

Beetle

ONE TOUCH 4030X/A/D/E/Y

MTC 970



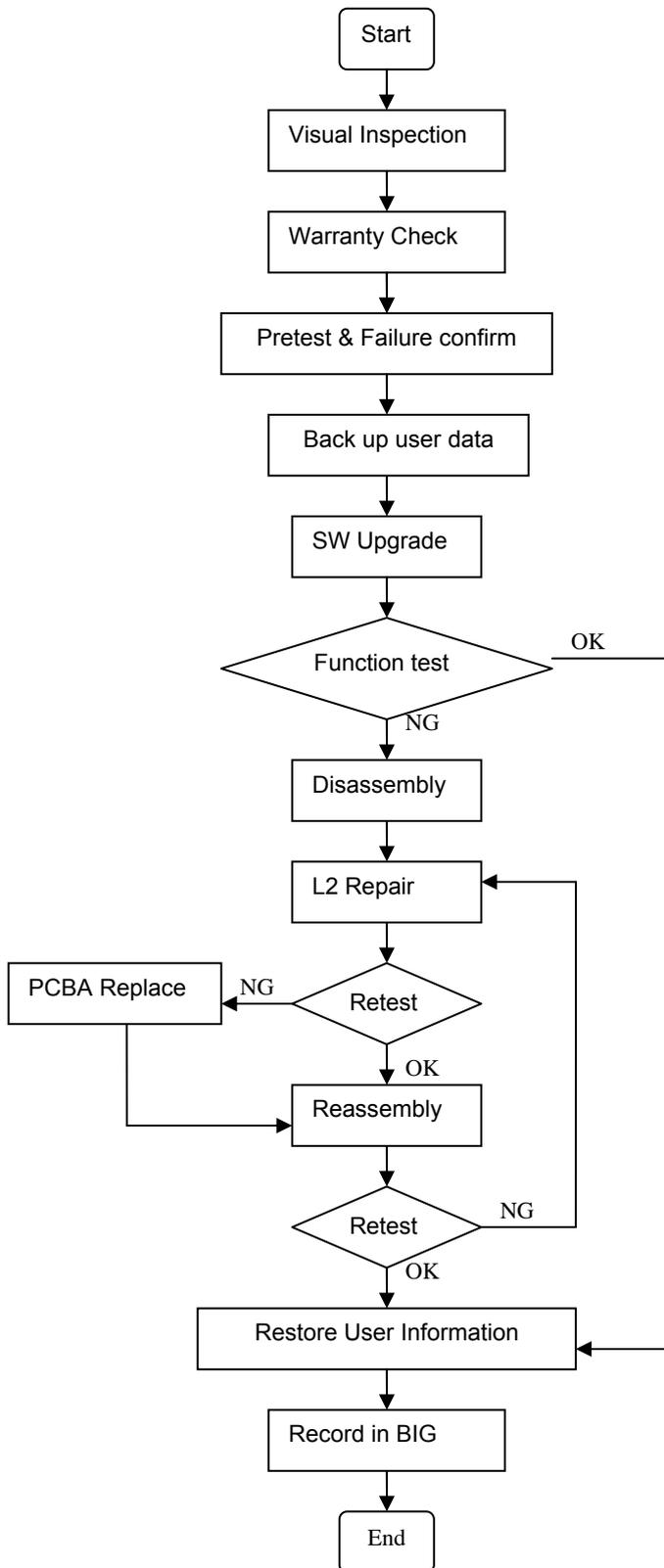
Note: this manual is non-contractual and TCT Mobile Limited can modify it without prior notice on the characteristics of described equipments.

