

## M1923 Maintenance Manual (service center

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Revision record

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## Chapter 1 M1923 cellphone introduction

### 1.1 The cellphone of M1923 brief introduction

M1923 View:



## 1.2 Technical specifications

<b>Product overview</b>	<b>Product model</b>	Note9		
	<b>Item name</b>	M1923		
	<b>Operating system</b>	Flyme 7(Android P)		
	<b>Listing Date</b>	2019.02.20		
<b>version and standard</b>		<b>Band</b>	<b>Model</b>	<b>SN prefix</b>
	<b>Oversea version</b>	GSM: B2/3/5/8 ; CDMA : Bc0 ; WCDMA: B1/2/4/5/8 ; TDD: B40 ; FDD: B1/2/3/4/5/7/8/20	M923H	923H
<b>ID Specif</b>	<b>whole unit Size</b>	153.1*74.34*8.65mm		
	<b>whole unit Weight</b>	169.7g		
	<b>Color</b>	Black, White, Gradient		
	<b>ID technology</b>	Plastic Intermediate Frame+Composite Plate		
	<b>SIM CARD</b>	Dual nano card		
<b>CPU</b>	<b>Brand</b>	Qualcomm		
	<b>model</b>	SDM675 ( SM6150 )		
	<b>Frequency</b>	2*Kryo Gold 2.0GHz+6*Kryo Silver 1.7GHz		
	<b>GPU</b>	Adreno 612		
	<b>Framework</b>	Qualcomm® Kryo™ CPU 460		
<b>storage</b>	<b>RAM</b>	4GB/6GB , LPDDR4X , EMCP		
	<b>ROM</b>	64GB/128GB		
	<b>Storage combination</b>	4+64GB/6+64GB/4+128GB		
	<b>Storage card</b>	not support		
<b>Screen</b>	<b>TP</b>	<b>TP type</b>	2.5D Glass , thickness 0.7mm	
		<b>TP function</b>	Black Gesture unlock / Wet hand operation / Glove handling/10 touch/Edge preventing mistakenly touch	
		<b>TP technology</b>	incell	
	<b>LCM</b>	<b>LCM size</b>	6.2" 18.7 : 9 Water drop screen	
		<b>Display technique</b>	LTPS	
		<b>resolution</b>	2244*1080 ( FHD+ )	
		<b>color</b>	1600W	

		<b>brightness</b>	450cd/m2(Typ); 400cd/m2(Min)
		<b>Visual angle</b>	Full
		<b>PPI</b>	403
		<b>contrast</b>	1500:1(typ)
<b>camera</b>	<b>Rear camera</b>	<b>pixel</b>	48M ( 0.8um Double PD ) +5M
		<b>Sensor</b>	IMX362 + Samsung 5E9
		<b>Camera lens</b>	SUNNY 39176A ( 6P ) +Largan 60015 ( 4P )
		<b>aperture</b>	F1.9+F1.9
		<b>Optical anti shake</b>	not support
		<b>Autofocus</b>	PDAF
		<b>Focusing mode</b>	phase detection
		<b>ISP</b>	share the build in ISP
		<b>size</b>	Module body
		<b>Flash light</b>	2-LED Ring flash
		<b>Camera lens</b>	One - sided antireflection film, anti-fingerprint coating
	<b>Front camera</b>	<b>pixel</b>	20M
		<b>Sensor</b>	Samsung 4H7
		<b>Camera lens</b>	Largan 80008A1
		<b>aperture</b>	F/2.0
		<b>Optical anti shake</b>	not support
		<b>Autofocus</b>	FF
		<b>Focusing mode</b>	N/A
		<b>ISP</b>	share the build in ISP
		<b>size</b>	Module body
		<b>Flash light</b>	not support
<b>Battery</b>	<b>Battery capacity</b>	4000mAh (typ)	
	<b>mCharge</b>	0.75C	
	<b>Battery energy density</b>	673WH/L	
<b>Power</b>	<b>PMU</b>	PM6150 PM6150L	
	<b>Fuel gage</b>	PM6150	
	<b>Charger</b>	PM6150	
<b>Charger</b>	<b>Specifications</b>	9V2A	
	<b>protocol</b>	M charge+QC 2.0	
<b>Audio</b>	<b>HIFI</b>	not support	

	<b>Smart PA</b>	support	
	<b>noise reduction</b>	Built - in chip	
	<b>Audio chip</b>	support	
<b>Audio device</b>	<b>Speaker</b>	1511、	
	<b>Receiver</b>	0809 50mW	
	<b>MIC</b>	Dual MIC	
<b>Sensor</b>	<b>fingerprint identification</b>	Chipset	
		TEE vendors	
		Payment authentication	WeChat pay and Alipay pay
	<b>ForceTouch</b>	not support	
	<b>Pressure</b>	not support	
	<b>Gravitational acceleration</b>	support	
	<b>gyroscope</b>	support	
	<b>Distance sensor</b>	support	
	<b>Light sensor</b>	support	
	<b>Electronic compass</b>	support	
	<b>Holzer</b>	not support	
<b>Cellular network; wireless network</b>	<b>Applicable frequency</b>	Antenna 824-960MHZ/1710-2690MHZ	
	<b>WLAN</b>	Support 2.4G/5G WIFI ; 802.11a/b/g/n	
	<b>Bluetooth</b>	Support BT5.0	
	<b>GPS</b>	GPS/Glonass/Beidou	
	<b>call and standby</b>	Dual sim card dual standby single pass	
	<b>VoLTE</b>	Support	
	<b>RF</b>	SDR660	
	<b>NFC</b>	not support	
<b>Other functions</b>	<b>Motor</b>	COMMON Motor	not support Linear Motor
	<b>Pedometer</b>	support	
	<b>Breathing light</b>	support	
	<b>FM</b>	not support	
	<b>Main antenna and Vice antenna switch</b>	not support	
<b>external port</b>	<b>OTG</b>	support	
	<b>USB data port</b>	Micro USB 2.0	



	<b>headset port</b>	support 3.5mm headset port
<b>Media</b>	<b>Audio format</b>	flac、ape、aAc、ogg、mp3、midi、m4a、amr、wav (ra、wma)
	<b>Audio encoding format</b>	FLAC、APE、DTS、AC3、OGG、AAC、ADPCM、ALAC、MP3、AMR - WB、AMR - NB (COOK、ATRC)
	<b>Video format</b>	mp4、3gp、mov、mkv、avi、flv、mpeg、m2ts、ts (wmv、asf、rm、rmvb)
	<b>Video encoding format</b>	H264、MPEG4、VC1、H263、MPEG2、VP8 (XVID、DIVX5、DIVX4、DIVX3、VP6、WMV3 )
	<b>Picture format</b>	JPEG、PNG、GIF、BMP

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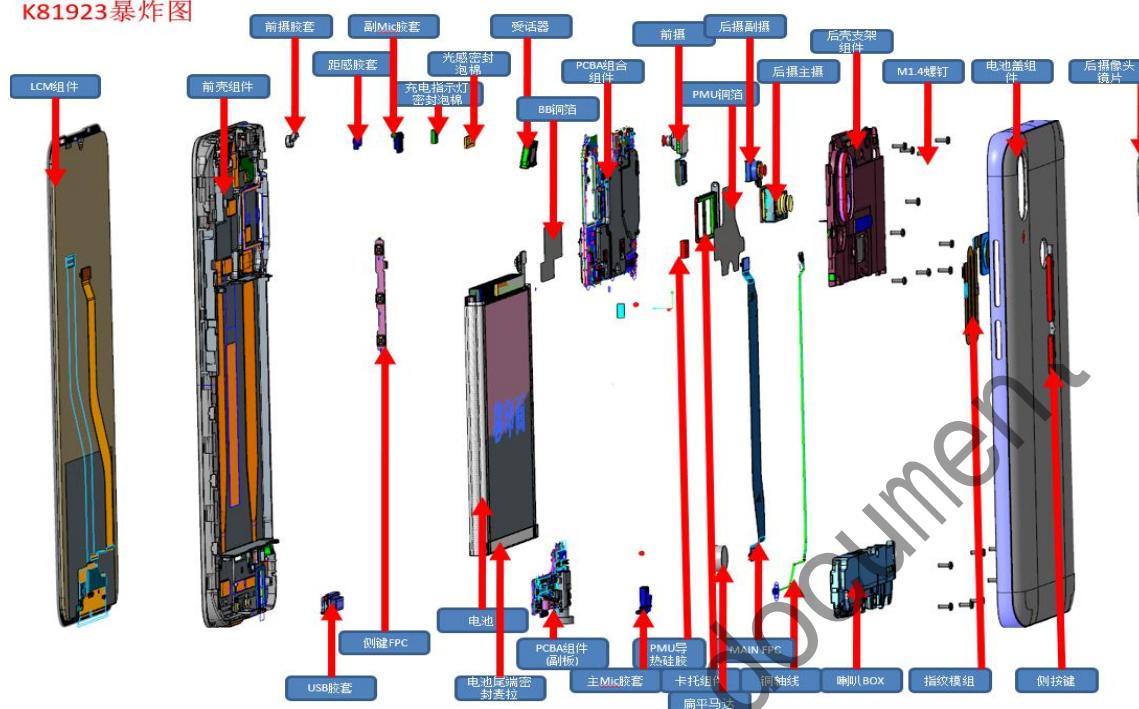
## Chapter 2 Caution of Maintenance

### 2.1 Caution of Maintenance

1. Only authorized technicians can do maintenance and calibration.
2. Make sure that engineers wear antistatic wrist strap repair phones in antistatic station.
3. Make sure that maintenance room is covered with antistatic mat, and the maintenance table is covered with antistatic material.
4. Make sure that all necessary screws and parts are installed in correct location of phone after maintenance and adjustment.
5. After maintenance, clean the PCBA.
6. As static electricity is the main reason for electronics damages, engineers shall repair phones in an anti-static environment and shall take effective antistatic protection measures.
7. For an occurrence of NG test, engineers should check if the test point is dirty or test point contact is poor.
8. Check if water penetrates to mainboard. If yes, check all the components to see if there is oxidation.
9. 9 Make sure that maintenance room is bright and has natural ventilation. Ventilation: When do maintenance or soldering, some equipment can emit hazardous gas. So the maintenance room should have good natural ventilation. If there are no windows in maintenance room, the room should be equipped with electric air regenerating equipment.
10. There should be obvious antistatic labels in Electrostatic Sensitive area, such as in maintenance area and spare part warehouse.

