ZTE中兴® 中兴通讯股份有限公司
ZTE CORPORATION
HeartyService

ZTE V790 WCDMA Mobile Phone After-sales Service Manual (Level 1)

Version 1.0

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1 Product Summary

1.1 Product Overview

Note:

The picture is for reference only, please make the object as standard.

1.2 Standard Configuration

NO.	Name	QTY
1	Handset	1
2	Battery	1
3	Charger	1
4	Data cable	1
5	User manual	1

1.3 Specifications

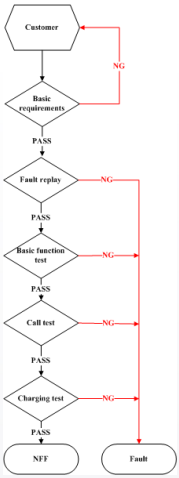
- Frequency: GSM 900/1800/1900 MHz, WCDMA 900/2100 MHz
- Operating system: Android 4.0
- Dimensions: 116 mm × 61.7 mm × 12.6 mm
- Weight: about 120 g (include battery)

- LCD: 3.5 inch 320 × 480 pixels HVGA resolution, 262K color
- Camera: 2.0 megapixel CMOS sensor
- Battery capacity: 1200 mAh
- External T-flash card: up to 32 GByte.
- Earphone: standard 3.5 mm earphone

1.4 Main Functions

- Support dual mode and dual (U)SIM card.
- Support SMS, MMS, phonebook and voice mail.
- Support GPS, bluetooth, WiFi and FM.
- Support MP3, MP4, camera and video.
- Support E-mail, WAP2.0 and WWW browser.
- Support android application software.

2.1 NFF Test

NFF Flow Chart	Items	Steps and Requirements	Tools
	(1) Basic requirements	1. Check whether the accessories in sales package are complete.	/
		2. Make sure that there is not too much dust on the lens.	
		3. The color of waterproof label should remain unchanged.	
		4. Make sure the mobile phone has no physical damage.	
		5. The mobile phone should be still under warranty.	
	(2) Fault replay	1. Insert a test card and battery. Press the **Power** key and check whether it can be switched on.	Test card and battery
		2. Restore factory settings (refer to **User Manual** for details).	
		3. Test the reported faults and make sure that the faults do not replay.	
	(3) Basic function test	Press ***983*70#** and the mobile phone will do basic function test automatically.	Test card and battery
		If the code fails to activate basic function test, visually inspect LCD and manually test ring tone, vibration, keypad, camera and the like.	
	(4) Call test	1. Dial operator service phone number and make sure that the speech quality is good.	Battery, headset and test card
		2. Insert a matched headset. Make sure that the real-time speech quality is good and you can hang up normally.	
	(5) Charging test	Insert the matched charger and make sure that it can charge.	Battery and charger
	Conclusion	Test the mobile phone from step (1) to (5). Stop test if you find faults at one step. And the mobile phone is faulty. If there is no fault after you finish test, the mobile phone is an NFF phone.	
		Note: refer to **User Manual** for the items that the above five steps can not test.	

2.2 IMEI Checking

Press ***#06#** and check whether the IMEI shown in the LCD is the same with the ones in the label, packaging and certificate.

2.3 Software Version Checking

Press [**Menu ® Settings® About phone® Build number**] to check whether the software version is the latest one.

3.1 Before You Begin

3.1.1 Computer and System Requirements

- Computer processor: Pentium 500 MHz or higher
- RAM: 128 MB or more
- Disk space: 50 MB or more
- Supported operating system: Windows 2000/ XP, Vista

3.1.2 Data Cable

Material code of data cable: 052621600325

3.1.3 Service Software

Type	Name	Description
Driver	5.2066.1.14	The driver is used to enable the computer to identify the new hardware. Use the latest version to do operation.
Download platform	SalesMultiDL_MSM-7227V1.00.01	The platform version is for reference only. Use the latest version to do software download.
Software version	00000B0000ZTE_WC-DMA_7227V1.0.0	The software version is for reference only. Use the latest version to do software download. Be sure to upgrade the software version of each faulty mobile phone to the latest one.
Office software	Microsoft Excel	To export download information file.

3.1.4 Cautions

- The software version of each faulty mobile phone should be upgraded to the latest one.
- The software version, download platform software and driver in this document are for reference only, use the latest software to do the software download.

- Be sure to back up all user data in the mobile phone before software download.
- Take out the USIM card from mobile phone before software download.
- Do not disconnect mobile phone and computer in the download process.
- The mobile phone will be out of use in the download process.
- The battery is unnecessary during installing driver or downloading software, so you do not need to install battery to the mobile phone.

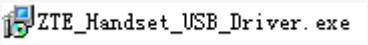
3.2 Install Driver

Prerequisite

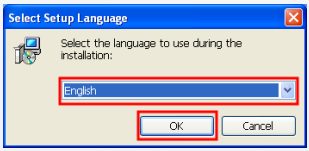
Please use the latest version of cable driver.

Steps

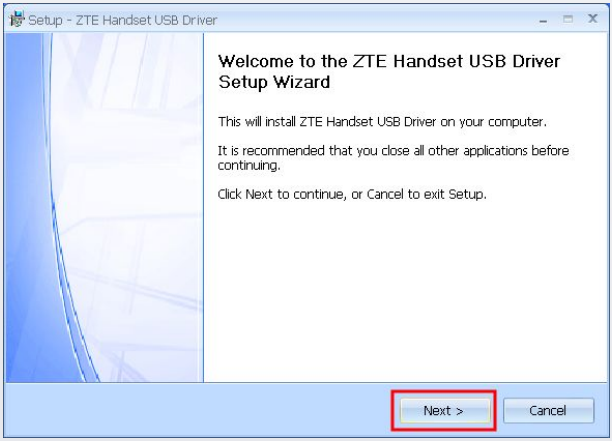
1. Double-click the icon to install driver.



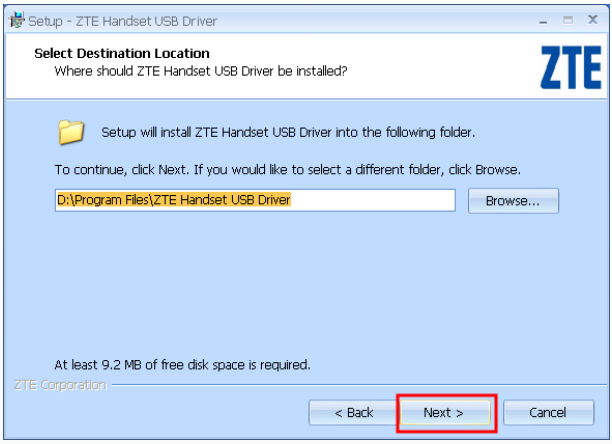
2. Select the setup language and click **OK**.



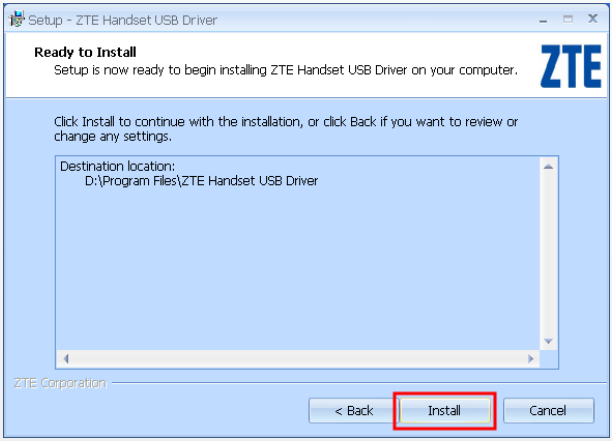
3. Click **Next**.



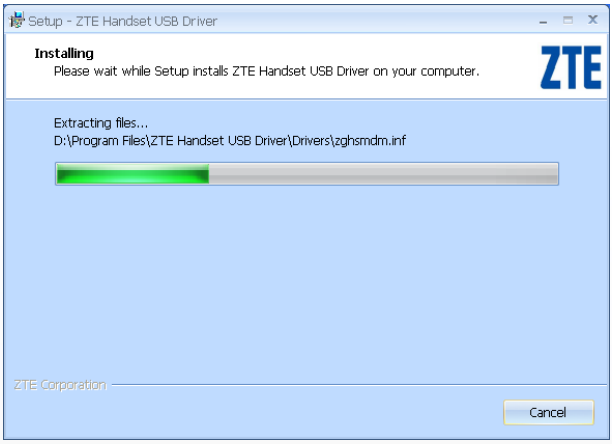
4. Click **Next**.



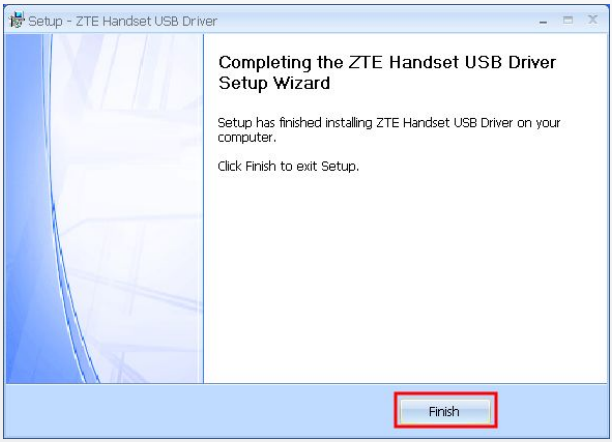
5. Click **Install**.



