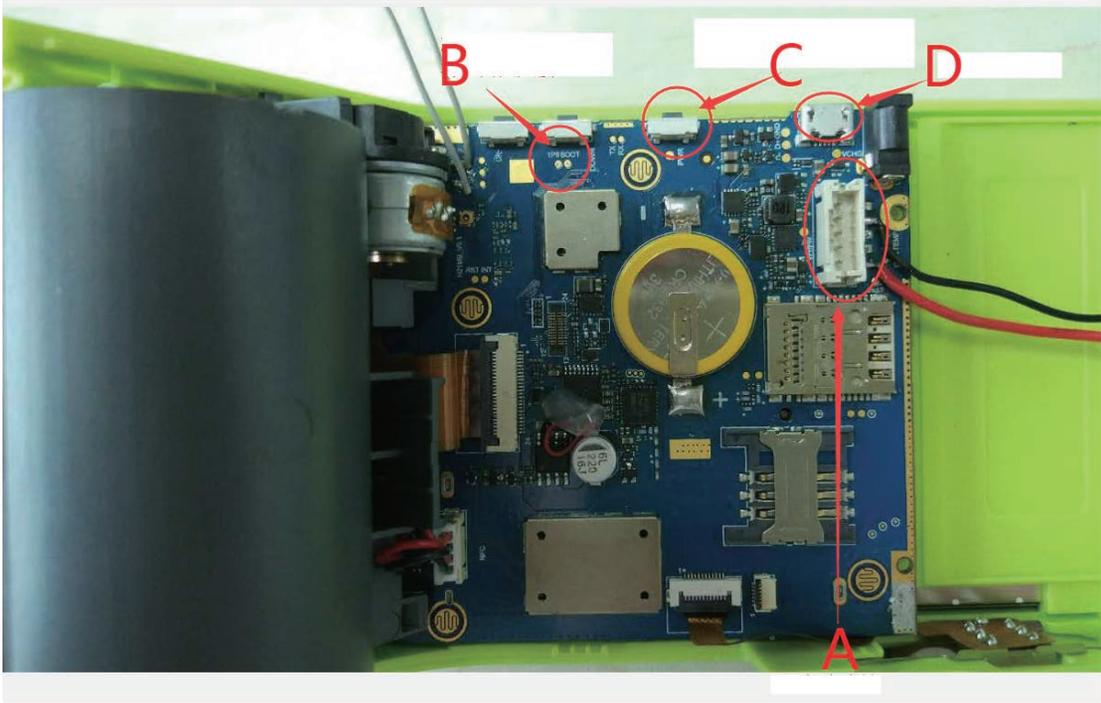
1. Regular mode, suitable for strong burning firmware in the boot state:

When the power is on, connect the USB cable, obtain the programming mode and port number from the device manager, configure it to the location indicated in the figure below, and click "Start".

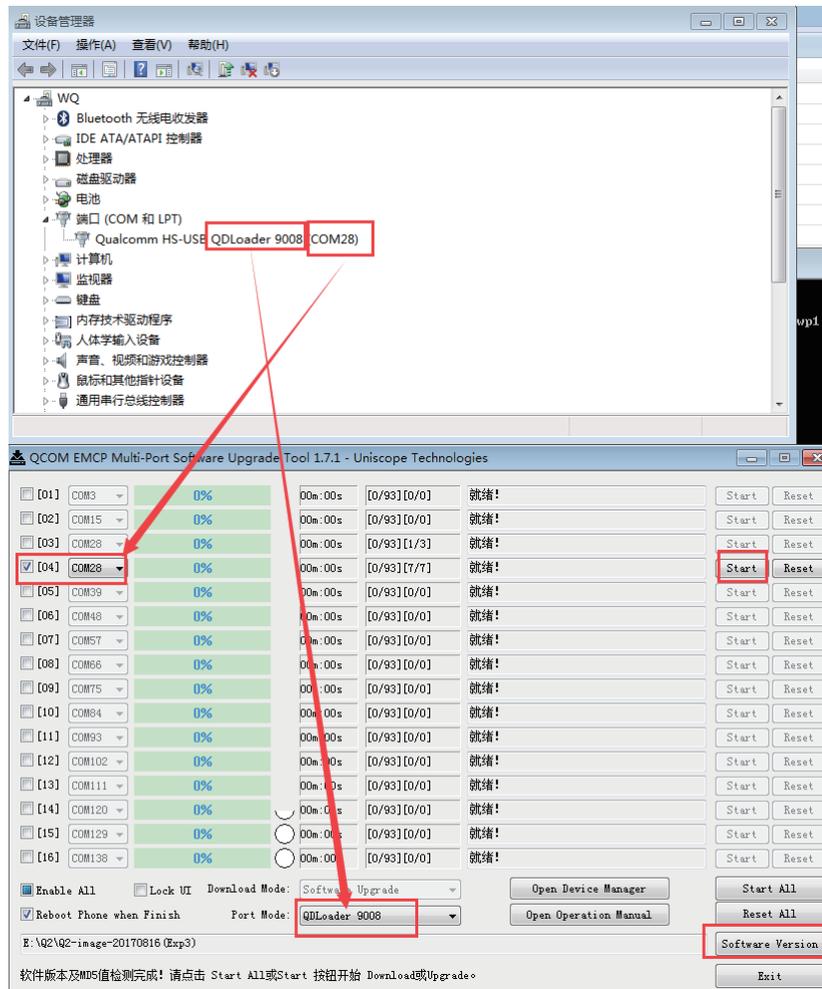


2. Emergency mode, suitable for other states (need to remove back cover):

- Plug in the battery
- Use tweezers and other tools to shorten these two points
- Loosen the short contacts and power switches after pressing the power button for more than 3 seconds
- Plug in a USB cable



E) Follow the steps below to enter the emergency mode, configure the parameters and click "Start":



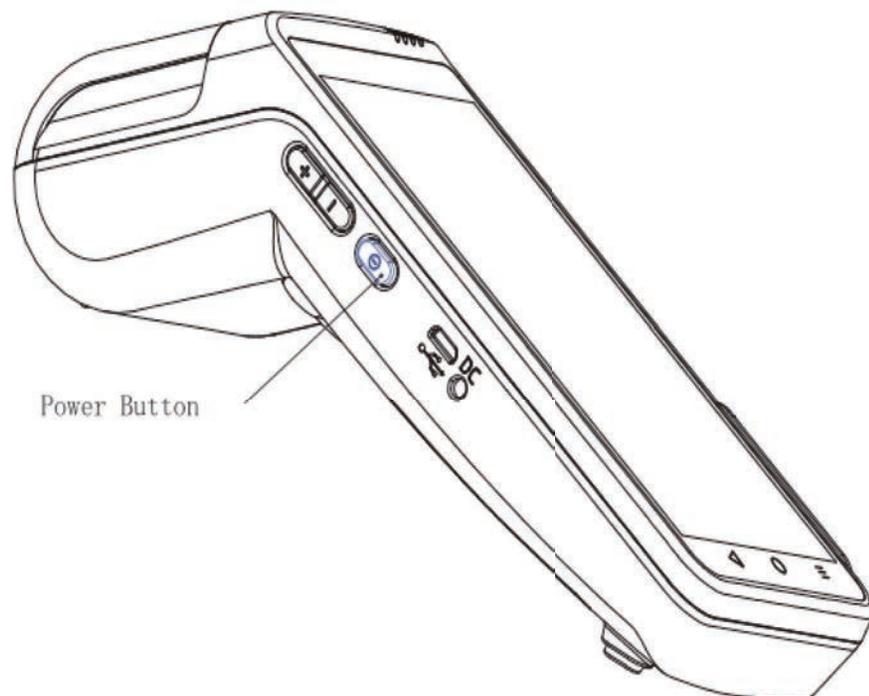
WIZARPOS Q2 REPALR MANUAL



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C01 Before Start

C01-1 Power off the device



- ① Disconnect the POS device from the data cable and power cable,
- ② Hold-press the “Power” button for 3 seconds to enter the boot menu, and turn off the device as instructed.

C01 Before Start

C01-2 Safety Instructions

Follow these safety guidelines to protect your machine from potential damage and to ensure your personal safety.

Warning: Before working on the inside of the machine, read the safety instructions that came with the machine.

Warning: Disconnect all powers before disassembling. When

-  assemble back internal components after Disassembly , please assemble back all covers, panels and screws in order, and then link the
-  power supply.

Caution: Ensure that the workplace/worktable is flat and clean to prevent damage to the process and facility.

Caution: When holding the inner parts or penetrating the card to the slots, please hold the edge and do not touch the pins and the contacts, to avoid damage.

Caution: You can only perform troubleshooting and repair under the authorization and guidance of the WizarPOS technical team. And any damages caused by repairs which is not not authorized by WizarPOS is not covered by the WizarPOS warranty.

Caution: Before touching any component inside the device, firstly, please touch the painted metal surface to direct static electricity from your body. During the time of operation, please touch the unpainted metal surface from time to time to wipe off any possible static electricity which might damage the internal components.

Caution: When disconnecting the cable, hold the cable connector or its push-pull to pull it out, don't pull the cable hard. Some cable connectors may have a lock and you must unlock the lock or loosen them before disconnecting the cable. When disconnecting the cable, keep both sides aligned to avoid bending any connector pins. When connecting the cable, make sure that the port and connector are oriented and aligned correctly.

C01 Before Start

C01-3 Recommended tools

- ◆ PH1 Phillips screwdriver
- ◆ Plastic crowbar
- ◆ ESD-13 flat-head tweezers

C01 Before Start

C01-4 Screw list

Screw List

M2.0×6-Self Tape-Nickel black

Diagram Quantity

10-16*

※ Depends on different configuration, there are 10-16 screws for the whole device.