## Chapter3 Explode view

K81923爆炸图

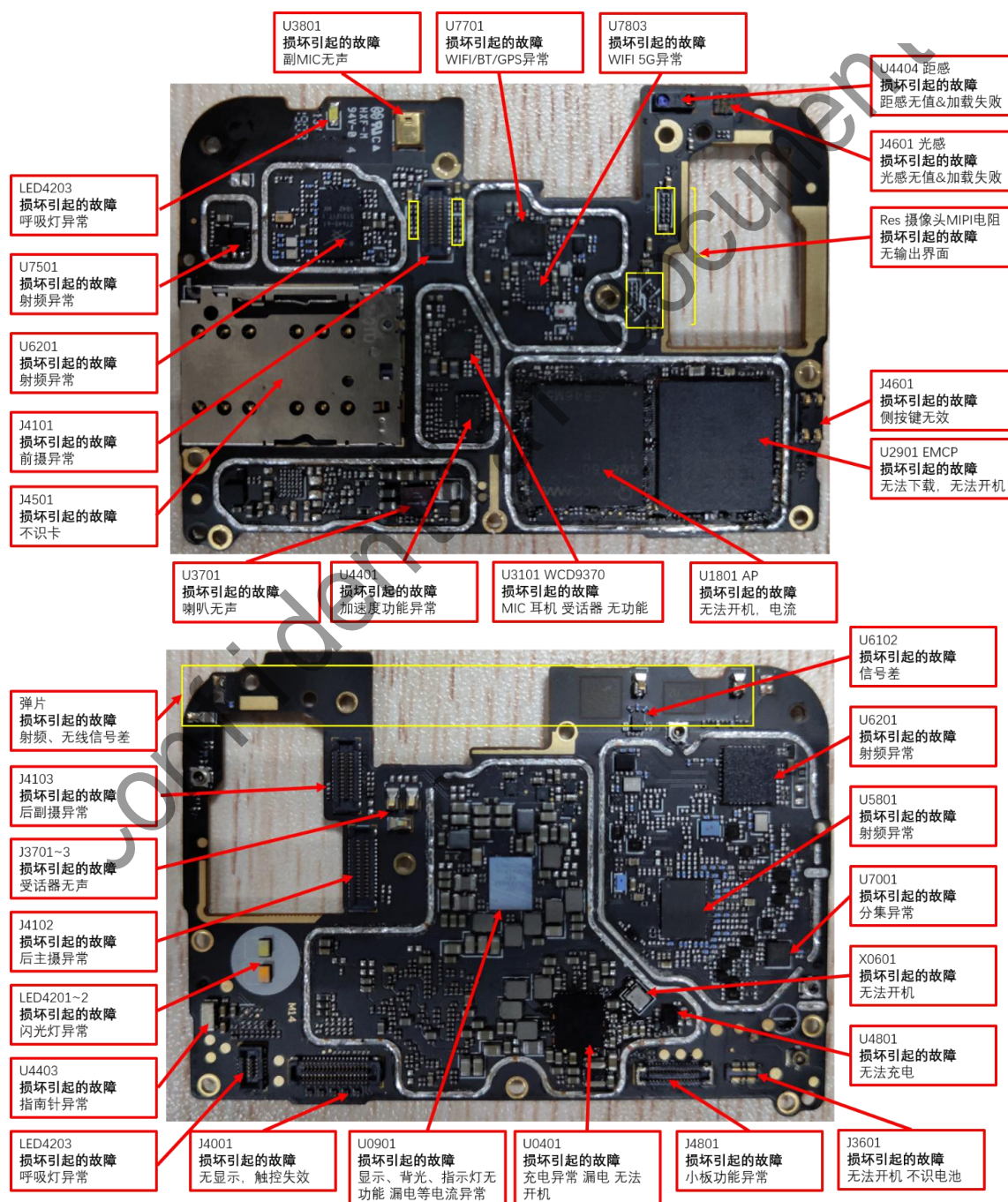


EXPLODE VIEW BOM:

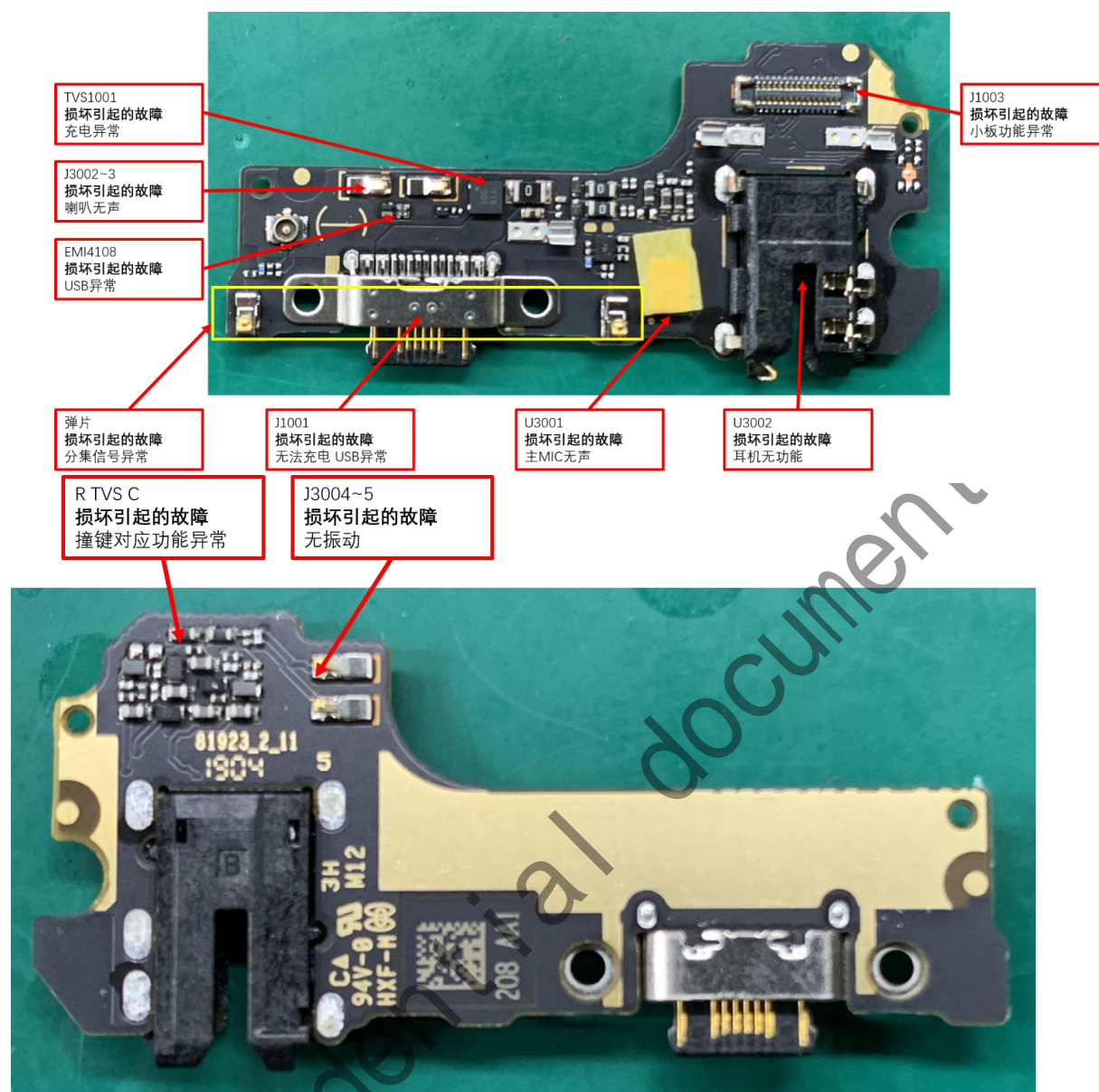
LCM模组	LCM Module
前壳组件	LCD touch screen assembly
前摄胶套	Front camera rubber case
距离感应胶套	Distance sensing rubber case
副MIC胶套	Assistant MIC Rubber Case
充电指示灯密封泡棉	Charging indicator sealing Foam
光感密封泡棉	Light sensor sealing Foam
受话器	Receiver
BB铜箔	BB Copper foil
PCBA组合组件	PCBA assembly
前置摄像头	Front Camera
PMU铜箔	PMU Copper foil
后摄副摄像头	Assistant Rear camera
后摄主摄像头	Main Rear camera
后壳支架组件	Rear cover bracket assembly
M1.4螺丝	M1.4 Screw
电池盖组件	battery cover
后摄像头镜片	Rear camera lens
USB胶套	USB rubber case
侧键FPC	side button FPC
电池	battery
电池尾端密封麦拉	the rear end of the battery sealed with Myra.
PCBA组件(副板)	PCBA assembly
主MIC胶套	main MIC
PMU导热硅胶	PMU Therma Conductive Tape

卡托组件	sim card tray assembly
马达	Motor
MAIN FPC	MAIN FPC
同轴线	Coaxial Line
喇叭BOX	Speaker Box
指纹模组	Finger print module
侧按键	side button