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1.4	2013-6-5	1. Add MTC 970	Xiaolong Yang	Li Can	Hu Zhili
1.3	2013-4-15	1. Delete Vodafone 875;	Xiaolong Yang	Li Can	Hu Zhili
1.2	2013-3-21	1. Update final function test	Xiaolong Yang	Li Can	Hu Zhili
1.1	2013-3-5	2. Update the Picture; 3. Add Vodafone 875; 4. Update NFC version	Xiaolong Yang	Li Can	Hu Zhili
1.0	2013-1-7	Draft creation	Jennifer Zhang	Li Can	Hu Zhilii
Rev.	Date	Modification description	Prepared By	Checked By	Approved By

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1 Level 2 repair process



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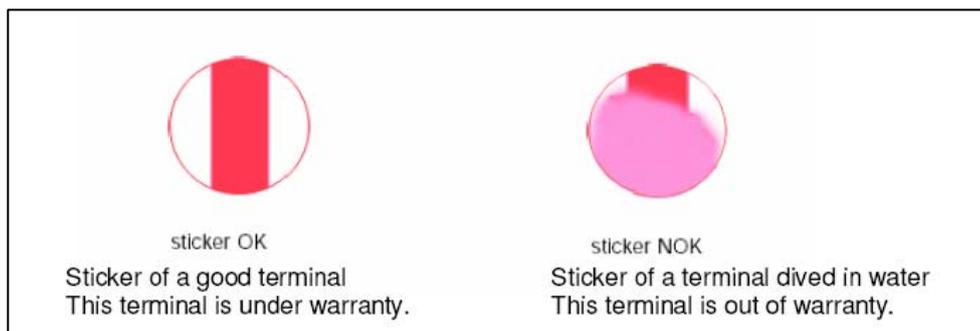
2 Warranty Check and Visual Inspection

2.1 Warranty confirmation of L1

- 1) IMEI sticker check:
 - a) The IMEI number MUST be the same with the one on the IMEI sticker. If not, it's out of warranty policy
 - b) IMEI label should not be
 - Removed
 - Scratched
 - Unreadable
 - Un-approved or un-provided by Alcatel.



- 2) Humidity sticker: Liquid detection on humidity sticker.



2.2 Visual mechanical check

Mechanical warranties check items:

- 1) Corrosion

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- 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.
 - 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

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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.

■ 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), BT address, etc.
- II. Press "Pass" to continue.

■ TOUCH PANEL

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

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

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- 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;
- LCD BACKLIGHT
 - I. The screen backlight will be flashing if it functions well;
 - II. Press “Pass” to continue.
- FRONT CAMERA

Press “Pass” to continue if front camera functions well;
- MAIN CAMERA

Press “Pass” to continue if the camera functions well;
- MELODY
 - 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 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 & FM
 - I. Insert headset according to the instruction and you will hear a piece of melody through the headset left if it functions well;
 - II. Press “Pass” to continue;
 - III. you will hear a piece of melody through the headset right if it functions well;

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IV. Press “Pass” to continue;

V. You will hear FM playing through the headset and FM frequency will be displayed on the screen if it functions well;

VI. Press “Pass” to continue;

VII. Remove headset according to instruction and press “Pass” to continue;

■ **CHARGER & USB**

I. Insert USB cable according to instruction and it will say “USB:OK” “Charger:OK” if it functions well;

II. Press “Pass” to continue;

■ **GENSOR**

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

II. Press “Pass” to continue;

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

■ **PROXIMITY SENSOR**

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 it functions well;

II. Press “Pass” to continue;

■ **MEMORY CARD**

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”, “Temp = xxx” and “Battery Temp OK” if it functions well;

II. Press “Pass” to continue;

■ **BLUETOOTH**

Bluetooth will search automatically and it will say “BT OK” if it functions well;

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- WIFI

It will search for WIFI hotspot, and then it will display searched result and "WIFI OK" on the screen if it function 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;

- NFC ACTIVE

I. Put the phone on the Non-contact card such as IC card or magnetic card, than it will display "TAG_ID: xxxxxxxx" if it functions well;

II. Press "Pass" to continue;

- CALL

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

II. Press "Pass" to continue.

3 Software download

It is authorized to download software for the handset which needs to be updated. This downloading tool is called "Sugar MTK_SP". Thus internet access is necessary. TS Website:

<https://css.tclmobile.cn/>.

3.1 Equipments requested when download:

- (1) A handset with full charged battery;
- (2) PC with windows system;
- (3) A USB cable.

3.2 Install driver

At the final step of SUGAR setup procedure, it will remind you to install driver.