C01 Before Start

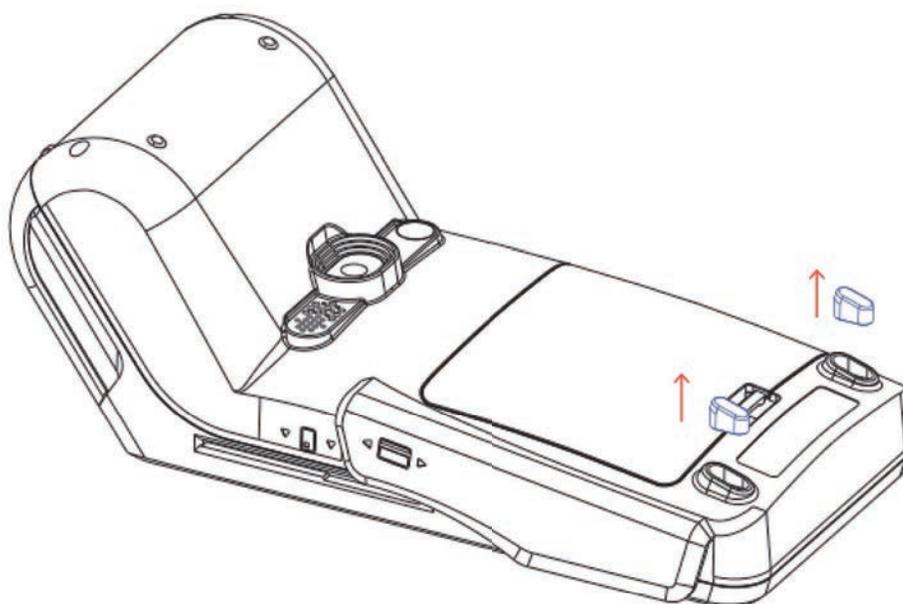
C01-5 After disassembling the internal components of the device

CAUTION: Leaving-behind or loose screws inside the device, can cause serious damage to the device. Please be cautious.

- ① Assemble back all the components and screws in order, and make sure that no components or screws are left inside the machine.
- ② Assemble back all media cards and/or any other parts you removed before.
- ③ Put back the battery and connect the device to a power outlet.
- ④ Turn on the power to boot the device.

C02 Disassembly - Preparation

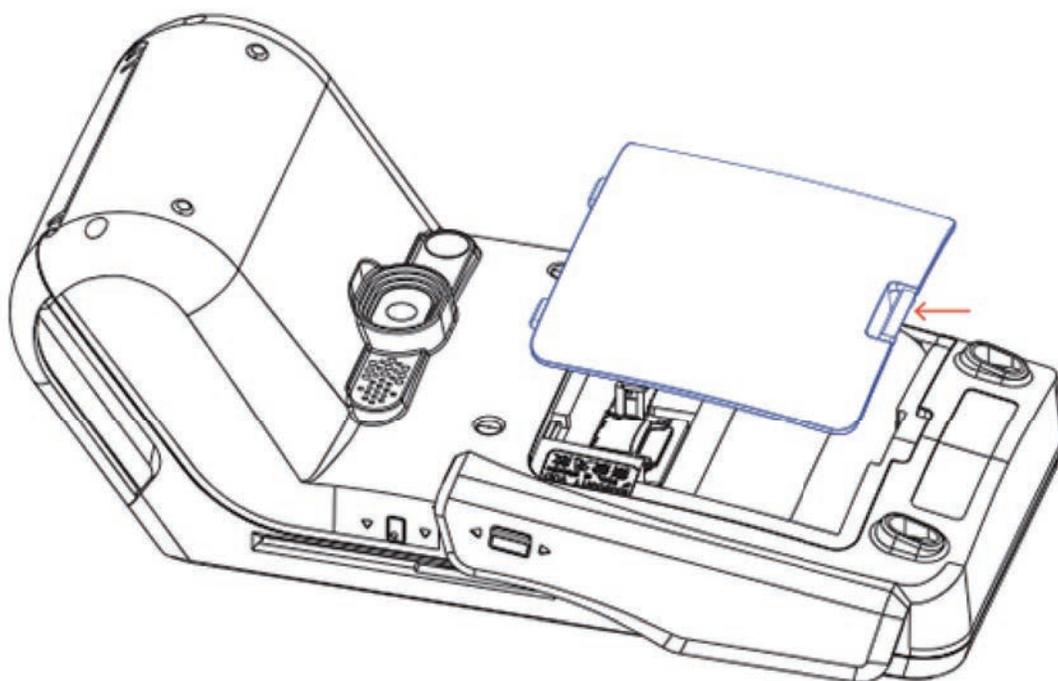
C02-1 Remove the rubber foot



Remove the rubber foot pads in the direction of the arrow. Please note that these rubber foot pads should be discarded after removal and cannot be reused.

C02 Disassembly - Preparation

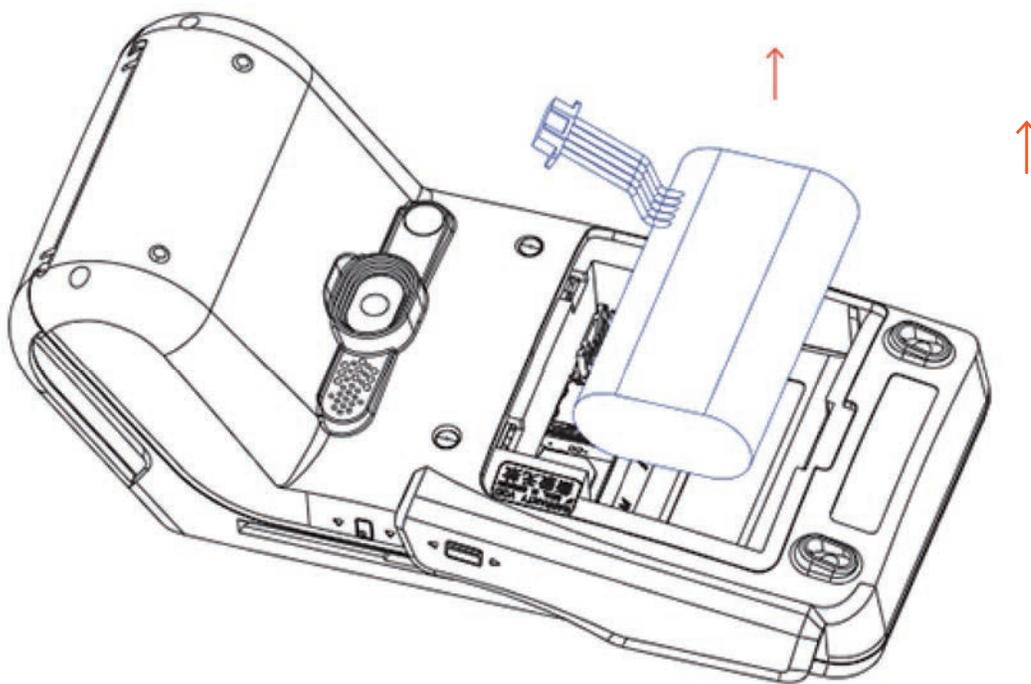
C02-1 Open the Battery Cover



As shown in the figure, press and lift up to remove the battery cover.

C02 Disassembly - Preparation

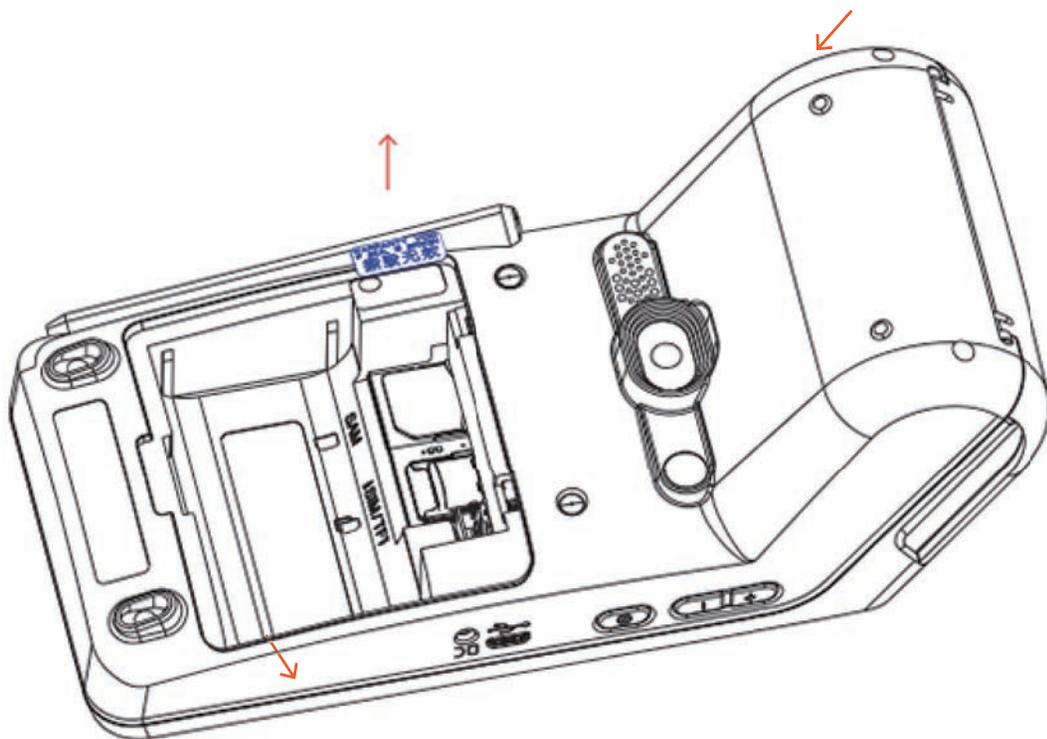
C02-2 Remove the battery



Remove the battery in the direction of the arrow, and pull out the connector with care.

C02 Disassembly - Preparation

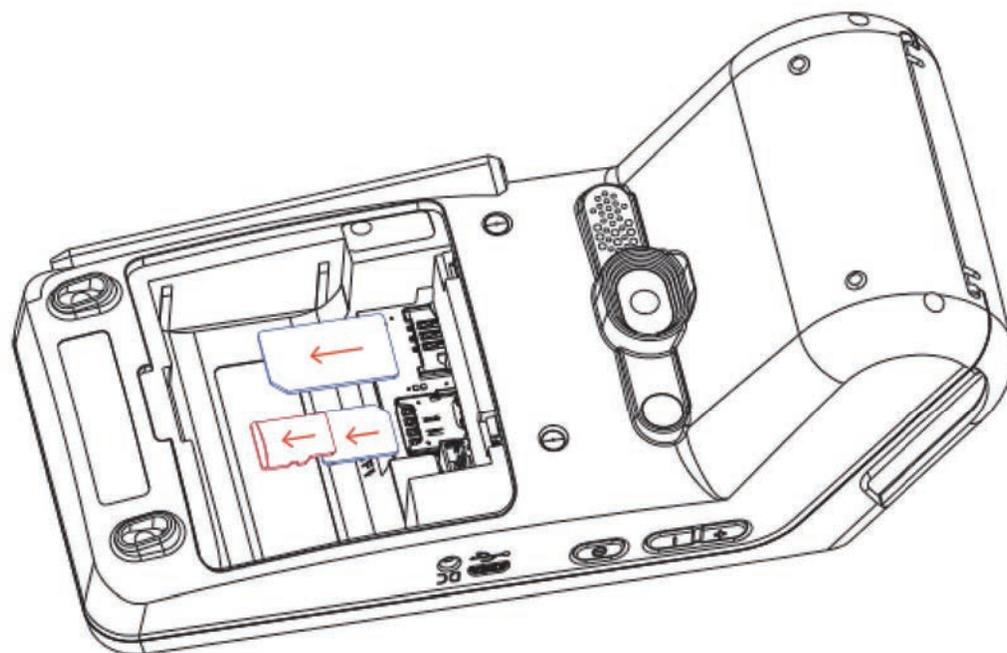
C02-4 Remove the tamper-evident label



Use tweezers to remove the tamper-evident label.
The residue must be cleaned after the tamper-evident label is broken.

