# **Technical Document**

Document Title: A136 GSM Dual Frequency Digital Mobile Phone After-sales Services Manual (Level 1)

All 29 Pages

(Cover Included)

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# ZTE CORPORATION



# **Modification Record**

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Notice ·					

Notice :

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## 1. Product Overview

### **1.1 Standard Configuration**

No.	Part Name	Qty
1	Phone Set	1
2	Lithium Ion Battery	1
3	Battery Charger	1

### 1.2 Specifications

- Standard: GSM.
- Dimension: about 106.4mm\*45.6mm\*12.6mm.
- Battery: 670mA Lithium Ion Battery.
- Weight: about 61. 9g (Standard Battery Included).
- Talk Time: About 2~4 hours.
- Standby Time: About  $120 \sim 150$  hrs.

### **1.3 Feature Introduction**

- Zi input method;
- 16-chord sounds;
- Any Key Answer;
- Call minutes prompt;
- Call record and talk time record;
- Support STK;
- Support Calling Identity Delivery (CID) and call connection prompt, etc;
- Bar phone , 128\*128 pixel array 65K color screen;
- Various alarm clock (including single alarm clock, daily alarm clock, weekly alarm clock and working day alarm clock);



 Support short message, new message reading immediately, all short messages deletion and group sending message, etc.

### 1.4 Internal Number

Internal Model	External Model
P108A10	A136

## 2. Internal Structure and Principle

### 2.1 Function Test

#### **Function Test**

- Input "\*983\*0#" instruction to enter test mode.
- Check LCD: LCD displays full blue screen, then full white screen and then red, green and blue color stripes. Check if there are faulty pixel points, faulty lines or other disharmony pixel points.
- Keypad test: Later keypad test appears, testing each key. Pay attention to check if each key can display the corresponding characters. It is required that the user has a sense of switching and uniform exertion.
- Ring tone: check the ring tone for abnormity, cacophony and miscellaneous.
- Audio Loop Test: Blow to MIC to check if the rustle sound can be heard.
- After these tests, press **Back** key to exit test mode.

#### **IMEI Number Check**

• Input "\*#06#" instruction. Check if IMEI number displaying on the phone is consistent with that on the label of the body.

#### **Software Version Check**

• Input "\*983\*839#" instruction. Check if the phone's FLASH software version displays and if this version is consistent with the updated one (the latest version).

### 2.2 Software Download

• About software download

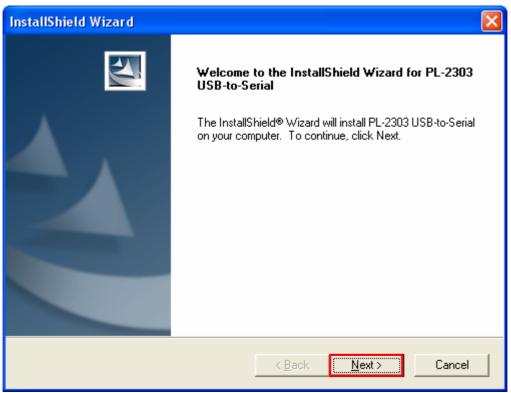
Every handset sent to repair must be updated to the latest version.

Make ensure that the mobile phone is switched on and connects to the computer successfully, and its battery must be installed when its software is downloaded. During the download process, the mobile phone can not be powered off. And it could not be removed until software download finishes and PASS identification appears. Otherwise, the mobile phone can not be switched on.

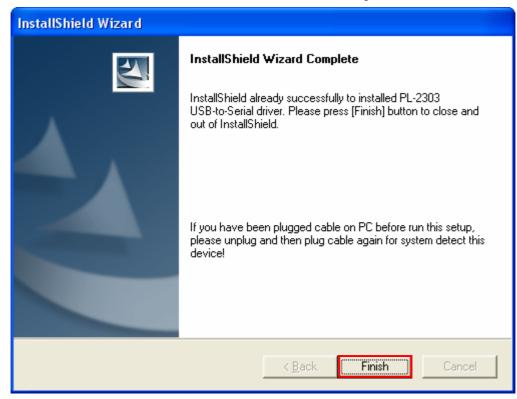
• Install drive of data download cable. Double click USB drive icon to perform driver installation.