6. Installing the driver.

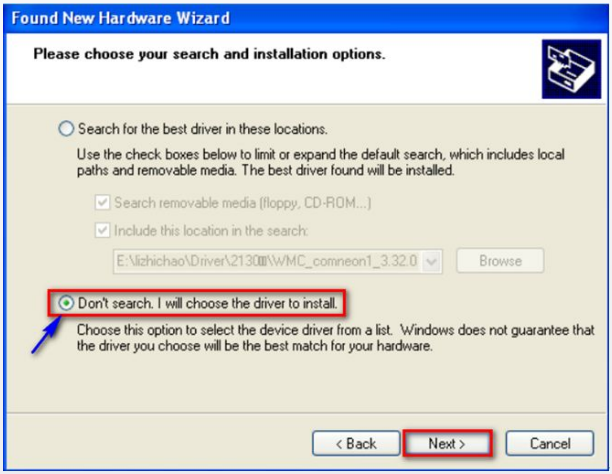


7. Install successfully, click **Finish**.

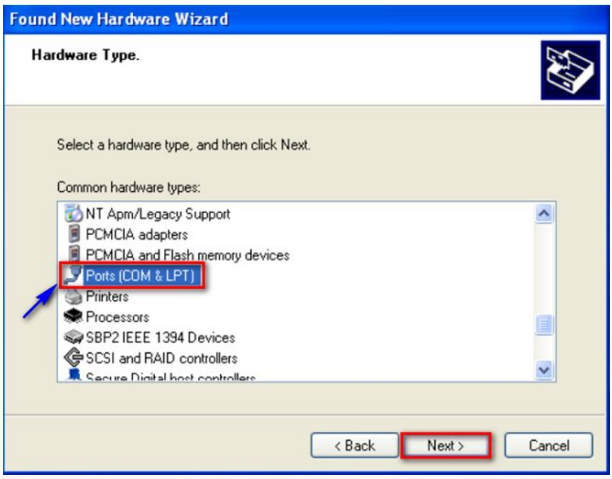


8. If the **Found New Hardware Wizard** appears after installed the driver, try to install the driver as follows.
9. Select **Install from a list of specific location (Advanced)** and click **Next**.

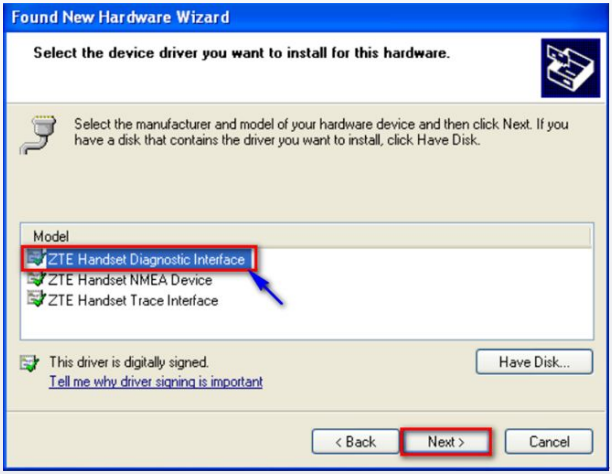
10. Select **Don't search. I will choose the driver to install** and click **Next**.



11. Select **Ports (COM & LPT)** and click **Next**.



12. Select **ZTE Handset Diagnostic Interface** and click **Next**.

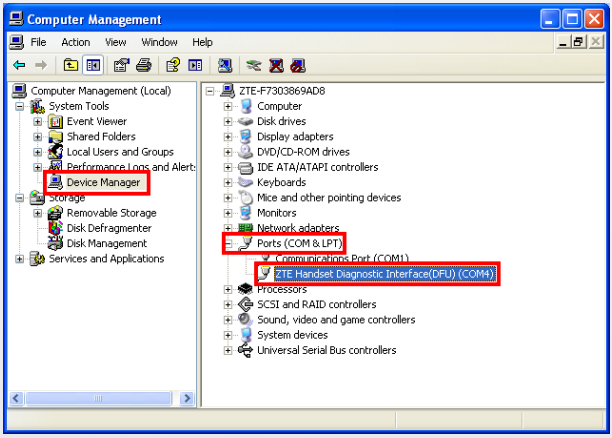


13. Install successfully, click **Finish**.

--End of steps.--

3.3 Check COM Port

1. Press and hold the down volume key.
2. Connect mobile phone and computer with the default Micro-USB cable to enter the FTM mode.
3. Right-click **My Computer**, and click [**Manage® Device Manager® Ports(COM & LPT)**] to check the COM port **ZTE Handset Diagnostic Interface(DFU) (COM**)**.



3.4 Download Software

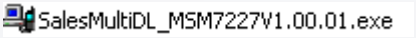
Prerequisite

Note:

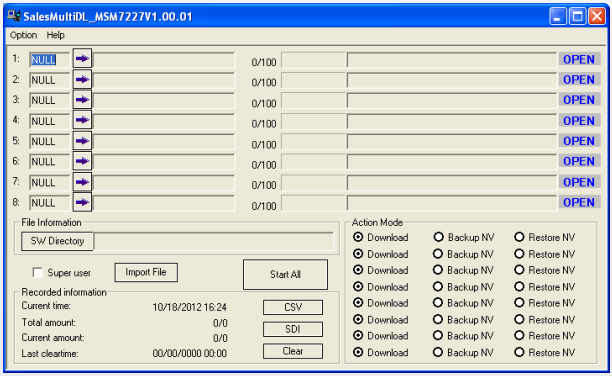
- The battery is unnecessary during downloading software.
- Make sure the mobile phone is in FTM mode before downloading software.
- The download process lasts about 5 minutes.

Steps

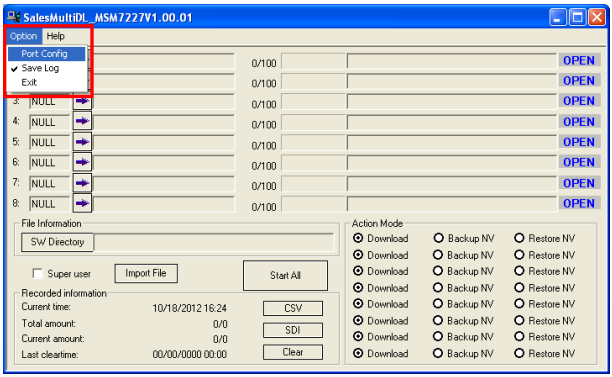
1. Press and hold the down volume key.
2. Connect mobile phone and computer with the default Micro-USB cable to enter the FTM mode.
3. Open the download platform file folder, and double-click the icon to startup the platform.



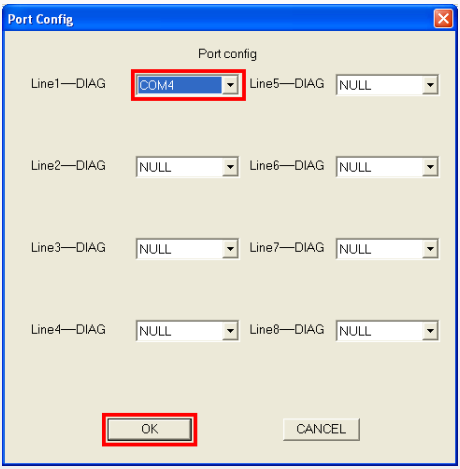
4. Main interface of download platform software is as follows.



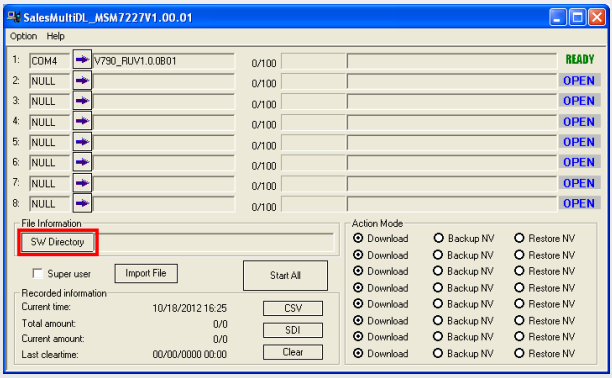
5. Click [**Option® Port Config**] to set the port.



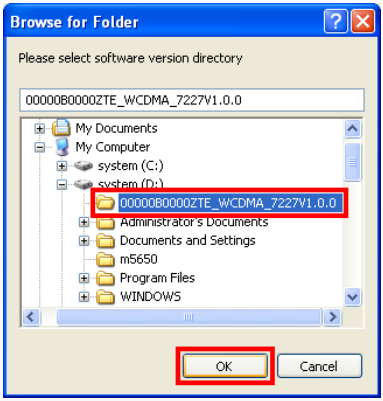
6. Select the correct port, and click **OK**.