C02 Disassembly - Preparation

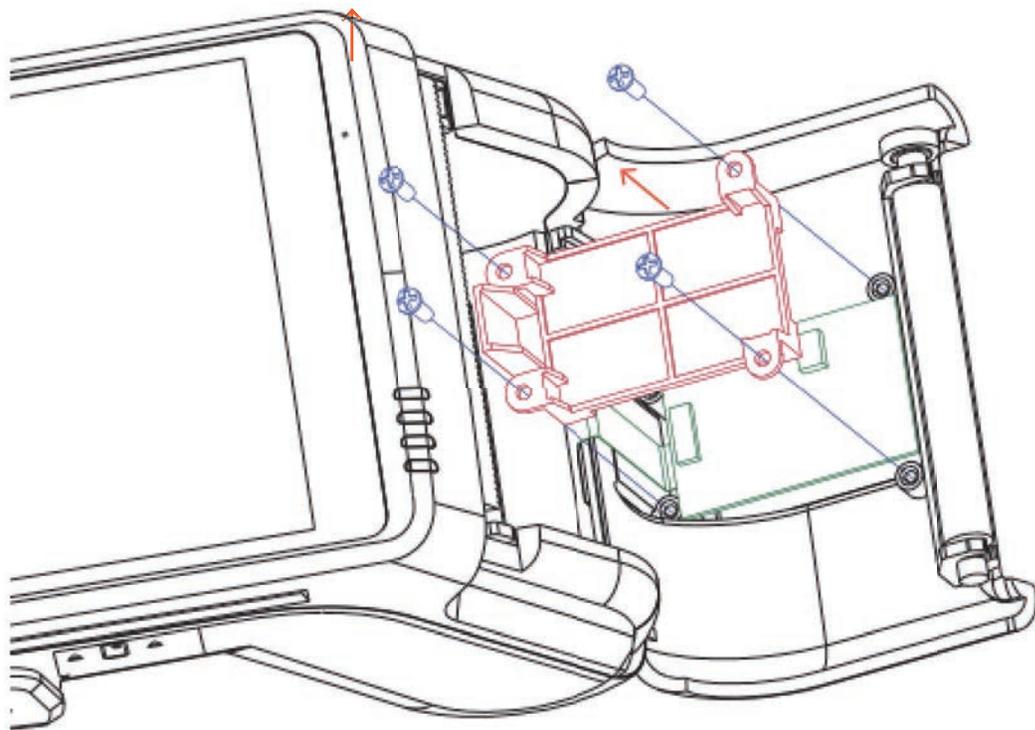
C02-5 Pull out the medium card (TF card, SIM card, PSAM card, etc.)



If the card slot contains the above cards, remove the cards according to the direction of the arrow.

C02 Disassembly - Preparation

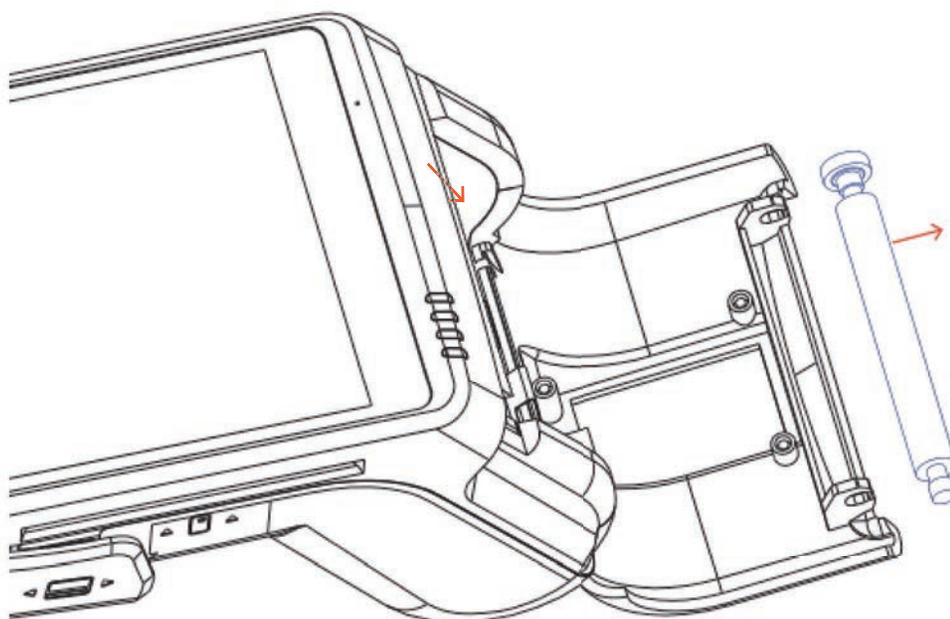
C02-6 Remove fingerprint module (if any)



- ① As shown, remove 4 screws.
- ② Along the direction of the arrow to take off the fingerprint module pressure-pad.
- ③ Separate the fingerprint module with FPC.

C02 Disassembly - Preparation

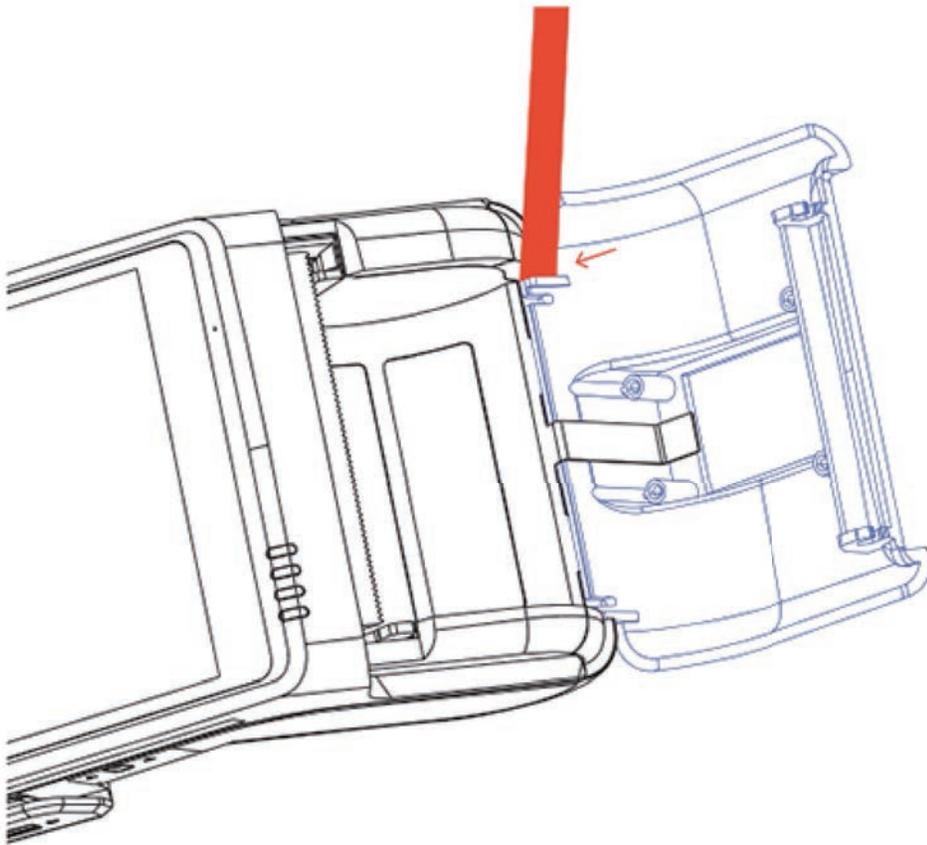
C02-2 Replace the paper roller (independent step)



Pull out the roller in the direction the arrow.

C02 Disassembly - Preparation

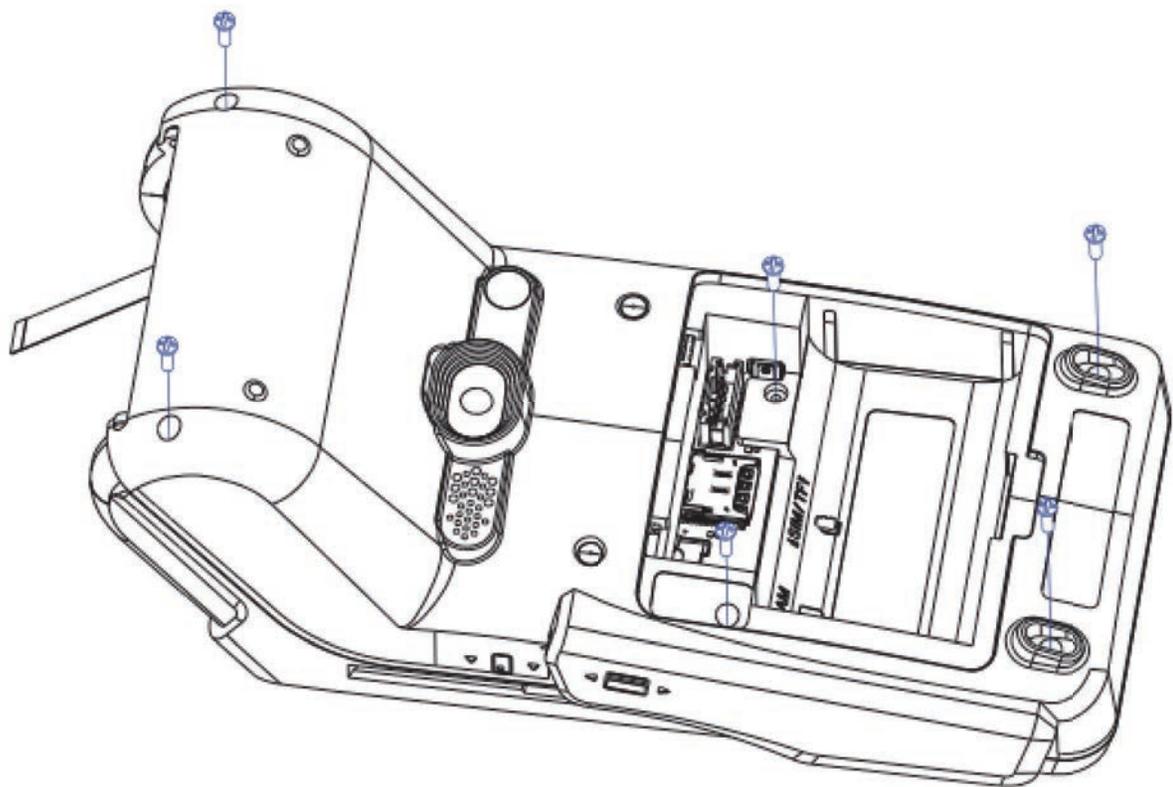
C02-8 Replacement of paper hatch cover (iseparate steps)