## Chapter 4 Component location map



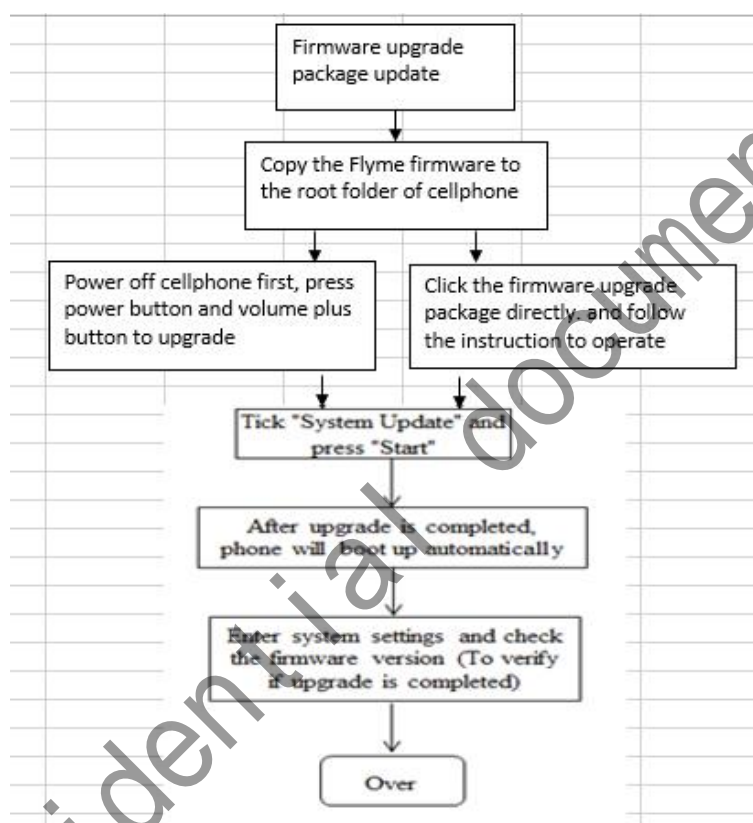




## Chapter5 Common fault detection and maintenance

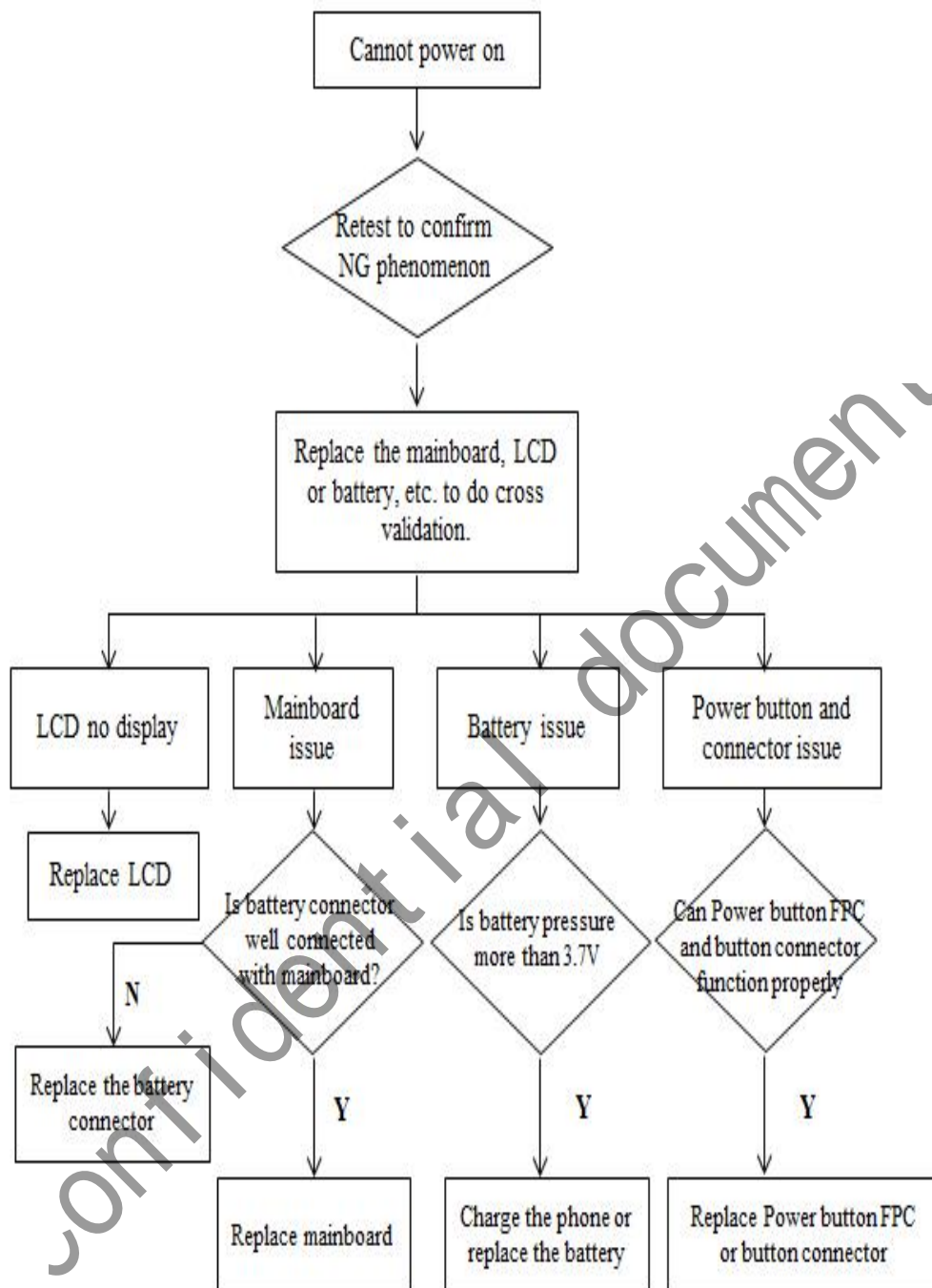
For poor functional machines, the problem of software should be eliminated first. And then investigation of hardware failures. Software upgrade should be follow below step:

### Firmware upgrade package update

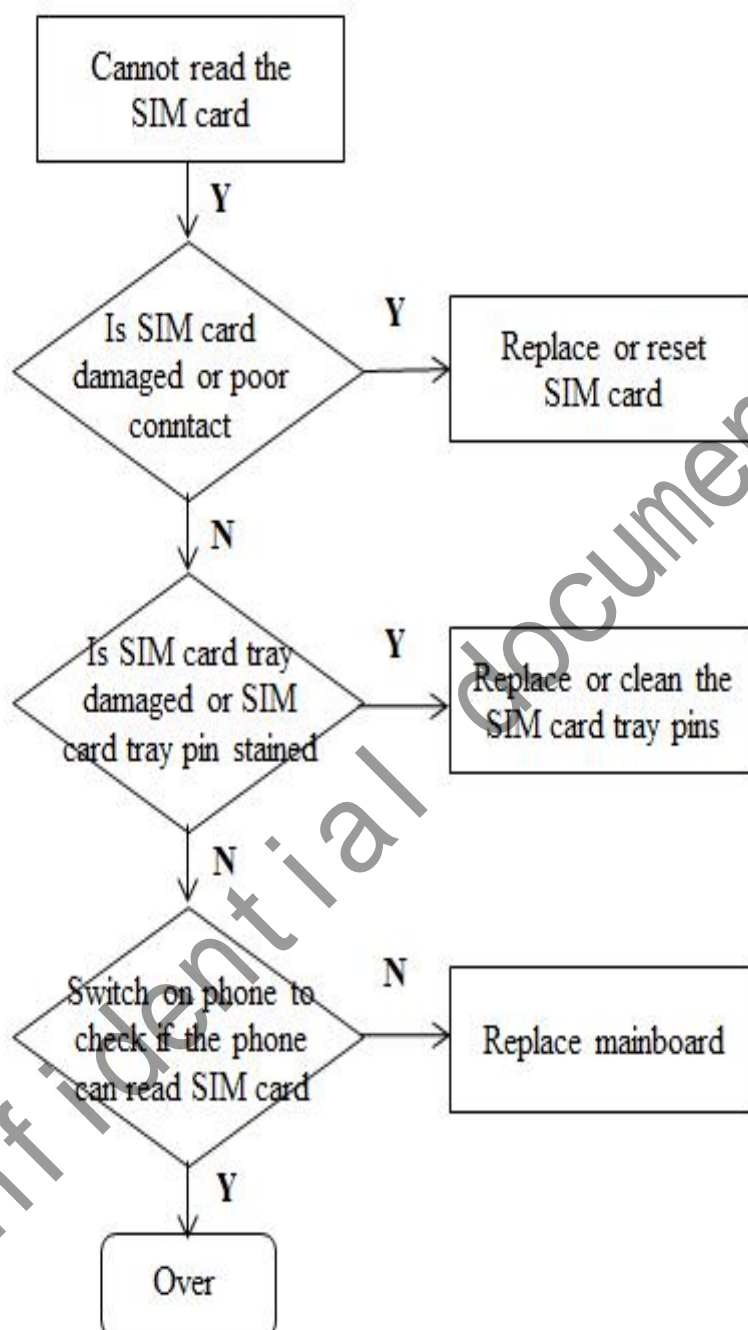


If the phone is flashed to Flyme firmware once again and the current problem still can't be solved, Please flash the phone to Engineer firmware (Refer to M1923 Upgrade Guide). Then use the test software carried by phone to do further tests to troubleshoot.