R52&VX Drive

• Click Next.



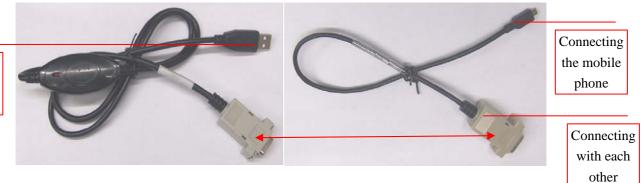
• Click Finish. Driver installation of data download cable is completed.



• Material code of GSM data cable: IS033211; Material code of GSM data patch cable: IS063280.

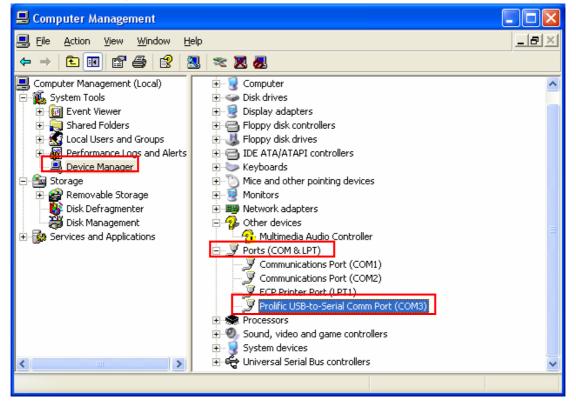
Note: two data cables must be connected correctly.

Connecting the computer



• After connection, check the serial port.

Check it though the path: My computer > Management > Device Management > Port.



• Install download platform: FlashTool\_E2.exe.



• Main interface of the software download setup.

🔹 Download Setup
<u>File H</u> elp
Normal O Binary
NAND NAND Boot System Software
Phone Software
EEP EEPROM File
DSP File
FLASH File System
S Customization
Add-ons
/ 🗆 Tools
Communication Setup
COM Port     Baud Rate     # Channels     Communication Driver       3     921600     1     COM Port Driver
v.2.6 DLL v.2.20_beta_1

• Correct option settings of **Communication Setup** are shown in the following figure:

~l_()	C	o <u>m</u> municati	on Se	tup		*
-COM	Port	-Baud Rate		# Channels	Communication Driver	
3	*	921600	*	1	COM Port Driver	~

• Select **Phone Software** option. Click **button** and select the software file with the name like \*.fls.

None Software	*
Phone Software File (*.fls):	
	✓ …

Load Phone Sof	itware File					? 🛛
Look jn:	🚞 ZH_P108A10	/1.0.0B05	~	G 🦻	بي 🥙	
My Recent Documents	<u>■</u> ZH_P108A10V1	.0.0B05secury.fls				
My Documents						
My Computer						
	File <u>n</u> ame:	ZH_P108A10V1.0.0	B05secury		~	<u>O</u> pen
My Network	Files of <u>type</u> :	Phone Software File	: (*.fls)		~	Cancel

Select FLASH File System option. Click button and select the software file with the name like \*.dffs.

FLASH File System	*
Flash File System File (*,dffs;*,dfat):	<b>~</b>
🗸 Download Dynamic Part 🛛 Download Static Part	

Load Flash Fil	le System ?	×
Look jn:	r: 🗀 ZH_P108A10V1.0.0B05 🛛 🕑 🔇 🤌 📂 🖽 🗸	
My Recent Documents Desktop My Documents	Image: Plosalov1.0.0805.dffs	
	File <u>n</u> ame: ZH_P108A10V1.0.0B05	
My Network	Files of type:     Flash File System File (*.dffs;*.dfat)     Cancel	

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Add... Select Customization option. Click ٠

button and select the software file with

the name like \*.cust.