As shown in the figure, use a pry bar (or a slotted screwdriver) to slightly push the buckle out. And pull out the paper hatch cover.

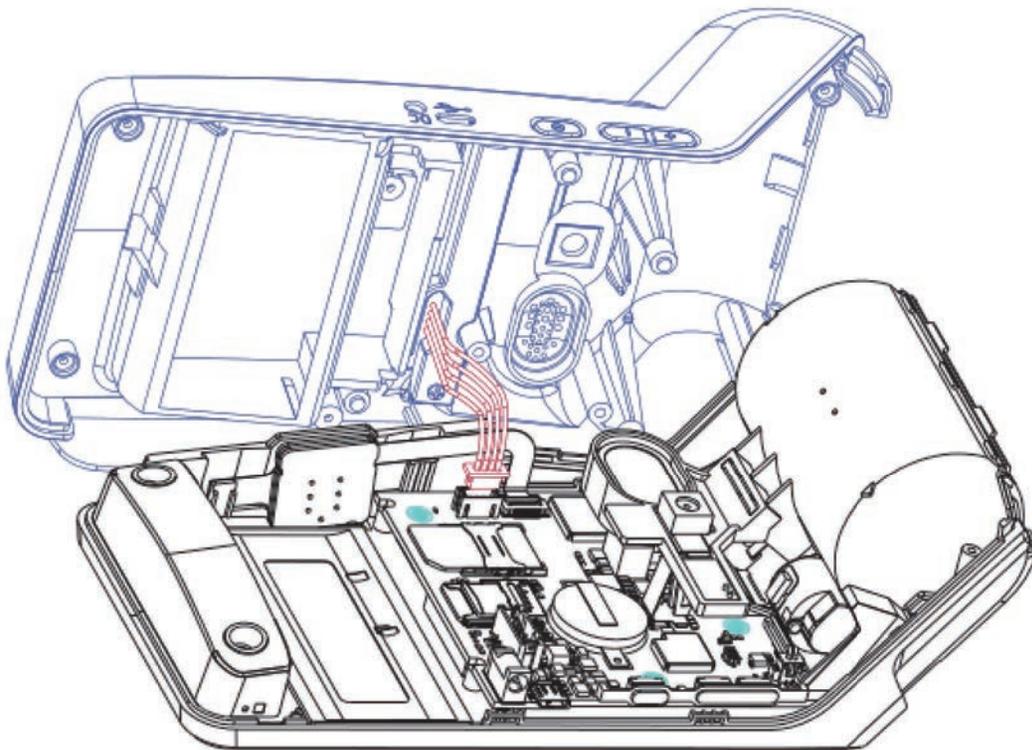
C03 Disassembly - Split Back Cover

C03-1 Remove screws



C03 Disassembly - Split Back Cover

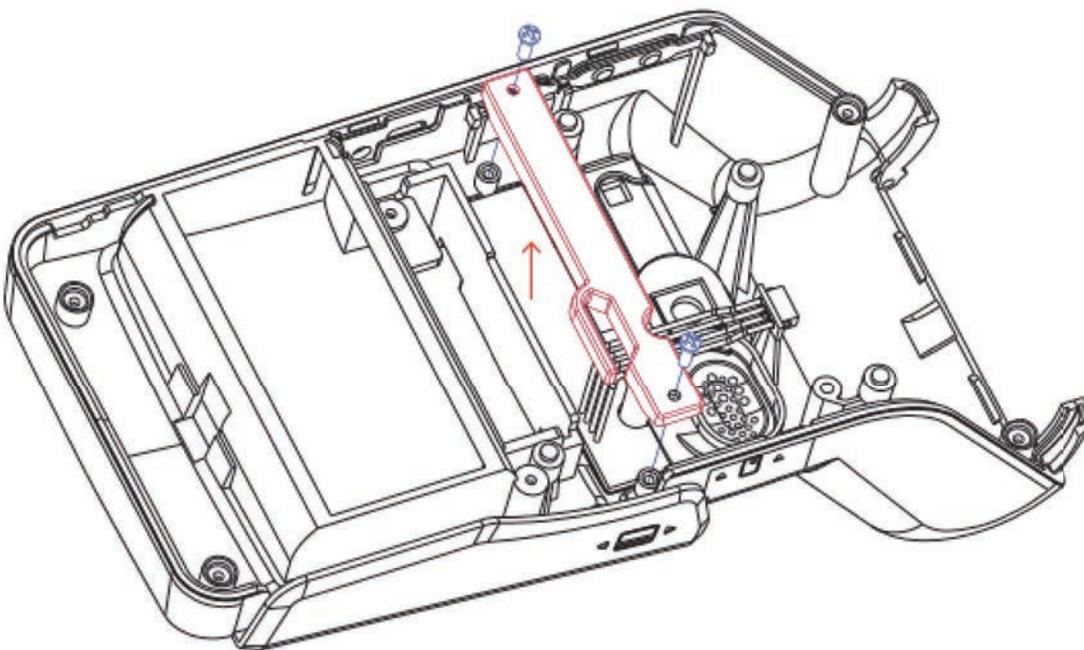
C03-2 Separate the front and back covers.



- ① Lift up the back cover.
- ② Use flat-head tweezers to separate the charging contact connector (if any).

C03 Disassembly - Split Back Cover

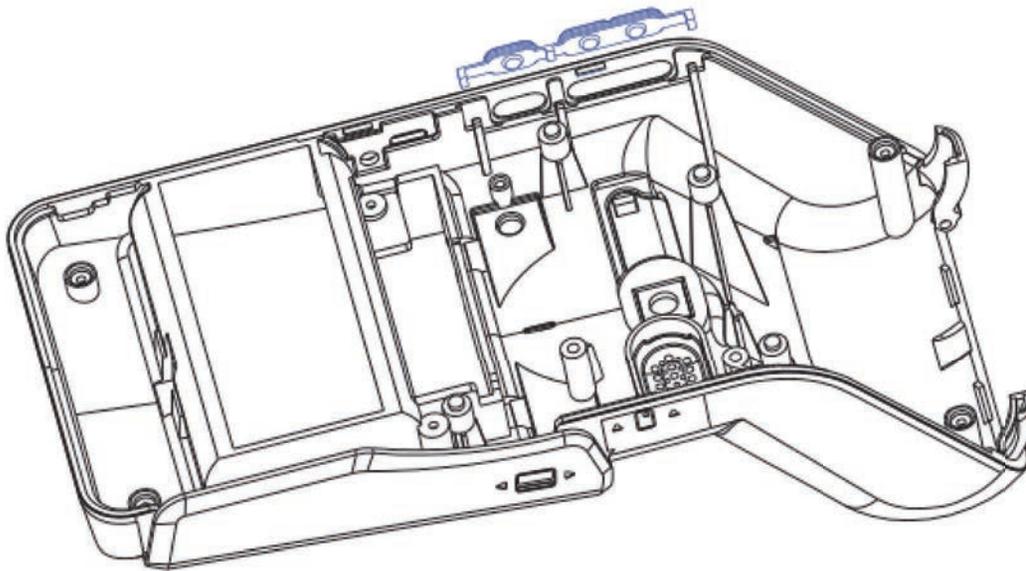
(independent steps).



- ① As shown, remove 2 screws.
- ② Remove the charging contact plate in the direction of the arrow.