## 1. No boot issue

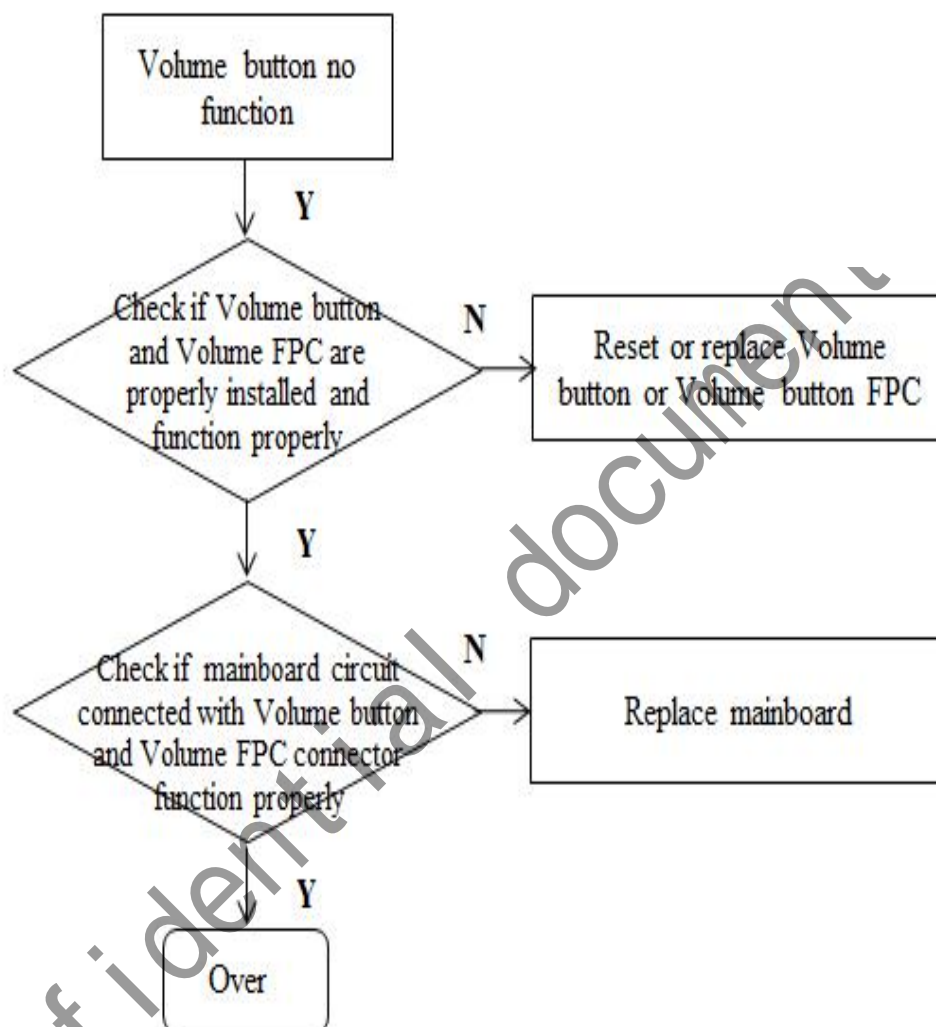


## 2. Recognized SIM Card Malfunction

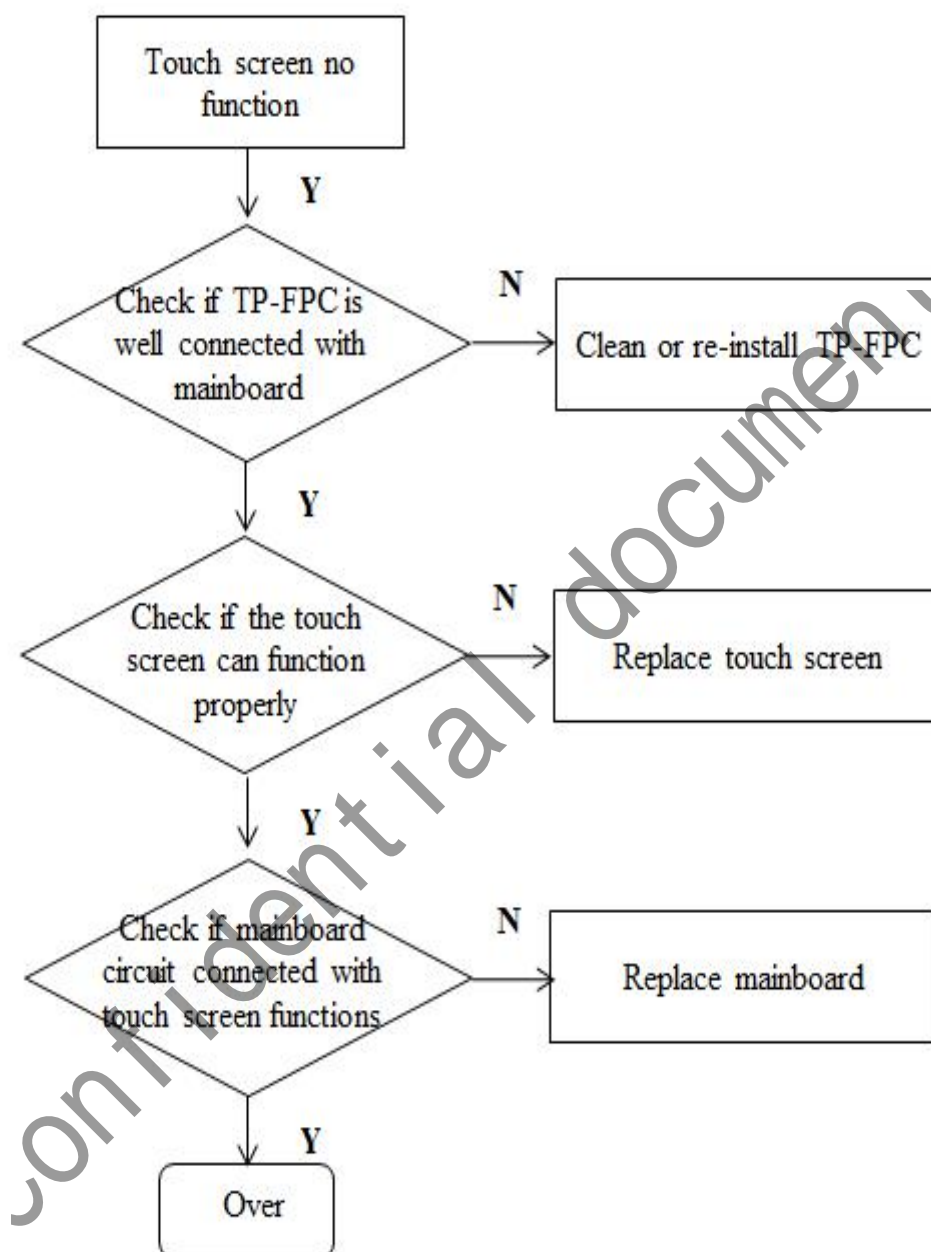




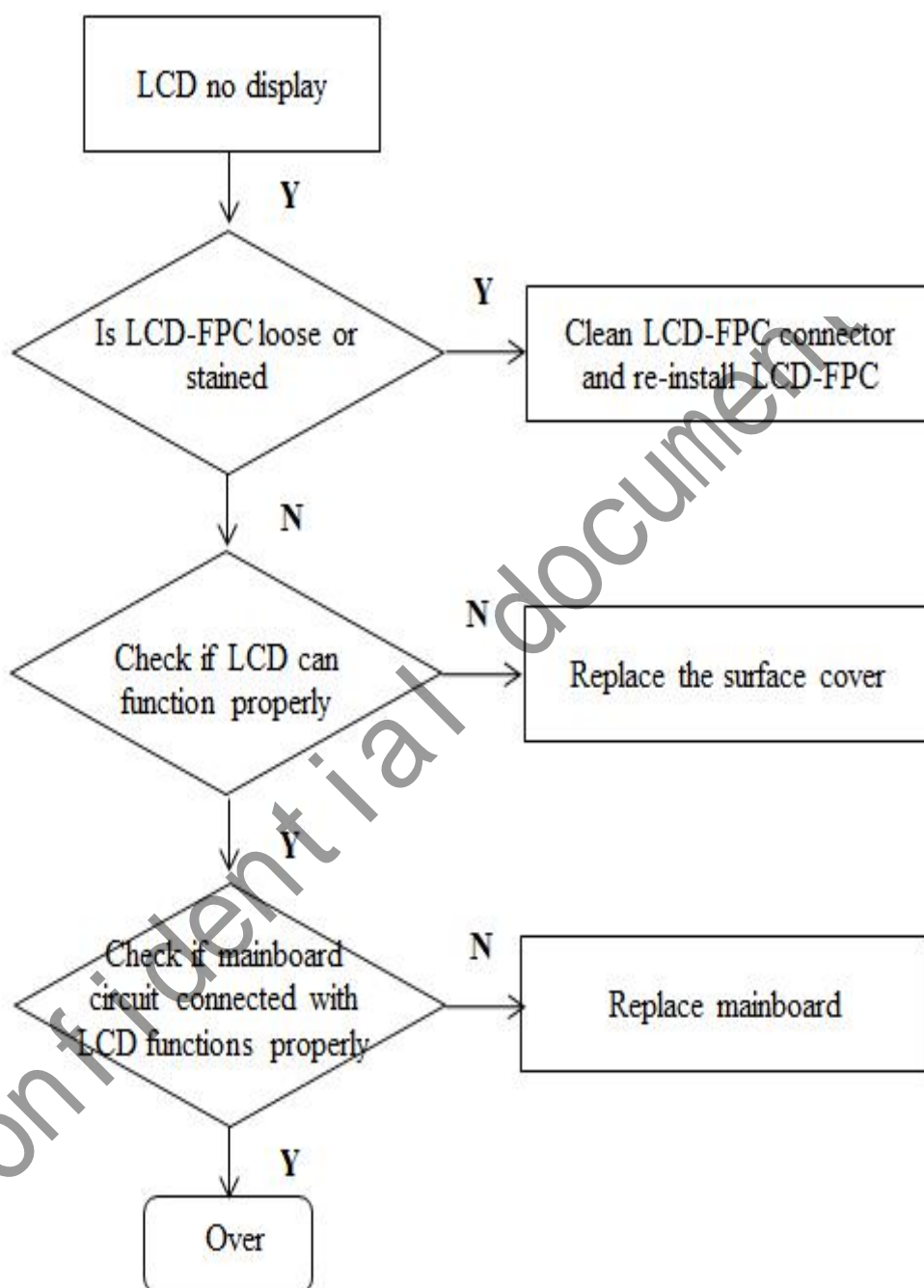
### 3. Volume button Malfunction



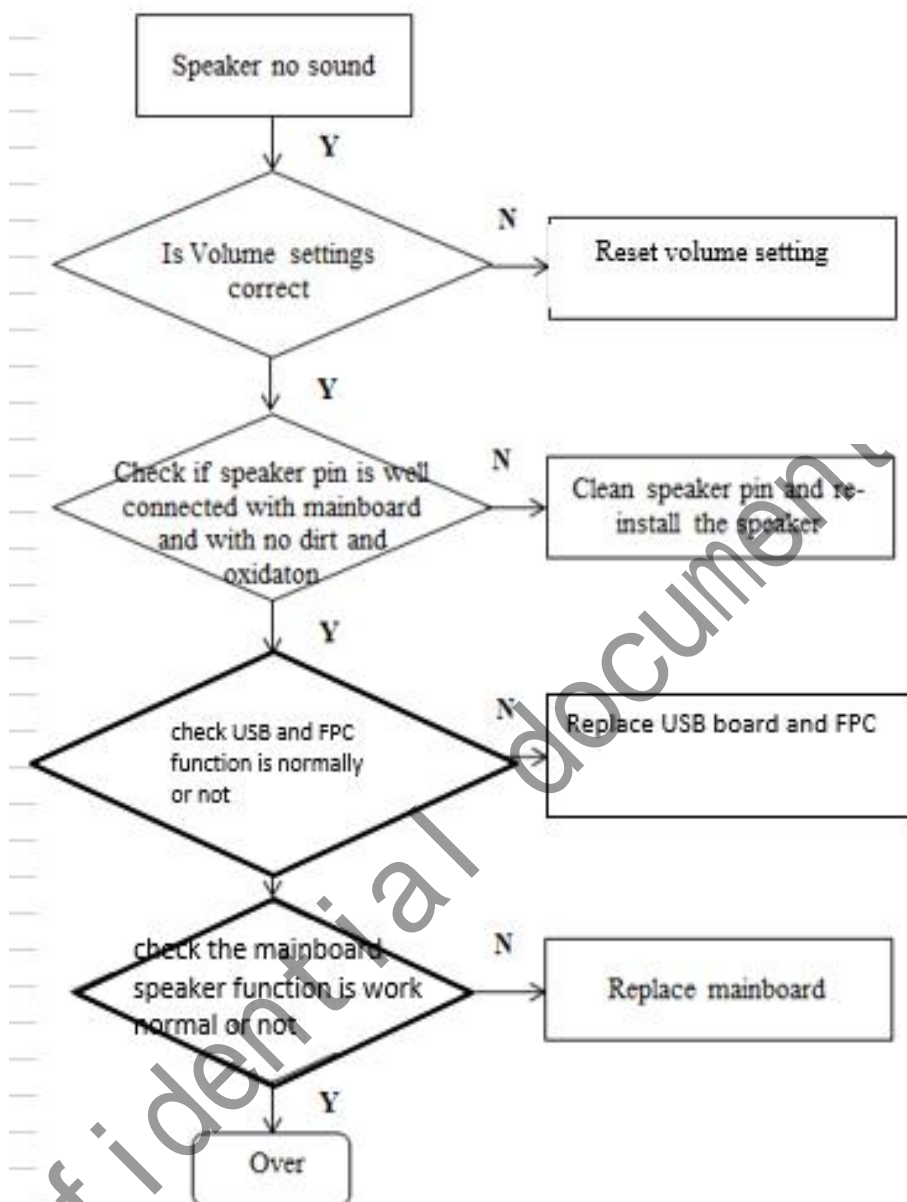