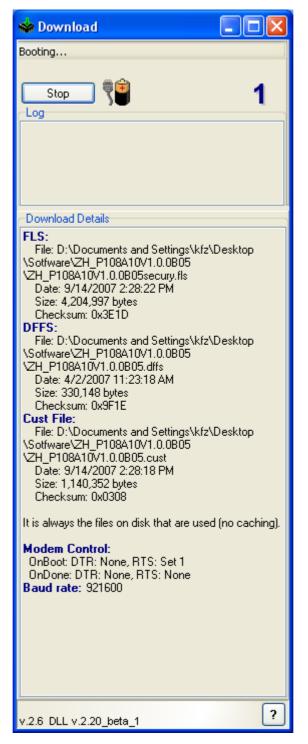
Section			*	
Customization Files (*.cust):				
	Denseur		×	
Add	Remove	Remove All	×	

Load Customiz	ation File	? 🗙
Look jn:	: 🗁 ZH_P108A10V1.0.0B05 🛛 🕑 🔇 🎓 📂 🛄 🗸	
My Recent Documents	ZH_P108A10V1.0.0B05.cust	
My Documents		
My Computer		
	File <u>n</u> ame: ZH_P108A10V1.0.0B05	<u>O</u> pen
My Network	Files of type:     Customization File (*.cust)	Cancel

After the above configuration operations, close the software and open it again. ٠ The purpose of doing this is that the configuration can be saved when the software is closed abnormally.

🝁 Download Setup 📃 🗖 🔀		
<u>F</u> ile <u>H</u> elp		
⊙ Normal O Binary		
NAND NAND Boot System Software		
Phone Software		
Phone Software File (*.fls):		
D:\Documents and Settings\kfz\Desktop\Sotfware\ZH_P10 🔜		
EEP D EEPROM File		
I DSP File		
✓ FLASH File System		
Flash File System File (*.dffs;*.dfat):		
tfware\ZH_P108A10V1.0.0B05\ZH_P108A10V1.0.0B05.dffs 💌		
🗹 Download Dynamic Part 🛛 V Download Static Part		
WARNING: This will overwrite all user data in the phone		
Customization		
Customization Files (*.cust): D:\Documents and Settings\kfz\Desktop\Sotfware\ZH_P108A10V1.0		
Add Remove Remove All		
Install Add-ons		
~√_ Communication Setup		
COM Port Baud Rate # Channels Communication Driver		
3 921600 V 1 COM Port Driver V		
v.2.6 DLL v.2.20_beta_1 Start		

• Click **Start**, the following interface appears:



Connect the mobile phone and switch it on.
 Note: the mobile phone should download files with its battery installed. Click Start button and then connect the phone.

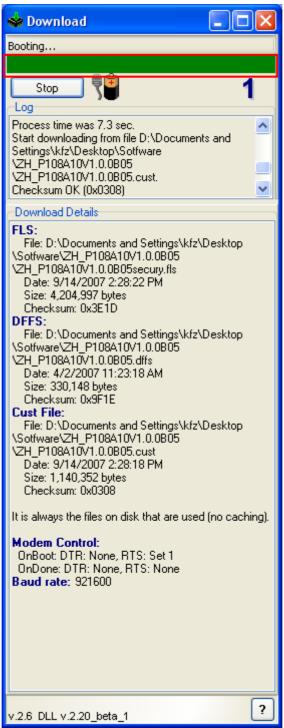
🔹 Download 📃		
Downloading FLS		
57%		
Stop Log Using: Faster CRC, Writing all blocks, , Start downloading from file D:\Documents and Settings\kfz\Desktop\Sotfware \ZH_P108A10V1.0.0B05 \ZH_P108A10V1.0.0B05secury.fls.	1	
Download Details		
FLS: File: D:\Documents and Settings\kfz\Deskto \Soffware\ZH_P108A10V1.0.0B05 \ZH_P108A10V1.0.0B05secury.fls Date: 9/14/2007 2:28:22 PM Size: 4,204,997 bytes Checksum: 0x3E1D DFFS: File: D:\Documents and Settings\kfz\Deskto \Soffware\ZH_P108A10V1.0.0B05 \ZH_P108A10V1.0.0B05.dffs Date: 4/2/2007 11:23:18 AM Size: 30,148 bytes Checksum: 0x9F1E Cust File: File: D:\Documents and Settings\kfz\Deskto \Soffware\ZH_P108A10V1.0.0B05 \ZH_P108A10V1.0.0B05.cust Date: 9/14/2007 2:28:18 PM Size: 1,140,352 bytes Checksum: 0x0308 It is always the files on disk that are used (no ca Modem Control: 0nBoot: DTR: None, RTS: Set 1 0nDone: DTR: None, RTS: None Baud rate: 921600	)p	
v.2.6 DLL v.2.20_beta_1	?	