C03 Disassembly - Split Back Cover

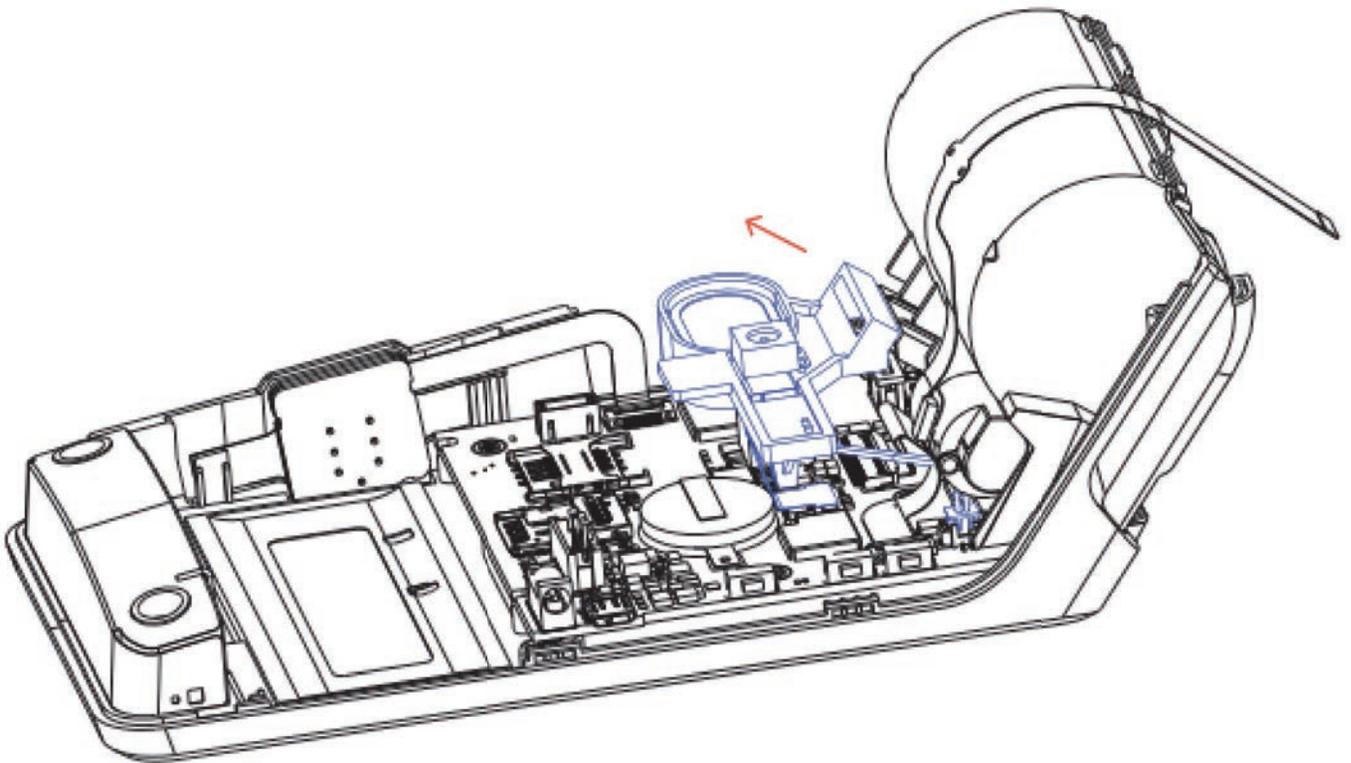
C03-4 Remove the plastic button



As shown in the figure, use the tweezers to remove the plastic button.

C04 Disassembly - Separate Camera and Speaker Bracket

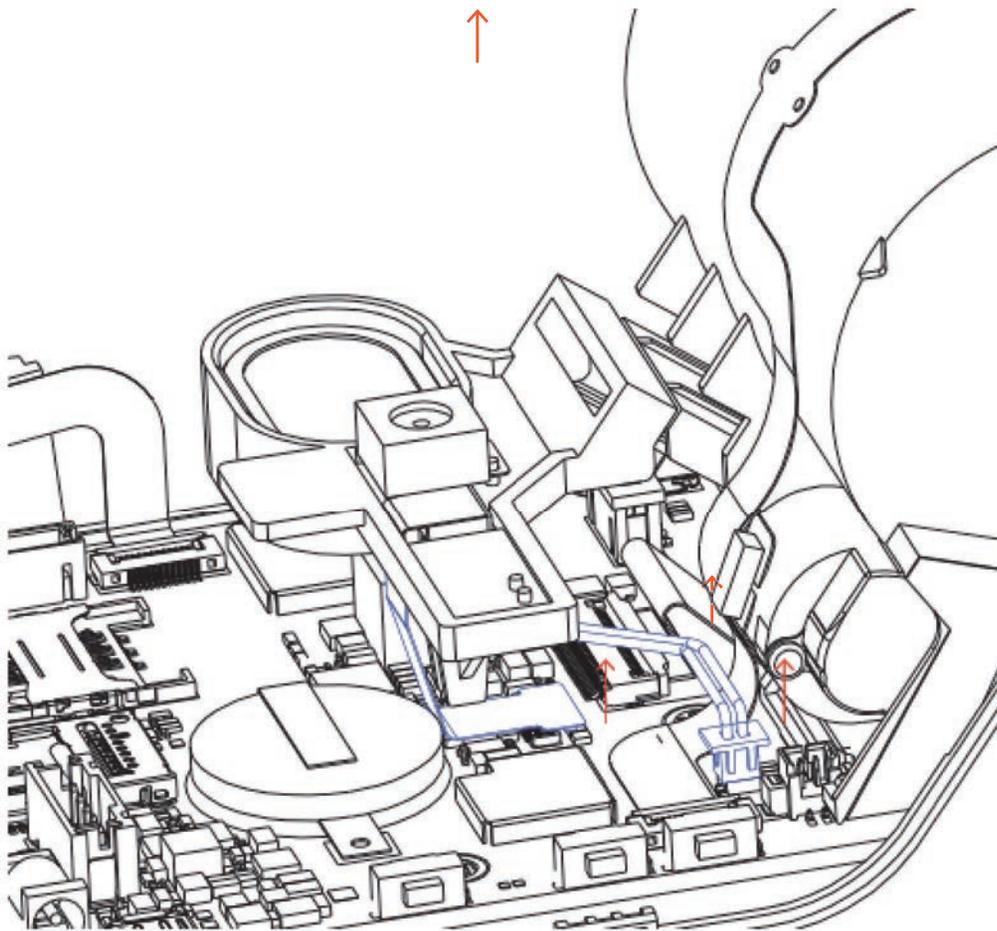
C04-1 Separate camera and speaker bracket



As shown in the figure, take out the camera and the speaker bracket in the direction of the arrow.

C04 Disassembly - Separate Camera and Speaker Bracket

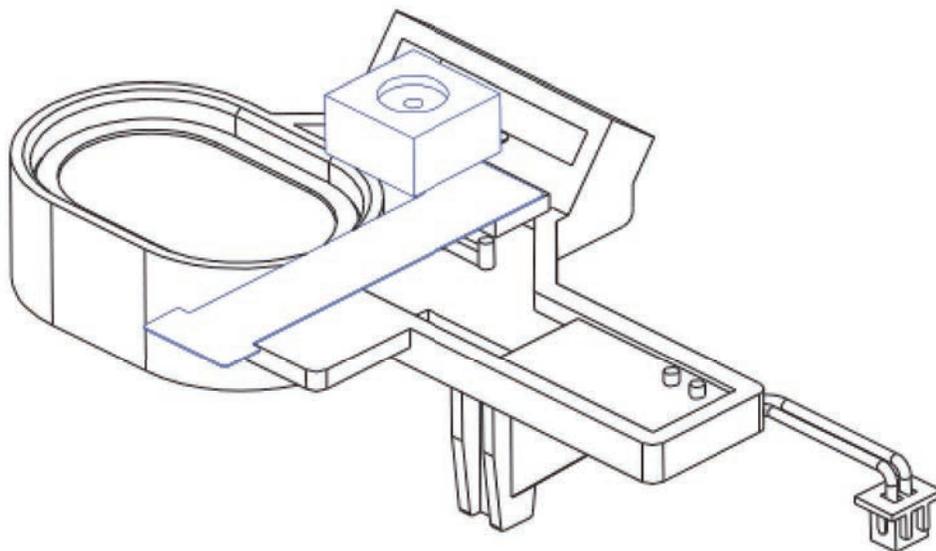
C04-2 Pull out the camera and speaker connector



As shown, carefully separate the camera and speaker connector from the motherboard.

C04 Disassembly - Separate Camera and Speaker Bracket

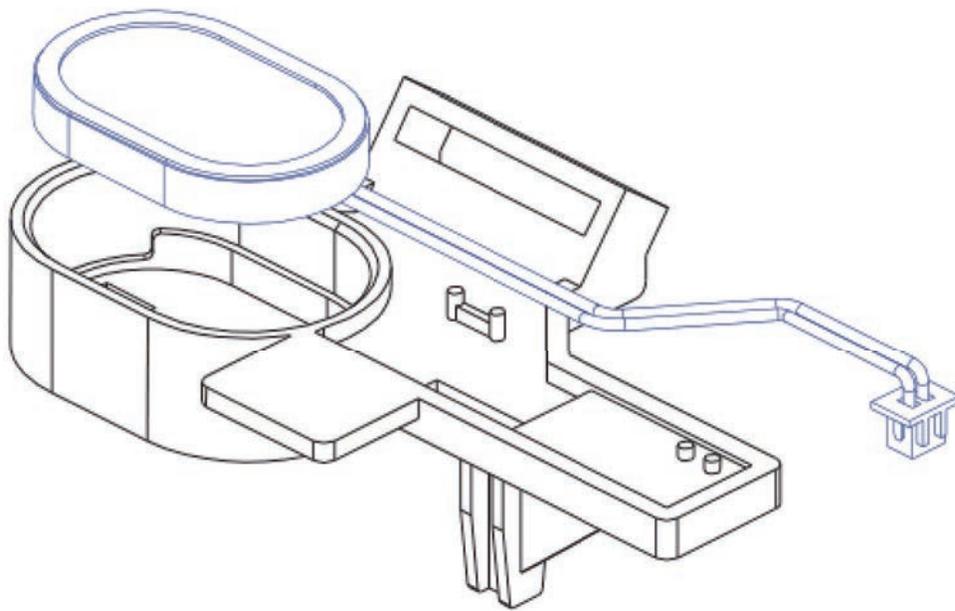
C04-3 Replacing the camera (independent steps)



As shown in the figure, remove the camera (there is gum between the back of FPC and the bracket).