## 4. Screen Touch Malfunction



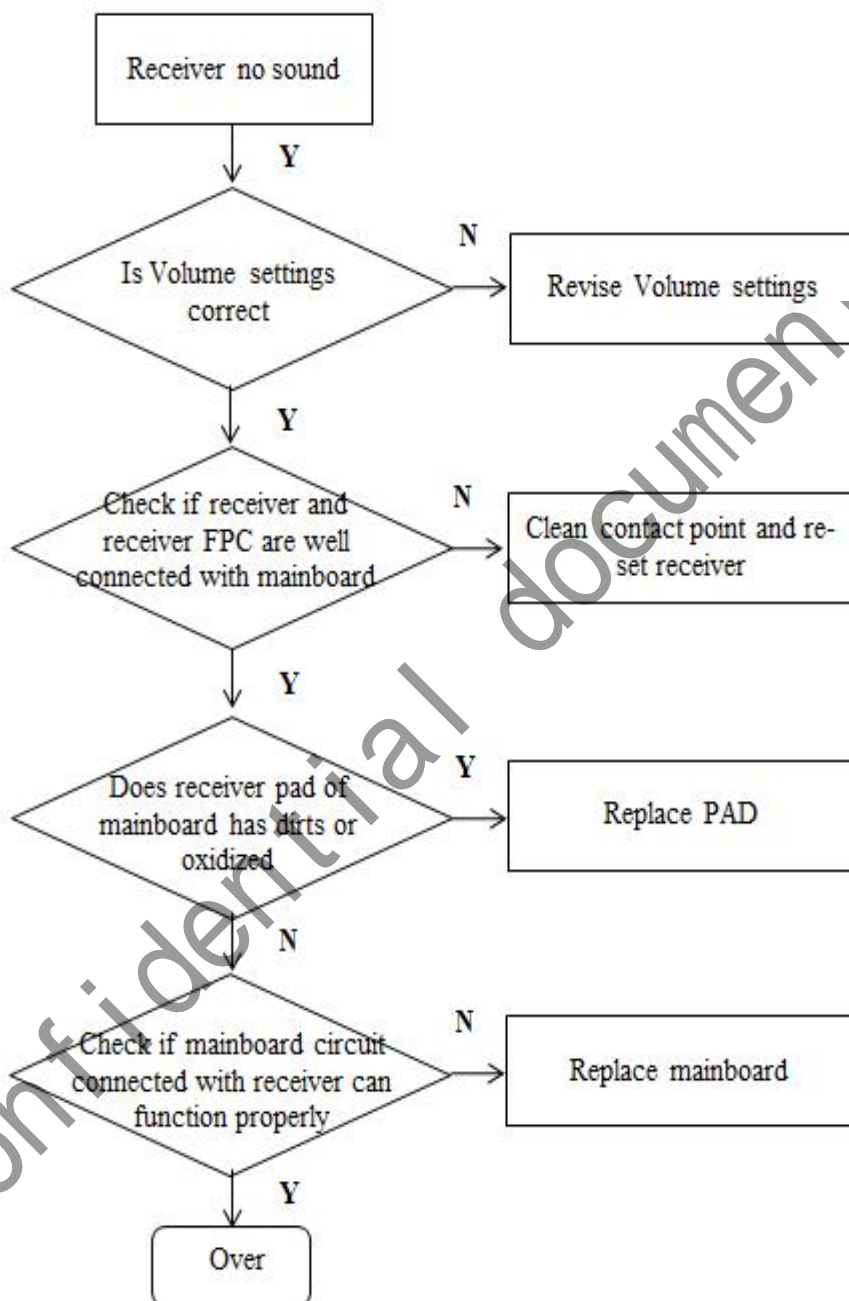
## 5. LCD display Malfunction



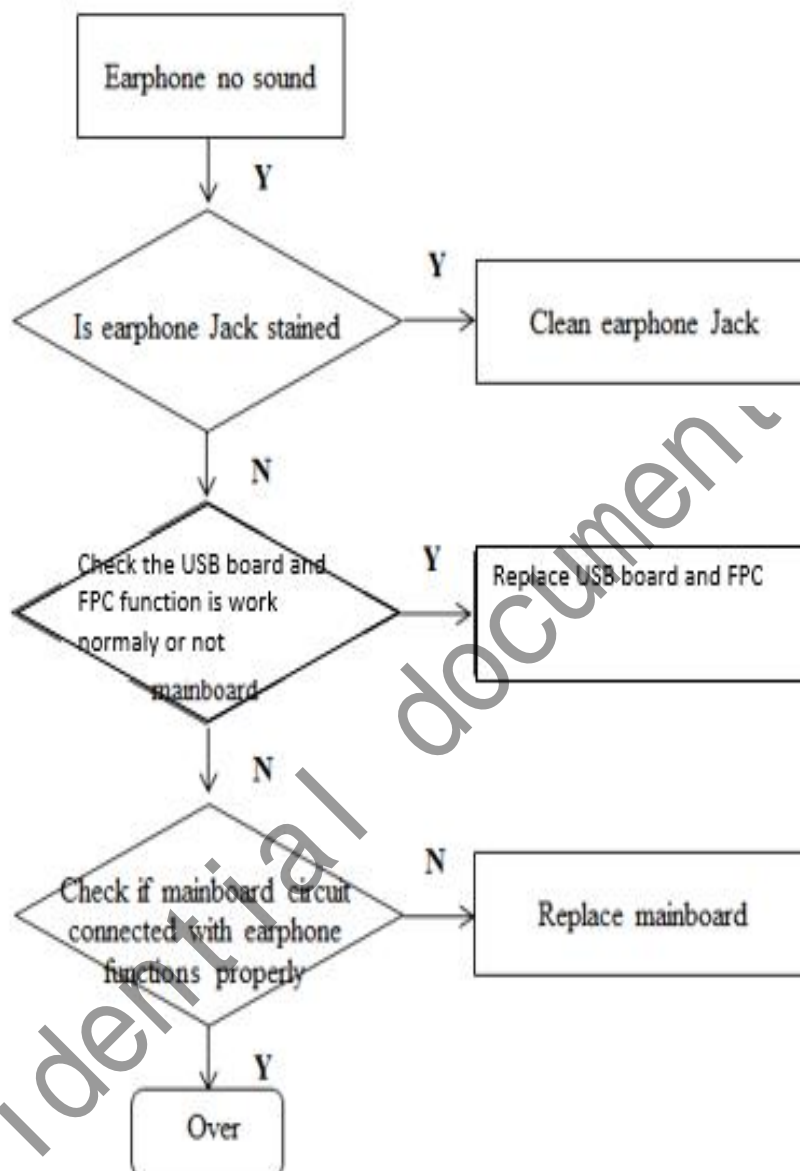
## 6. Speaker Malfunction



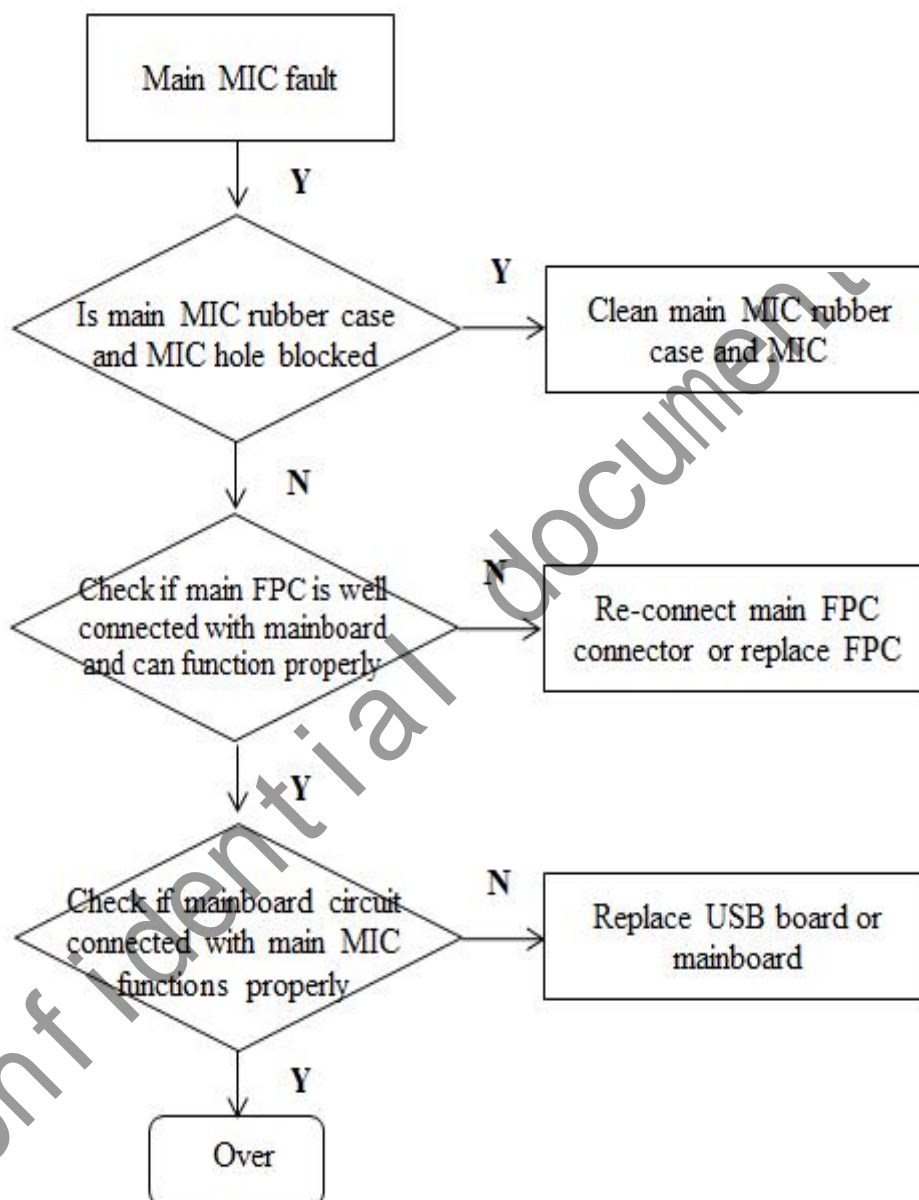
## 7. Receiver Malfunction



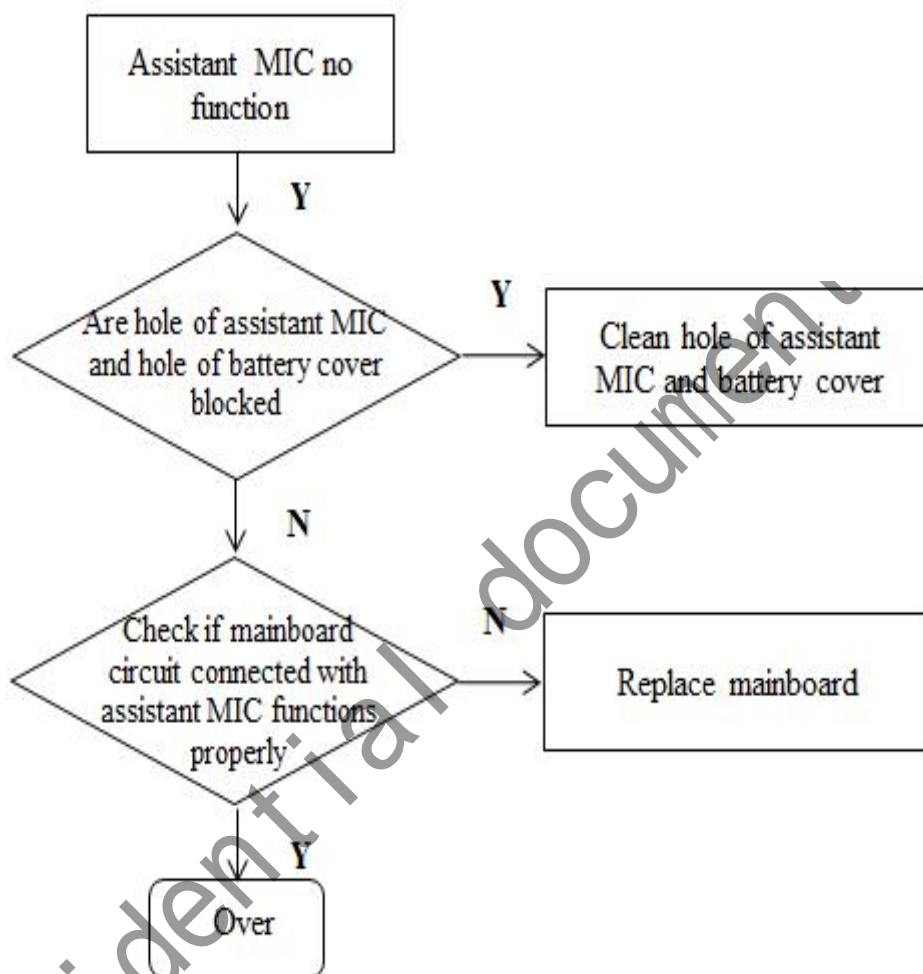
