

Diablo

ONE TOUCH 6030D/X/A/N



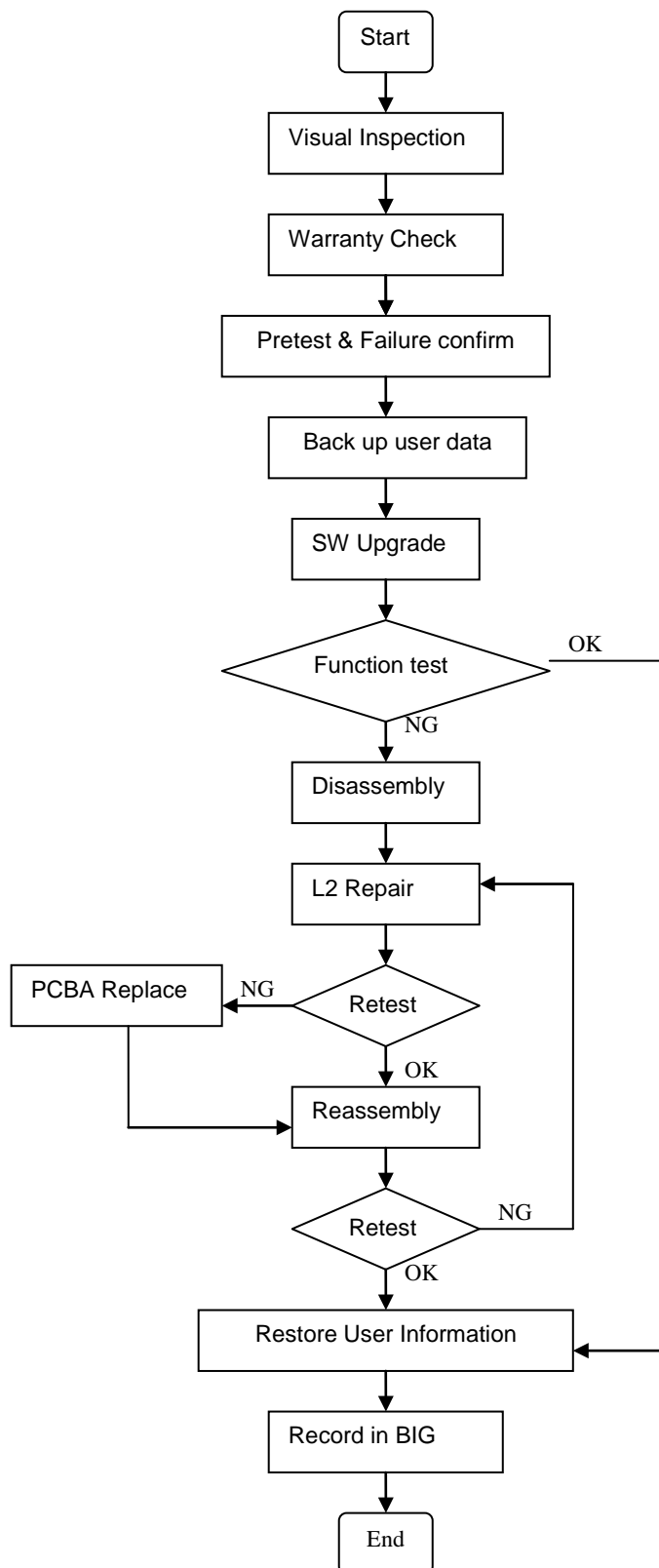
Note: this manual is non-contractual and TCT Mobile Limited can modify it without prior notice on the characteristics of described equipments.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	1/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

1.2	2013/6/20	Update software download process	Jennifer Zhang		
1.1	2013/5/24	Update warranty check part and correct some other error	Jennifer Zhang		
1.0	2013/4/26	Add L2 E part	Jennifer Zhang		
0.4	2013-3-16	Updated disassemble process according to CPM comment	Jennifer Zhang		
0.3	2013-2-21	Update L2 spare part list	Jennifer Zhang		
0.2	2013-1-31	Update according to CPM's comment	Jennifer Zhang		
0.1	2012-12-28	Draft creation	Jennifer Zhang		
Rev.	Date	Modification description	Prepared By	Checked By	Approved By

Rev.	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	Page
1.2		2/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

1 Level 2 repair process



2 Warranty Check and Visual Inspection

2.1 Warranty confirmation of L1

➤ IMEI sticker check:

- 1) Power on the handset, enter *#06#
- 2) If the IMEI sticker in the back casing is not lost:

We should make sure that the IMEI number **MUST** be the same with the one on the IMEI sticker; if not, it's out of warranty policy

➤ Humidity sensitive label

If humidity sensitive label is not good, the cell phone will be considered as out of guarantee.

- 1). Liquid was detected by humidity sensitive label



sticker OK



sticker NOK

- 2). There're 3 pieces of humidity sensitive sticker. Please find positions of humidity sensitive stickers from below.

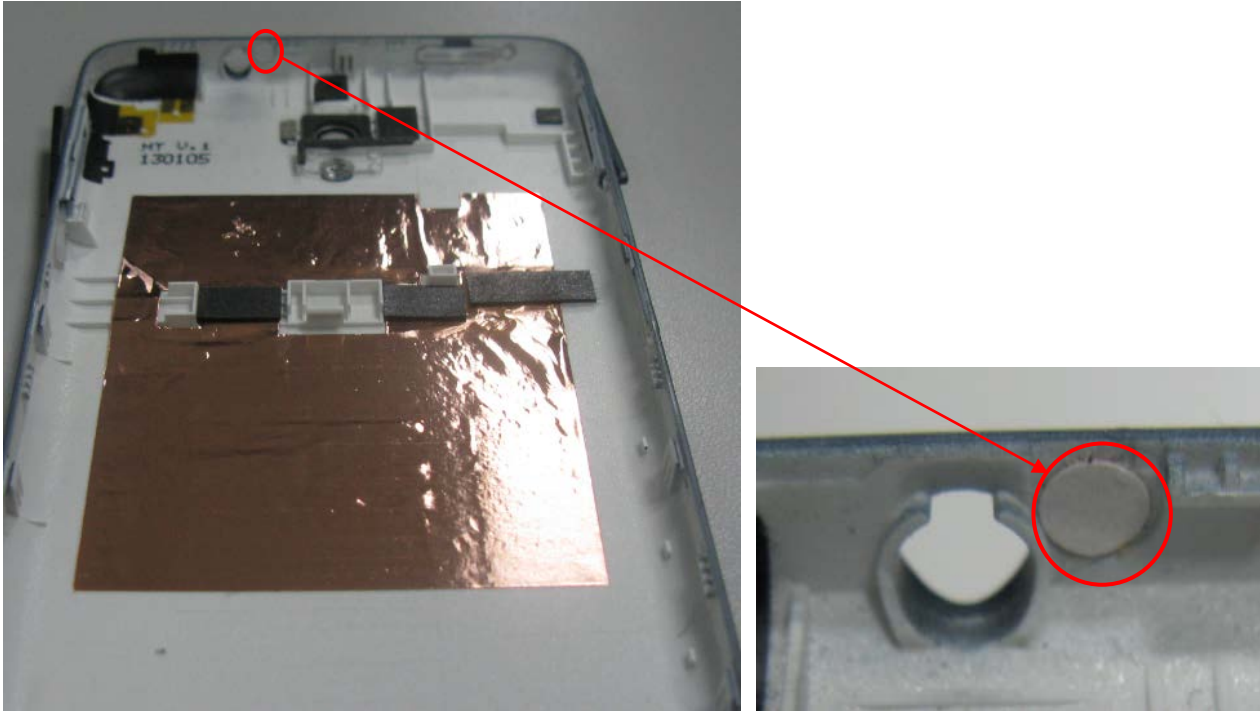
① one humidity sticker is beside SIM2 card or T card. Open the SIM2 cover (ONE TOUCH 6030D) or T card cover (ONE TOUCH 6030), you can see the humidity sticker from outside;



② Other one

is beside audio jack hole on furnished back casing.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	5/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		



2.2 Visual mechanical check

Mechanical warranties check items:

- 1) Corrosion
 - Corrosion on the USB connector, SIM connector, and other metal surfaces。
- 2) Hole (diameter > 1mm)
 - Holes on any surface, including the front casing, furnished frame, battery cover, touch Lens, keypad...
- 3) Bump
 - Bumps (diameter > 1mm) on any surface, including front casing, decorate frame, battery cover, touch Lens, keypad, etc.
- 4) Scratch
 - Scratches (length > 3mm) on any surface, including the front casing, decorate frame, battery cover, touch Lens, keypad, etc.
- 5) Distortion
 - Bend, twisted or crushed on the h/s, cover/casing or connectors, etc.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	6/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

6) Broken

- Touch broken, casing/cover broken, etc.

7) Dropped

- Keypad tear off, touch lens, connectors dropped, etc.

8) Gap

- External physical damage relating to abnormal use, like front case and frame opened

9) Others

- Damage caused by disassembly ,wrong part assembly, loss of components
- Use in abnormal environment like high temperature causing plastic melts

2.3 Pretest

- 1) Check that the SIM card is set correctly.
- 2) Insert the battery.
- 3) Power on the cell phone.
- 4) If the cell phone cannot power on, visually check the condition of the battery connector. Replace it if necessary.
- 5) If the cell phone asks to input NCK code, this means it is SIM locked and can only be worked with dedicated SIM card. Use the correct SIM card.
- 6) Enter the phone code if necessary.
- 7) After the phone power on, test step by step with the auto test code:

Press *#2886# in dial screen and then you will see the interface displaying the SW version. Select “Auto” to start the auto test, or select “MANU” to do the MMI test manually.

If one of the test failed during “Auto” test mode, it will ask you “Restart?”, press “YES” to restart the auto test from the first one and “NO” to exit the auto test, while “NEXT” to continue the auto test.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	7/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

■ TRACABILITY Test

- I. 1). "Auto" test mode: You can get some information such as PT, PFT, BW, MMI and FT.
- 2). "MANU" mode: You can get information such as IMEI, CU-REF, PTH (PTM), Data Code, BT address, etc.
- II. Press "Pass" to continue.

■ TP1

- I. "Please draw on the yellow area" according to instructions and it will show "TEST RESULT: OK!"
- II. Press "PASS" to continue.

■ TP2

- III. "Please draw on the yellow area" according to instructions and it will show "TEST RESULT: OK!"
- IV. Press "PASS" to continue.

■ LCD MIRE

- I. You will see the LCD display three colors - RED, GREEN and BLUE - if it functions well;
- II. Press "Pass" to continue.

■ LCD BLACK

- I. You will see the LCD displays black if it functions well;
- II. Press "Pass" to continue.

■ LCD GREYCHART

- I. You will see the LCD displays greychart if it functions well;
- II. Press "Pass" to continue.

■ LCD GREY LEVEL

- I. You will see the LCD displays grey if it functions well;

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	8/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

II. Press "Pass" to continue.

■ LCD WHITE

I. You will see the LCD displays white if it functions well;

II. Press "Pass" to continue.

■ KEYPAD.

I. Press the key displayed on the screen. The key on the screen will disappear when you press it if it functions well;

II. Press "Pass" to continue;

■ KEYPAD & LCD BACKLIGHT

I. The keypad and screen backlight will be flashing if it functions well;

II. Press "Pass" to continue;

■ CAMERA LED

I. Camera LED light will turn on if it functions well

II. Press "Pass" to continue;

■ CHARGE LED

I. Charge LED will turn on if it functions well;

II. Press "Pass" to continue;

■ CAMERA

Press "Pass" to continue if the camera functions well;

■ CAMERA IMG FRONT

Press "Pass" to continue if front camera functions well;

■ AUDIO

I. Put the phone near to your ear and you will hear a voice prompt which introduces some emergency call numbers if functions well

II. Press "Pass" to continue;

III. you will hear a voice prompt which introduces some emergency call numbers

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	9/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

through speaker if functions well;

IV. Press “Pass” to continue;

■ **VIBRATOR**

I. You can feel the phone’s vibrating if it functions well;

II. Press “Pass” to continue

■ **HEADSET**

I. Insert headset according to the instruction and you will hear FM playing through the headset and FM frequency will be displayed on the screen if it functions well;

II. Press “Pass” to continue;

III. Remove headset according to the instruction and it will say “Headset tested” if it functions well;

IV. Press “Pass” to continue;

■ **USB**

I. Insert USB cable, then it will say “USB:OK” “Charger:OK” and Charger LED will also turn on if it functions well;

II. Remove USB cable according to instruction

III. Press “Pass” to continue;

■ **COMPASS**

I. “compass test start: move the phone in an 8 shape”

II. Press “Pass” to continue;

III. The compass will ways point north whatever the phone is put at which direction if it functions well;

IV. Press “Pass” to continue

■ **SENSOR**

I. Put the handset up and towards up according to instruction;

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	10/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

II. Put the handset “face up”, “face down” and towards “Down”, “Left”, “Right” according to instruction; and it will enter into next test automatically if it functions well;

■ **LIGHT SENSOR**

I. “ambient light” value will change according to the phone’s movement, and it will say “dark:OK” “bright:OK” if it functions well;

II. Press “Pass” to continue;

■ **PROXIMITY**

I. Put the handset near to your face and then move it away from you face; then it will say “near -> far:1” and “far->near:1” if it functions well;

II. Press “Pass” to continue;

■ **SIM CARD**

I. Insert SIM card and the phone will detect it if functions well;

II. Press “Pass” to continue;

■ **MEMORY CARD (only ONE TOUCH 6030D supports external memory card and has this test)**

I. Insert memory card according to instruction and the phone will detect it if it functions well;

II. Press “Pass” to continue;

■ **BATTERY TEMP**

I. It will display “Temp range: 20~50”, “current is xxx” and the value of “Battery content”/ “Battery Voltage” if it functions well;

II. Press “Pass” to continue;

■ **BT**

Bluetooth will search automatically and it will display device address if it functions well;

■ **WIFI**

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	11/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

It will search for WIFI hotspot and display searched result on the screen if it functions well;

■ GPS

It will run GPS and search for satellite, and then it will display info such as “PRN”, “SUR”, etc. on the screen if it functions well;

■ CALL

I. You will hear a voice prompt which introduces some emergency call numbers if functions well;

3 Battery

3.1 Battery information

1) Battery picture



2) Battery feature

Model	Element	Capacity
Battery Li	Lithium	1800mAh

3) Battery life.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	12/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

The following table shows the nominal battery life respectively in standby and talking mode. These typical values are expressed in normal temperature with battery initially full charged and under good radio coverage. Battery range depends on the network characteristics, the ambient temperature and particularly on movement.

Diablo Power pack	Diablo /ONE TOUCH 6030D/X/A/N	
	Standby (Paging 5)	Voice talking(Pmin with DTX OFF)
Power pack Lithium	428H(GSM 900MHZ) / 420H(GSM 850MHZ) / 428H(DCS) / 430H(PCS)	16H(GSM 900MHZ) / 17H(GSM 850MHZ) / 17.5H(DCS) / 17H(PCS)

* Pmin: minimum transmission power

** DTX: no transmission during period of silence

4) Battery charge time.

For a normally discharged battery which has not been stored for long time, the charge time listed as below table.

Mode	Typical Charge time
Power pack Lithium	2.5H

Note:

■ If the battery is new, charge it before use. Battery icon will appear after charging a short time.

■ If the battery is deeply discharged, battery icon will appear after charging several minutes and accompany with a slight sound.

3.2 Battery test

1) Below table describes the various events related to a standard charger connected to a

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	13/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

cell phone.

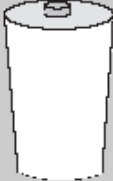



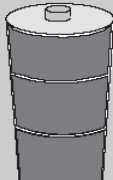
	Diablo / ONE TOUCH 6030D/X/A/N	
Cell phone status before charger connected	ON	OFF
During charging	Display lights up and following battery icon displayed:	
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 150px; height: 100px; position: relative;"> <div style="position: absolute; bottom: 5px; left: 5px; width: 20px; height: 10px; background-color: white;"></div> </div> <div style="border: 1px solid black; width: 150px; height: 100px; position: relative;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%);">  </div> </div> </div> <p style="text-align: center;">Sequential icon flashing:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="display: flex; gap: 5px;"> <div style="border: 1px solid black; width: 20px; height: 10px;"></div> <div style="border: 1px solid black; width: 20px; height: 10px; background-color: black;"></div> <div style="border: 1px solid black; width: 20px; height: 10px; background-color: black;"></div> <div style="border: 1px solid black; width: 20px; height: 10px; background-color: black;"></div> </div> <div style="display: flex; gap: 10px;">    </div> </div>	
After charging (charger connected)	Following fixed battery icon display :	
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 150px; height: 100px; position: relative;"> <div style="position: absolute; bottom: 5px; left: 5px;"> <div style="border: 1px solid black; width: 15px; height: 10px; background-color: black;"></div> </div> </div> <div style="border: 1px solid black; width: 150px; height: 100px; position: relative;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%);">  </div> </div> </div>	

Table - Battery charge status on handset

- 2) If the display does not light on or battery icon does not flash when the charger or the cell phone’s charge function is defective with mechanical or electronics.

In this case:

- a) Replace the charger to charge.
 - Confirm it works correctly or not.
- b) Check the Charge connector on the cell phone.

- If it is damaged, repair the cell phone.