• The mobile phone is downloading files, and the interfaces are as shown below.

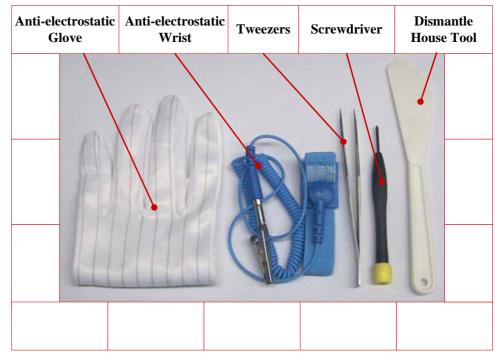
🐋 Download Downloading DFFS 80% 00 Stop -Log Settings\kfz\Desktop\Sotfware \ZH\_P108A10V1.0.0B05 ^ VZH\_P108A10V1.0.0B05secury.fls. Checksum OK (0x3E1D) Process time was 45.7 sec. Start downloading from file D:\Documents and ¥ Download Details FLS: File: D:\Documents and Settings\kfz\Desktop \Sotfware\ZH\_P108A10V1.0.0B05 VZH\_P108A10V1.0.0B05secury.fls Date: 9/14/2007 2:28:22 PM Size: 4,204,997 bytes Checksum: 0x3E1D DFFS: File: D:\Documents and Settings\kfz\Desktop \Sotfware\ZH\_P108A10V1.0.0B05 \ZH\_P108A10V1.0.0B05.dffs Date: 4/2/2007 11:23:18 AM Size: 330,148 bytes Checksum: 0x9F1E **Cust File:** File: D:\Documents and Settings\kfz\Desktop \Sotfware\ZH\_P108A10V1.0.0B05 \ZH\_P108A10V1.0.0B05.cust Date: 9/14/2007 2:28:18 PM Size: 1,140,352 bytes Checksum: 0x0308 It is always the files on disk that are used (no caching). Modem Control: OnBoot: DTR: None, RTS: Set 1 OnDone: DTR: None, RTS: None Baud rate: 921600 ? v.2.6 DLL v.2.20\_beta\_1

🏫 Download Downloading Customization 39% 200 Stop -Log Settings\kfz\Desktop\Sotfware \ZH\_P108A10V1.0.0B05 ^ VZH\_P108A10V1.0.0B05secury.fls. Checksum OK (0x3E1D) Process time was 45.7 sec. Start downloading from file D:\Documents and ¥ Download Details FLS: File: D:\Documents and Settings\kfz\Desktop \Sotfware\ZH\_P108A10V1.0.0B05 \ZH\_P108A10V1.0.0B05secury.fls Date: 9/14/2007 2:28:22 PM Size: 4,204,997 bytes Checksum: 0x3E1D DFFS: File: D:\Documents and Settings\kfz\Desktop \Sotfware\ZH\_P108A10V1.0.0B05 \ZH\_P108A10V1.0.0B05.dffs Date: 4/2/2007 11:23:18 AM Size: 330,148 bytes Checksum: 0x9F1E **Cust File:** File: D:\Documents and Settings\kfz\Desktop \Sotfware\ZH\_P108A10V1.0.0B05 \ZH\_P108A10V1.0.0B05.cust Date: 9/14/2007 2:28:18 PM Size: 1,140,352 bytes Checksum: 0x0308 It is always the files on disk that are used (no caching). Modem Control: OnBoot: DTR: None, RTS: Set 1 OnDone: DTR: None, RTS: None Baud rate: 921600 ? v.2.6\_DLL v.2.20\_beta\_1