## 8. Headset Malfunction



## 9. Main MIC Malfunction

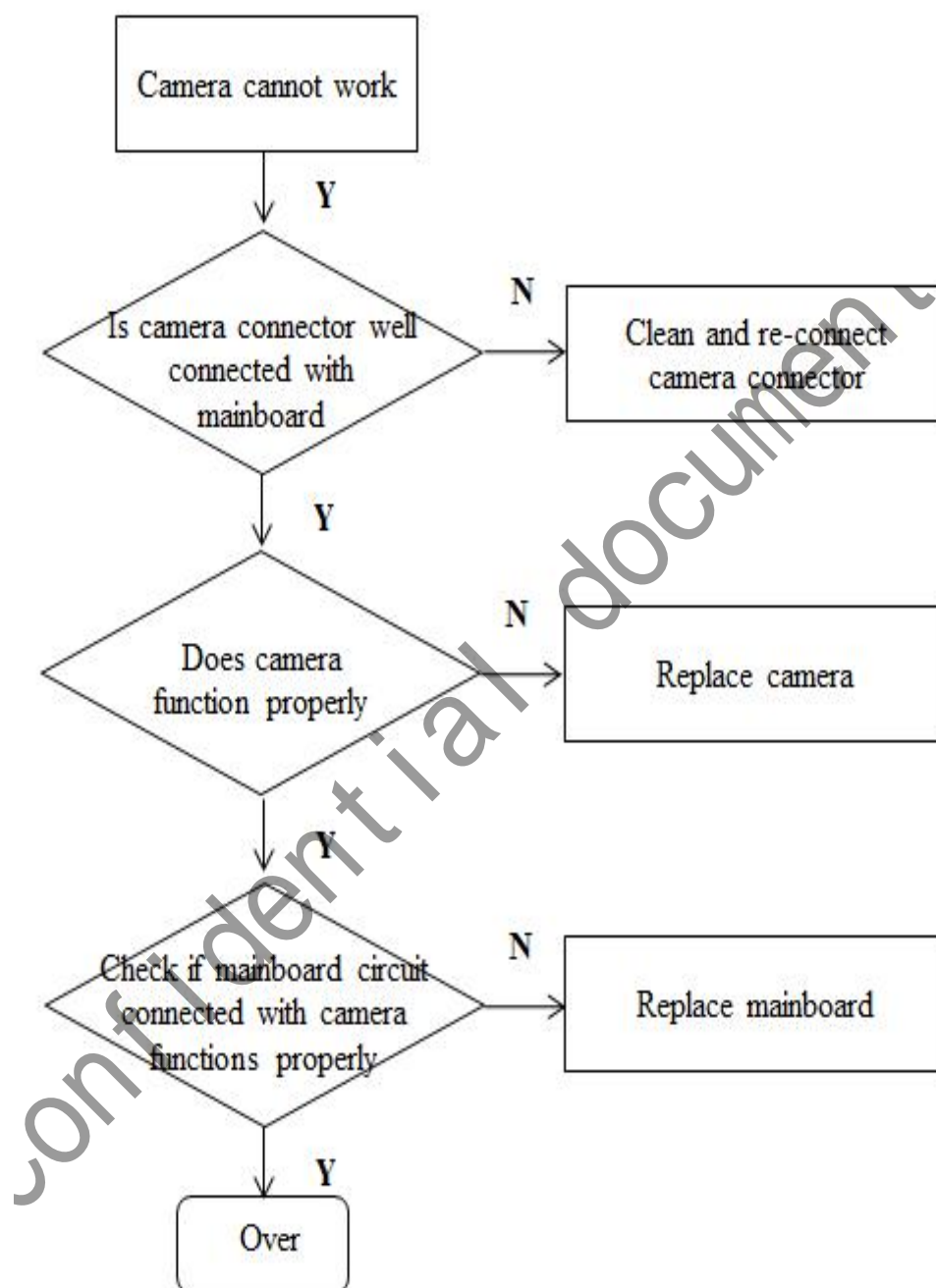


## 10. Vice-MIC Malfunction

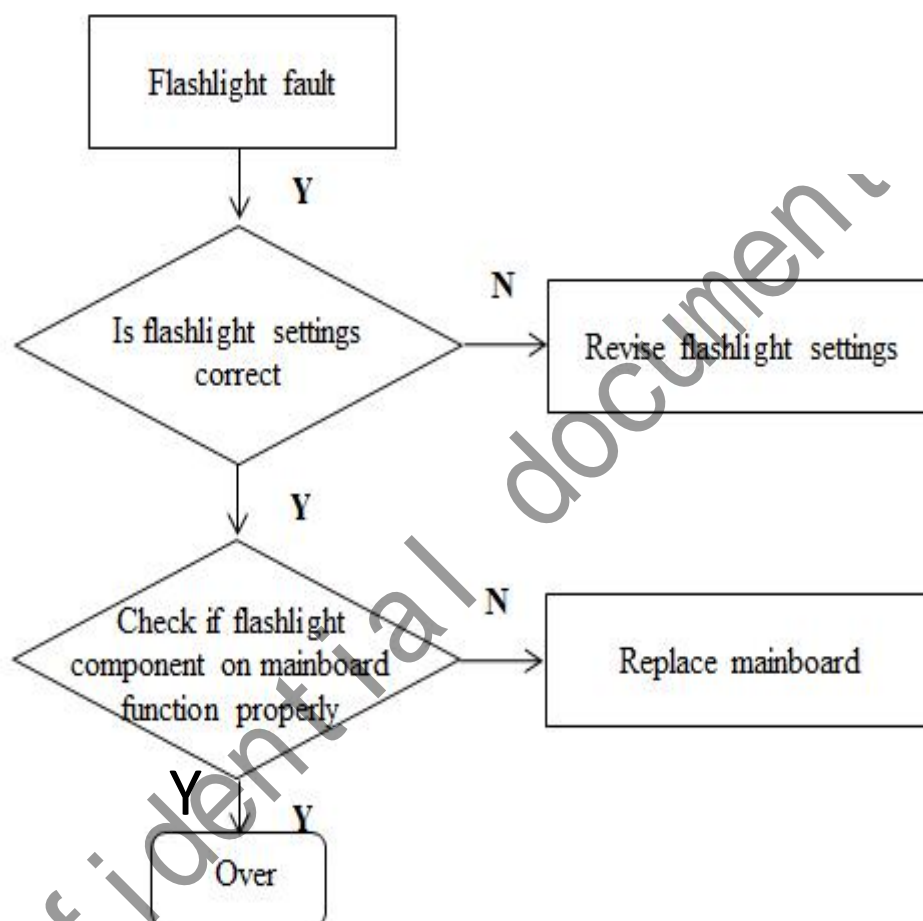




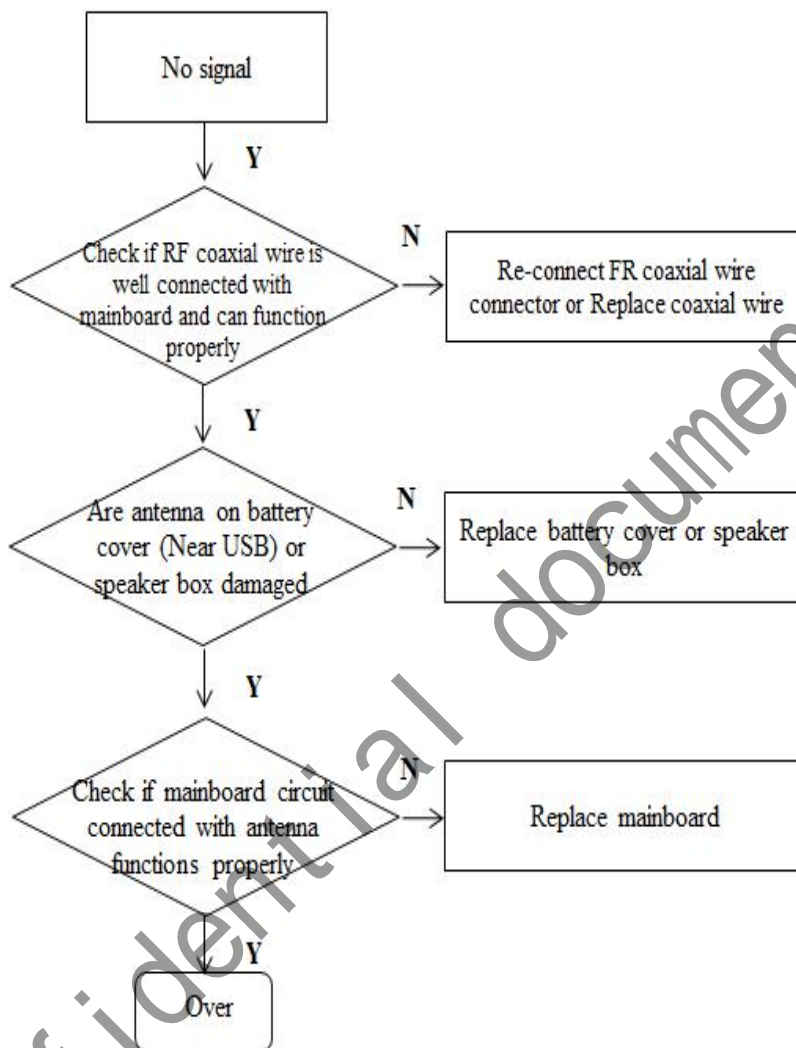