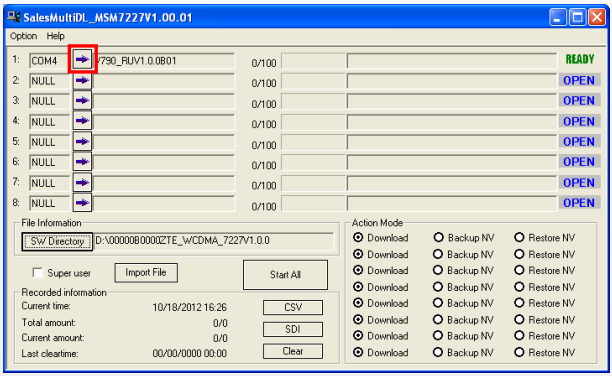
7. Click **SW Directory** to select software file.



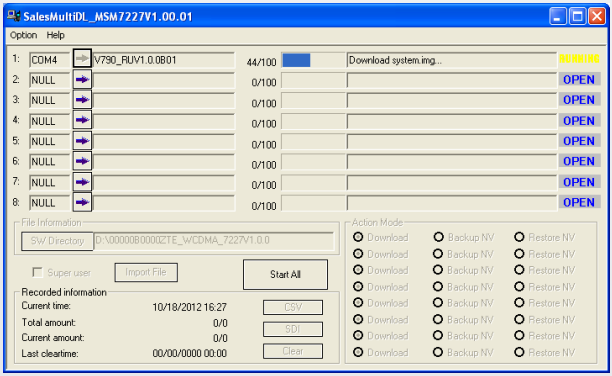
8. Select the correct software version and click **OK**.



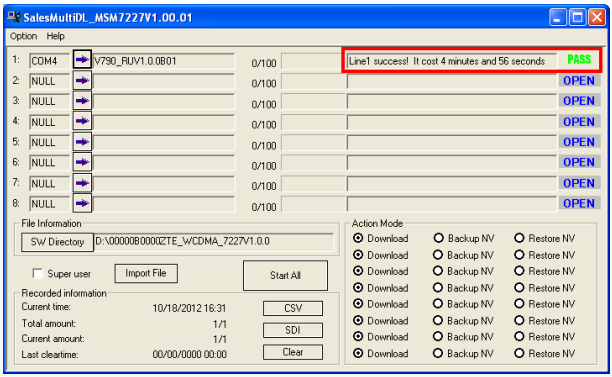
9. Click to start download.



10. Downloading.



11. Download successfully.



--End of steps.--

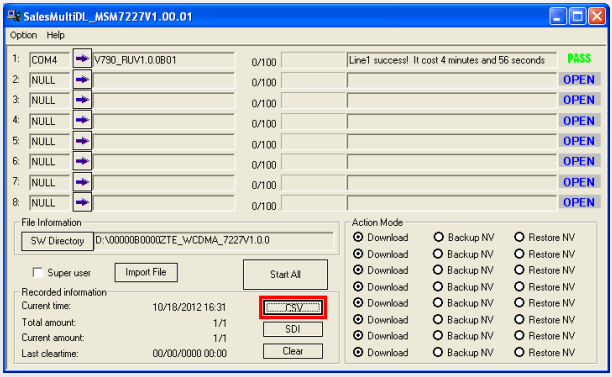
3.5 Export Download Information File

Prerequisite

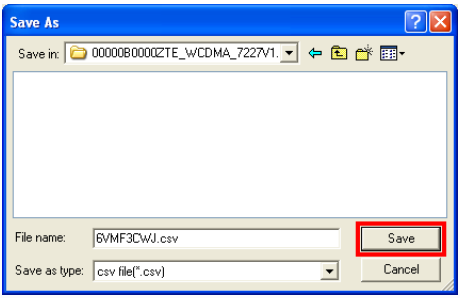
- You can export download information file after successful software download.
- All download information will be deleted after you export SDI file. Therefore, we strongly recommend that you export CSV file before SDI file.

Steps

1. Click **CSV** to export csv file.

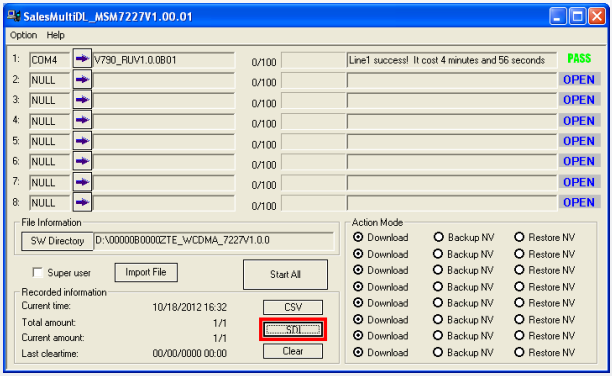


2. Select the saving directory and click **Save**.

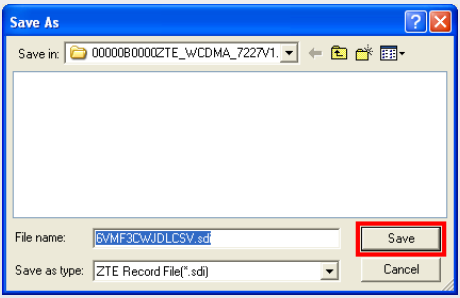


3. Save successfully, click **OK**.

4. Click **SDI** to export SDI file.



5. Select the saving directory and click **Save**.

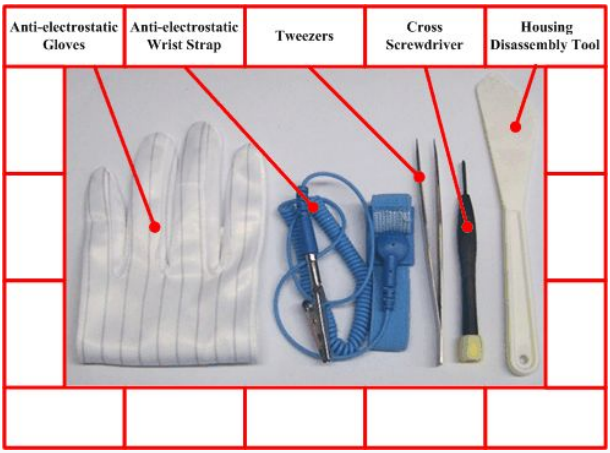


6. Save successfully, click **OK**.

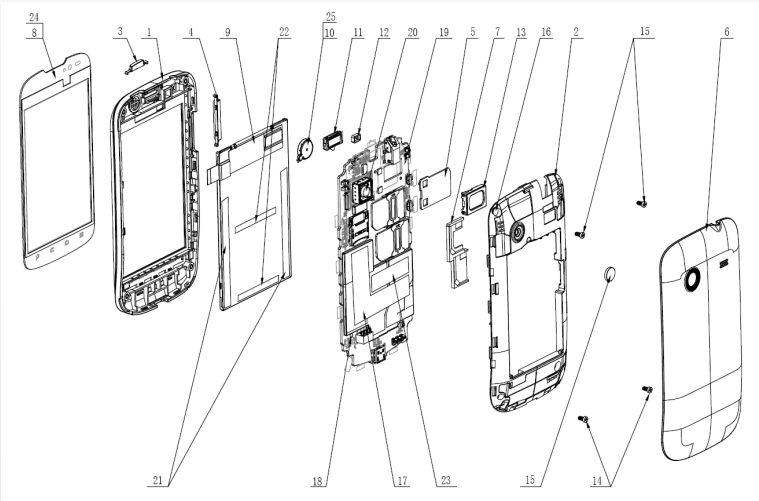
--End of steps.--

4 Disassembly

4.1 Disassembly Tools



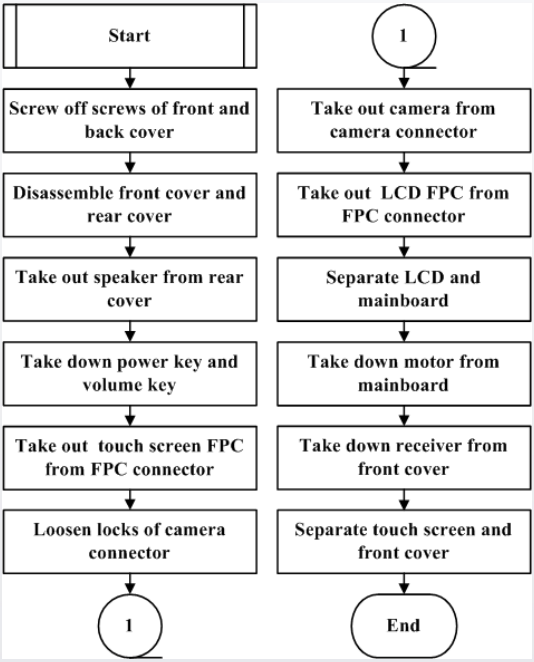
4.2 Exploded View



NO.	Name	NO.	Name
1	Front Cover	14	Screws
2	Rear Cover	15	Camera Lens
3	Power key	16	Anti-disassembly Label
4	Volume Key	17	Model Label