• The download is finished, and the interface is as shown below:



## 2.3 Disassembling Flow

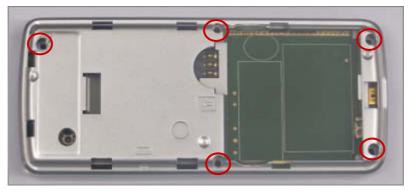


• Tools Used to Disassemble

• Take out the battery carefully.

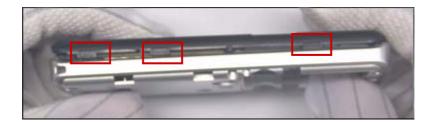


• Notes: Positions of five screws are as shown below:



• Disassemble the front and back shells using the disassembly, paying attention to the card holder, as shown below:





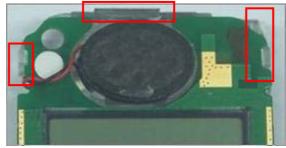




- Notes: The disassembled front and back shells are as shown below:
- Note: Pay attention to the installation positions of the MIC and receiver. MIC should contact well with its contact, as shown below.



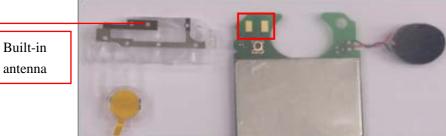
Pay attention to the position of the card holder when the built-in antenna is disassembled, as shown below:



Position of the built-in antenna touch plate and touch point. •

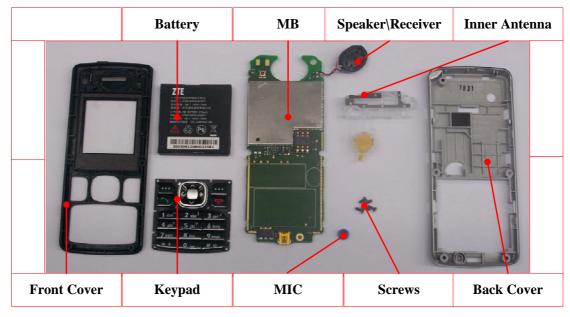
Notes: the antenna touch plate and touch point should connect well when the built-in antenna is installed.





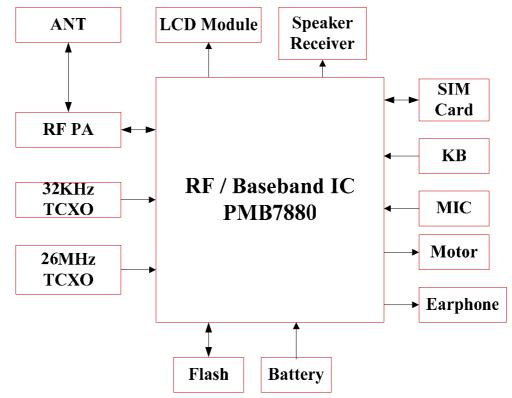
### 2.4 Components

The mobile phone includes the components as shown below:

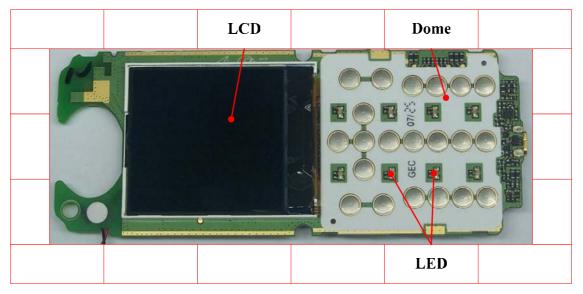


### 2.5 Block Diagram for Principle

The principle of the mobile phone is as shown in the block diagram below:

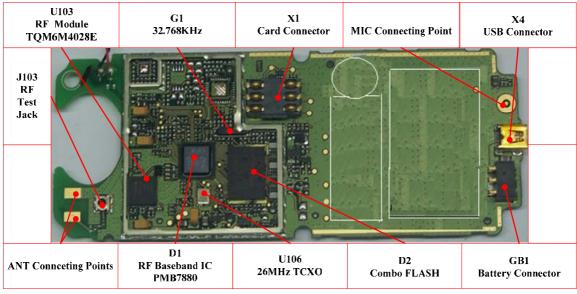


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### 2.6 Hardware Material Object Picture

MB Top Distributing



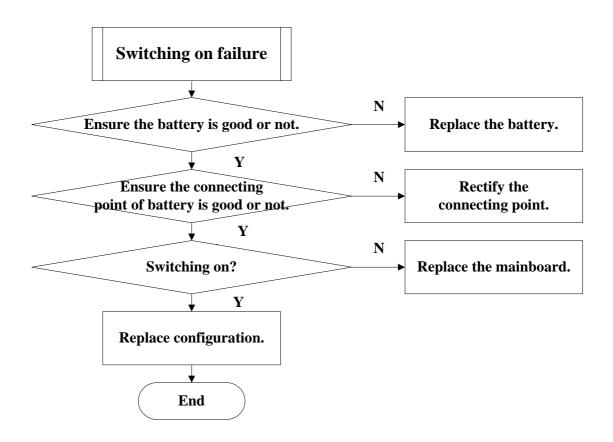
MB Bottom Distributing

# 3. Flow Chart of Familiar Troubleshooting (Level 1)

### 3.1 Components Failure

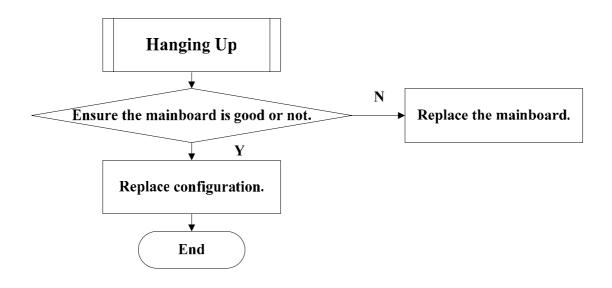
Please replace the faulty components referring to the disassembling steps.