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4 Disassembly and assembly ONE TOUCH 4030X/A/D/E/Y

4.1 ESD Safety



Please wear static loop or static glove

4.2 Disassembly tool

You may use the following tools during the disassembly and reassembly procedure:



Plastic Flake



Tweezers



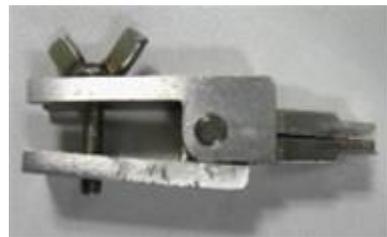
Hot wind gun



Screwdriver



Soldering iron



Camera Jig

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Suction cups



Antistatic tweezers

4.3 Disassembly process

The steps of disassembly ONE TOUCH 4030Y is as below.

This module should only be disassembled from bottom to top.

Step 1: Remove the battery cover with plastic flake, and then take off battery.



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Step2: Take off screws

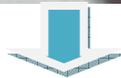
- 1). Take off the 6 screws from the furnished frame by screw driver.



Please note the 2 screws in the middle of furnished frame are smaller than the others.



- 2). Remove the furnished frame according to below instruction by using plastic flake,



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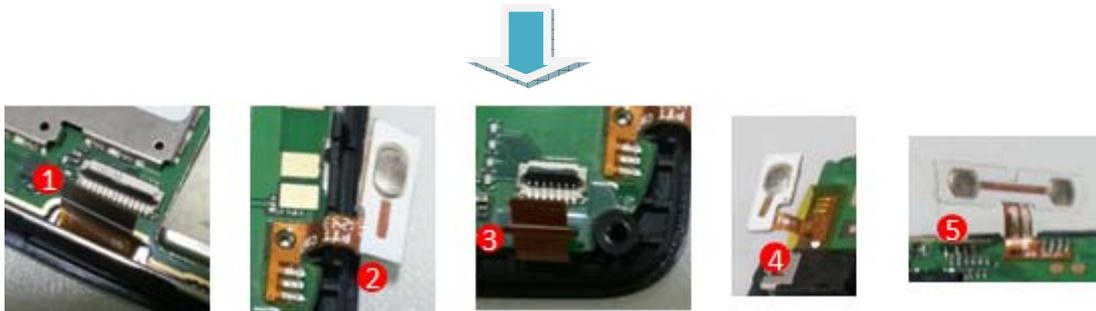
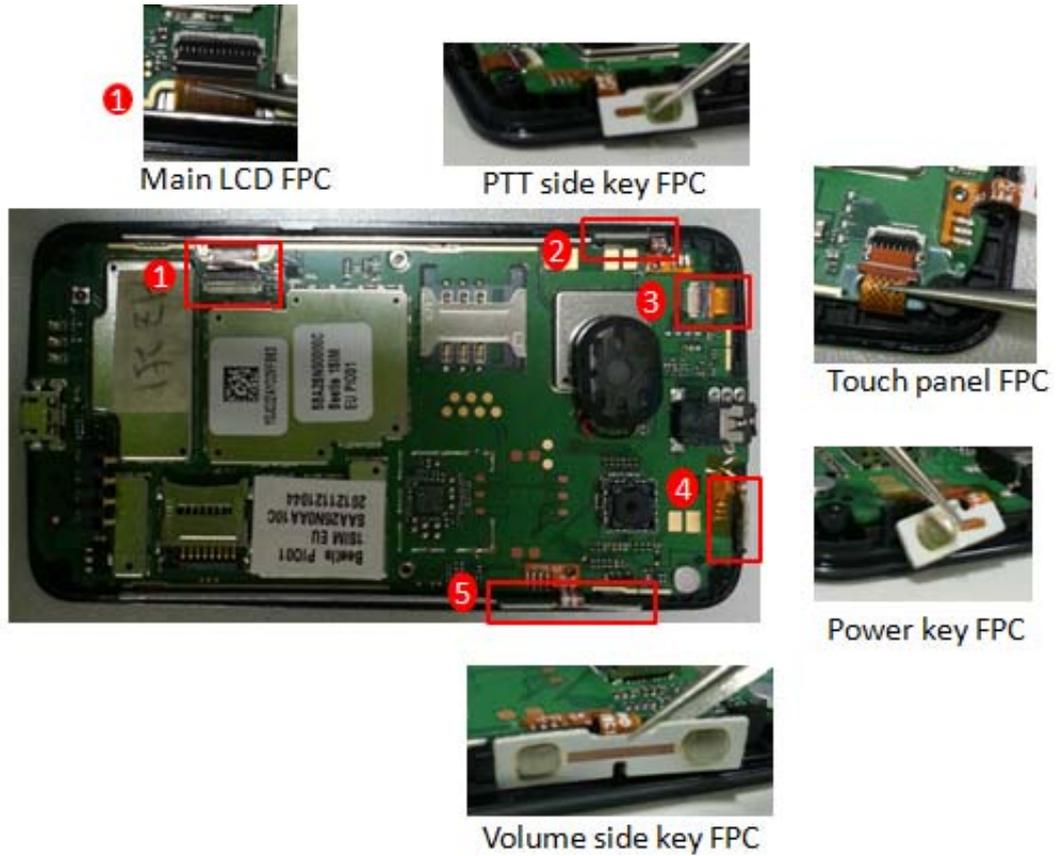
Step 3: remove Antenna from furnished frame.