NO.	Name	NO.	Name
5	Speaker Stand	18	Waterproof Label
6	Battery Cover	19	Mainboard
7	USIM Card Stand	20	Camera
8	Touch Screen	21	LCD Conductive Plaster 1
9	LCD	22	LCD Conductive Plaster 2
10	Motor	23	Network Accessing Licence
11	Receiver	24	Touch Screen Protection Film
12	Approach Sensor Cover	25	Motor Plaster
13	Speaker		

4.3 Disassembly Flow Chart



4.4 Disassembly Steps

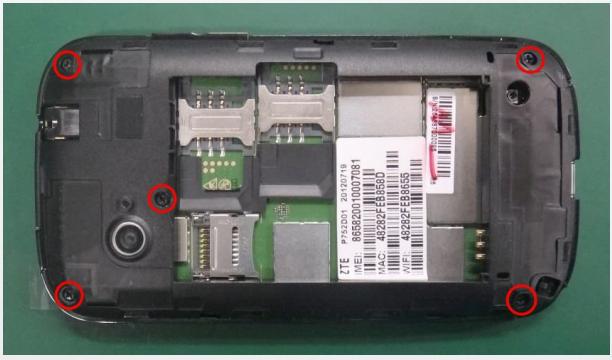
Prerequisite

The mobile phone in this manual is just for your reference. It might not be completely identical with your mobile phone.

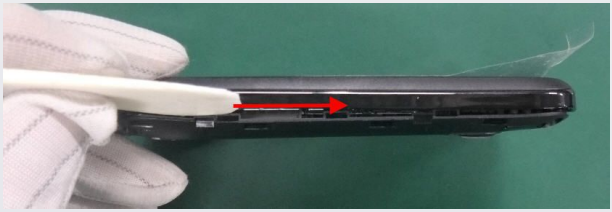
Steps

1. The product overview is as follows.

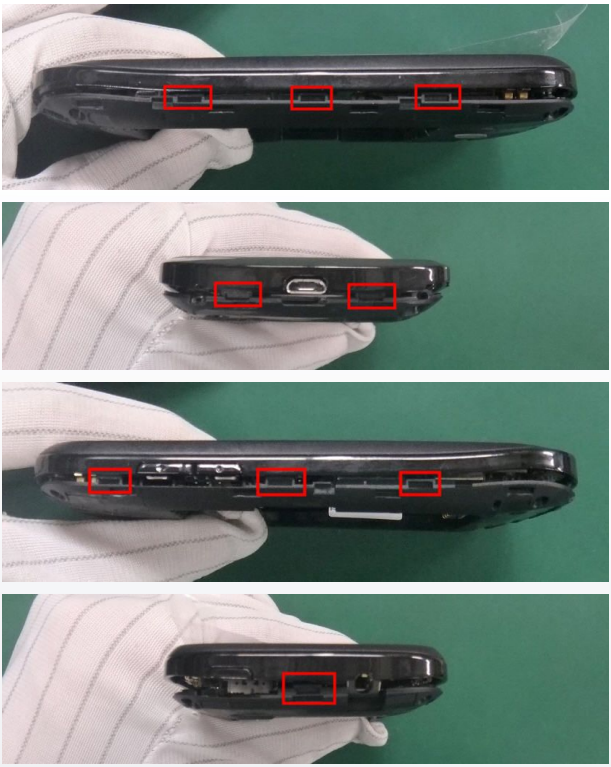
2. Screw off the five screws with screwdriver.



3. Separate the front cover and rear cover from the bottom of the phone.

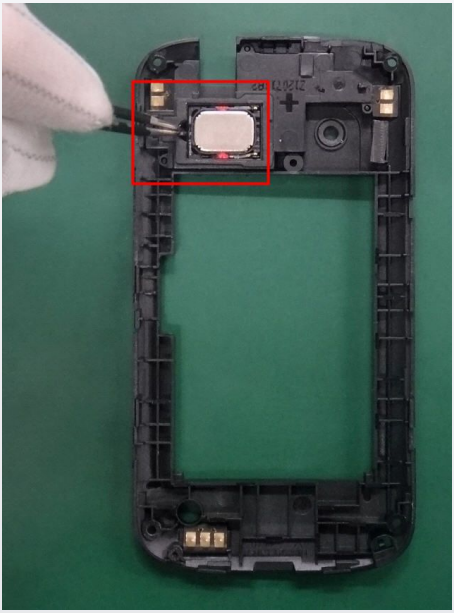


4. Pay attention to the locks when disassembling and assembling.

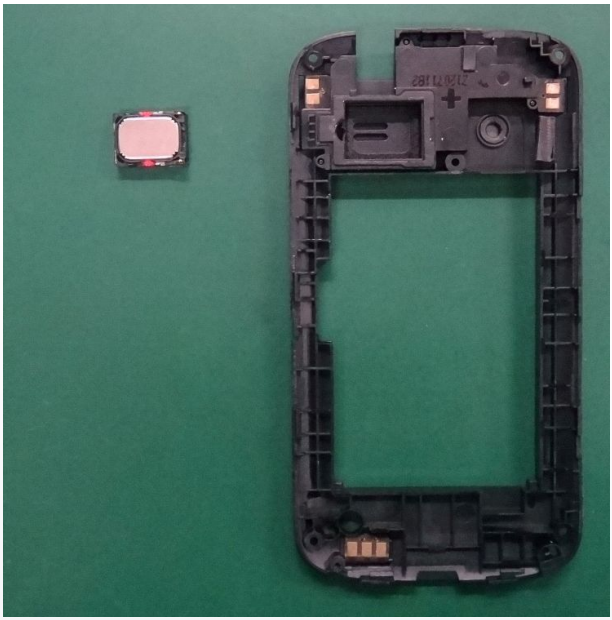


5. The separated front cover and rear cover are as follows.

6. Take out speaker from rear cover.

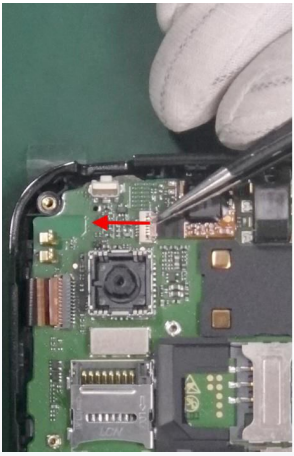


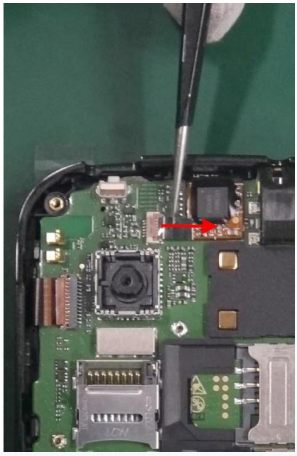
7. The disassembled speaker is as follows.



8. Take down power key and volume key.

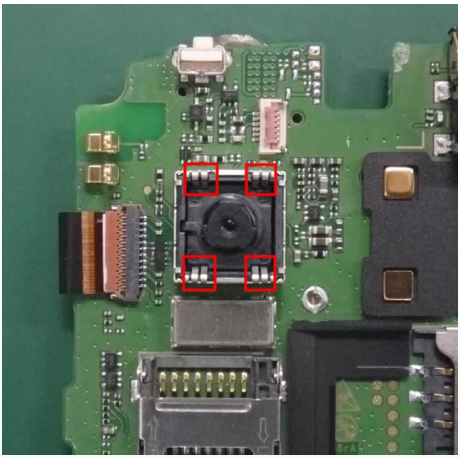
9. Loosen touch screen FPC connector with tweezers, and take out touch screen FPC. Pay attention not to damaging the connector and FPC.



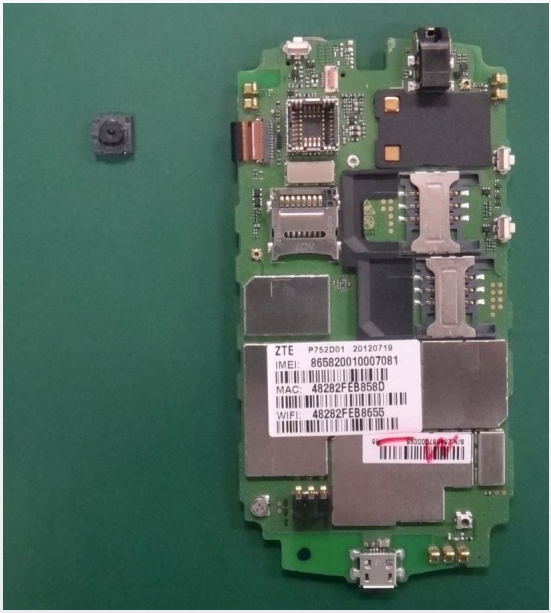


10. Separate mainboard and front cover.

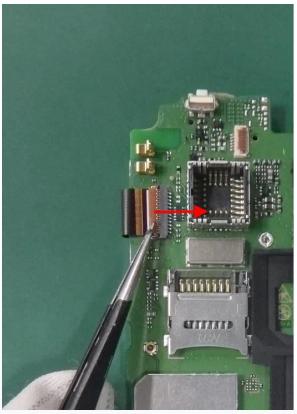
11. Loosen the locks of camera connector with tweezers.