### 3.2 Switching On Failure

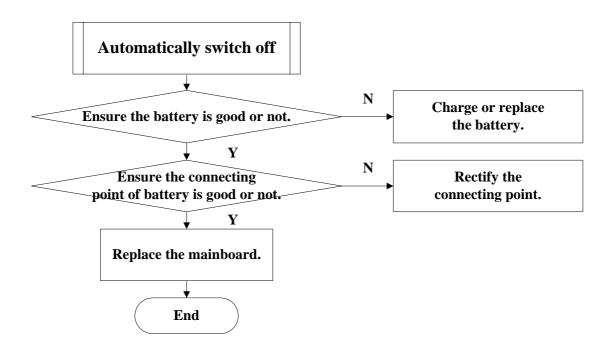




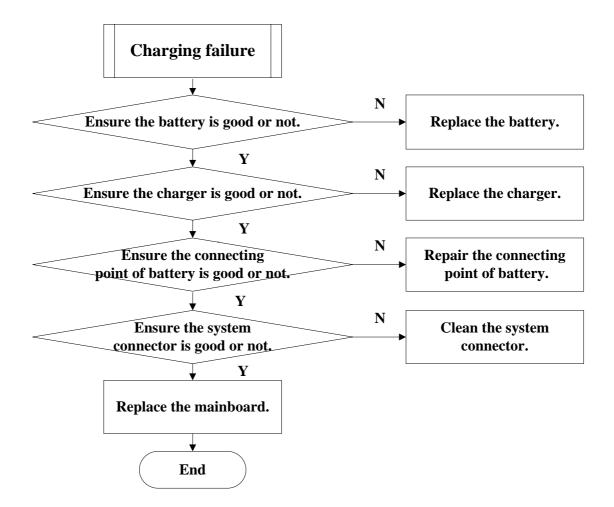
### 3.3 Hanging



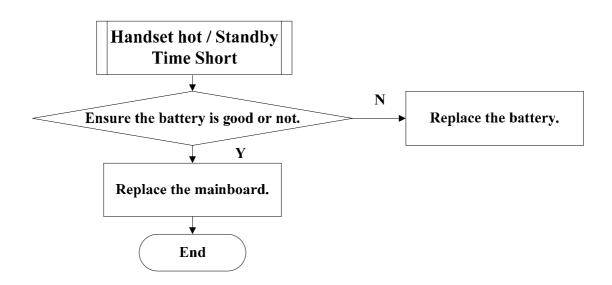
### 3.4 Automatically Switch Off



### 3.5 Charging Failure

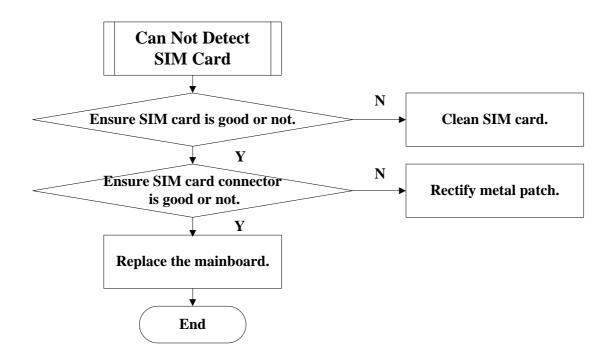


3.6 Handset Hot

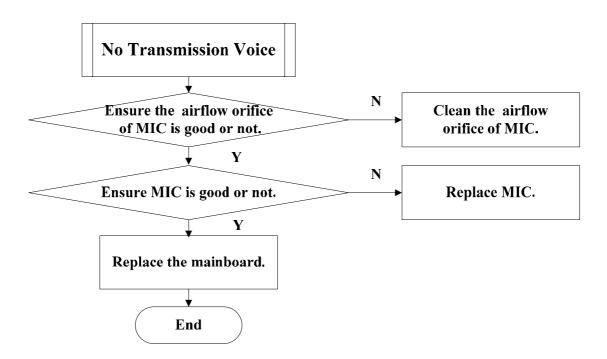


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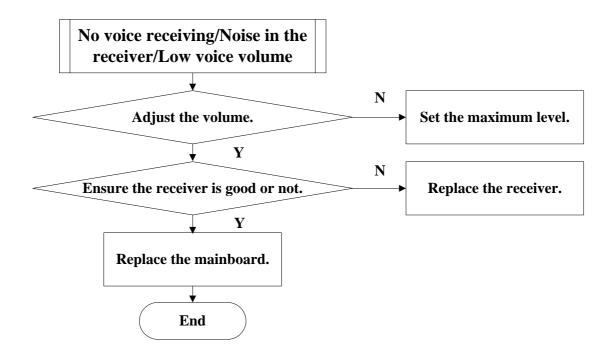
### 3.7 SIM Card Failure