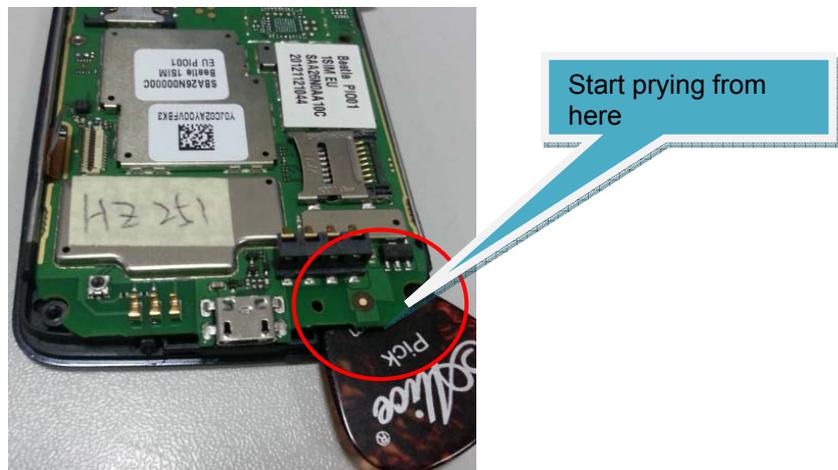
Step 4: Remove Furnished PCBA from Furnished front casing.

- 1). Separate Main LCD FPC and Touch panel FPC from Furnished PCBA; separate PTT side key FPC, Power key FPC and Volume side key FPC from Furnished front casing with tweezers;

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2). Pry up Furnished PCBA by using plastic flake and then swipe along the left and right edges.



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Swipe along this edge and pay attention to double side adhesive between Furnished PCBA and furnished front casing



Swipe along this edge and pay attention to double side adhesive between Furnished PCBA and furnished front casing



Step 5: remove vibrator from furnished frame with tweezers.



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Step 6. remove receiver with tweezers.



Step 7: remove PTT side key FPC, Volume side key FPC, Power key FPC and speaker from furnished PCBA by using soldering iron (Temperature: Lead-free technology 330°C±10°C, time: 3~5 seconds)



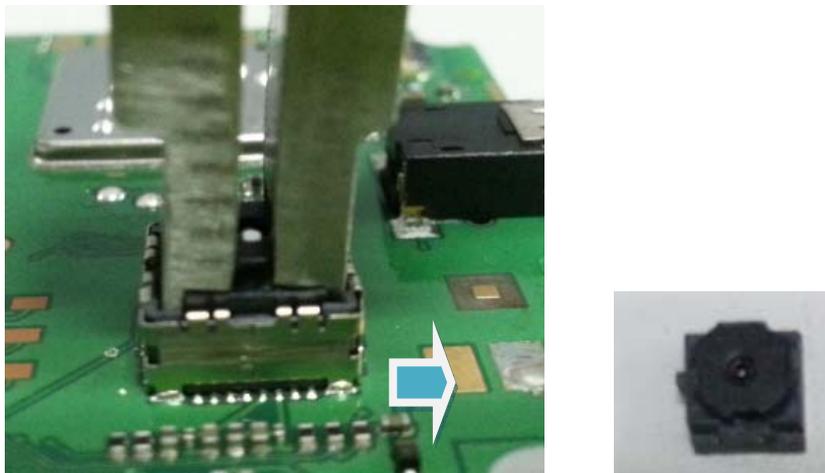
Remove Power key FPC protect tape with tweezers before using soldering iron.