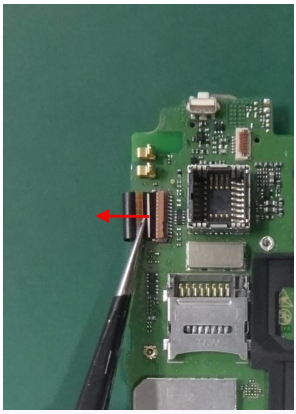


12. Take out camera from camera connector.

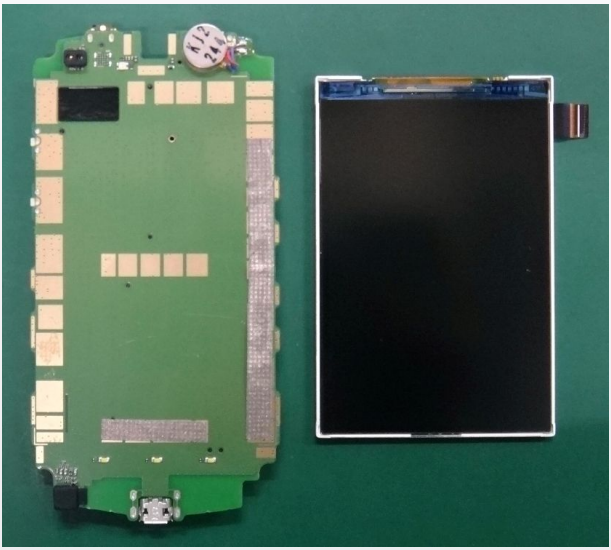


13. Loosen LCD FPC connector with tweezers, and take out LCD FPC. Pay attention not to damaging the connector and FPC.

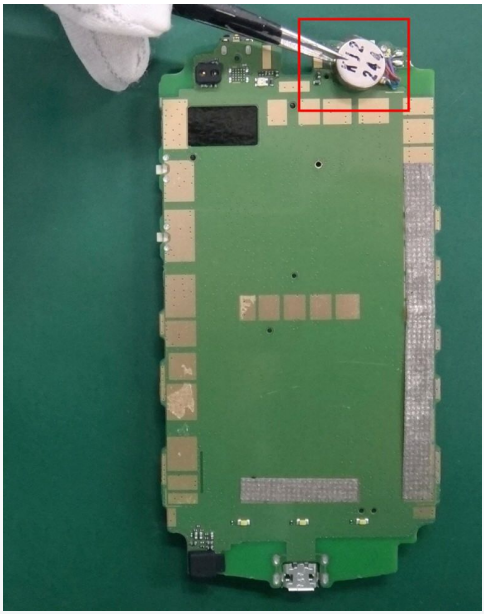




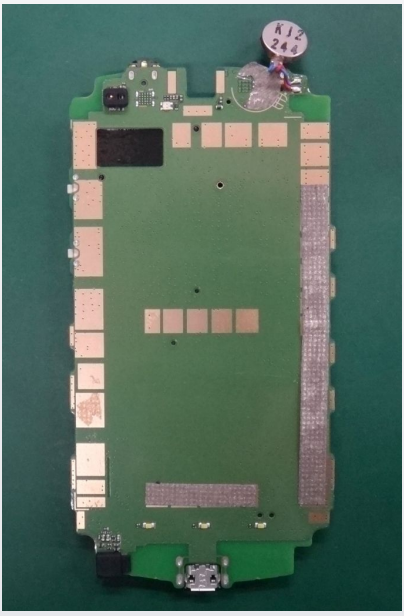
14. Separate LCD and mainboard.



15. Take down motor from mainboard with tweezers.

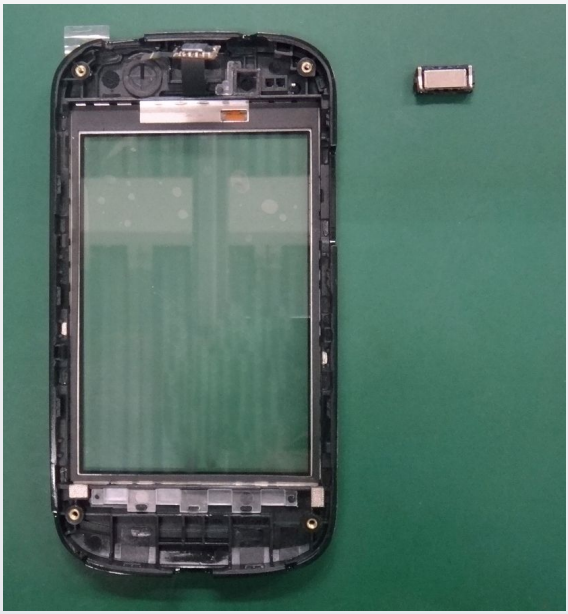


16. The disassembled motor is as follows.

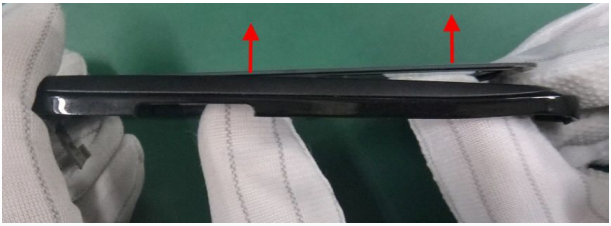


17. Take down receiver from front cover with tweezers.

18. The disassembled receiver is as follows.



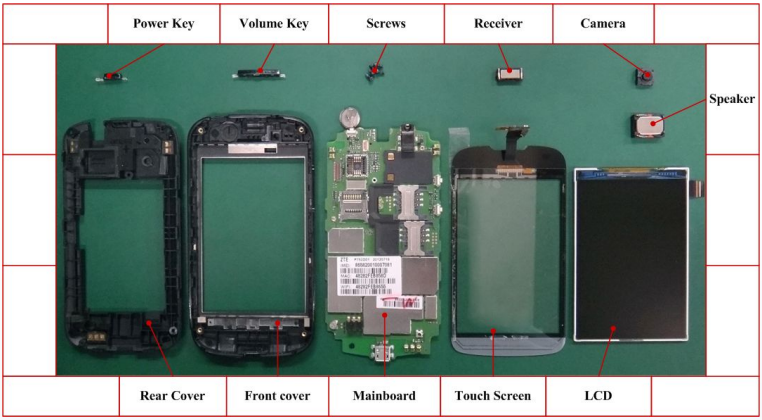
19. Hold front cover, and push the margin of touch screen with the fingers to separate front cover and touch screen.



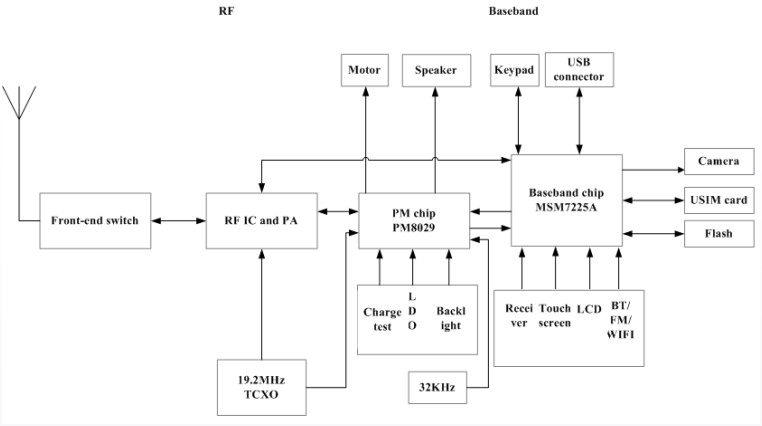
20. The disassembled touch screen is as follows.