3.3 Battery specifications

1) Battery pack electrical characteristics

Item	Specification	Remarks
Rated Capacity	1800mAh (min)	0.2 C5A discharge 3.0V cut-off
Nominal voltage	3.8V	
Charge Voltage	4.35V±0.05V	0~50°C
Discharge cut-off Voltage	3.0V	
Charging Method	CC-CV mode	Constant voltage with limited current
Charging Current	Standard charge : 0.5 C5A Rapid charge: 1.0 C5A	
Max. Charge Current	1.8A	1C5A
Rated Discharge Current	0.2 C5A	Discharge: -20~60°C , 85% RH max
Operating Temperature	Charge : 0~50°C, 90% RH max; Charge: 4.35V Discharge : -20~60°C 90% RH max;	

2) Environment

Items	Unit	Mini	Typ	Max	Conditions
Discharge Temperature	°C	-20		60	
Storage	°C	-20 -20 -20		60 45 25	Less than 1 month Less than 3 months Less than 1 year
Relative Humidity/	%	45	65	85	65±20%



Plastic Flake



Tweezers



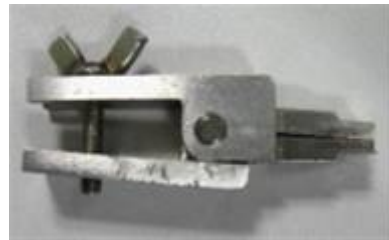
Hot wind gun



Screwdriver



Soldering iron



Camera Jig



suction cups

5.3 Disassembly process

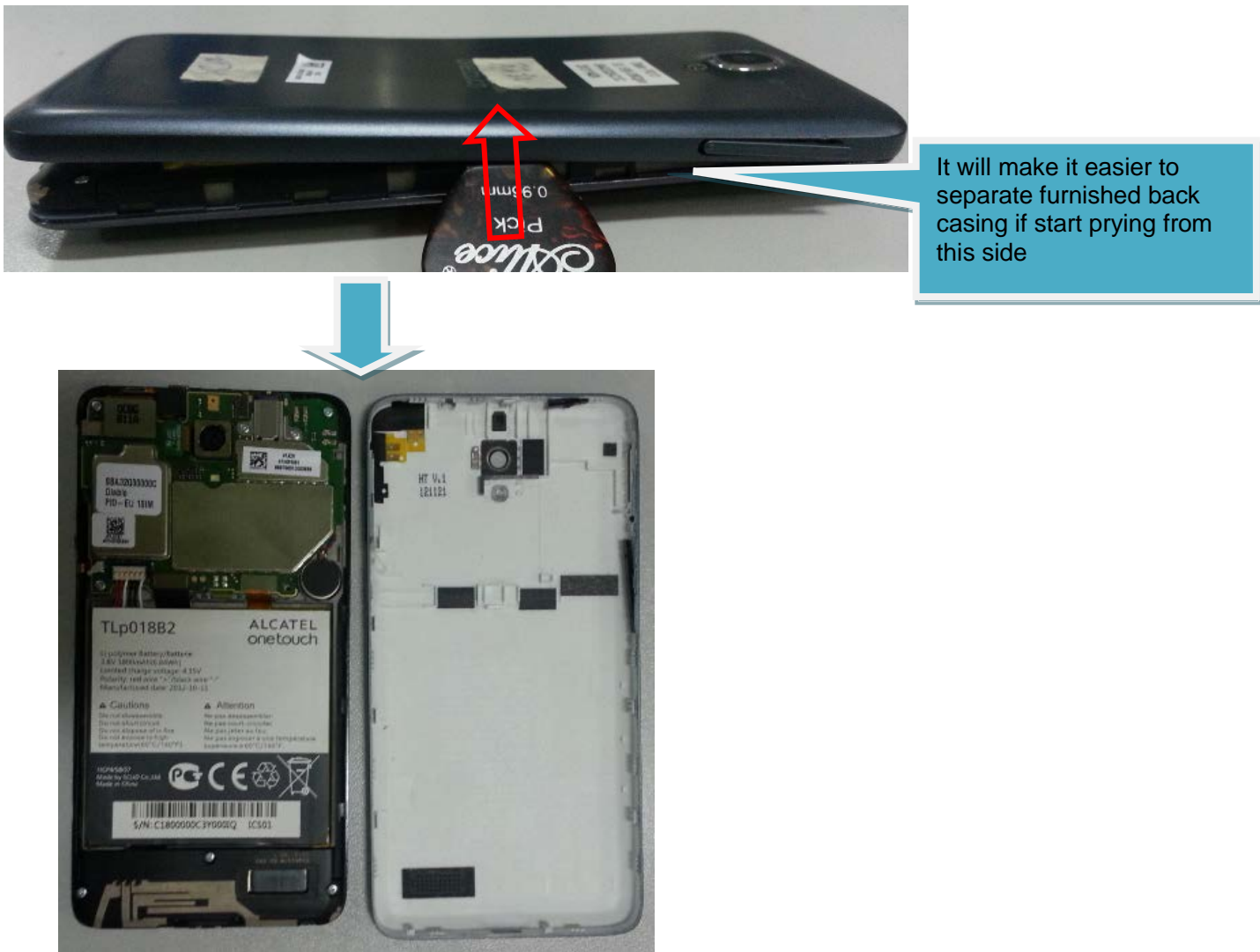
The steps of disassembly ONE TOUCH 6030D/X/A are as below.

Step 1: open TF card cover and take off the screw beside TF card slot with screw driver.
Be careful not to scratch furnished back casing.



Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	25/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

Step2: pry up and swipe along the four edges of furnished back casing with plastic flake to separate furnished back casing with furnished front casing.



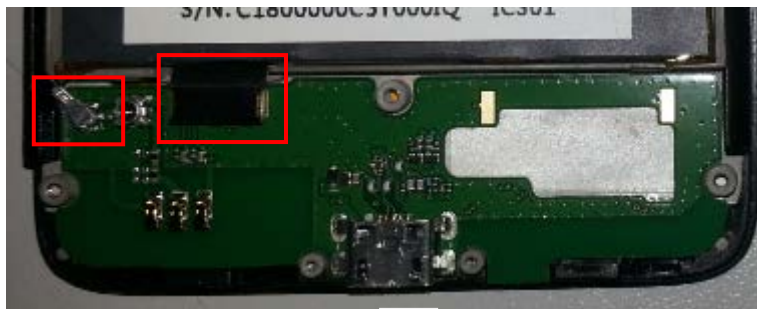
Step 3: remove furnished sub PCBA from furnished front casing.

- 1) Take off the 5 screws with screw driver on furnished main antenna. Be careful not to damage the 2 smaller screws highlighted by yellow boxes.

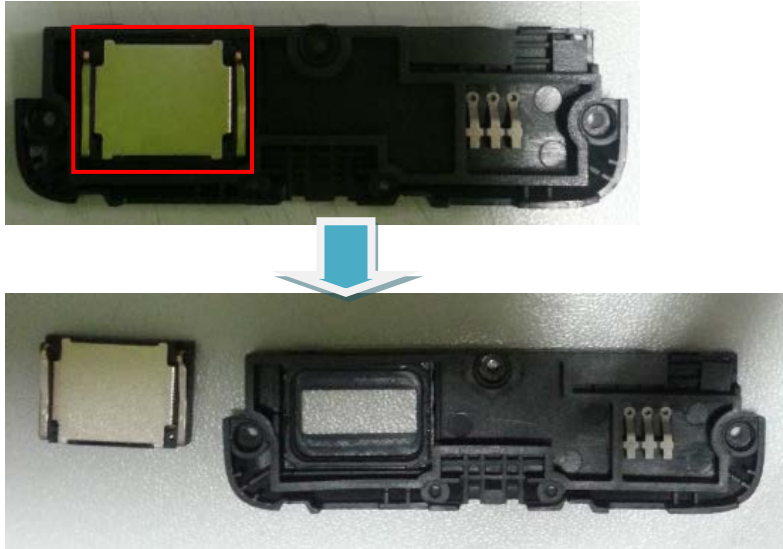
Then remove furnished main antenna from furnished sub PCBA.



- 2) Separate RF cable and main FPC with furnished sub PCBA. And then use plastic flake to separate and remove furnished sub PCBA from furnished front casing.



Step 4: remover speaker from furnished main antenna.

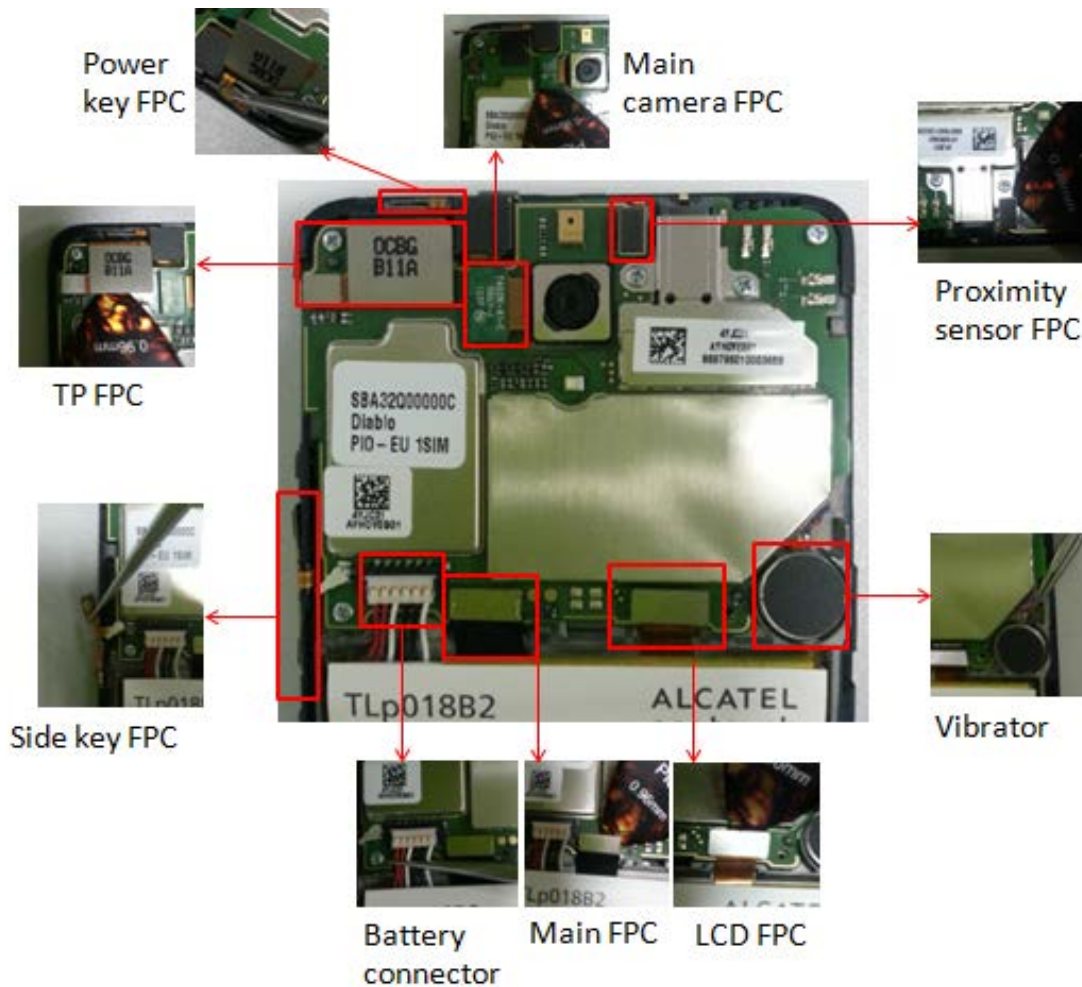


Step5: remove furnished main PCBA from furnished front casing.

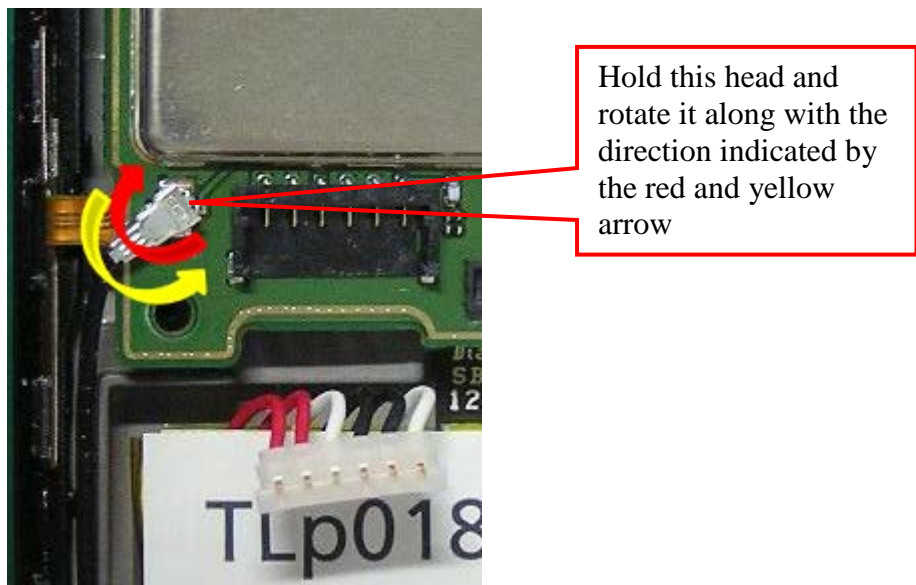
- 1) Separate LCD FPC, Main FPC, battery connector, side key FPC, TP FPC, power key FPC, main camera FPC and proximity sensor FPC from furnished main PCBA with screw driver or plastic flake.

Pry up vibrator from furnished front casing with screw driver; be careful not to damage vibrator.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	28/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

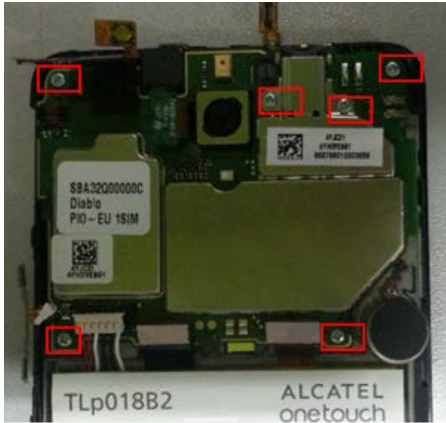


2) Remove RF cable; the RF connector is easily to be damaged. Please rotate the RF cable head along below arrows' direction horizontally before separate it from RF connector. (NOTE: disassemble RF cable firstly from SUB PCBA)



3) Then take off screws the 6 screws (refer to the red boxes in the above picture) from furnished main PCBA with screw driver.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	29/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		



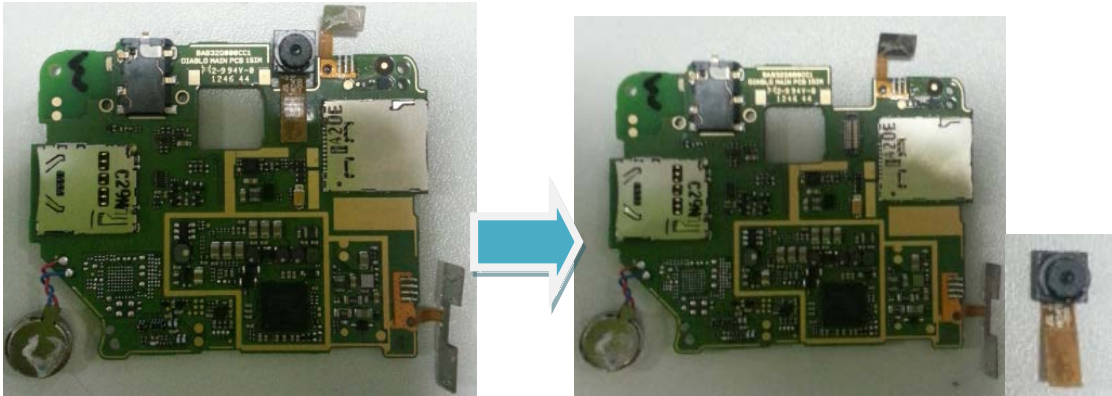
NOTE : be careful not to damage this sticker when removing audio jack cover from main PCBA.

Step 6: remove proximity sensor, receiver and main camera from furnished front casing.

NOTE: the receiver is easily to be damaged during disassembling. Please do not disassemble the receiver if it is not necessary.

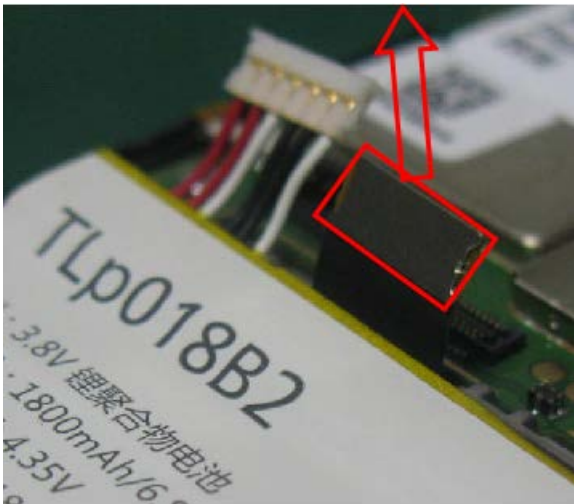


Step 7: remove sub camera from furnished main PCBA.



Step 8: use main FPC as handle to pull up the battery according along with the direction of below arrow. Be careful not to damage the main FPC.

WARNING OF BATTERY: Potential for fire or burning. Do not puncture, crush, or heat the battery. Strictly avoid using sharp tool to pry up battery. Fire extinguisher is needed for emergency. DO NOT re-use the battery after battery disassembly.





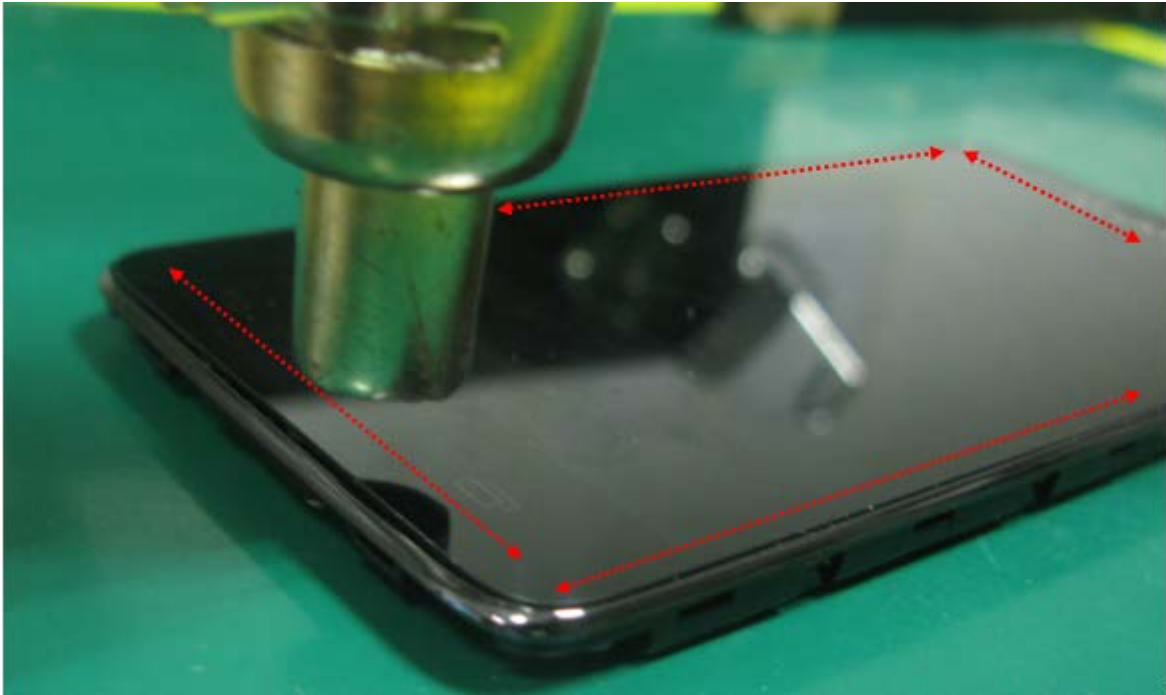
NOTE:

- no need to disassemble the battery except below 4 circumstances --
 - 1) Battery defected;
 - 2) Main FPC defected;
 - 3) TP-LCD-Light module defected;
 - 4) Furnished front casing exchange;
- Once the battery has been disassembled, DO NOT reuse it anymore and use a new battery to replace it when reassembling the handset.