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Step 8: remove camera module with camera jig.



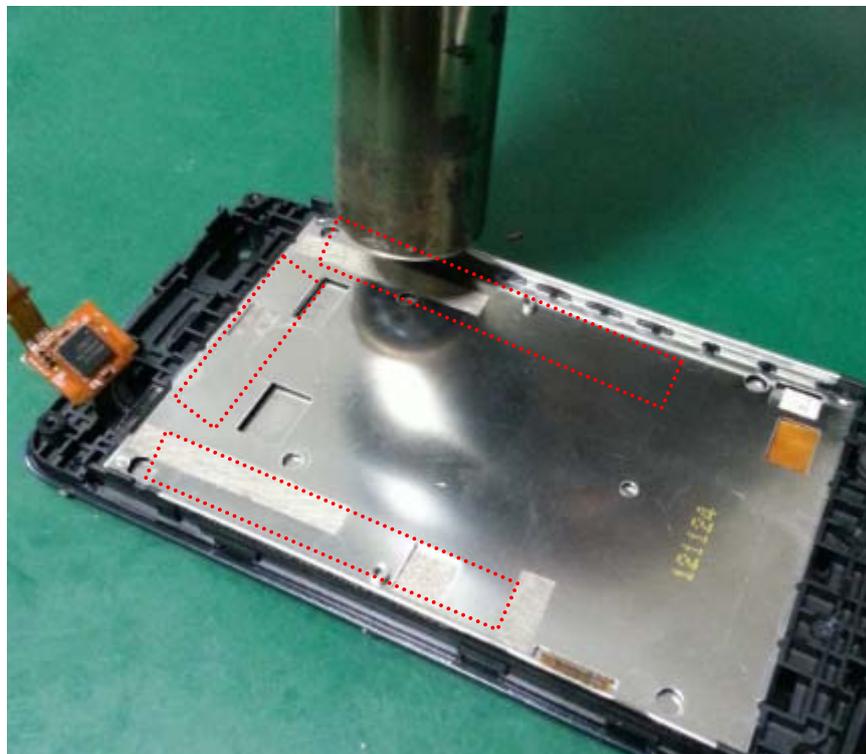
Step 9: Separate TP and LCD module from furnished front casing.

- 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 60s)

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- 2). Use hot wind gun to heat up below area which is covered with red dotted lines.
(Hot wind gun temperature: 130°C, Air Level: 3, Height: around 10mm, Time: about 60s)



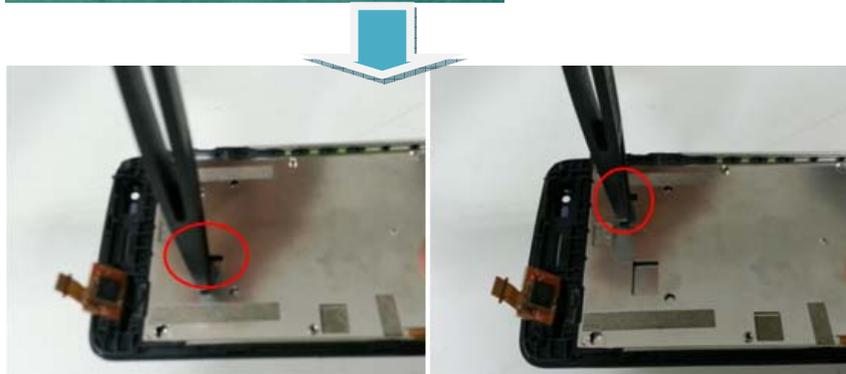
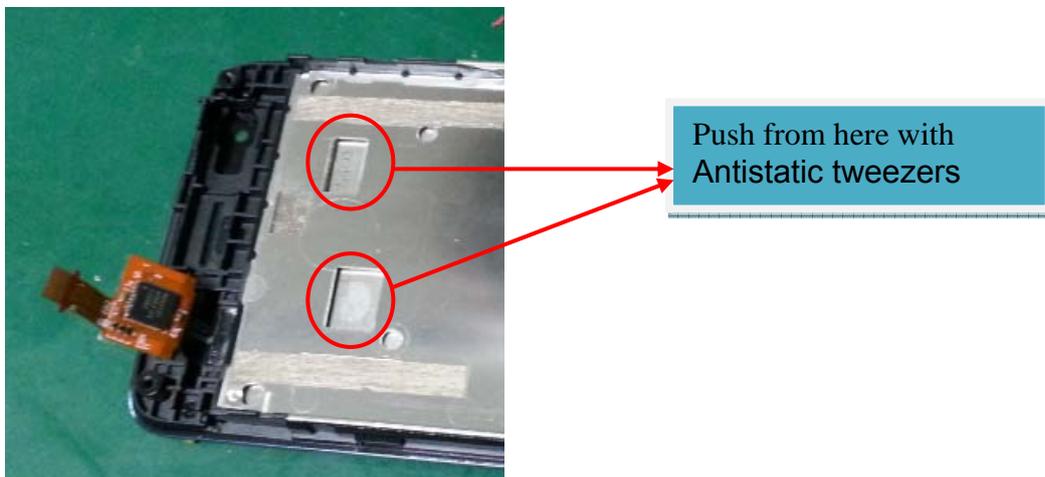
- 3). Pull up TP/LCD from bottom edge of TP with suction cup, and then insert plastic flake carefully into bottom right corner of TP once you see any gap between TP/LCD and front casing.