--End of steps.--

4.5 Composing



5.1 Principle Block Diagram



5.2 Basic Component Distribution

Figure 1 Mainboard Top View

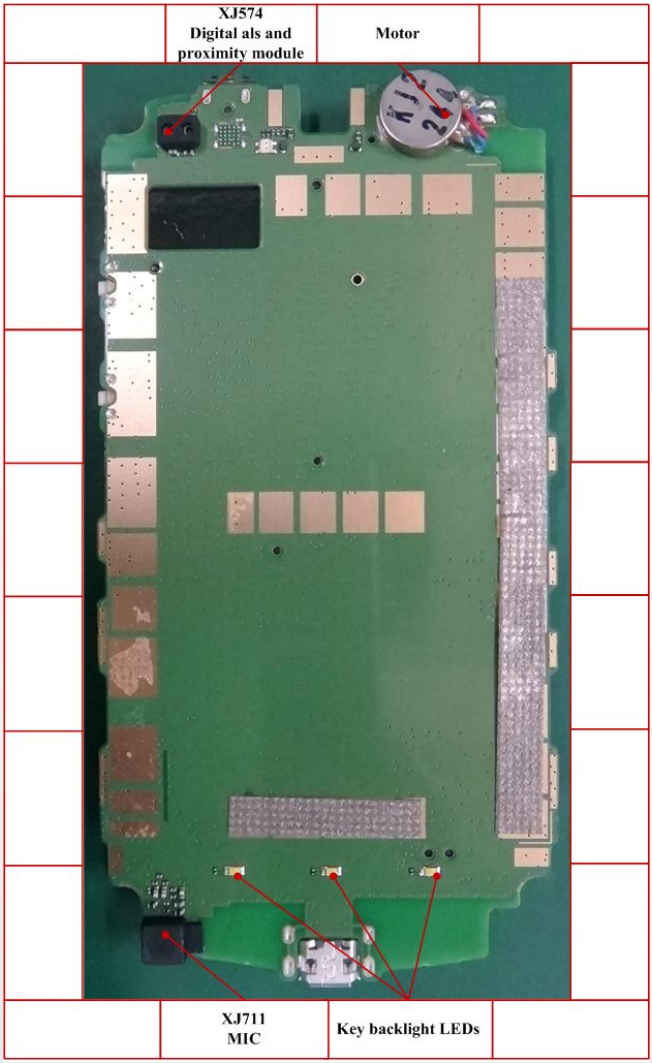
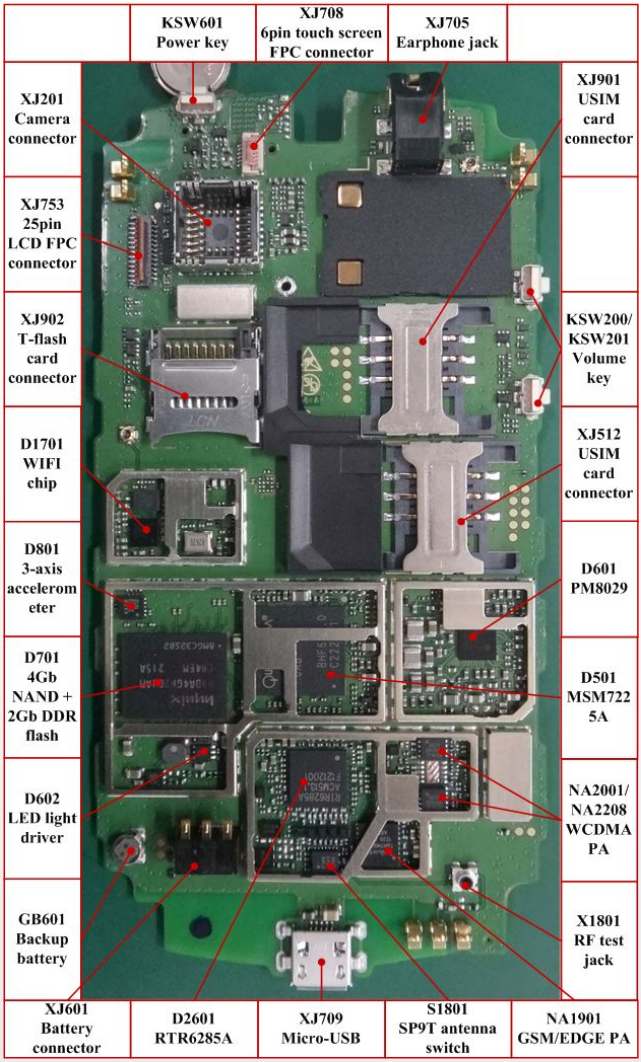


Figure 2 Mainboard Bottom View



5.3 PCB Layout

Figure 3 Mainboard PCB Top

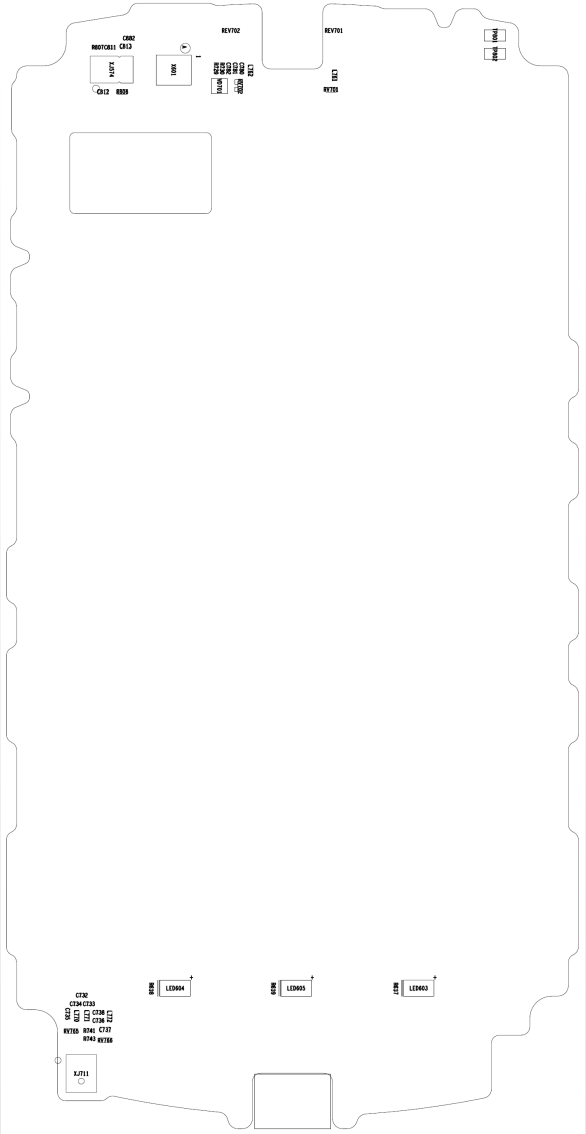
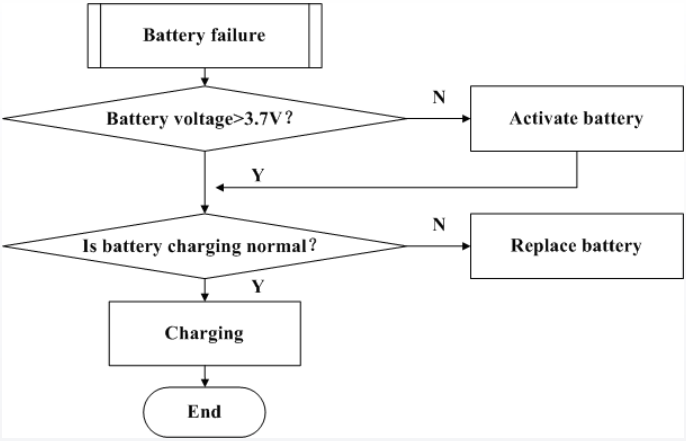


Figure 4 Mainboard PCB Bottom

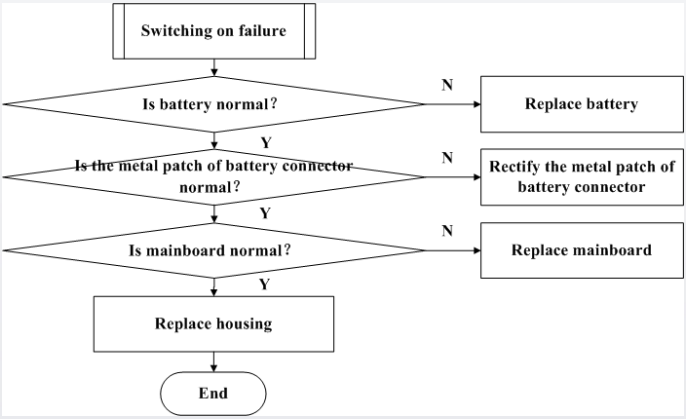
6.1 Housing Failure

For the housing failure, make the corresponding replacement according to 4.4 Disassembly Steps.