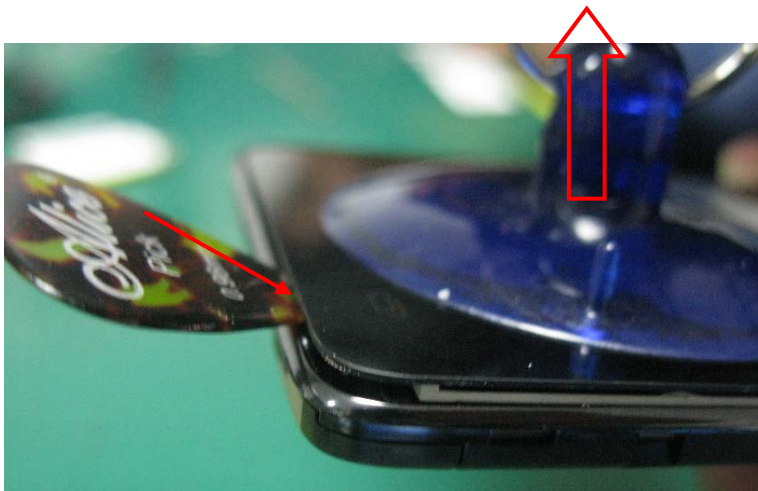
Step 9: Seperate TP-LCD-Light module from furnished front casing.

- 1). Use hot wind gun to heat up touch lens along with the four edges (hot wind gun temperature: 130°C, Air Level: 3, Height: around 10mm, Time: about 40s)

The width of double side adhesive tape between TP-LCD-Light module and furnished front casing at top and bottom edges is about 5~8mm, while width of the tape under right and left edges is about 1~2mm;



2). pull up the TP-LCD-Light module from bottom edge of TP with suction cup, and then insert plastic flake carefully into bottom right corner of TP once there's any gap between TP-LCD-Light module and furnished front casing.

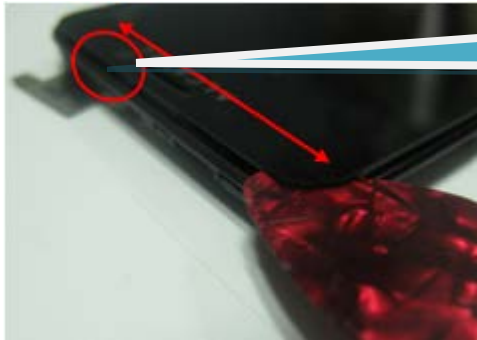


3). Swipe along the four edges of TP with plastic flake. Be careful not to damage TP FPC when swiping along the top edge;



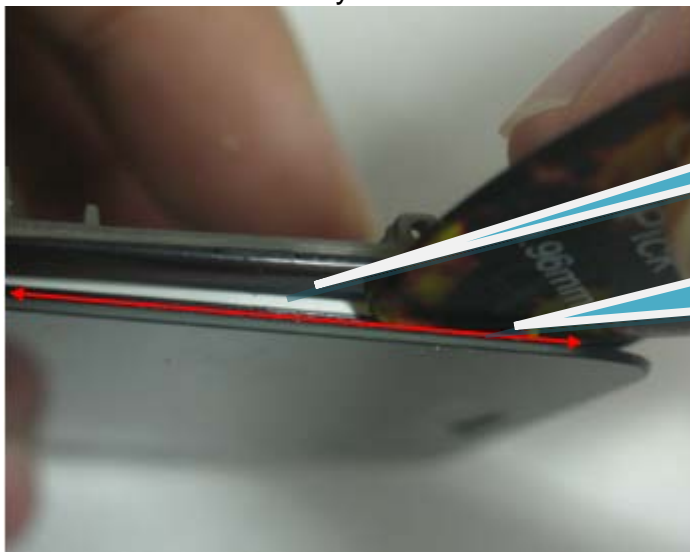
Use plastic flake to swipe along the four edges.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	33/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		



Be careful not to damage TP FPC when swiping along here with plastic flake

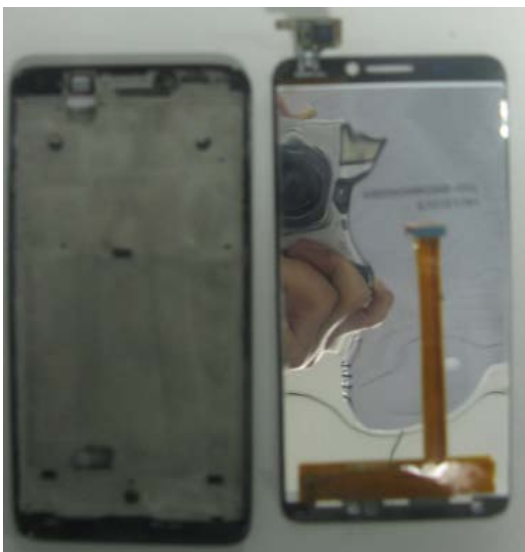
NOTE: Be careful not to damage the LCD when swiping along left and right edges because the LCD is very close to the side and is easily to be damaged;



The white part is LCD; be careful not to damage it;

Use plastic flake to slide along this direction in order to separate left and right edge; pay attention to the LCD

4). Separate TP-LCD-Light module from furnished front casing slowly and carefully; Make sure not to damage TP FPC or LCD FPC.



Step 10: Remove power key FPC , volume side key FPC and vibrator by using soldering iron
(Temperature: Lead-free technology 330℃±10℃， time: 3~5 seconds)



Step 11: Disassembly complete



Disassembly Notice:

- Receiver is easily to be damaged during disassembly process. Thus please do not disassemble receiver unless it is necessary.
- About battery disassemble notice:
 - Once the battery has been disassembled, DO NOT reuse it anymore and use a new battery to replace it when reassembling the handset.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	35/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

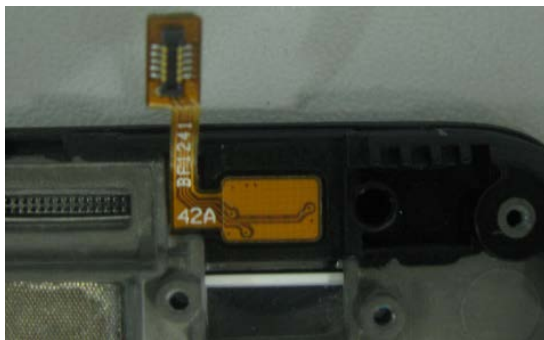
- Improper operation on battery will cause high risk for fire or burning. Thus please follow up the battery disassembly guidance strictly and pay high attention to the WARNING part. Do not disassemble battery unless it is necessary.
- 3). The TP-LCD-Light module is one part, no need to separate TP with LCD.
- 4). Put all the spare parts on right position (don't let all the spare parts mixed and put on the clean place to avoid vitiated or stained for each spare part) after disassembly.

5.4 Reassembly Process

Please make reference to the disassembly process for assembly reverse an order of the disassembly steps.

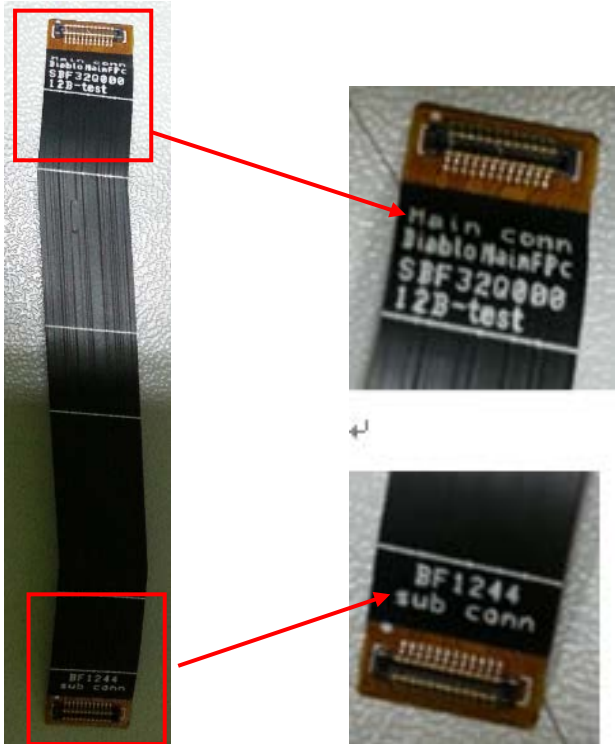
Attention:

- Assemble proximity sensor on furnished front casing firstly before assemble furnished main PCBA.



- When assembling main FPC, pay attention to the right direction; make sure to connect the end which has “Main conn” with furnished main PCBA, while the other end which has “Sub conn” should be connected with furnished sub PCBA.

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	36/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		



- When assembling furnished back casing, it will be a little easier if assemble the furnished back casing starting from top left corner and setting power key and volume side key correctly at first.



Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	37/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

5.5 Disassembly process evaluation

We list the ONE TOUCH 6030D/X/A parts disassembly time, technique levels and disassembly methods as below, for technique levels, Class 1 signifies easy to disassembly, Class 2 signifies normal to disassembly and Class 3 signifies hard to disassembly.

Spare part	Time for disassembly	Jigs for disassembly	Difficulty Class	Remark
Furnished back casing	80s	Screw driver Plastic Flake	Class 2	
Audio jack cover	20s	screwdriver	Class 1	
furnished main PCBA	120s	Plastic Flake Screw driver	Class 2	
Proximity sensor	3S	Tweezers	Class 1	
Receiver	5s	Tweezers	Class 1	
Main Camera	8s	Plastic flake Tweezers	Class 1	
Furnished main antenna	20s	Screw driver	Class 1	
Furnished sub PCBA	15s	Plastic flake	Class 1	
Speaker	10s	Tweezers	Class 1	
RF cable	5s	Tweezers	Class 1	
Battery	30s	/	Class 2	
volume key FPC	10s	Soldering iron	Class 2	
Power key FPC	10S	Soldering iron	Class 2	
Vibrator	10s	Soldering iron	Class 2	
TP-LCD-Light module	5min	Hot wind gun Plastic flake Suction cup	Class 3	Be careful for touch lens & FPC damage

6 Disassembly Complete

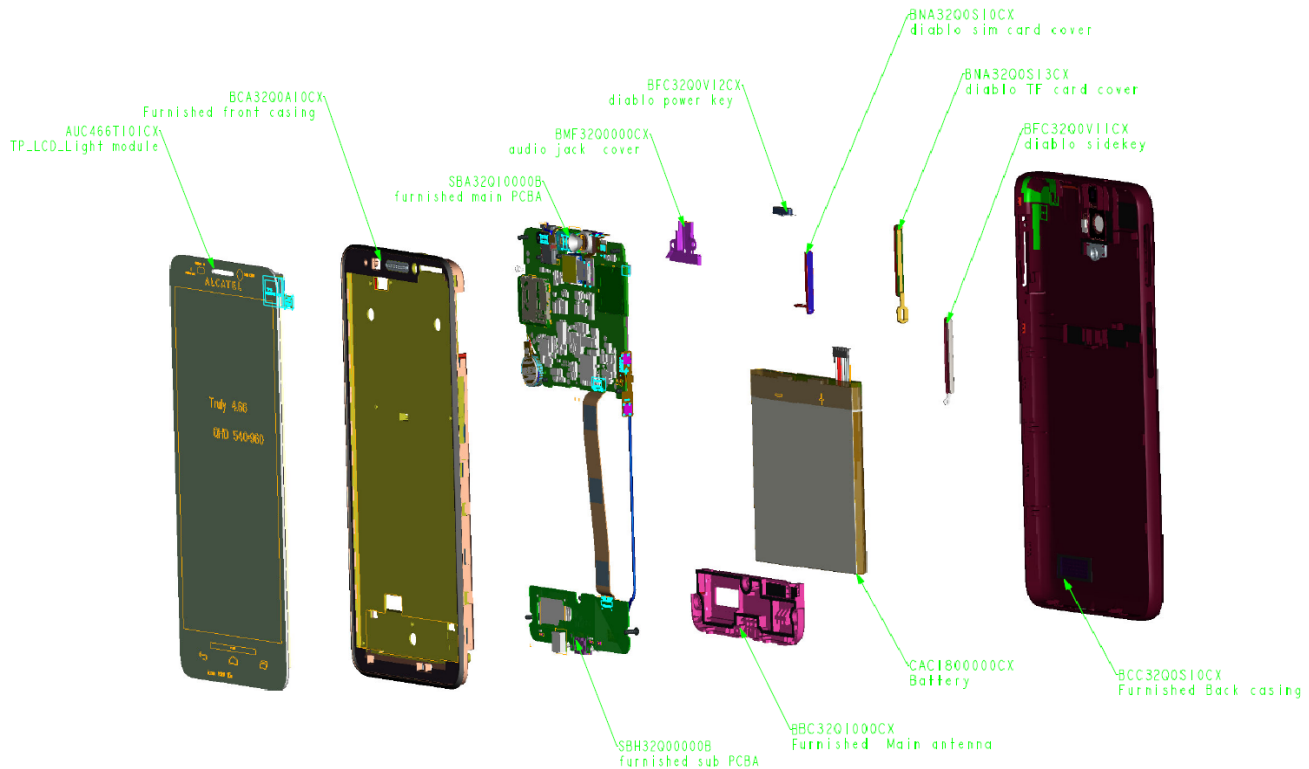
➤ Explored view

BY NCK TEAM

L2 Repair Document

TCT

Mobile Limited



➤ Below table lists ONE TOUCH 6030D L2 spare parts. You could also refer to: <https://css.tclmobile.cn/>.

Item	Description	Part number	qty	Remark
106	Furnished front casing	BCA32Q0V20C0	1	主面组件,Furnished front casing,Diablo,主面,Dark Chrome (NCVM), with foxlink mg_alloy
106	Furnished front casing	BCA32Q0V10C0	1	主面组件,Furnished front casing,Diablo,主面,Light Chrome (NCVM), with foxlink mg_alloy
106	Furnished front casing	BCA32Q0V21C0	1	主面组件,Furnished front casing,Diablo,主面,Dark Chrome (NCVM),with U-ONE mg_alloy
106	Furnished front casing	BCA32Q0V11C0	1	主面组件,Furnished front casing,Diablo,主面,Light Chrome (NCVM),with U-ONE mg_alloy
107	diablo tp adhesive	BPA32Q0000C0	1	触摸屏背胶,TP adhesive,Diablo,tesa 62625 T=0.25mm
108	diablo battery adhesive	BPA32Q0001C0	3	电池双面胶,battery adhesive,Diablo,TESA 48542 T=0.05mm
109	diablo sub pcb ground adhesive	BLA32Q0002C0	1	小板接地导电双面胶,sub pcb ground adhesive,Diablo,Conductive T=0.05mm
110	diablo_lcd_fpc_adhesive	BPA32Q0003C0	1	屏排线双面胶,lcd_fpc_adhesive,Diablo,TESA 68542 T=0.05mm
111	Furnished Back casing(silver)	BCC32Q2S10C2	1	主底组件,Furnished Back casing,Diablo 2SIM,Silver painting,with ALCATEL logo,EMEA marking, haitong
111	Furnished Back casing(slate)	BCC32Q2C10C2	1	主底组件,Furnished Back casing,Diablo 2SIM,Slate painting,with ALCATEL logo,EMEA marking, haitong
111	Furnished Back casing(Pink)	BCC32Q2N10C2	1	主底组件,Furnished Back casing,Diablo 2SIM,Cranberry Pink painting,with ALCATEL

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	39/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

BY NCK TEAM

L2 Repair Document

TCT

Mobile Limited

				logo, EMEA marking, haitong
112	diablo sidekey,	BFC32Q0V11C0	1	音量键, side key, Diablo, light chrome
113	diablo power key	BFC32Q0V12C0	1	开关机按键, power key, Diablo, light chrome
114	diablo sim card1 cove(silver)	BNA32Q0S11C0	1	SIM 卡盖子 1, SIM1 card cap, Diablo, Silver color,
114	diablo sim card1 cover(slate)	BNA32Q0C11C0	1	SIM 卡盖子 1, SIM1 card cap, Diablo, Slate painting
114	diablo sim card2 cover(Pink)	BNA32Q0N11C0	1	SIM 卡盖子 1, SIM1 card cap, Diablo, Cranberry Pink painting
115	diablo sim card2 cove(silver)	BNA32Q0S12C0	1	SIM 卡盖子 2, SIM2 card cap,, Diablo, Silver color
115	diablo sim card2 cover(slate)	BNA32Q0C12C0	1	SIM 卡盖子 2, SIM2 card cap,, Diablo, Slate painting
115	diablo sim card2 cover(Pink)	BNA32Q0N12C0	1	SIM 卡盖子 2, SIM2 card cap,, Diablo,, Cranberry Pink painting
116	humidity sticker	CPE0000096C0	2	纯白湿敏标签, solid white humidity sticker, Aries,,,,,,,,
117	GPS antenna	BBA32Q0020C2	1	GPS 天线, GPS antenna FPC, Diablo, haitong
118	Wifi antenna	BBA32Q0010C2	1	wifi 天线, Wifi antenna FPC, Diablo, haitong
119	Furnished Main antenna EU	BBC32Q0000C1	1	主天线组件, mian antenna, Diablo EU LDS
120	diablo speaker box frame foam	BRA32Q0008C0	1	喇叭密封泡棉, speaker box frame foam, Diablo, 92-25021 + Tesa68542, t=0.05mm
121	diablo TP IC adhesive	BPA32Q0006C0	1	TP IC 泡棉, TP IC foam
122	Sub Mic rubber	BNG32V0002C0	1	副 mic 橡胶垫, Mic rubber gasket, Rav4
123	Main camera mylar	BPC32V0002C0	1	主摄像头绝缘麦拉, Main camera mylar, Rav4, 14*4, T=0.05mm,
124	TP_LCD_Light module	AUC466T101C1	1	LCD+触摸屏, LCD + Touch Panel, 16.7K, 4.66", 540x960, TFT-IPS, Full View, MIPI, BTB 30pin, NT35516, Diablo, black CTP and no logo, TDO-QHD0466D60036, TRULY
125	Battery	CAC1800000C3	1	锂聚合物电池, LI-Polymer Battery, N/A, 1800 mAh, 3.8 V, Alcatel Logo, English, 6 PINs, ICP405756L1, LGC, N/A, max 4.1x58.1x57.6 mm, N/A, Diablo, unremovable, LGC-ICP405756, SCUD
126	camera module	ASA8001003C1	1	8.5x8.5xH6.05+tape 0.05, 30pin BTB, MIPI interface, MTK6575
127	front camera	ASA2001078C1	1	2M, FF, 6.5x6.5xH3.9mm, FPC+BTB 24pin, Parallel, Hynix253, XY-2006AG
128	receiver	AWB0612S13C1	1	12x6xH2.0xWH2.32-spring, with no foam, with mesh, with Mylar, wide frequency range, No HAC
129	speaker	AWA1318S02C1	1	喇叭, Speaker, Rectangular, 13x18x2.9 mm, 90.5+-2.5dB, 500 mW, spring, With Foam, W/O