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

5). Use Antistatic tweezers to push LCD at the below 2 holes.



6). finally separate TP and LCD module from front casing slowly and carefully; Make sure not to damage TP FPC or LCD FPC.

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Step 10: Disassembly complete.



Disassembly Notice:

Put all the spare parts on right position (don't let all spare parts mixed and put on the clean place to avoid vitiated or stained for each spare part) after disassembly. When taking apart of LCD module, take care not to dirty or damage it.

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4.4 Reassembly Process

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

4.5 Disassembly process evaluation

We list the ONE TOUCH 4030X/A/D/E/Y and MTC 970 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.

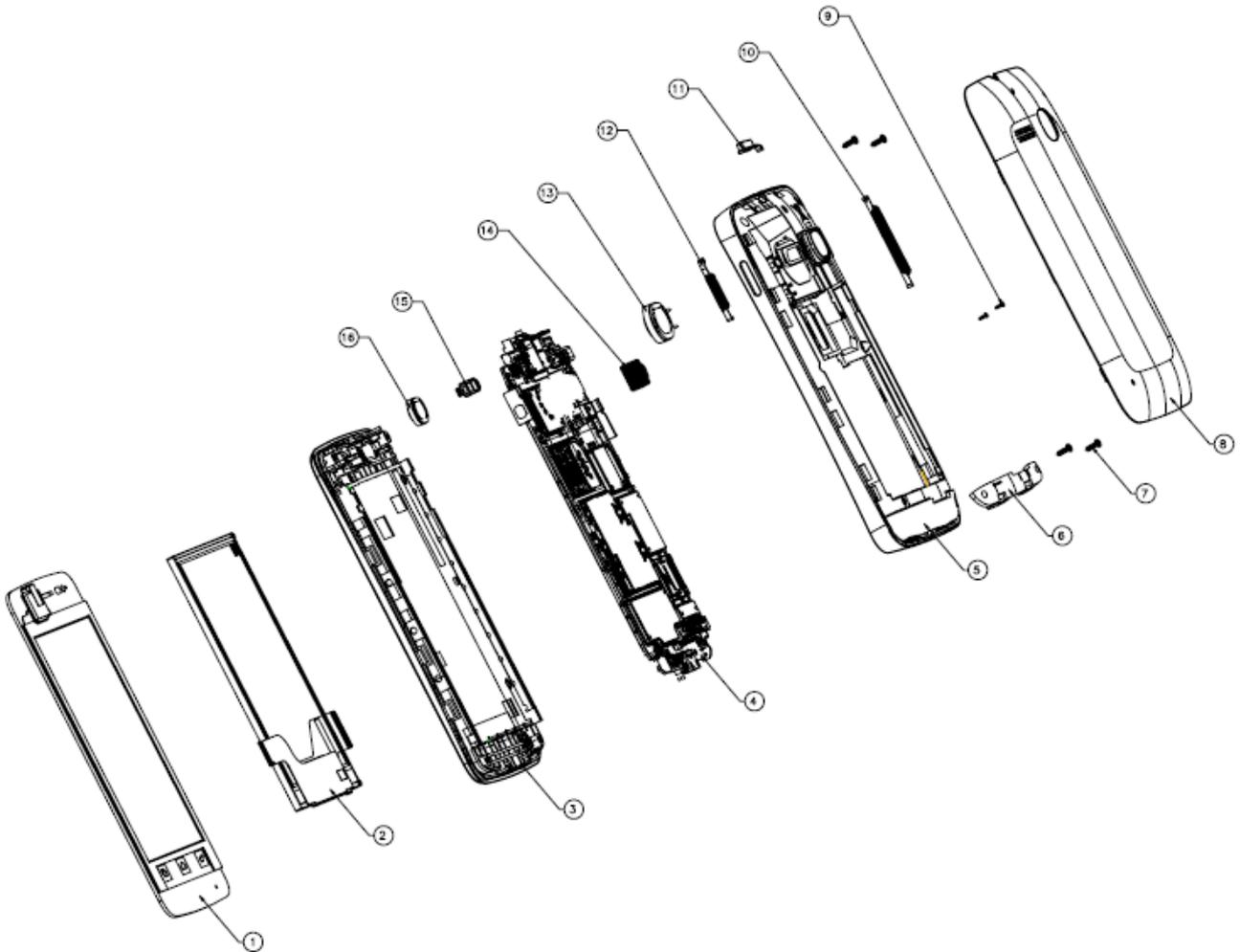
Spare part	Time for disassembly	Jigs for disassembly	Difficulty Class	Remark
FUR battery cover	3s	Plastic Flake	Class 1	
6 screws	20s	Screwdriver	Class 1	
Furnished frame	5s	Plastic Flake	Class 1	
Furnished PCBA	20s	Plastic Flake Tweezers	Class 1	
Vibrator	3s	Tweezers	Class 1	
Receiver	3s	Tweezers	Class 1	
PTT side key FPC	10s	Soldering iron	Class 2	
Volume side key FPC	15s	Soldering iron	Class 2	
Power key FPC	10s	Soldering iron	Class 2	