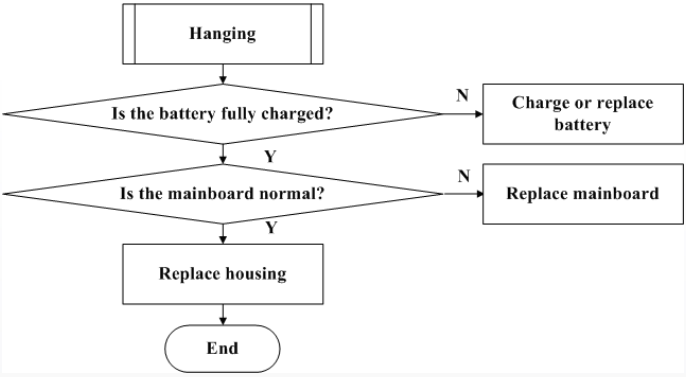
6.2 Battery Failure



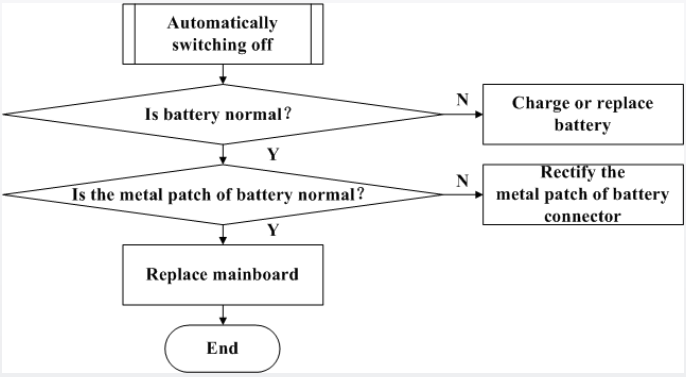
6.3 Switching On Failure



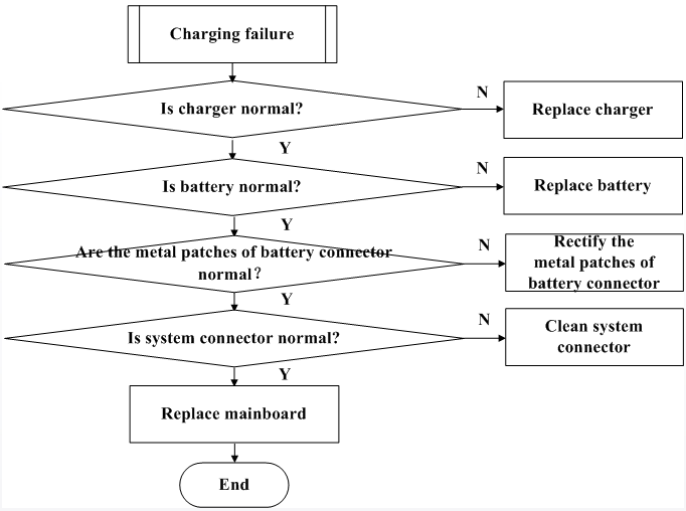
6.4 Hanging



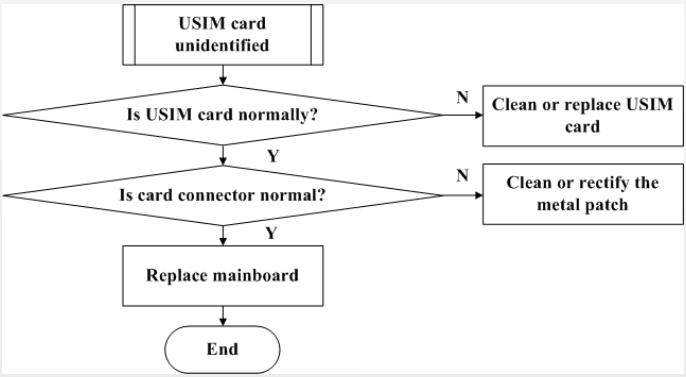
6.5 Automatically Switching Off



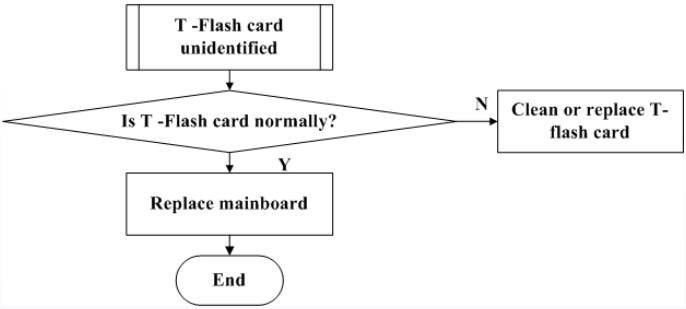
6.6 Charging Failure



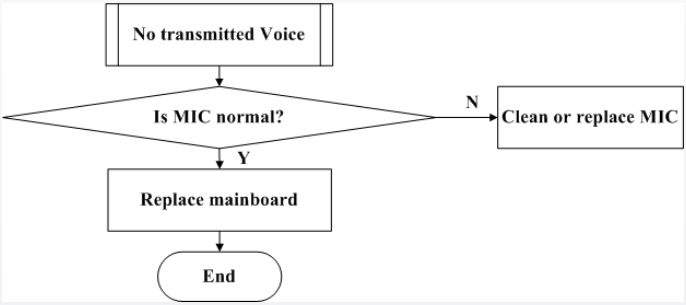
6.7 USIM Card Unidentified



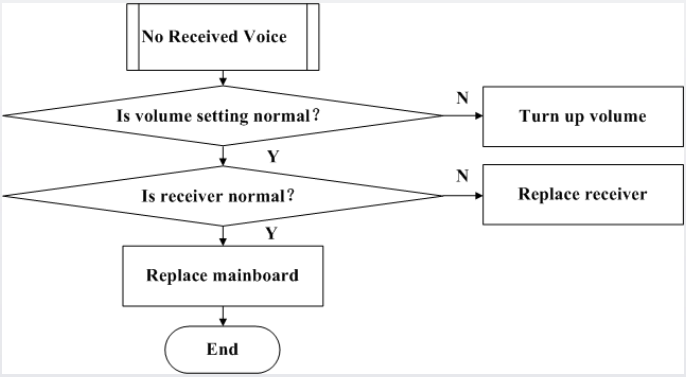
6.8 T-Flash Card Failure



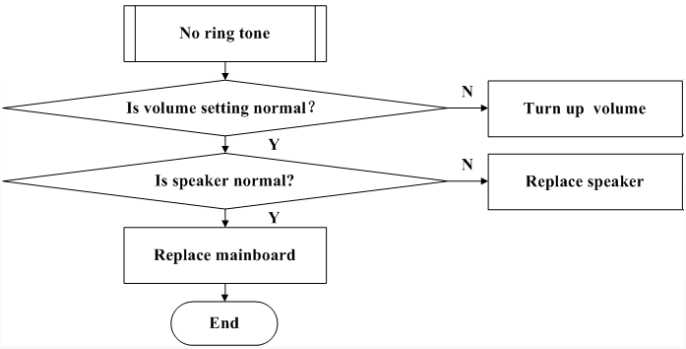
6.9 No Transmitted Voice



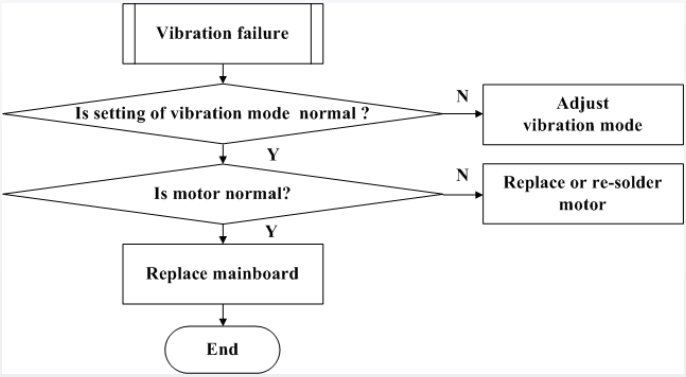
6.10 No Received Voice



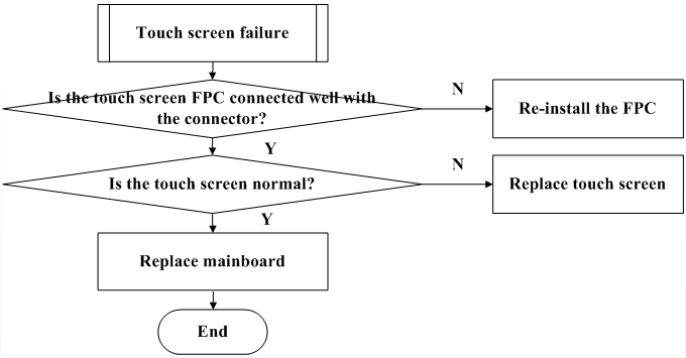
6.11 No Ring Tone



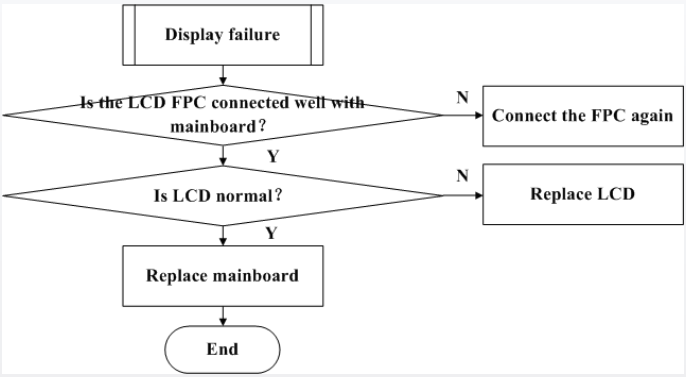
6.12 Vibration Failure



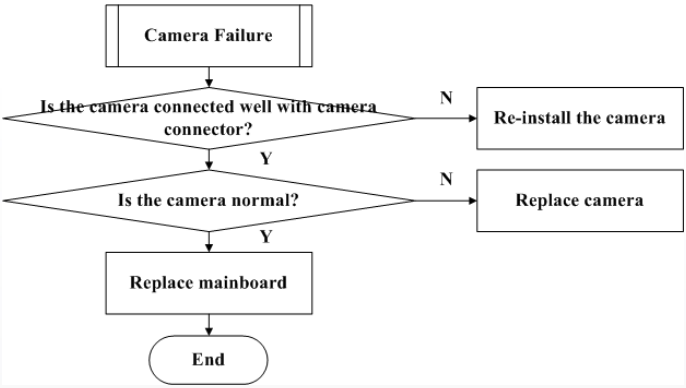
6.13 Touch screen failure



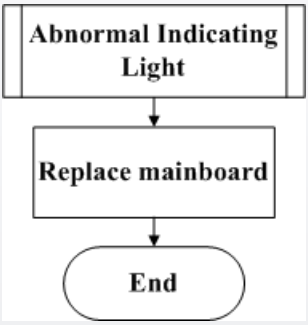
6.14 Display Failure



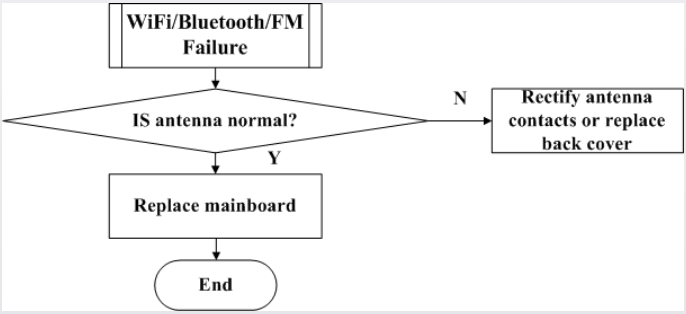
6.15 Camera Failure



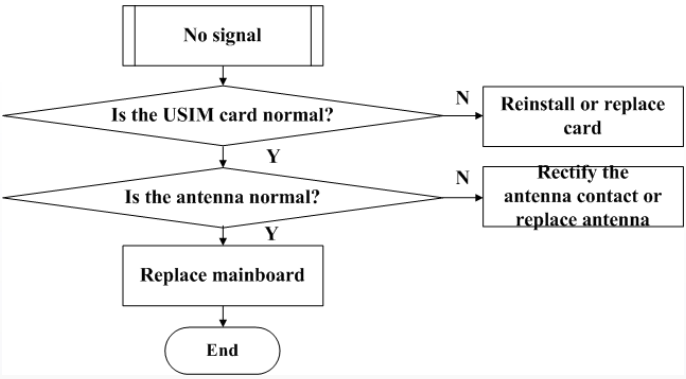
6.16 Keypad Backlight Failure



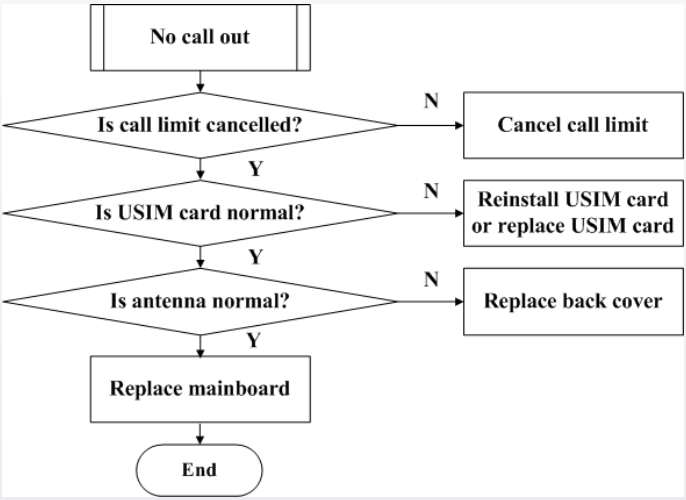
6.17 WiFi/Bluetooth/FM Failure



6.18 No Signal



6.19 No Calls Out



7 Final Test

7.1 Final Software Version Checking

Press [**Menu ® Settings® About phone® Build number**] to check whether the software version is the latest one.

7.2 Final Function Test