C04 Disassembly - Separate Camera and Speaker Bracket

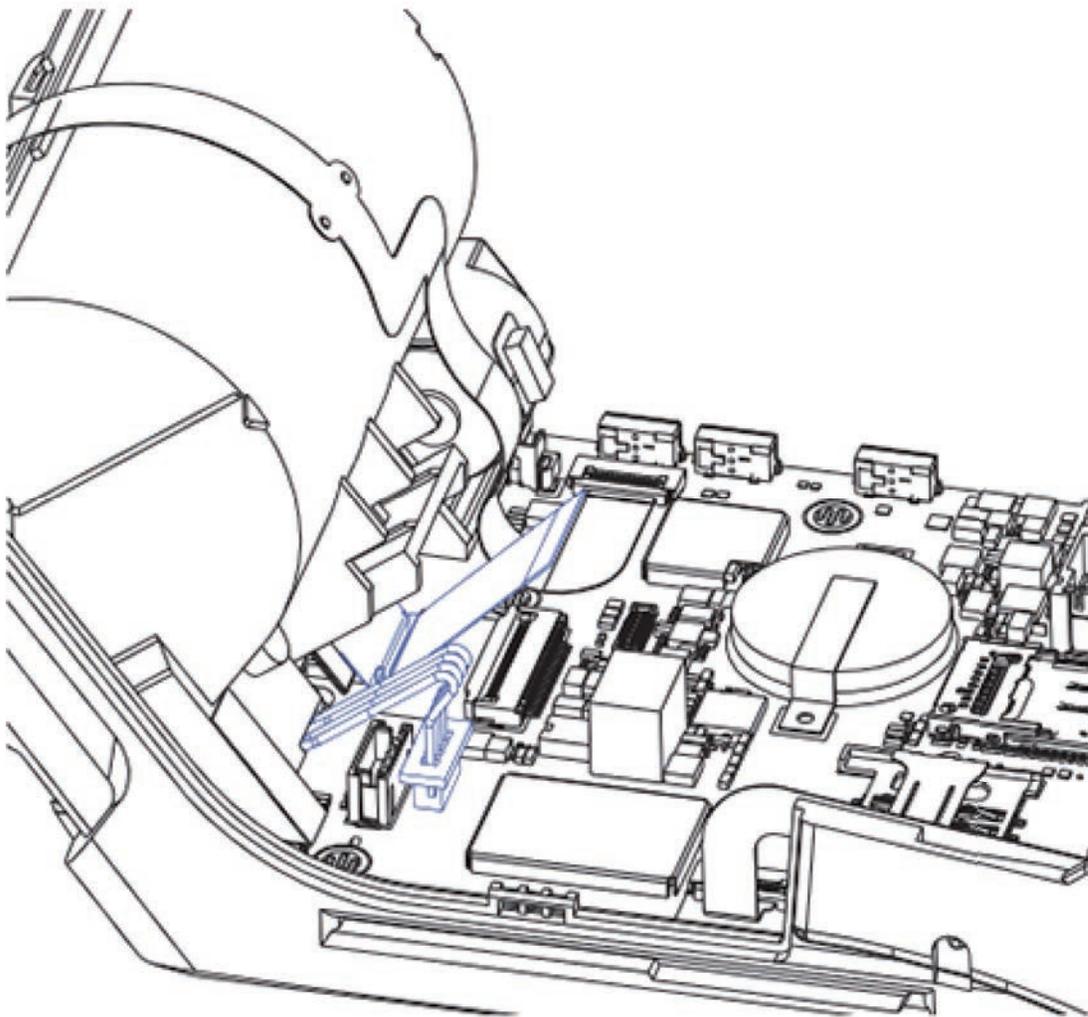
C04-6 Removing the main antenna (independent steps)



As shown in the figure, remove the speaker.

C05 Disassembly - Separate the printer holder

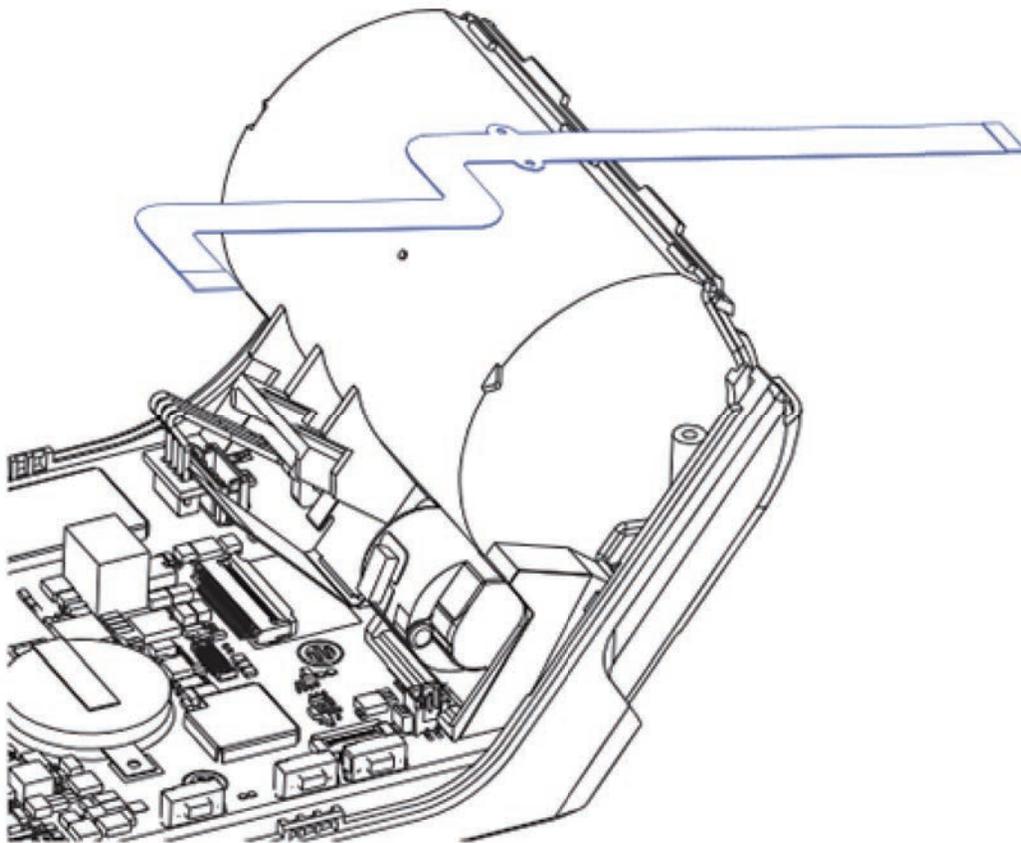
C05-1 Pull out the printer and the contactless antenna plug



As shown, pull out the printer and the contactless antenna plug.

C05 Disassembly - Separate the printer holder

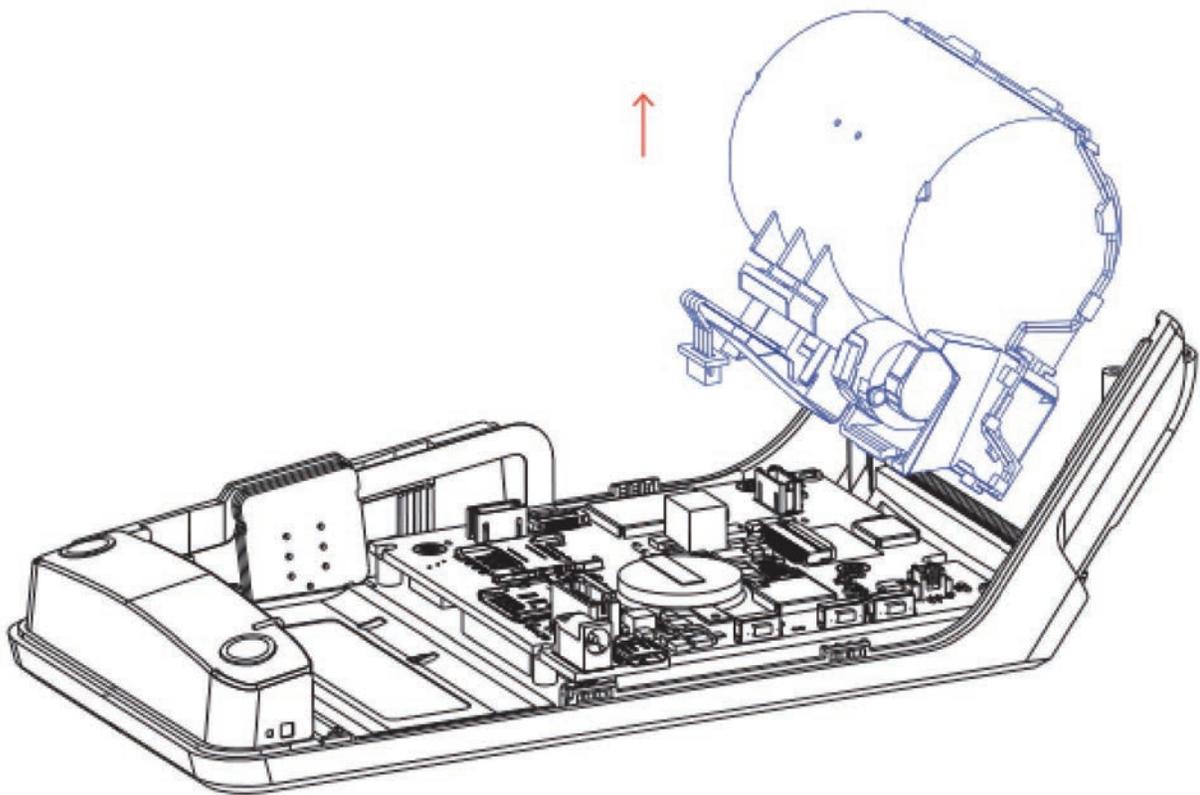
C05-2 Removing the fingerprint module FPC (if any)



As shown in the figure, remove the fingerprint module FPC
(there is gum between the back of FPC and the bracket)

C05 Disassembly - Separate the printer holder

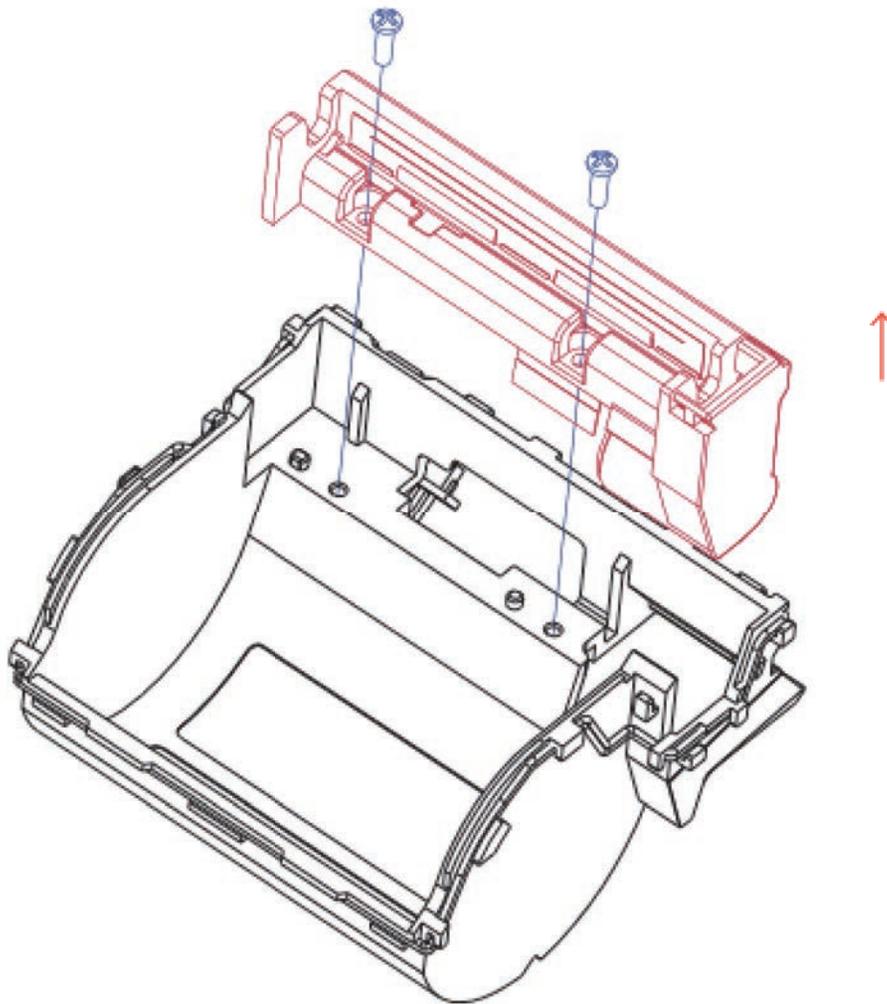
C05-3 Removing the printer holder



Remove the printer holder in the direction of the arrow.