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	40/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

BY NCK TEAM

L2 Repair Document

TCT

Mobile Limited

				Mayler&mesh,N/A,DMSP1318MJ-01-03-F,AAC
130	Motor	AVB1027L02C1	1	D10xH2.7-wire11-poron0.3-tape0.15-WH3.05
131	audio jack cover	BMF32Q0000C0	1	耳机弹片,audio jack cover,Diablo,SUS 304 3/4H T=0.2mm
132	Main Mic Mesh	BNF32E0004C0	1	主 Mic 防尘网, main mic mesh,Martell,
133	mic rubber	BNJ32Q0000C0	1	主麦克风胶套,mic rubber,Diablo,black rubber
134	P-sensor rubber	BNJ32Q0001C0	1	光感胶套,p-sensor rubber,Diablo,black rubber
135	RF Cabel	ARM0000025C1	1	同轴连接线,RF Coaxial cable,N/A,0 PINs,0 mm,74mm,N/A,N/A,818001247,ECT
136	P-SENSOR FPC	SBF32Q00042A	1	P-sensor FPC 组件,Furnished P-sensor FPC,Diablo,A Version,2,BTB,Without Glue,10.52x14.2x0.15 mm,N/A,byd
137	main FPC	SBF32Q00012B	1	主 FPC 组件,Furnished main FPC,Diablo,A Version,2,BTB,Without Glue,72.8x3.3x0.2 mm,N/A,BYD
138	Power key FPC	SBF32Q00032B	1	电源键 FPC 组件,Furnished power key FPC,Diablo,A Version,2,焊接,With Glue,10.5x6.5x0.1mm,N/A,BYD
139	Side key FPC	SBF32Q00022B	1	侧键 FPC 组件,Furnished side key FPC,Diablo,A Version,2,焊接,With Glue,12x19.6x0.1 mm,N/A,BYD
140	Screw M1.4x L2.5	BMA1425262C0	9	Screw,PM1.4x0.3PxL2.5mm,HD=Φ2.6xT0.5mm,plating WZn3+, Nylok,十字形, 防松耐落胶, 银色, 首屋尔
141	Screw M1.0x L3.0	BMA1025180C1	3	Screw,PM1.0x0.3PxL3,HD=Φ1.8xT0.3mm,WZN3+, 十 type,Flat head, Nylok,十字形, 防松耐落胶, 银色, 首屋尔
142	SWAP PCBA(EU)	F-B32Q3ALEU1	1	(TTT)客服周转主板,,Diablo,,CU 编码:6030D-2XALEU1,ONE TOUCH 6030D,
143	furnished sub PCBA	SBH32Q00000E	1	小板主件,Furnished SUB PCBA,Diablo,900/2100,BAH32Q000DC1,N/A
144	LED,Blue	AKABL00008C1	1	LED,Blue,,1.6x0.8x0.4mm,Vf=2.85V,Iv=28mcd,If=5 mA
145	Light-Emitting Diode	AFB0000008C1	1	发光二极管,Light-Emitting Diode,N/A,WHITE,3300 mW,3.55 V,SMD,2.14*1.74*0.85 mm,2000 mA,N/A,
146	BTB connector socket(10pin)	ARC0100002C1	2	BTB connector socket,,10pin,0.4pitch,H=0.9mm,,24 5804 010 000 829+
147	BTB connector socket(24pin)	ARC0240013C1	4	BTB connector socket,,24pin,0.4pitch,H=1.0mm
148	SIM Card Connector	ARD0080001C1	2	SIM Card Connector,With Bridge,10 PINs,0.745 mm,16.35x14.3xH1.25 mm,With POST,N/A,SCGD1B0206,ALPS
149	Audio Jack	ARG0040008C1	1	Audio Jack,Cut PCB,4 PINs,D3.5 mm,12.54x8.7xH4.4 mm
150	coaxial cable connect-socket	ARM0020009C1	2	同轴线连接器母头,coaxial cable connect-socket,Over PCB,2 PINs,0 mm,2.0x2.0xWH1.18

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	41/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

BY NCK TEAM

L2 Repair Document

TCT

Mobile Limited

				mm
151	Battery Connector	ARM0060002C1	1	Battery Connector,Over PCB,6 PINs,1.2 mm,9x4.35xH1.2,With POST,N/A,CPL6106-0130E,SMK
152	Microphone	AWC3040M00C1	2	MIC,Digital MEMS,4.0x3.0xH1.05mm,-26+/-3dBFS,SMT,N/A
153	GPS/WIFI key spring	BMF32C0001C0	4	3.57x0.9x2.05; WH1.3-1.5
154	RF SWITCH CONNECTOR	ARF0060003C1	1	RF SWITCH CONNECTOR 2.5X2.6X1.5
155	Antenna spring contact	BMF32E0000C0	3	天线弹片,Antenna spring contact,Vulcan,w/o bump,3.55*1.5*1.59mm(WH1.04),,3.1.21.0788,Ever win,,
156	Light-Emitting Diode	AFB0000010C1	3	发光二极管,Light-Emitting Diode,Mono-color,pure white,95 mW,2.8 V,0603,1.6x0.8x0.2mm,25 mA,R1 BIN Max 140 mcd,19-219UTD-S3111-TR8(HTC),EVERLIGHT
156	Light-Emitting Diode	AFB0000015C1	2nd source	发光二极管,Light-Emitting Diode,Mono-color,pure white,95 mW,2.8 V,0603,1.6*0.8*0.2 mm,25 mA,Q2 BIN Max 112 mcd,19-219UTD/S3111/TR8,EVERLIGHT
157	USB connector	ARH0050030C1	1	keiraku-Micro usb-9.95x6.2xH2.45-cut pcb0.8-KIU90531S1M3R-spec-Rev.x1
158	Crystal Protective Film,	BNH32Q0050C4	1	透明保护膜,Crystal Protective Film,ACE,PET,128.00x63.8x1.00 mm,english label, for Diablo
159	LCD sticker	CPG32Q2002C0	1	屏幕贴纸,LCD sticker,Diablo,PET,128.55x63.8mm,N/A,With Glue,for Dual SIM,LITONG

7 Level 2 repair

This chapter describes the Level 2 repair that can be done without any diagnostic equipment.

	Problem description	Action And Solution
Charging	Bad or No Charge	1.Check voltage of the battery: if 0V, charge some minutes and check the charge indicator; 2.Check the battery contact, change the battery connector if broken; 3.Check the charge plug on B cover, change it if necessary;
Switch on with	Can 't Switch on	1.Check voltage of the battery;

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	42/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

battery power		2.Check the battery contact, change the battery connector if broken; 3.Check the power on key; 4.Check BTB connector socket pin
Main display	Missing line or column; no display; bad or no LCD backlight	Check Connection flex (FPC cable),change it if necessary; Replace display module if necessary;
Vibrator	The vibrator does not work	Check the contact on the PCBA (dirty or oxidized), replace the vibrator if necessary;
Network Problem	No emission or No reception	Check the antenna contactor on the B cover; Check the contact on the PCBA (dirty or oxidized);
TF card (only ONE TOUCH 6030D has TF card slot)	No communication between the phone and the TF card	Check the TF connector on the PCBA;
Camera	Camera doesn't work	Check camera module Check also camera socket broken or not
Audio	Bad or no emission (TX audio from mobile); Bad or no reception (RX audio on mobile); Hands-free problem; Key beep and melody problem	Check microphone, replace it if necessary; Check the contact on the PCBA (dirty or oxidized) Check loud speaker, replace it if necessary; Check the contact on the PCBA (dirty or oxidized)

In case the Level 2 repair can't solve the problem, or the PCBA is damaged, exchange the PCBA.

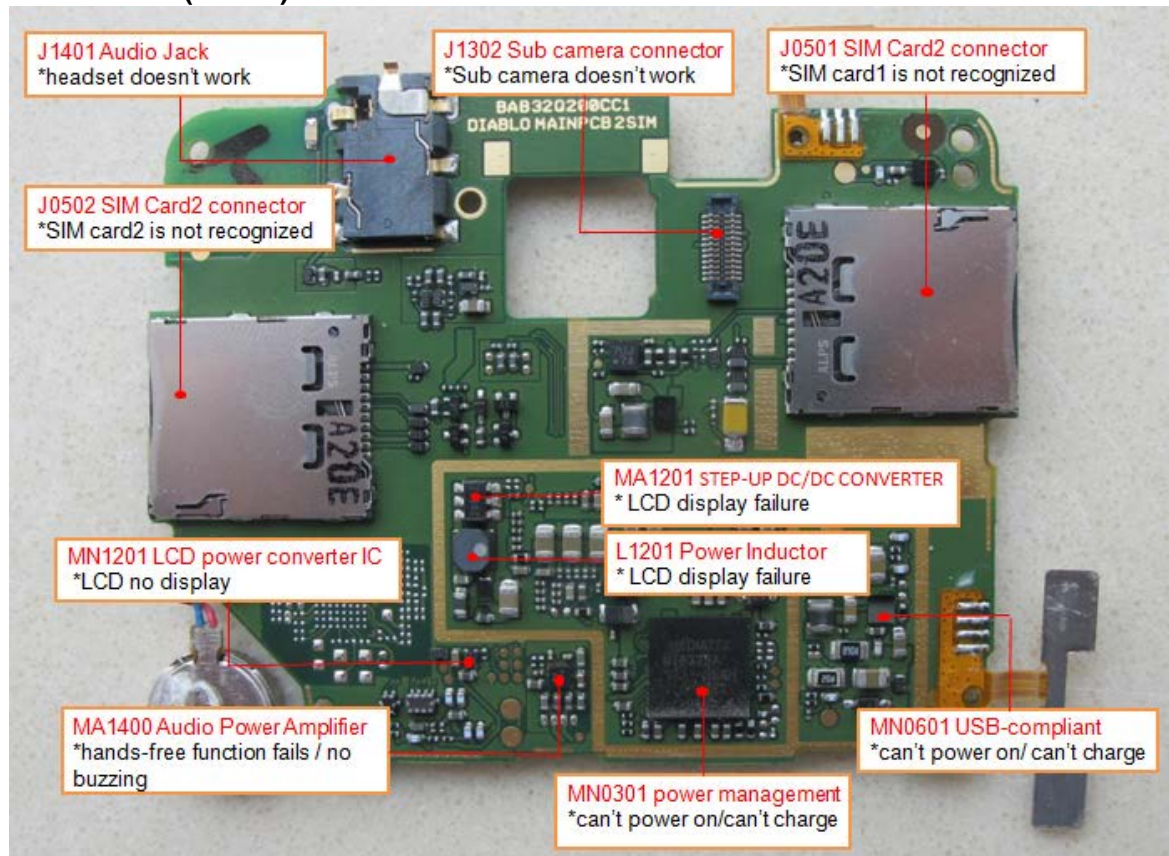
8 L2 Enhance repair

Before performing the following troubleshooting operations, please make sure the software of the device is in good condition and restored to default settings.

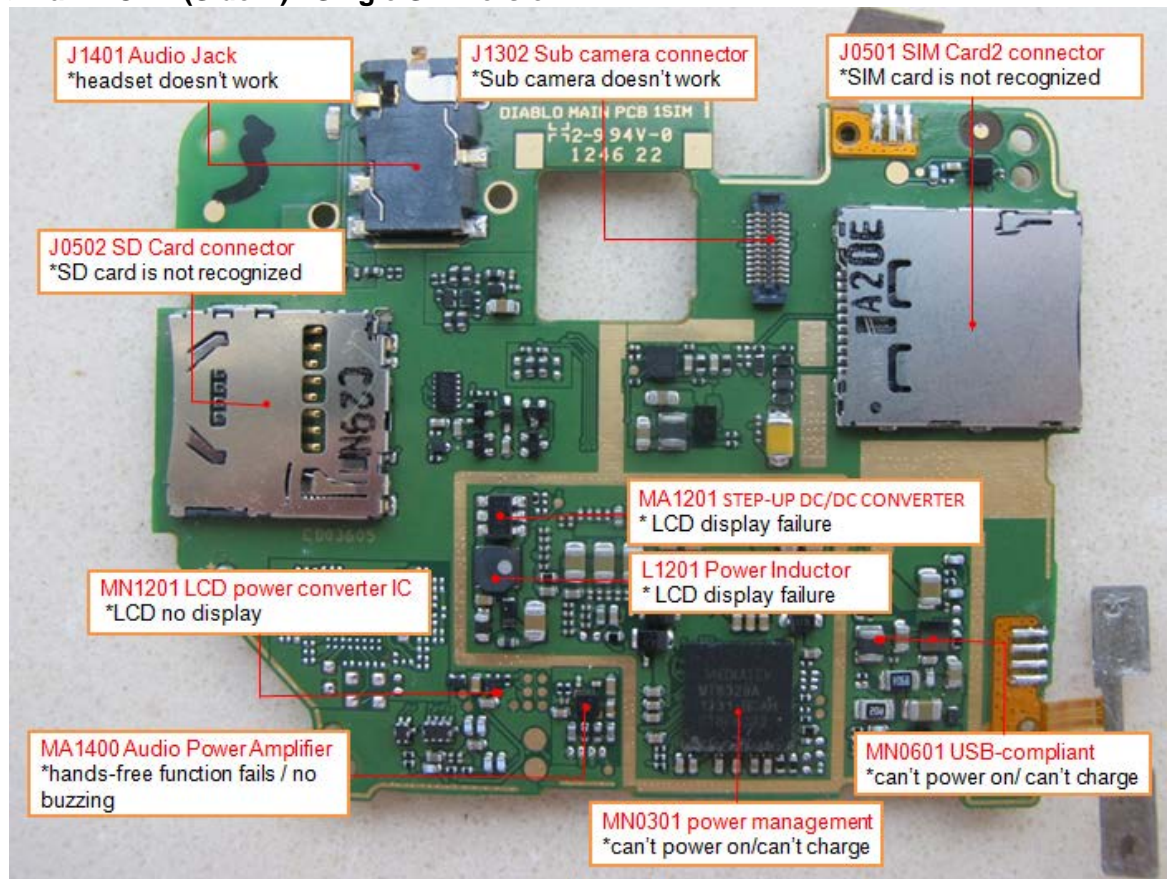
8.1 Position of L2 enhance components on main PCBA and sub PCBA

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	43/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

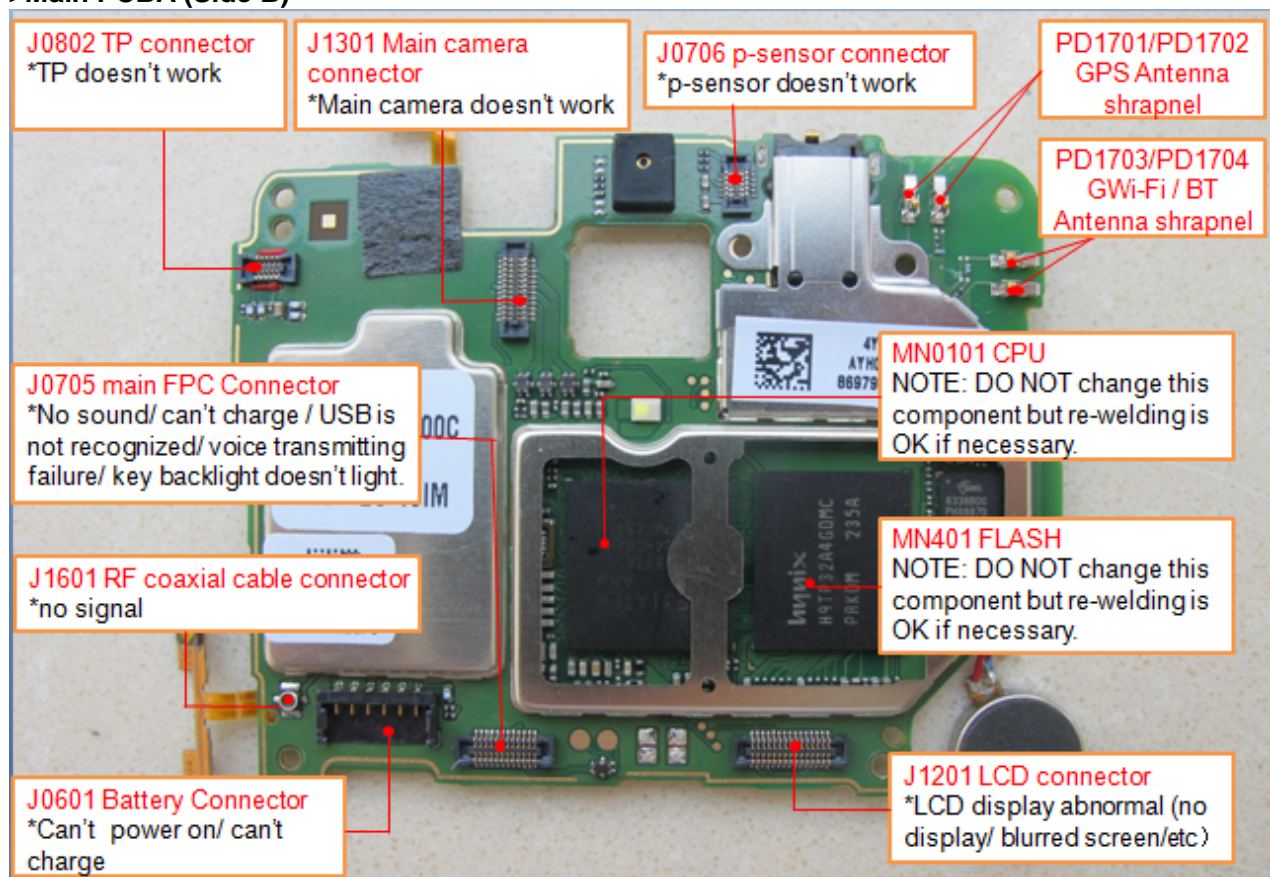
>Main PCBA (Side A)- Dual SIM version:



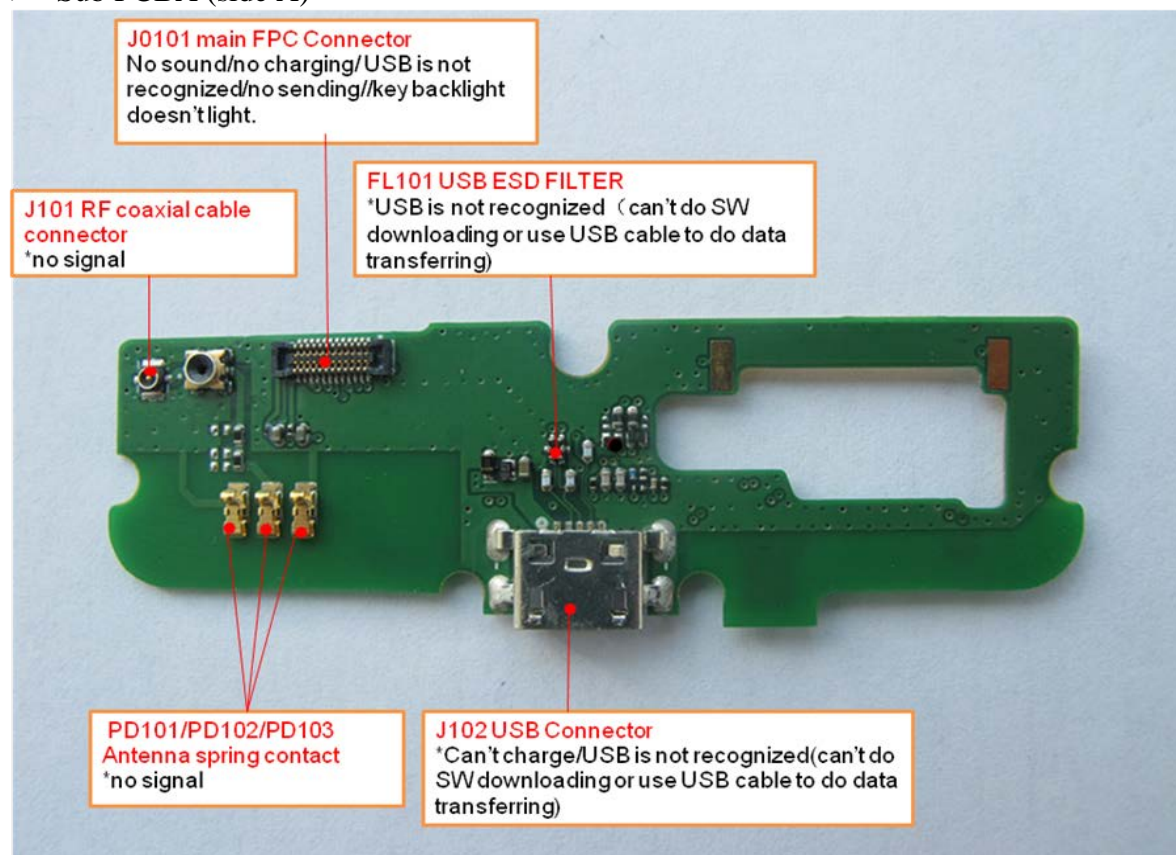
>Main PCBA (Side A) - Single SIM version:



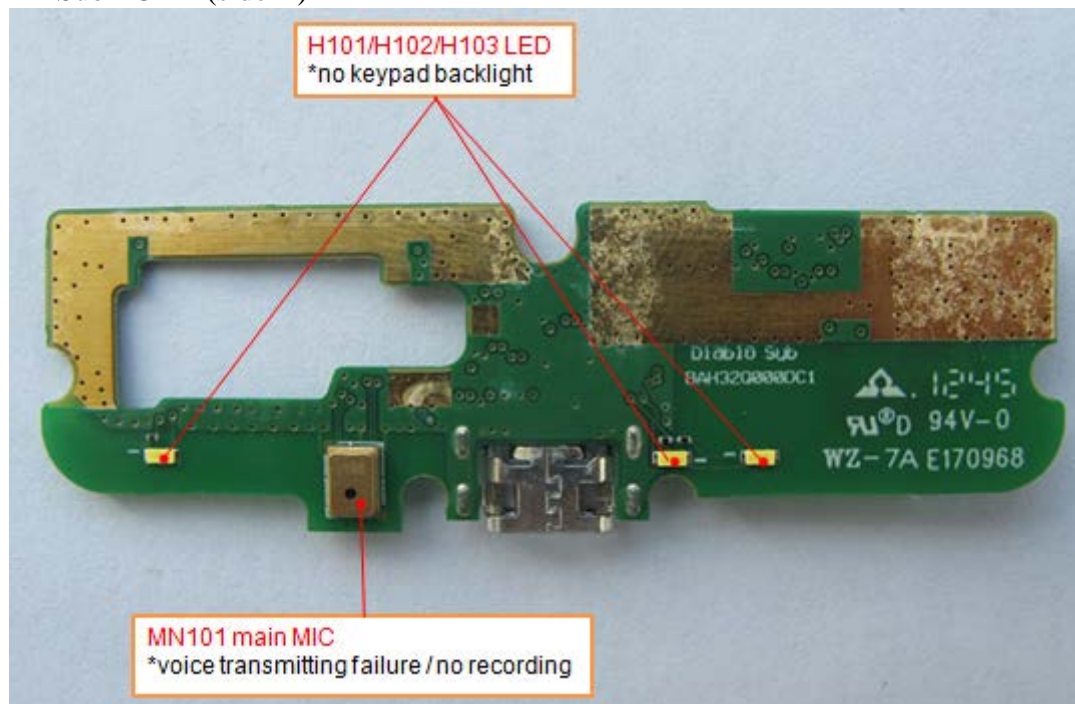
>Main PCBA (Side B)



➤ Sub PCBA (side A)



➤ Sub PCBA (side B)



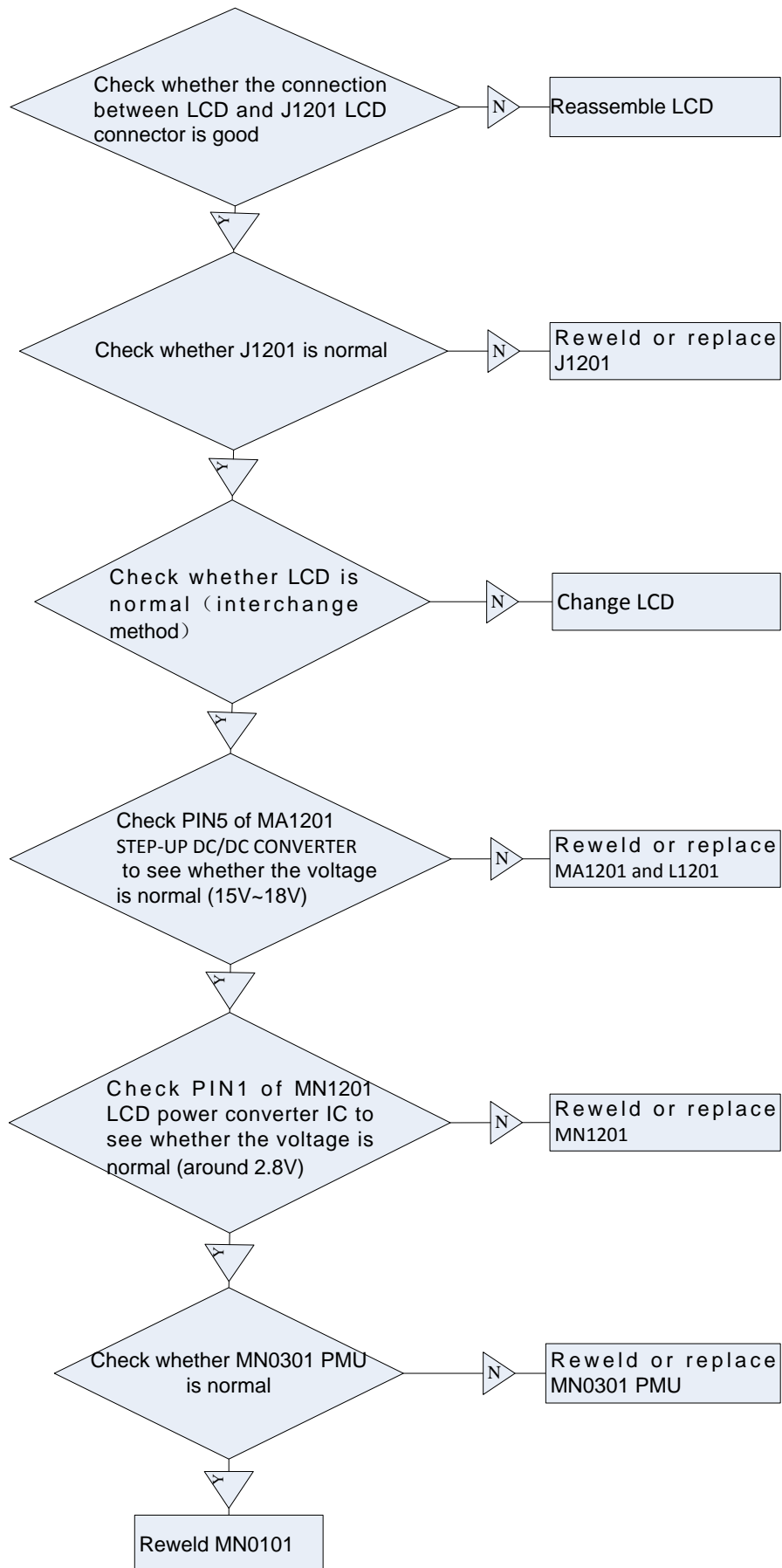
8.2 Trouble shooting for common failures

NOTE:

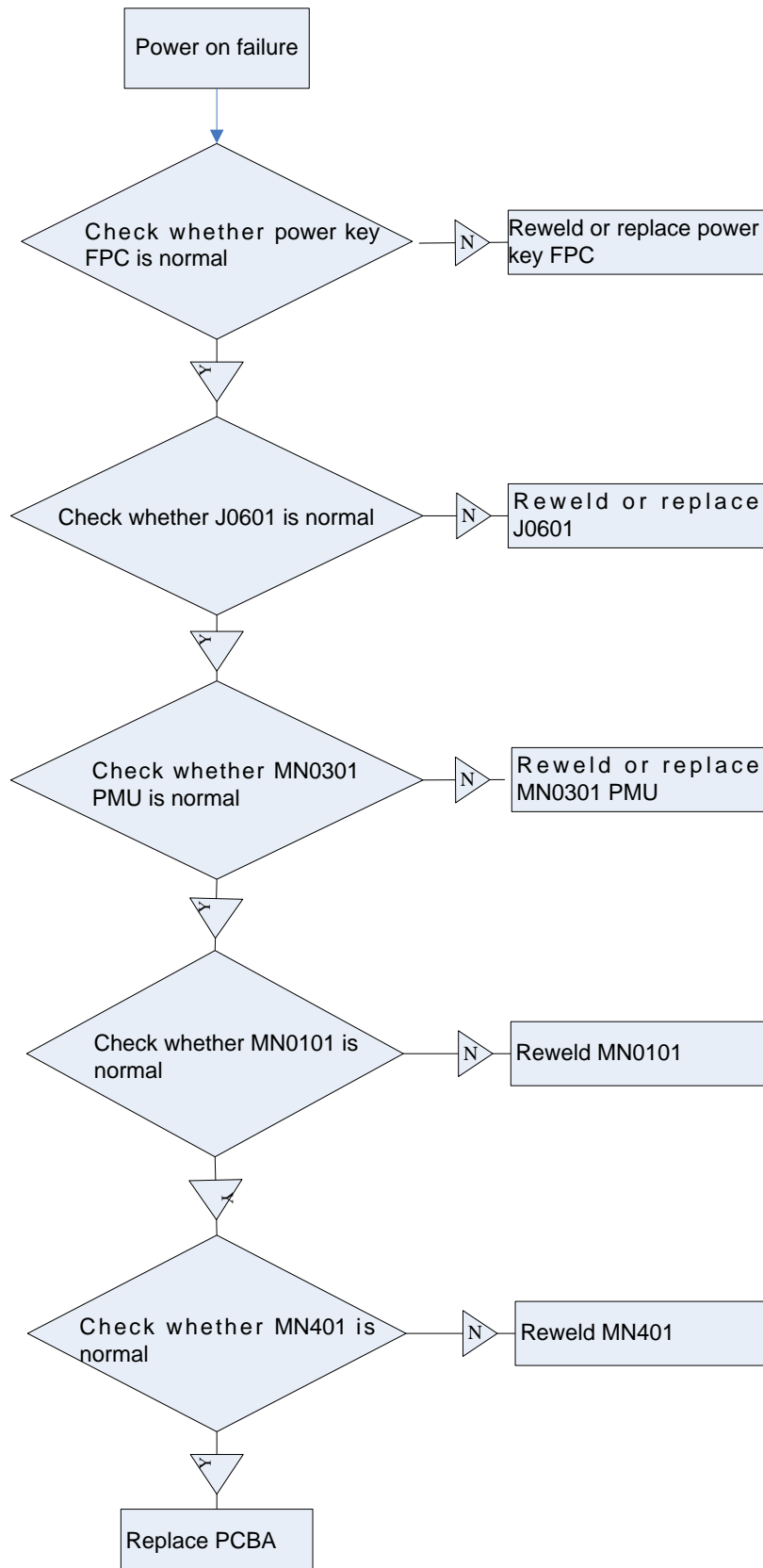
- 1) Because the main PCBA will become damp after long time storage, please use oven to bake the main PCBA firstly if it has been stored for more than 7days (oven temperature: 105℃, Time: >8H). Otherwise it may cause the PCBA blister easily when you heat part of the PCBA by using hot wind gun.
- 2) Interchange method means using a new component to test the function in order to verify whether the old component is defected.
- 3) Please use hot wind gun to reweld or disassemble/assemble the component mentioned afterwards. (hot wind gun temperature: 330℃, Air Level: 2~3, Height: around 10mm, Time: less than 60s)
- 4) Before rewelding or disassembling/assembling the component, DO remember to paste high temperature adhesive tape on the components which are close to it, in order to avoid damaging of these components.

8.2.1 Display failure

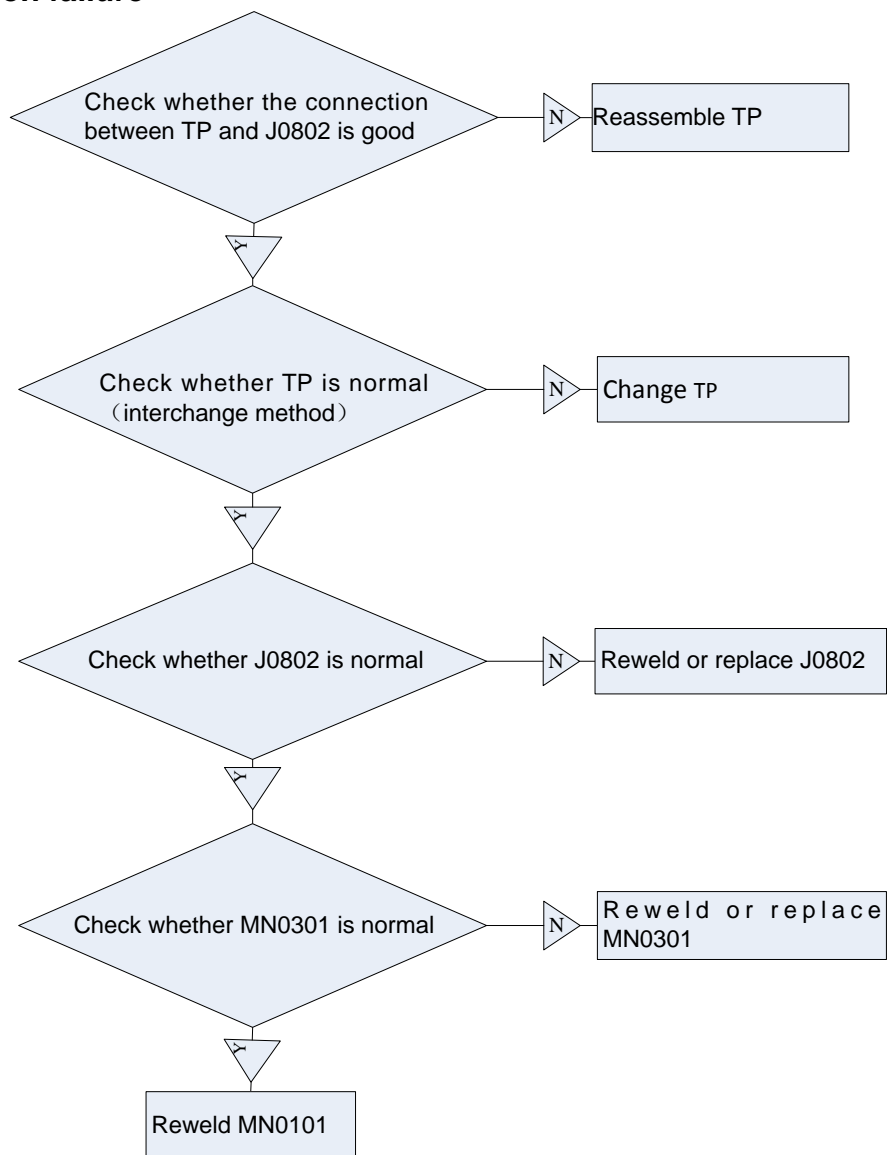
Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	46/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		