Press ***983*70#** and the mobile phone will do basic function test automatically. Check whether all functions are normal.

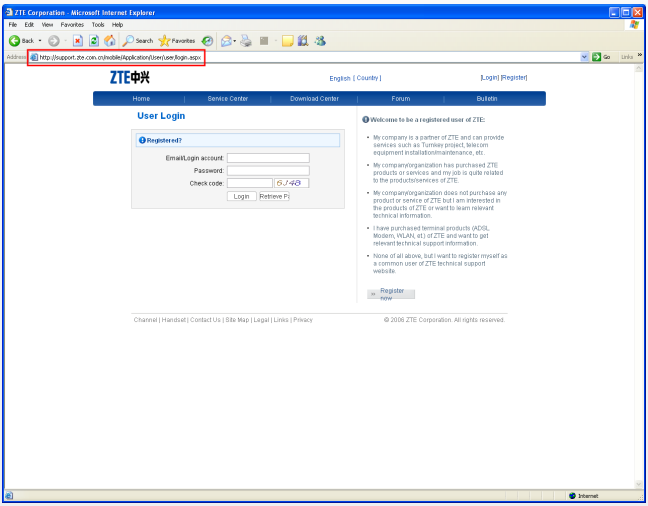
8.1 After-Sales Technical Support Website

Prerequisite

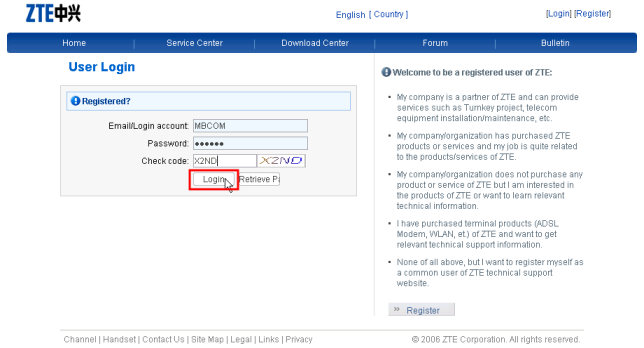
- If you have any questions about ZTE handset repair, you can ask for help through the technical forum. Our technical support engineers will give you a reply within 24 hours.
- For technical documents such as the training document and repair manual, you can download from this website too.
- If you have any suggestion, please provide your suggestion to us through the technical forum. This will help us to better meet your needs.
- Home page: **http://support.zte.com.cn/mobile**.

Steps

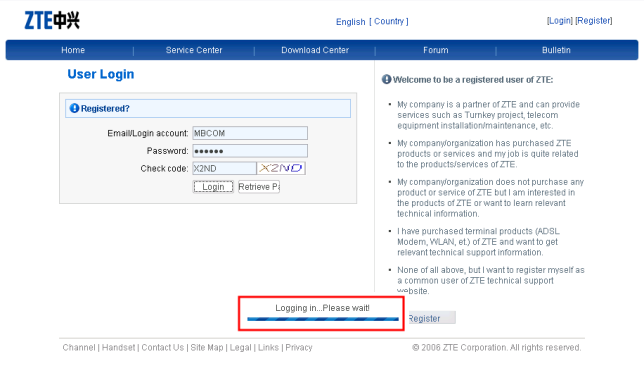
1. Input **http://support.zte.com.cn/mobile** in the address bar and press **Enter**.



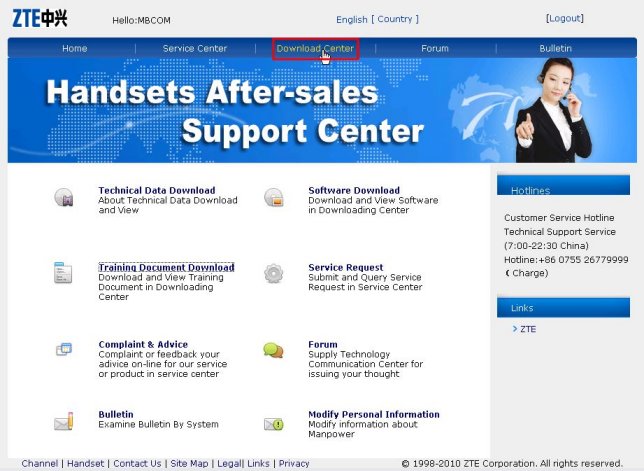
2. Input **Email/Login account**, **Password** and **Check code**, and click **Login**.



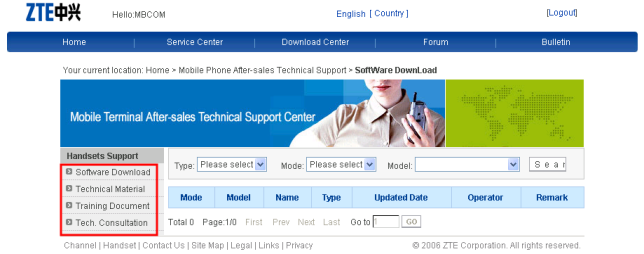
3. The login progress is displayed. Please wait.



4. In the main window of the handsets after-sales support center, click **Download Center**.



5. Click the items to get the corresponding software, technical material and training document.



--End of steps.--

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