C05 Disassembly - Separate the printer holder

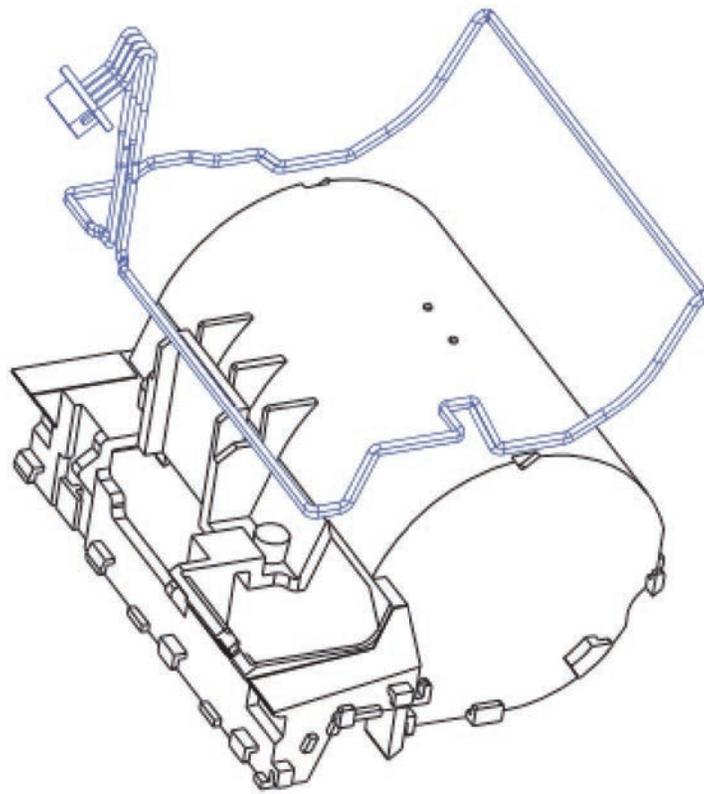
C05-4 Replacing the printer (independent steps)



- ① As shown, remove 2 screws.
- ② Remove the printer module in the direction of the arrow.

C05 Disassembly - Separate the printer holder

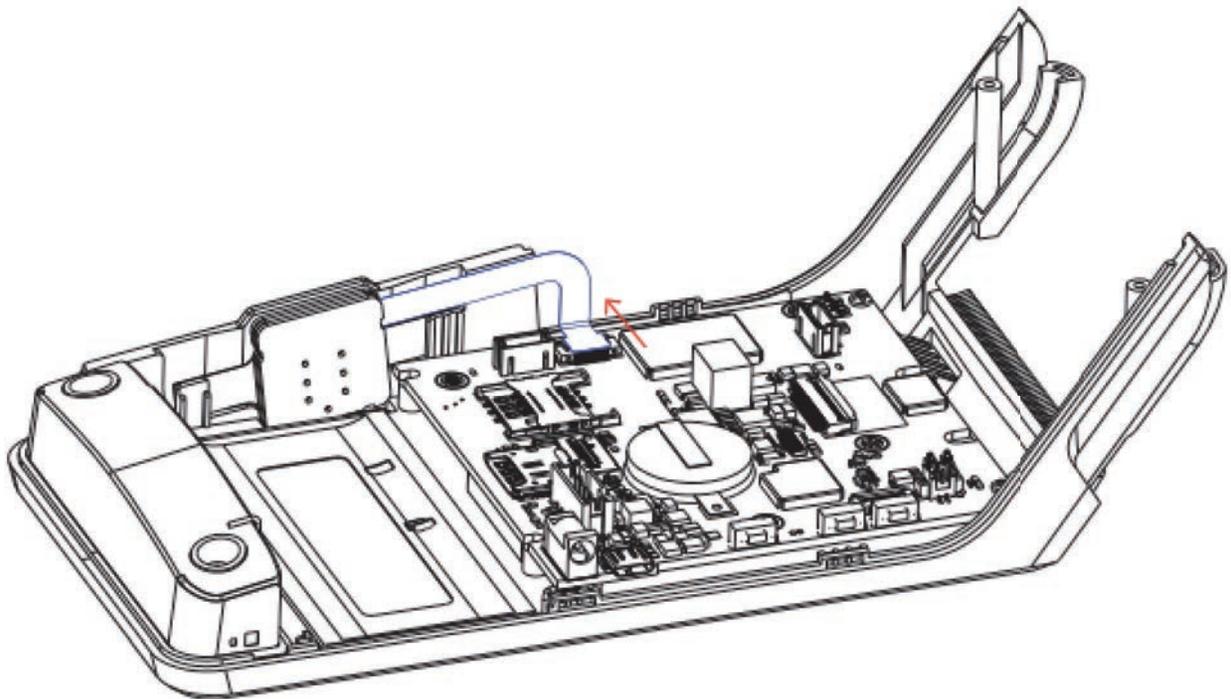
C05-5 Replace the contactless antenna (independent step)



As shown in the figure, carefully remove the contactless antenna.

C06 Disassembly - Separate the Motherboard

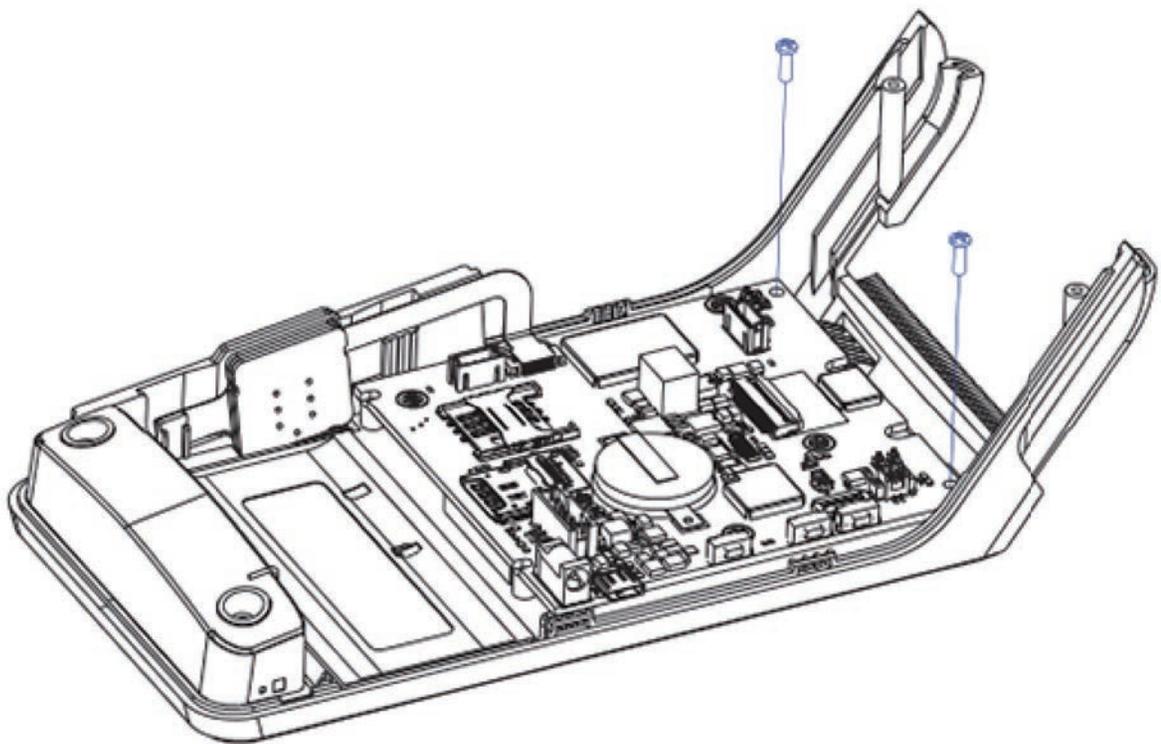
C06-1 Pull out the FPC plug of the MSR



Pull out the MSR plug in the direction of the arrow.

C06 Disassembly - Separate the Motherboard

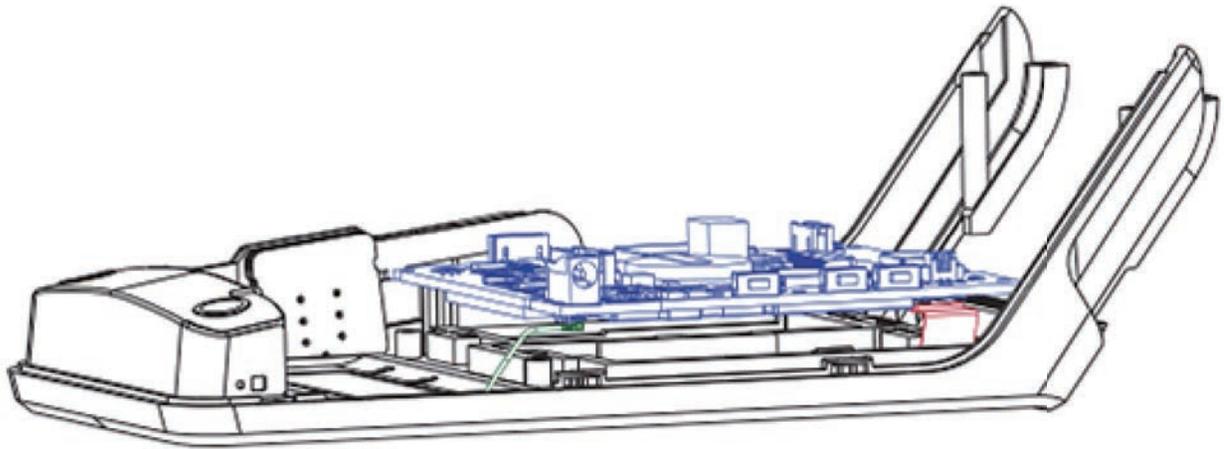
C06-2 Removing the fixing screws on motherboard



As shown in the figure, remove the 2 fixing screws on the motherboard.