8.2.2 Power on failure

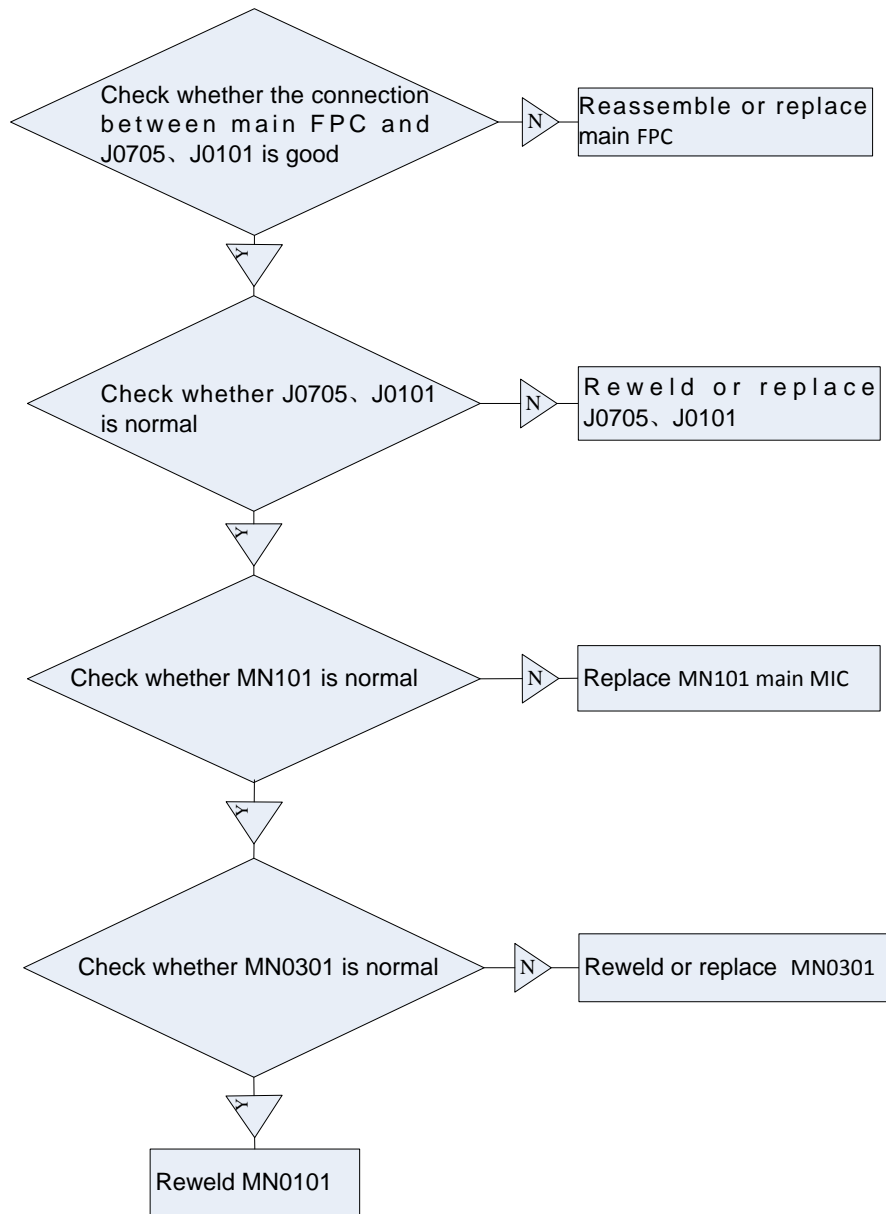


8.2.3 TP function failure

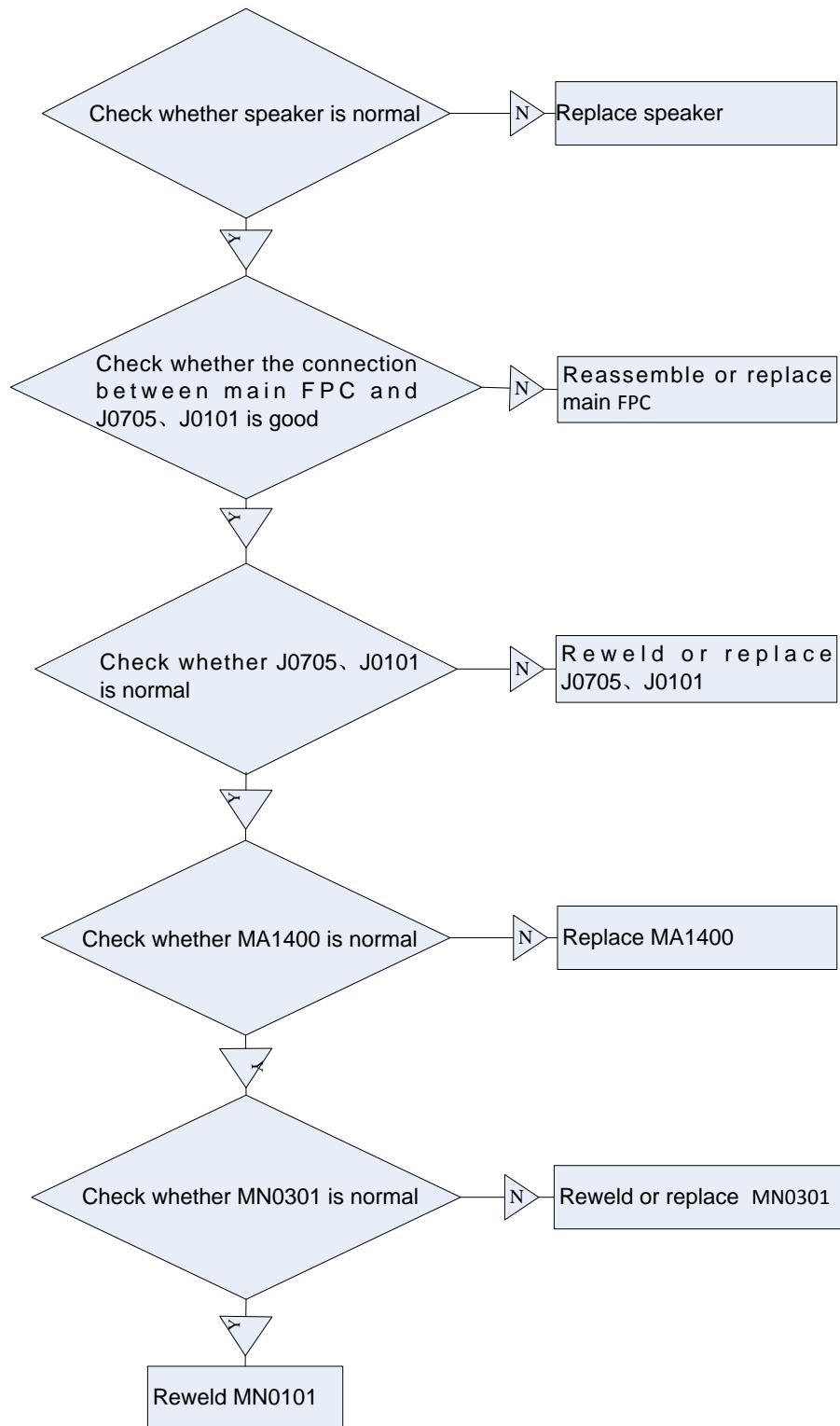


8.2.4 Voice transmitting failure

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	49/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

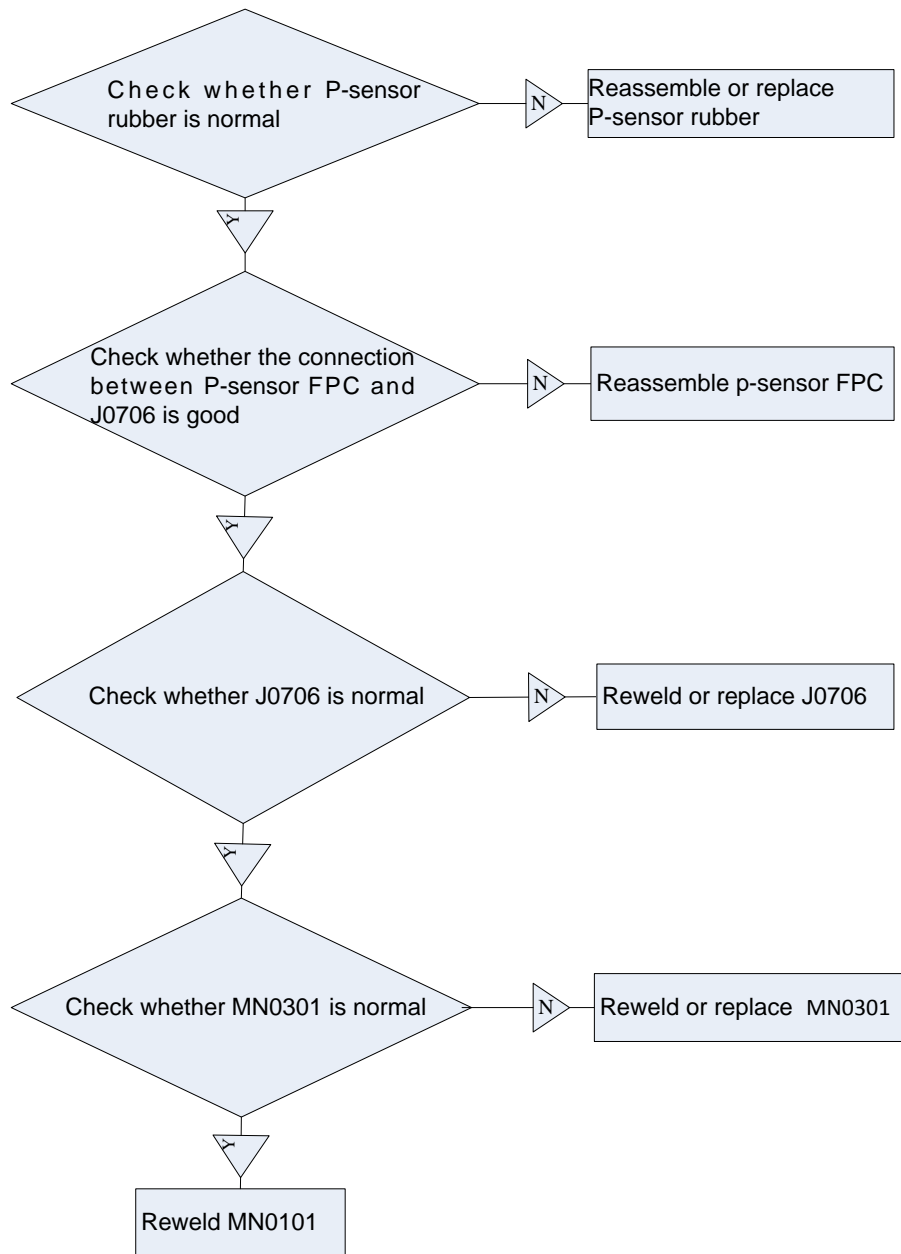


8.2.5 No Ringing

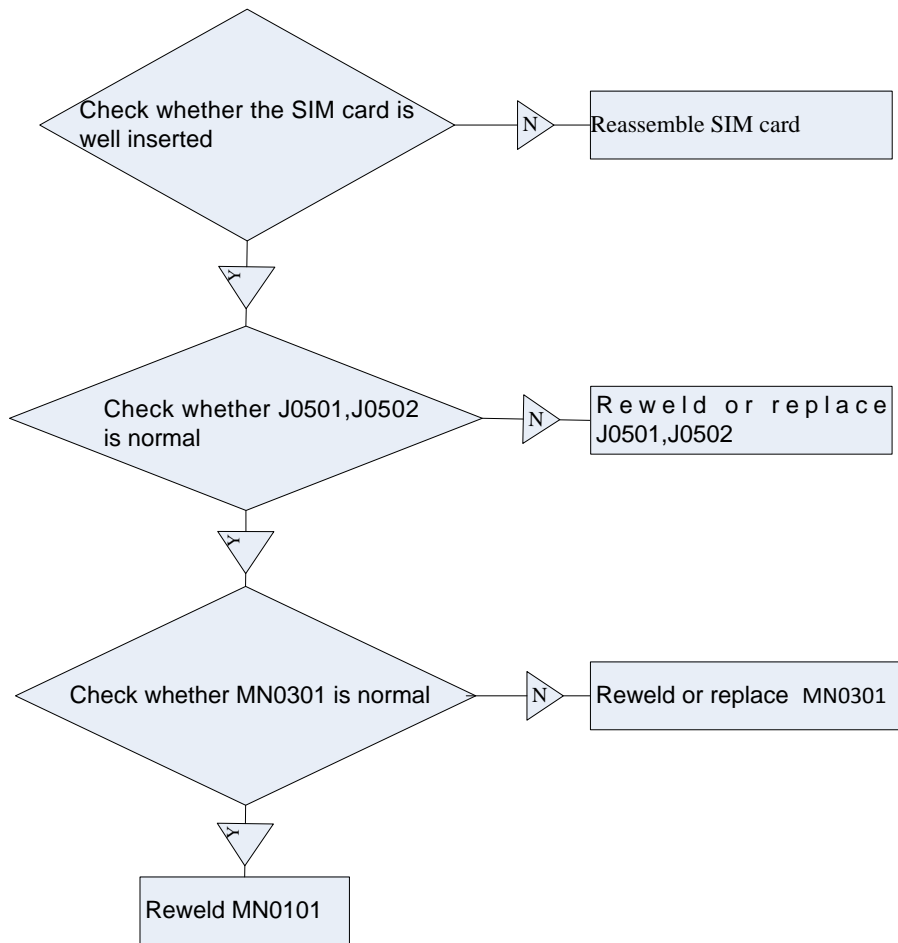


8.2.6 P-sensor function failure

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	51/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

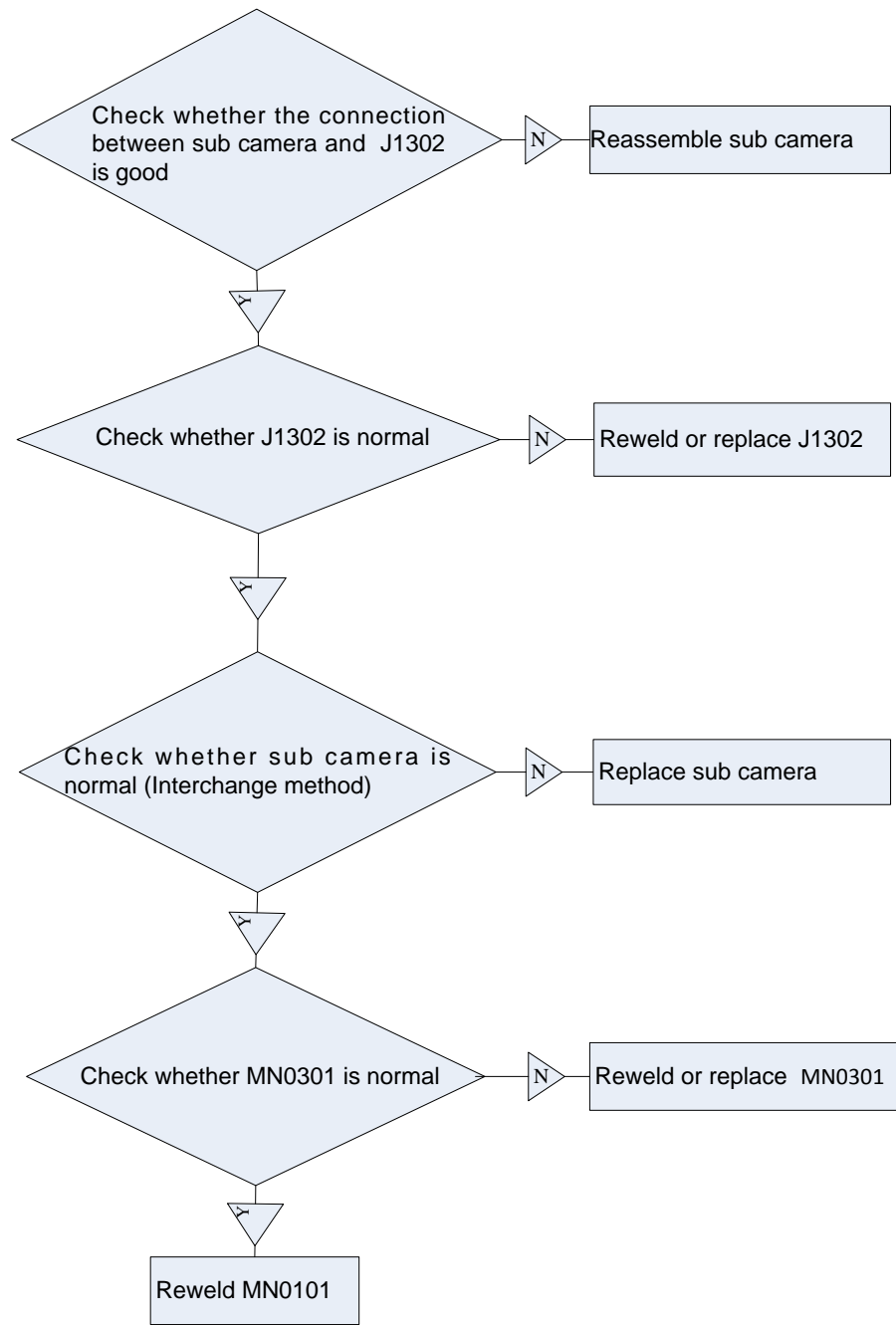


8.2.7 SIM card is not recognized



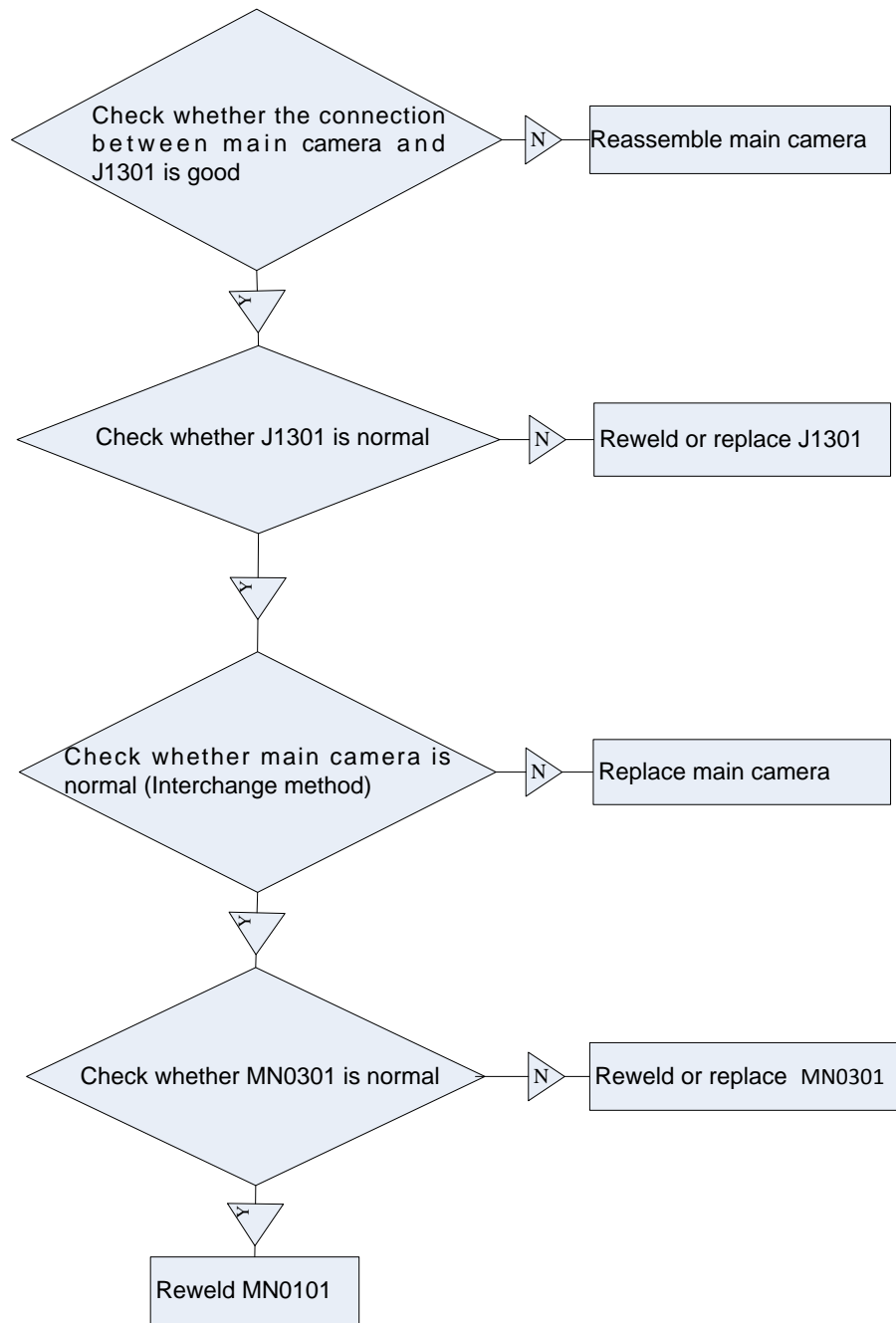
8.2.8 Sub camera function failure

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	53/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