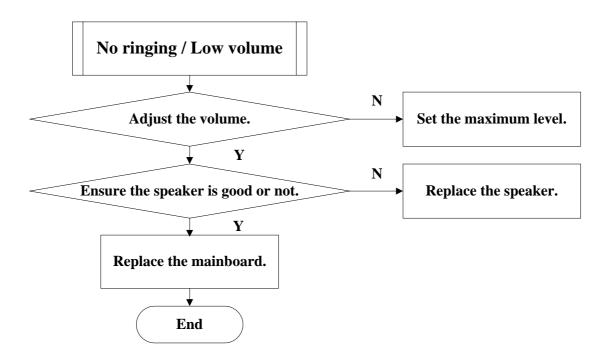
#### 3.8 No Transmission Voice



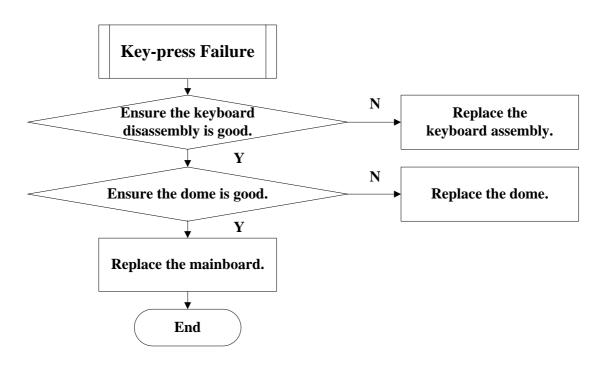
### 3.9 No voice receiving/Noise in the receiver/Low voice volume



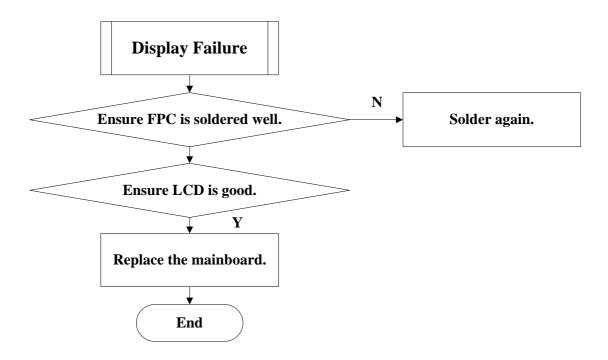
### 3.10 No ringing or low volume



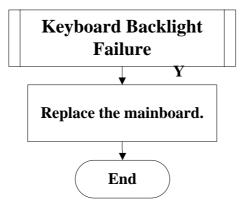
### 3.11 Key-press Failure



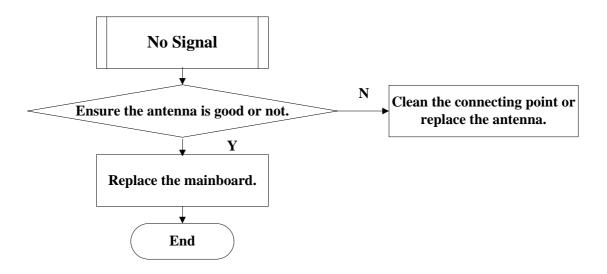
3.12 Display Failure



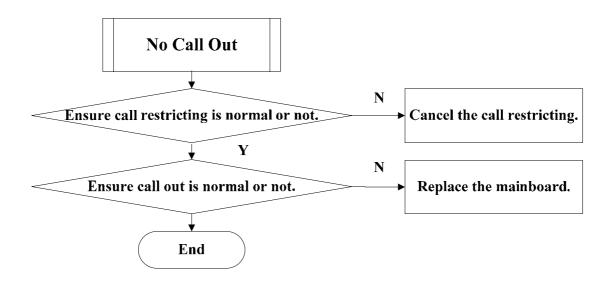
### 3.13 Key Backlight Failure



### 3.14 No Signal



### 3.15 No Call Out



## 4. Parts List

P108A10 GSM Dual Frequency Digital Mobile Phone After-sales Parts Lists		
No.	P/N	Part Name
1	126707650001	P108A2MB parts lists
2	055401002219	P108A2 Front Shell Components
3	055401002220	P108A2 Back Shell Components
4	055402000719	P108A2 keyboard Components (China Mobile Version)
5	035030100158	LCD module
6	035040300038	MIC
7	035040100040	SPEAKER

Note: This is the main parts list. If you need a detail one, please apply it from local after-sales service manager.