## 11. Rear camera and front camera Malfunction



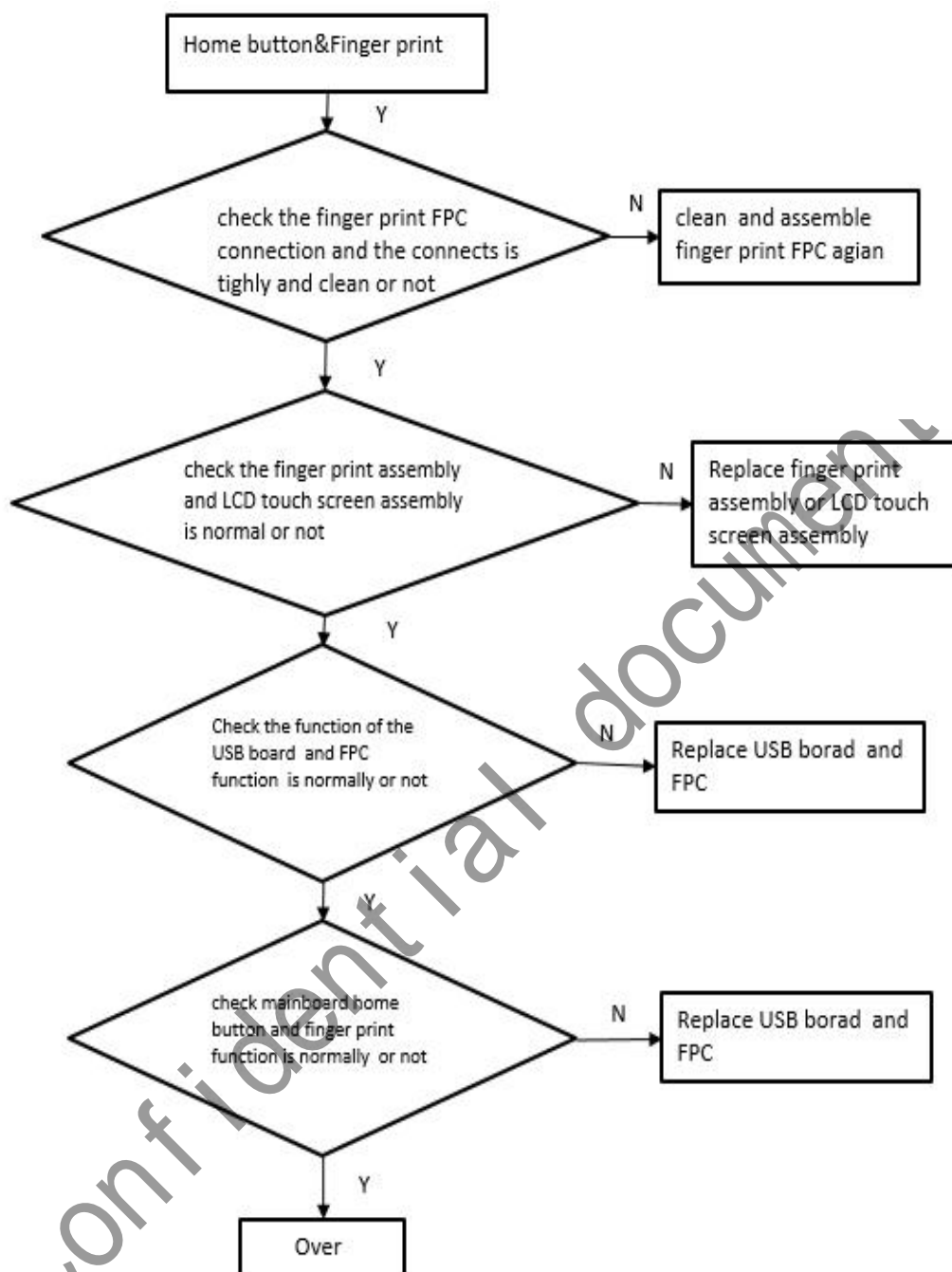
## 12. Flash light Malfunction



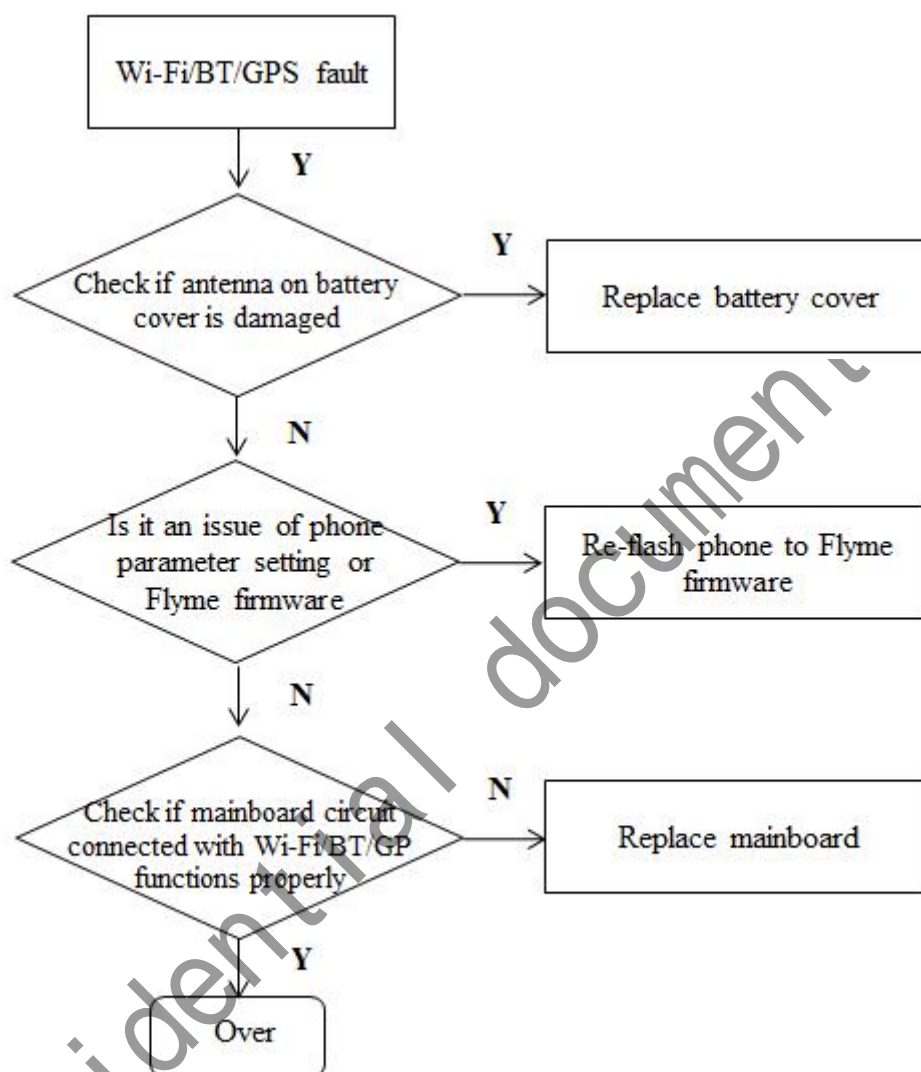
### 13.Signal Malfunction



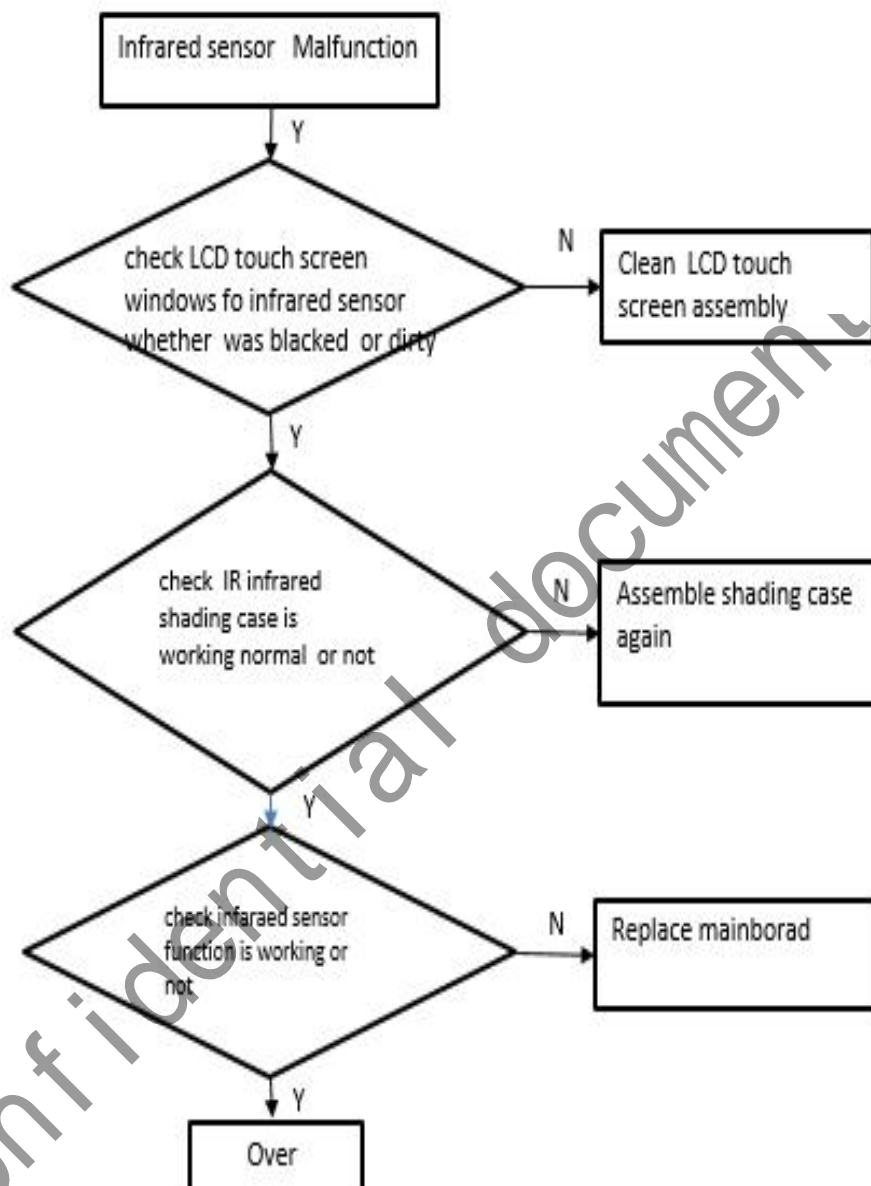
## 14.Fore Touch & finger print Malfunction