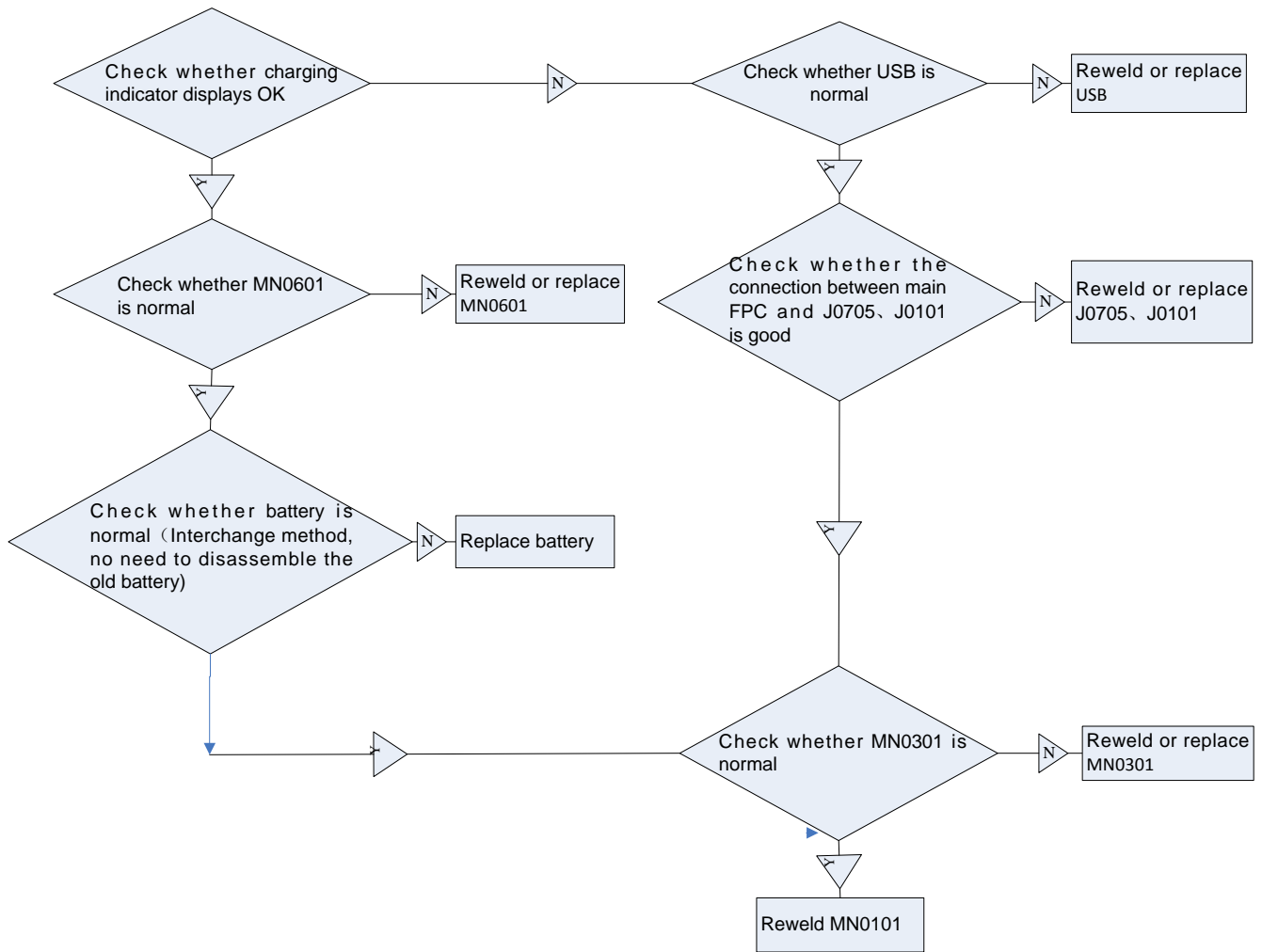


8.2.9 Main camera function failure

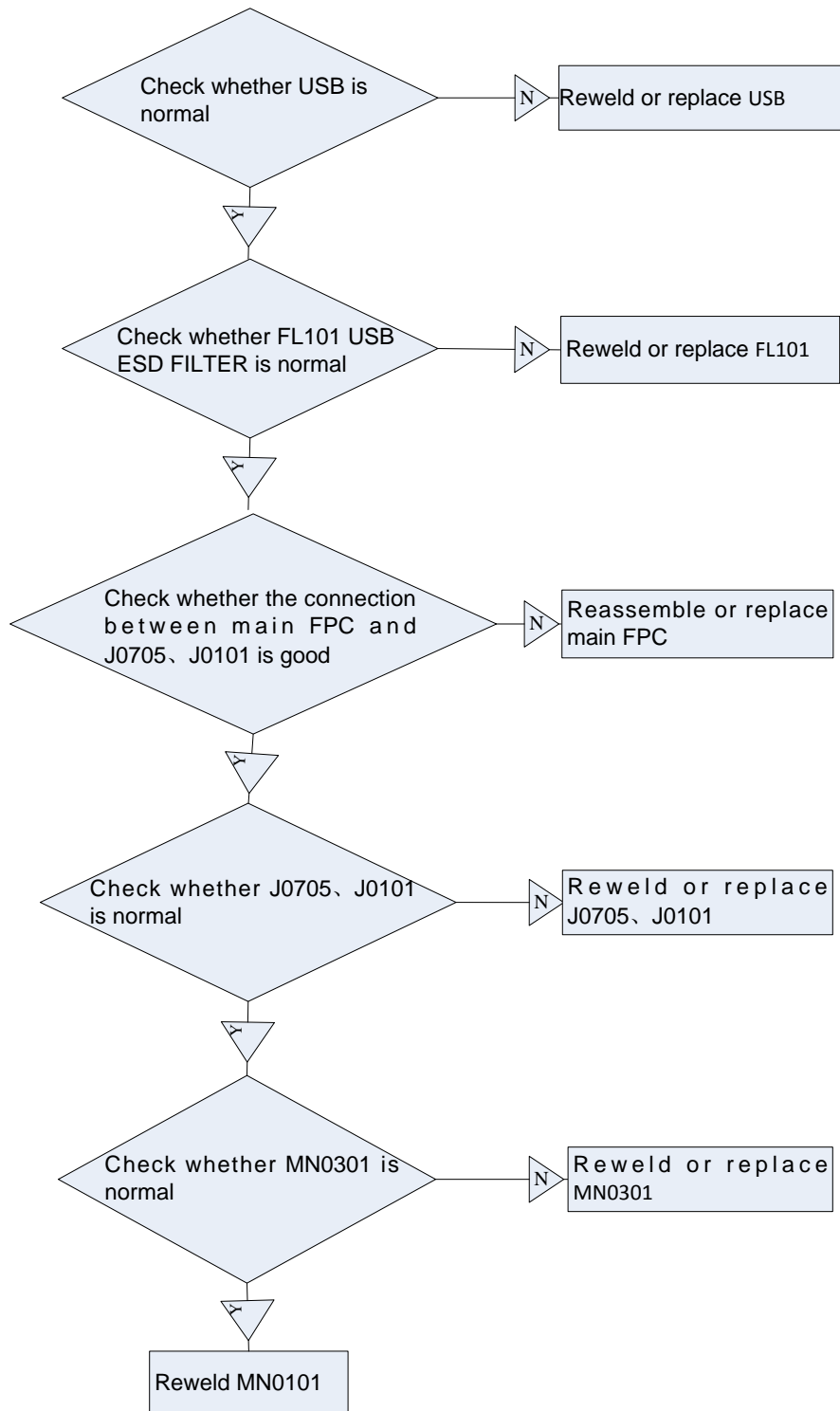
Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	54/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		



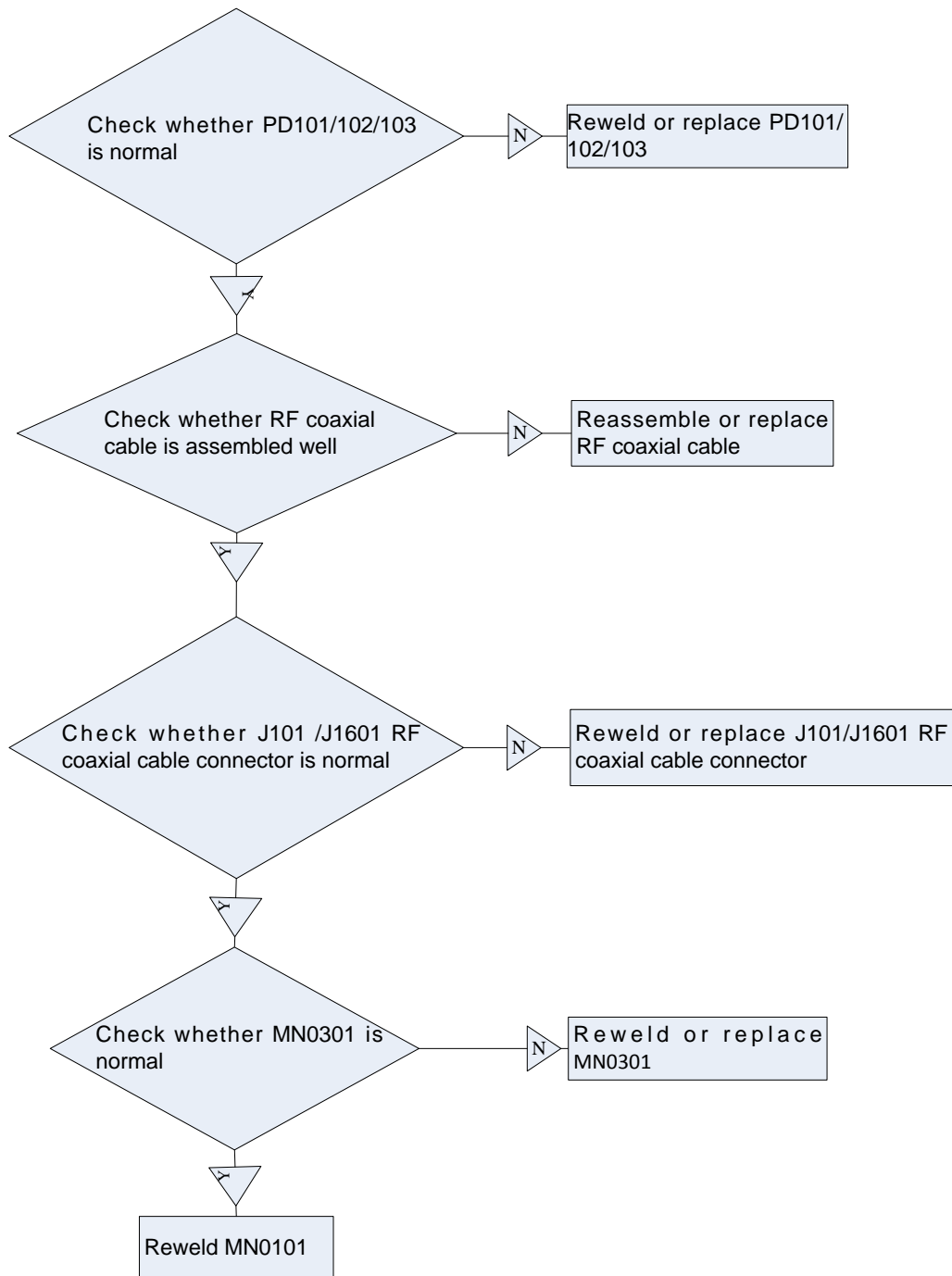
8.2.10 Charging failure



8.2.11 USB is not recognized



8.2.12 No signal



8.2.13 GPS/Wi-Fi/BT signal issue

Please check whether PD1701/PD1702/PD1703/PD1704 is normal. If not, please reweld or replace PD1701/PD1702/PD1703/PD1704.

8.3 L2 enhance spare part list

➤ Diablo HD ONE TOUCH 6030A L2E spare part list

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	58/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

BY NCK TEAM

L2 Repair Document

TCT

Mobile Limited

Diablo HD ONE TOUCH 6030X L2E spare part list v1.0

Item	Description	Part number	qty	Remark
300	Audio Power Amplifier	AME0000030C1	1	Audio Power Amplifier,1.55×1.55×0.6 mm,UTQFN-9,N/A
300	Audio Power Amplifier	AME0000025C1	2nd source	音频放大器,Audio PA,1.385×1.385×0.62mm,9-Bump WLCSP,3W,class D,BL6331,BELLING
301	Power Management Unit	AMA0000731C1	1	电源管理芯片,Power Management Unit,155-pin TFBGA,7.1×7.1×1.2mm,0.50 mm,N/A,MT6329A,MTK
302	Li-Ion Switching Charger,	AMY0000265C1	1	充电管理芯片,Li-Ion Switching Charger,1.96×1.87 mm,20-pin WLCSP,N/A,FAN5405UCX,FAIRCHILD
145	BTB connector socket,,10pin	ARC0100002C1	2	板对板连接器(插座),BTB Connector(Socket),OVER PCB,10.0 PINs,0.40 mm,4.6X2.2XH0.9mm,W/O POST+W/O DIP,N/A,245804010000829+,KYOCERA
146	BTB connector socket,,24pin	ARC0240013C1	4	板对板连接器(插座),BTB Connector(Socket),OVER PCB,24.0 PINs,0.40 mm,7.4X2.2XH0.9mm,W/O POST+W/O DIP,N/A,245804024000829+,KYOCERA
305	BTB connector socket,,30pin	ARC0300004C1	1	板对板连接器(插座),BTB Connector(Socket),OVER PCB,30.0 PINs,0.40 mm,8.6x4.2xH0.9mm,W/O POST+W/O DIP,N/A,245804030000829+,KYOCERA
147	Micro SIM Card Connector	ARD0080001C1	1	Micro SIM卡连接器,Micro SIM Card Connector,Push-Push,8 PINs,0 mm,16.35x14.3xH1.29 mm,W/O POST+W/O DIP,na,SCGD1B0206,ALPS
148	Memory Card Connector	ARJ0080057C1	1	存储卡卡座,Memory Card Connector,Push-Push,8 PINs,0 mm,15.25x13.825xH1.35mm,W/O POST+W/O DIP,N/A,SCHA4B0414,ALPS
149	Audio Jack	ARG0040008C1	1	耳机插座,Audio Jack,Cut PCB,4 PINs,D3.5 mm,12.54x8.7xH4.4 mm,W/O POST+W/O DIP,for Diablo,AJ010-19336A01,JTCONN
151	Battery Connector	ARM0060002C1	1	Battery Connector,Over PCB,6 PINs,1.2 mm,9x4.35xH1.2,With POST,N/A,CPL6106-0130E,SMK
153	Spring	BMF32C0001C0	4	弹片,Spring,Crystalk 3G,,3.57×2.05×0.94mm,,HY005SP-T10P-B3-W13,HY-Electronics,
311	LDO	AMY0000367C1	1	稳压器,LDO,2.8V±1.5%,DFN-4(1010),360mA,1.0*1.0mm,N/A