C06 Disassembly - Separate the Motherboard

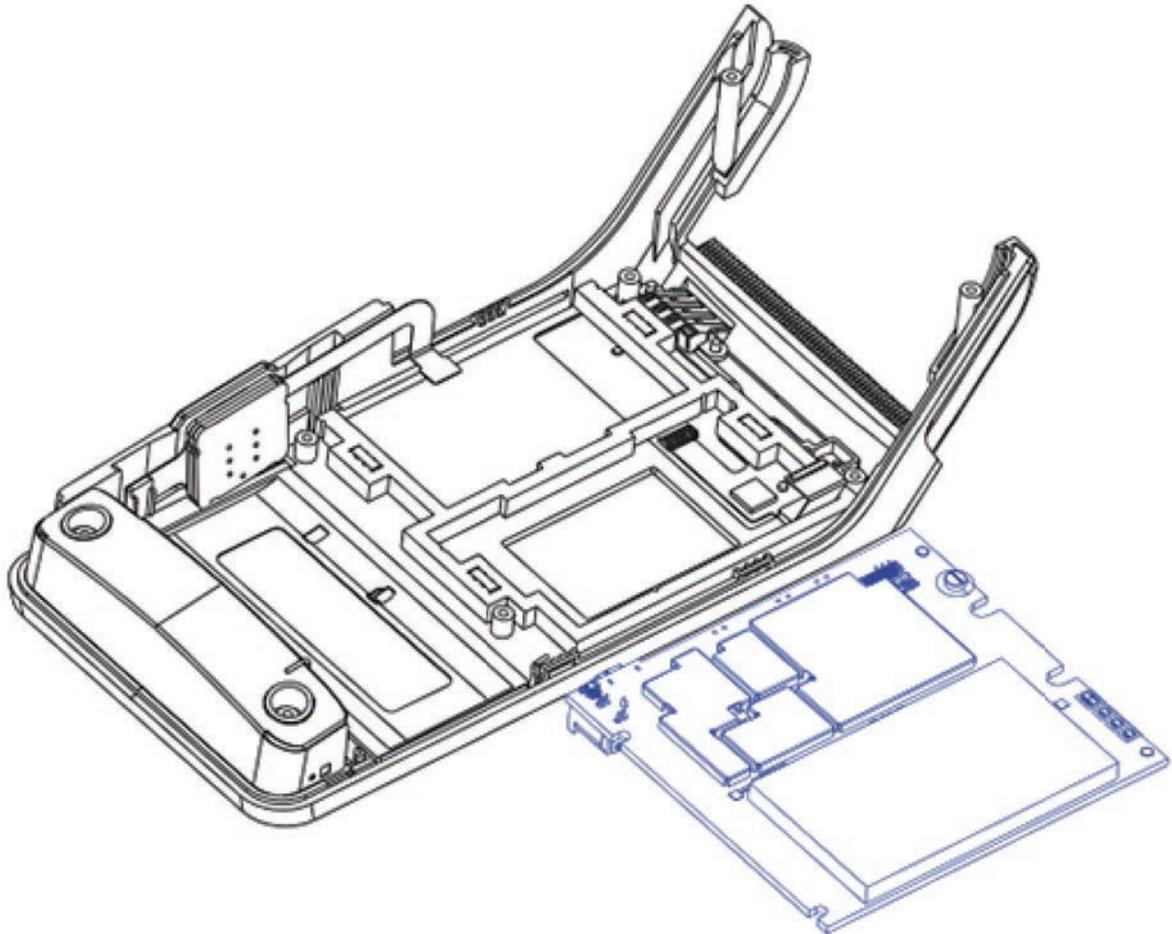
C06-3 Removing the motherboard



- ① As shown in the figure, lift the main slightly.
- ② Carefully separate the LCD panel FPC plug.
- ③ Separate the main antenna coaxial cable plug.

C06 Disassembly - Separate the Motherboard

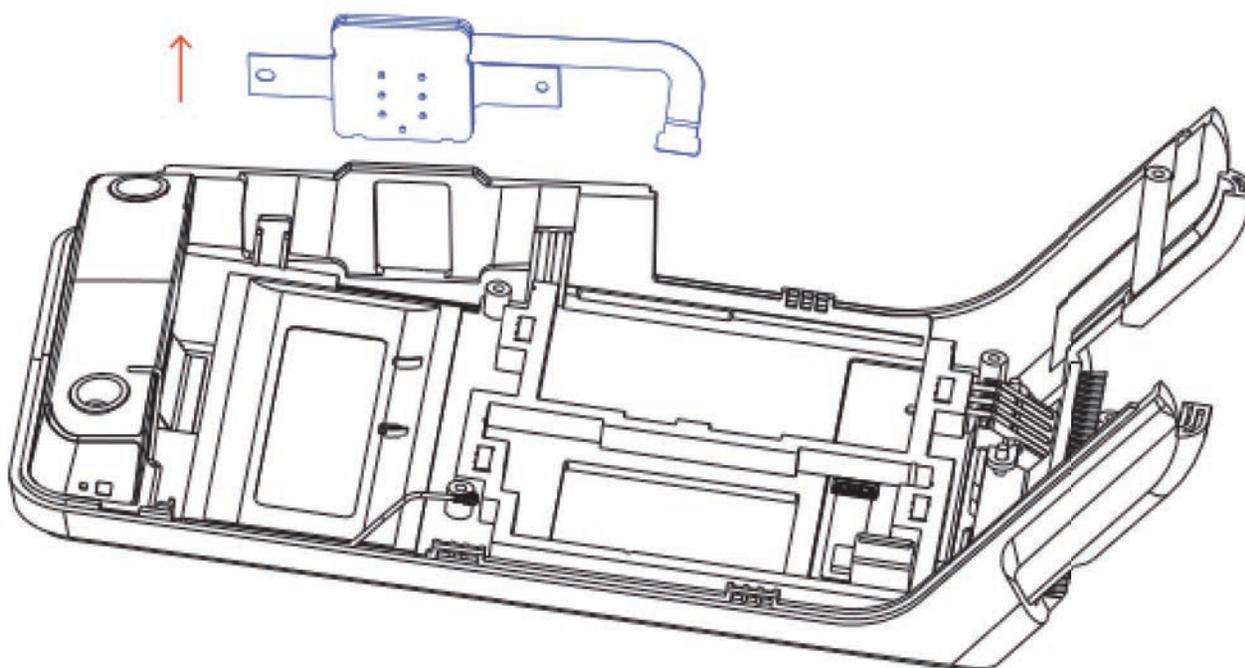
C06-3 Removing the motherboard



- ④ Lift up and pull to remove the motherboard.

C07 Disassembly - Removing Front Shell Assembly

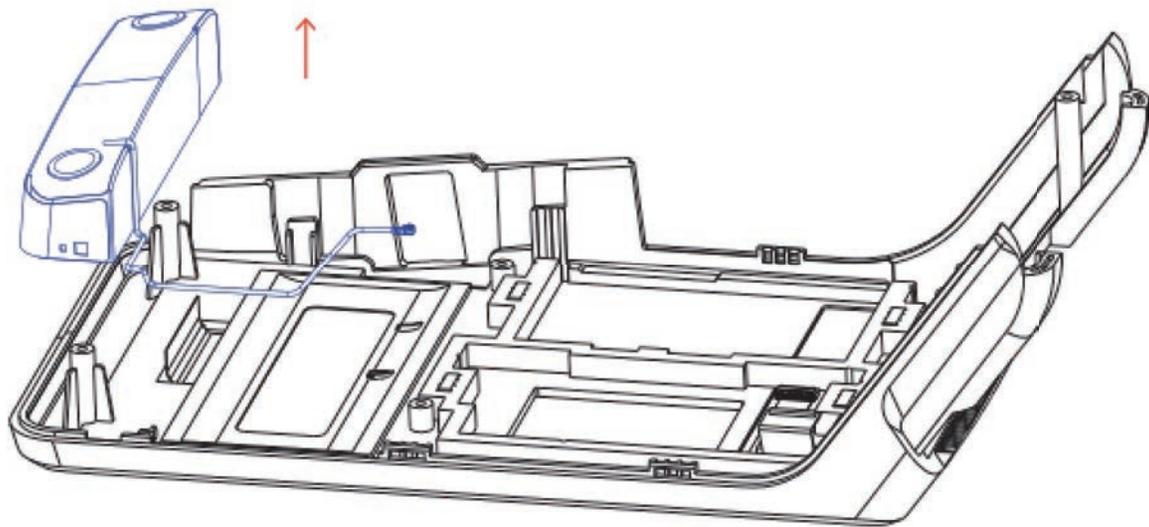
C07-1 Remove MSR



Use a pair of tweezers to carefully remove the swipe head in the direction of the arrow.

C07 Disassembly - Removing Front Shell Assembly

C07-2 Removing the main antenna bracket



Take the main antenna holder in the direction of the arrow.

WIZARPOS Q2 REPALR MANUAL



Disassembly Manual

Document number : WI-PD-007
Document version: V0.1

D01 SN Injection

1.Boot interface as follows



2.Connect the terminal and the scanner, align the scanner with the corresponding SN on the terminal tag, as shown below, and start scanning



3.After the scan is successful, check whether the input terminal SN information is correct. If it is correct, click "OK" and if it is wrong, scan again, as shown below.



4. When the terminal SN scan is successful, a prompt box will pop up to input the battery serial number. As shown below, align the terminal battery SN bar code and begins to scan the battery SN.



5. After the scan is successful, check whether the input battery SN information is correct. If it is correct, click "OK" and if it is wrong, scan again.



6. After the scan is successful, restart the terminal and click Settings -> About POS -> POS Settings to check.