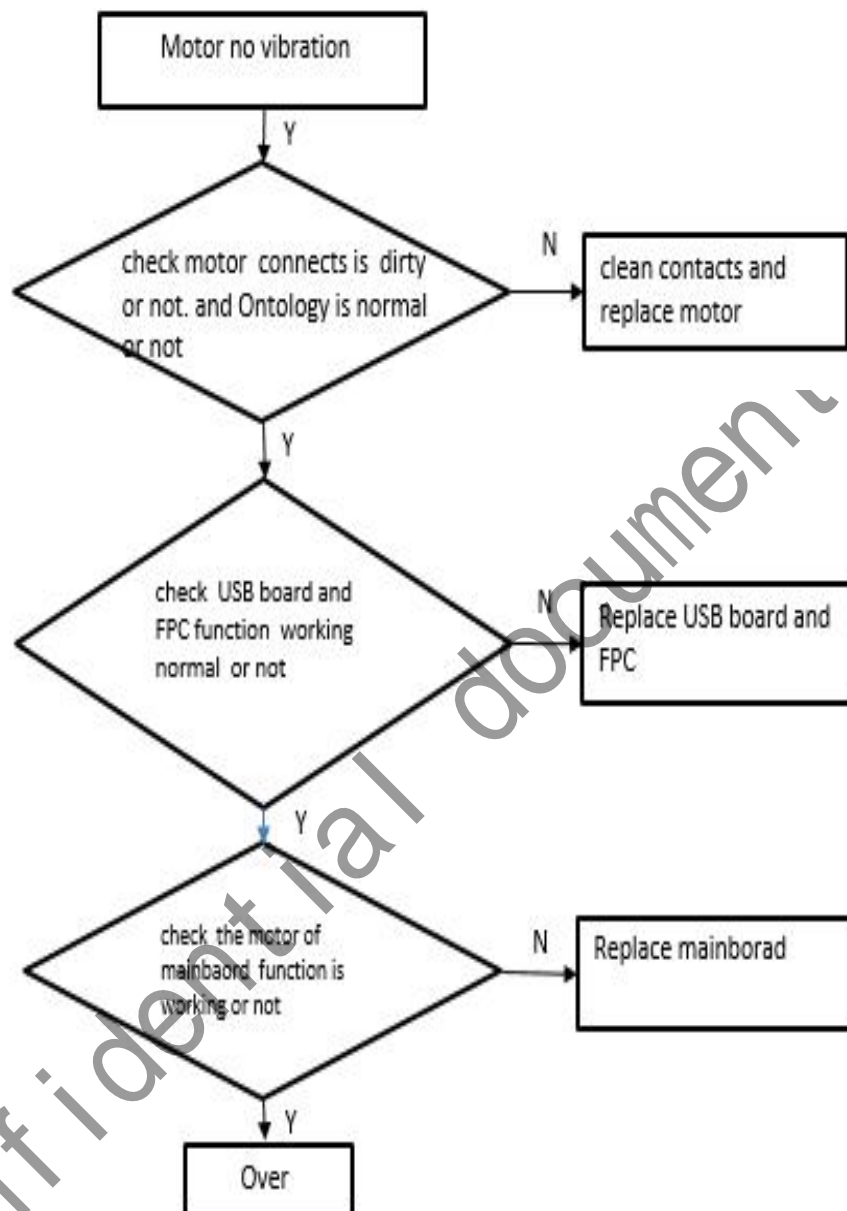
## 15. WIFI / Bluetooth / GPS Malfunction



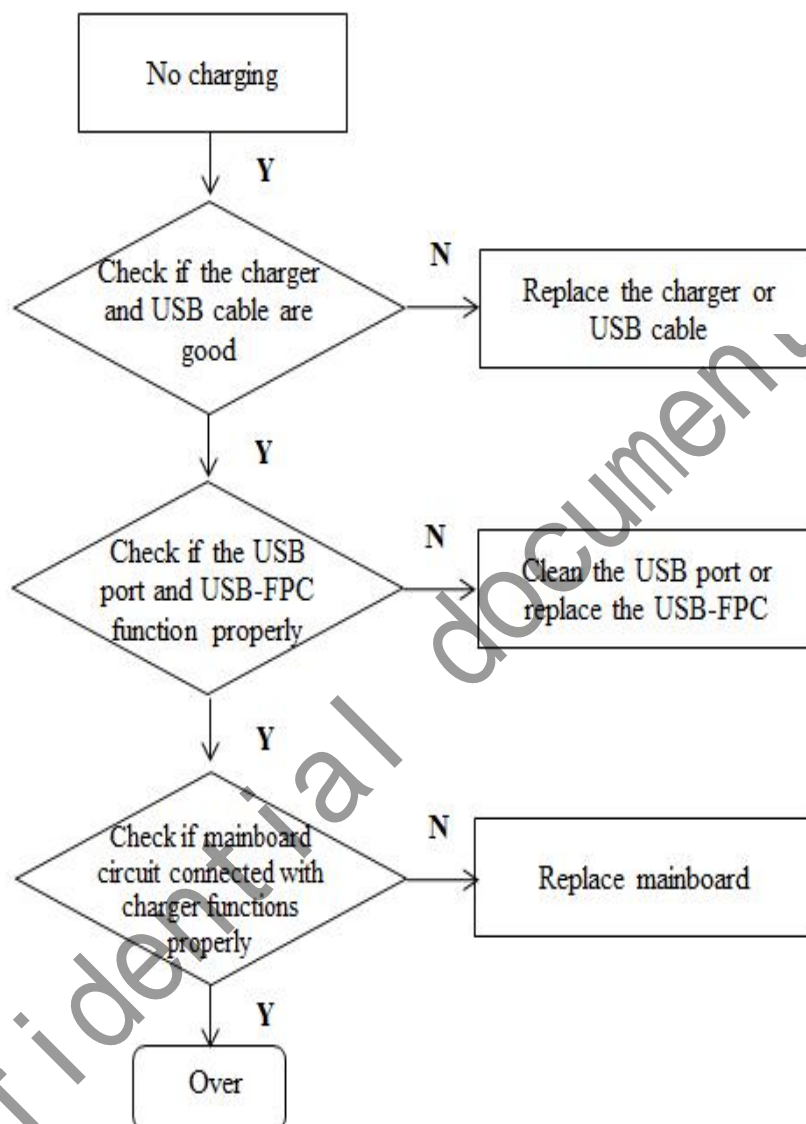
## 16. Infrared sensor Malfunction



## 17. Motor Malfunction

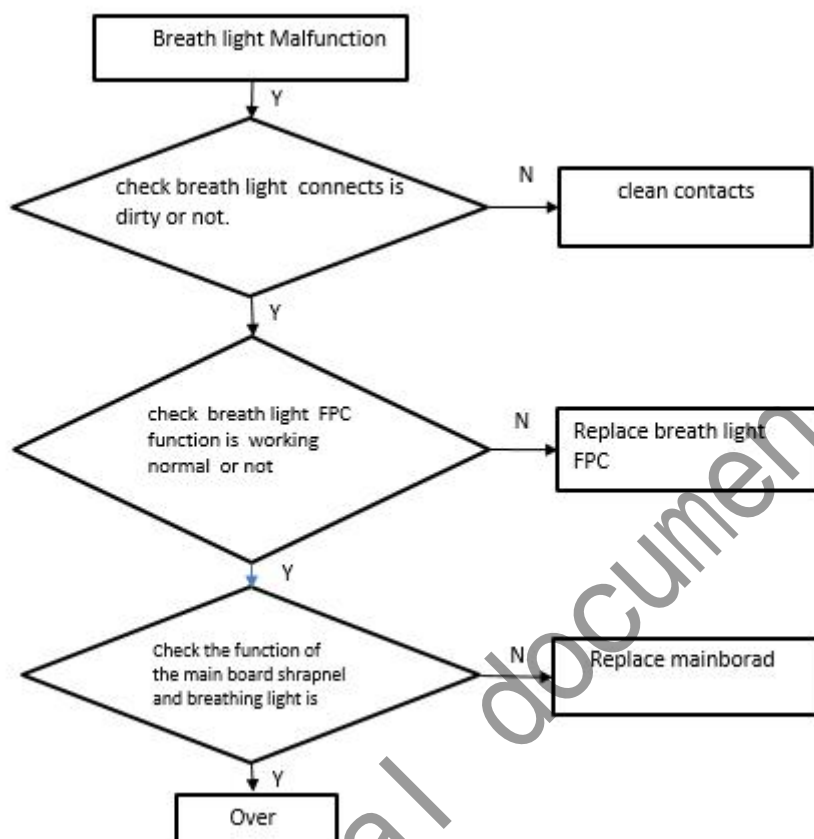


## 18. Charger Malfunction





## 19. Breath light Malfunction



## 20. Sensor Malfunction

If you meet one of below issue and you can try to flash Flyme firmware again. If it's doesn't work. You can replace mainboard directly.:

Fault item	Maintenance step 1	Maintenance step 2
Gyroscope	Re-flash Flyme	Replace mainboard
Gravitational induction	Re-flash Flyme	Replace mainboard
Compass	Re-flash Flyme	Replace mainboard
Hall sensor	Re-flash Flyme	Replace mainboard