BY NCK TEAM

L2 Repair Document

TCT

Mobile Limited

150	coaxial cable connect-socket	ARM0020009C1	2	同轴线连接器母头,coaxial cable connect-socket,Over PCB,2 PINs,0 mm,2.0x2.0xWH1.18 mm
313	COMMON MODE ESD FILTER	AMS0000008C1	1	共模滤波器,COMMON MODE ESD FILTER,2 Channels,Bi-Directional,1*1.25*0.82,N/A,MCE1012E350FBP,INPAQ
156	Light-Emitting Diode	AFB0000010C1	3	发光二极管,Light-Emitting Diode,Mono-color,pure white,95 mW,2.8 V,0603,1.6x0.8x0.2mm,25 mA,R1 BIN Max 140 mcd,19-219UTD-S3111-TR8(HTC),EVERLIGHT
157	USB Connector	ARH0050030C1	1	USB连接器,USB Connector,Over PCB,5 PINs,1.3 mm,9.95x6.2xH2.45mm,W/O POST+With DIP,N/A,KIU90531S1M3R,KEIRAKU
152	Microphone	AWC4030M01C1	1	麦克风,MIC,MEMS,4x3x1 mm,-26dBFS,SMT,N/A,MD-DFA263-A10,GETTOP
155	Antenna spring contact	BMF32E0000C0	3	天线弹片,Antenna spring contact,Vulcan,w/o bump,3.55*1.5*1.59mm(WH1.04),,3.1.21.0788,Everwin,,
314	DC/DC CONVERTER	AMY0000243C1	1	STEP-UP DC/DC CONVERTER, FOR WHITE LED BACK LIGHT
314	DC/DC CONVERTER	AMY0000418C1	2nd source	电压转换器,DC/DC, 2.92x2.8 mm, TSOT-23-6, 3.6 V, SN3506B, SI-EN
315	Power Inductor	ACA220M907C1	1	Power Inductor, 22uH, +/- 20%, DCR=0.63ohm, 500mA, 3.0x3.0xH1.2mm

➤ Diablo HD ONE TOUCH 6030D L2E spare part list

Diablo HD ONE TOUCH 6030D L2E spare part list v1.0				
Item	Description	Part number	qty	Remark
300	Audio Power Amplifier	AME0000030C1	1	Audio Power Amplifier,1.55x1.55x0.6 mm,UTQFN-9,N/A
300	Audio Power Amplifier	AME0000025C1	2nd source	音频放大器,Audio PA,1.385x1.385x0.62mm,9-Bump WLCSP,3W,class D,BL6331,BELLING
301	Power Management Unit	AMA0000731C1	1	电源管理芯片,Power Management Unit,155-pin TFBGA,7.1x7.1x1.2mm,0.50 mm,N/A,MT6329A,MTK
302	Li-Ion Switching Charger,	AMY0000265C1	1	充电管理芯片,Li-Ion Switching Charger,1.96x1.87 mm,20-pin WLCSP,N/A,FAN5405UCX,FAIRCHILD
145	BTB connector socket,,10pin	ARC0100002C1	2	板对板连接器(插座),BTB Connector(Socket),OVER PCB,10.0 PINs,0.40 mm,4.6X2.2XH0.9mm,W/O POST+W/O DIP,N/A,245804010000829+,KYOCERA
146	BTB connector socket,,24pin	ARC0240013C1	4	板对板连接器(插座),BTB Connector(Socket),OVER PCB,24.0 PINs,0.40 mm,7.4X2.2XH0.9mm,W/O POST+W/O DIP,N/A,245804024000829+,KYOCERA
305	BTB connector socket,,30pin	ARC0300004C1	1	板对板连接器(插座),BTB Connector(Socket),OVER PCB,30.0 PINs,0.40 mm,8.6x4.2xH0.9mm,W/O POST+W/O DIP,N/A,245804030000829+,KYOCERA
147	Micro SIM Card Connector	ARD0080001C1	2	Micro SIM卡连接器,Micro SIM Card Connector,Push-Push,8 PINs,0 mm,16.35x14.3xH1.29 mm,W/O POST+W/O DIP,na,SCGD1B0206,ALPS
149	Audio Jack	ARG0040008C1	1	耳机插座,Audio Jack,Cut PCB,4 PINs,D3.5 mm,12.54x8.7xH4.4 mm,W/O POST+W/O DIP,for Diablo,AJ010-19336A01,JTCONN

BY NCK TEAM

L2 Repair Document

TCT

Mobile Limited

151	Battery Connector	ARM0060002C1	1	Battery Connector,Over PCB,6 PINs,1.2 mm,9x4.35xH1.2,With POST,N/A,CPL6106-0130E,SMK
153	Spring	BMF32C0001C0	4	弹片, Spring, Crystalk 3G,,3.57×2.05×0.94mm,,HY005SP-T10P-B3-W13,HY-Electronics,
311	LDO	AMY0000367C1	1	稳压器, LDO, 2.8V±1.5%, DFN-4(1010), 360mA, 1.0*1.0mm, N/A
150	coaxial cable connect-socket	ARM0020009C1	2	同轴线连接器母头,coaxial cable connect-socket,Over PCB,2 PINs,0 mm,2.0x2.0xWH1.18 mm
313	COMMON MODE ESD FILTER	AMS0000008C1	1	共模滤波器,COMMON MODE ESD FILTER,2 Channels,Bi-Directional,1*1.25*0.82,N/A,MCE1012E350FBP,INPAQ
156	Light-Emitting Diode	AFB0000010C1	3	发光二极管,Light-Emitting Diode,Mono-color,pure white,95 mW,2.8 V,0603,1.6×0.8×0.2mm,25 mA,R1 BIN Max 140 mcd,19-219UTD-S3111-TR8(HTC),EVERLIGHT
157	USB Connector	ARH0050030C1	1	USB连接器,USB Connector,Over PCB,5 PINs,1.3 mm,9.95x6.2xH2.45mm,W/O POST+With DIP,N/A,KIU90531S1M3R,KEIRAKU
152	Microphone	AWC4030M01C1	1	麦克风,MIC,MEMS,4×3×1 mm,-26dBFS,SMT,N/A,MD-DFA263-A10,GETTOP
155	Antenna spring contact	BMF32E0000C0	3	天线弹片,Antenna spring contact,Vulcan,w/o bump,3.55*1.5*1.59mm(WH1.04),,3.1.21.0788, Everwin,,
314	DC/DC CONVERTER	AMY0000243C1	1	STEP-UP DC/DC CONVERTER, FOR WHITE LED BACK LIGHT
314	DC/DC CONVERTER	AMY0000418C1	2nd source	电压转换器, DC/DC, 2.92×2.8 mm, TSOT-23-6, 3.6 V, SN3506B, SI-EN
315	Power Inductor	ACA220M907C1	1	Power Inductor, 22uH, +/- 20%, DCR=0.63ohm, 500mA, 3.0x3.0xH1.2mm

➤ ONE TOUCH 6030X L2E spare part list

Diablo HD ONE TOUCH 6030X L2E spare part list v1.0				
Item	Description	Part number	qty	Remark
300	Audio Power Amplifier	AME0000030C1	1	Audio Power Amplifier,1.55×1.55×0.6 mm,UTQFN-9,N/A
300	Audio Power Amplifier	AME0000025C1	2nd source	音频放大器,Audio PA,1.385×1.385×0.62mm,9-Bump WLCSP,3W,class D,BL6331,BELLING
301	Power Management Unit	AMA0000731C1	1	电源管理芯片,Power Management Unit,155-pin TFBGA,7.1×7.1×1.2mm,0.50 mm,N/A,MT6329A,MTK
302	Li-Ion Switching Charger,	AMY0000265C1	1	充电管理芯片,Li-Ion Switching Charger,1.96×1.87 mm,20-pin WLCSP,N/A,FAN5405UCX,FAIRCHILD
145	BTB connector socket,,10pin	ARC0100002C1	2	板对板连接器(插座),BTB Connector(Socket),OVER PCB,10.0 PINs,0.40 mm,4.6X2.2XH0.9mm,W/O POST+W/O DIP,N/A,245804010000829+,KYOCERA
146	BTB connector socket,,24pin	ARC0240013C1	4	板对板连接器(插座),BTB Connector(Socket),OVER PCB,24.0 PINs,0.40 mm,7.4X2.2XH0.9mm,W/O POST+W/O DIP,N/A,245804024000829+,KYOCERA
305	BTB connector socket,,30pin	ARC0300004C1	1	板对板连接器(插座),BTB Connector(Socket),OVER PCB,30.0 PINs,0.40 mm,8.6x4.2xH0.9mm,W/O POST+W/O DIP,N/A,245804030000829+,KYOCERA
147	Micro SIM Card Connector	ARD0080001C1	1	Micro SIM卡连接器,Micro SIM Card Connector,Push-Push,8 PINs,0 mm,16.35x14.3xH1.29 mm,W/O POST+W/O DIP,na,SCGD1B0206,ALPS
148	Memory Card Connector	ARJ0080057C1	1	存储卡卡座,Memory Card Connector,Push-Push,8 PINs,0 mm,15.25x13.825xH1.35mm,W/O POST+W/O DIP,N/A,SCHA4B0414,ALPS

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	61/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

149	Audio Jack	ARG0040008C1	1	耳机插座,Audio Jack,Cut PCB,4 PINs,D3.5 mm,12.54x8.7xH4.4 mm,W/O POST+W/O DIP,for Diablo,AJ010-19336A01,JTCONN
151	Battery Connector	ARM0060002C1	1	Battery Connector,Over PCB,6 PINs,1.2 mm,9x4.35xH1.2,With POST,N/A,CPL6106-0130E,SMK
153	Spring	BMF32C0001C0	4	弹片, Spring,Crystalk 3G,,3.57×2.05×0.94mm,,HY005SP-T10P-B3-W13,HY-Electronics,
311	LDO	AMY0000367C1	1	稳压器,LDO,2.8V±1.5%,DFN-4(1010),360mA,1.0*1.0mm,N/A
150	coaxial cable connect-socket	ARM0020009C1	2	同轴线连接器母头,coaxial cable connect-socket,Over PCB,2 PINs,0 mm,2.0x2.0xWH1.18 mm
313	COMMON MODE ESD FILTER	AMS0000008C1	1	共模滤波器,COMMON MODE ESD FILTER,2 Channels,Bi-Directional,1*1.25*0.82,N/A,MCE1012E350FBP,INPAQ
156	Light-Emitting Diode	AFB0000010C1	3	发光二极管,Light-Emitting Diode,Mono-color,pure white,95 mW,2.8 V,0603,1.6×0.8×0.2mm,25 mA,R1 BIN Max 140 mcd,19-219UTD-S3111-TR8(HTC),EVERLIGHT
157	USB Connector	ARH0050030C1	1	USB连接器,USB Connector,Over PCB,5 PINs,1.3 mm,9.95x6.2xH2.45mm,W/O POST+With DIP,N/A,KIU90531S1M3R,KEIRAKU
152	Microphone	AWC4030M01C1	1	麦克风,MIC,MEMS,4×3×1 mm,-26dBFS,SMT,N/A,MD-DFA263-A10,GETTOP
155	Antenna spring contact	BMF32E0000C0	3	天线弹片,Antenna spring contact,Vulcan,w/o bump,3.55*1.5*1.59mm(WH1.04),,3.1.21.0788,Everwin,,
314	DC/DC CONVERTER	AMY0000243C1	1	STEP-UP DC/DC CONVERTER, FOR WHITE LED BACK LIGHT
314	DC/DC CONVERTER	AMY0000418C1	2nd source	电压转换器,DC/DC, 2.92×2.8 mm, TSOT-23-6, 3.6 V, SN3506B, SI-EN
315	Power Inductor	ACA220M907C1	1	Power Inductor, 22uH, +/- 20%, DCR=0.63ohm, 500mA, 3.0x3.0xH1.2mm

9 PCBA exchange

If Level 2 repair does not solve the failure, it is mandatory to change the PCBA and follow the process as below.

- 1) Collect the PCBA (without accessories, LCD and camera), with microphone and vibrator.
- 2) Get a new PCBA from the swap stock. Reuse those accessories to assemble the mobile.
- 3) Fill in the record sticker with IMEI number, fault code, short code, Hardware Technical Level and software version.
- 4) Send the NG PCBA with record sticker back to L3 repair center with the recommended packaging method,

Note: packaging method please refer item “12. Packaging requirement”.

10 Other component exchange

The other components exchange such as

- 1) TP-LCD-Light module
- 2) USB connector

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	62/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

- 3) Main FPC
- 4) Receiver
- 5) Speaker
- 6) Main Camera
- 7) Sub camera
- 8) Volume keypad FPC
- 9) Power key FPC
- 10) Other related mechanical components

Please follow the detail steps 5.3 (Disassembly and assembly process).

But need to be very careful to handle the components with related special tool or jig (especially replacing new components)

It is better to handle it with plastic tools (plastic tweezers and wedge etc.).

Besides operator must wear anti-static gloves, fingertips or wear static loop during the whole process of components exchange.

11 Final test

Function Test

During the function test, the following items must be checked and validated.

- 1) Cosmetic aspect of the handset,
- 2) The Software Technical sticker state on the Board
- 3) Switch on the handset
- 4) Default welcome message
- 5) Press *#2886# on the idle screen to start the auto test

APPENDIX 1 Packaging Requirements

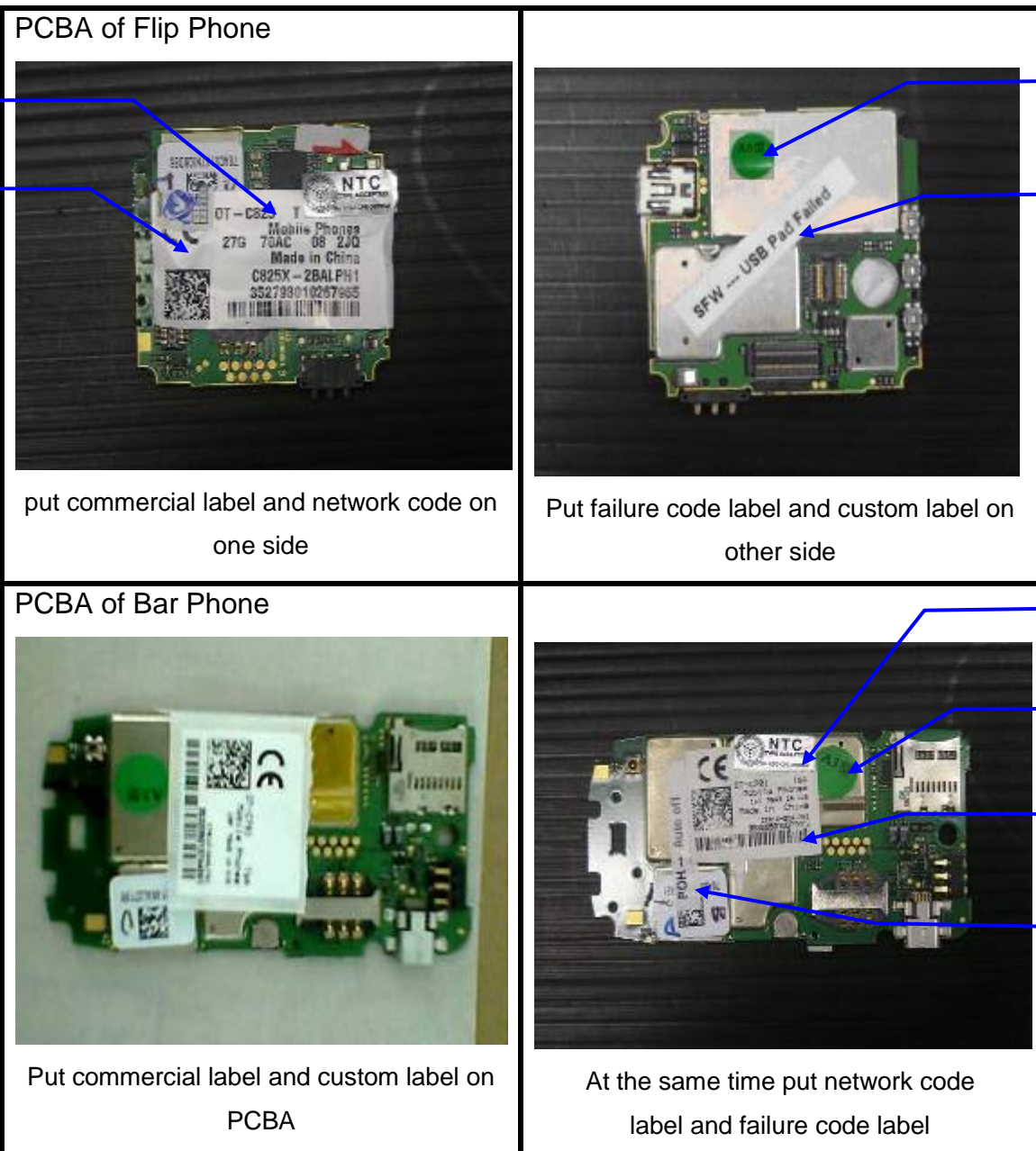
1、 Appearance Requirements of PCBA

- i 、 The failure code label, commercial label, custom label and network code should be stuck onto

Rev.		Page
1.2	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	63/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		

PCBA


- ii、The repair PCBA and custom label should be matched
(see appendix one for the detailed information)




2、PCBA Packing Requirements

- i 、After packing with anti-vibration bag, the commercial label on PCBA should be easy recognized;


Rev.	ONE TOUCH 6030D/X/A/N Level 2 Repair Document	Page
1.2		64/66
All rights reserved. Transfer, copy, use or communication of this file is prohibited without authorization.		




Inner packing is anti-static bag



Outer packing is anti-vibration bag



Put commercial label on anti-vibration bag



Custom label is easy to see

- 3、Packing Requirements
- i.

Please pay attention to the following points when different models put into one box:
- ii.

Stick up the same models with tapes
- iii.

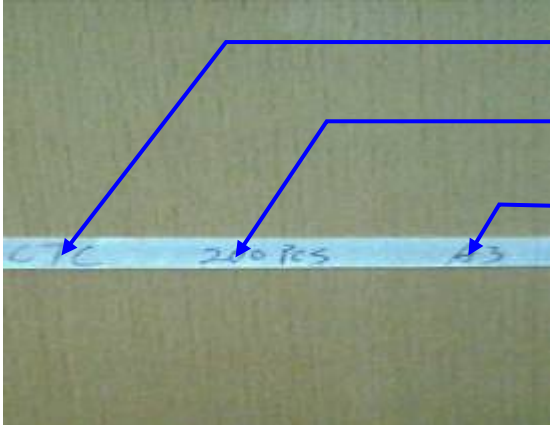
Mark the model, quantity and specification of custom label on tape
- iv.

The packing box for PCBA should have marking sticker and well sealed by the tape with TCL logo
- vi.


Finally put all the packing boxes into packing cases strong enough and post to HK.



Stick up the same models with tapes



Mark the model, quantity and specification of custom label on tape



The packing box for PCBA should have marking sticker and well sealed by the tape with TCL logo



Put all the packing boxes into packing cases strong enough and post to HK

Once the PCBA are damaged or cannot be repaired or delayed in custom because of unqualified packing, the shipping side will take the responsibility.

If you have any question or problem, please feel free to contact us
 Thanks for your cooperation.

TCT Mobile Phone
Global Customer Service TS Dept.
June 20th, 2013