Speaker	5s	Soldering iron	Class 2	
Antenna	5s	Plastic flake	Class 1	
Touch panel	300s	Suction cup Hot wind gun Plastic Flake	Class 3	Be careful for touch lens & FPC damage
Main LCD	60s	Hot wind gun Plastic Flake Antistatic tweezers	Class 3	Be careful for LCD FPC damage
Camera module	10s	Camera Jig	Class 2	
USB connector	60s	Hot wind gun Tweezers	Class3	The connector is easy to be damaged
SIM card connector	120s	Hot wind gun Tweezers	Class 3	The connector is easy to be damaged
T flash connector	120s	Hot wind gun Tweezers	Class 3	The connector is easy to be damaged
Battery connector	40s	Hot wind gun Tweezers	Class3	The connector is easy to be

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damaged

5 Disassembly Complete

➤ Explored view



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16	RECEIVER	AWB0612S13CX		1	
15	P-Sensor rubber	BNJ26N0000CX	Rubber	1	Black raw
14	Camera module	ASA3001023CX		1	
13	SPEAKER	AWA1712L00CX		1	
12	FUR PTT key	BFC26NOV12CX	P+R	1	Light Chrome
11	FUR Power key	BFC26NOV13CX	P+R	1	Light Chrome
10	FUR Volume key	BFC26NOV11CX	P+R	1	Light Chrome
9	Screw	BMA1421250CX		2	
8	FUR BATTERY COVER	BCJ26NOX10CX	PC (EXL1414)	1	Painting
7	SCREW	BMA1645261CX		4	
6	FUR ANTENNA MODULE	BBC26NX000CX		1	
5	FUR FRAME	BCC26NXB10CX	PC (EXL1414)	1	Painting
4	Furnished PCBA	SBA26NX0000B		1	
3	FUR FRONT CASING	BCA26NOV20CX		1	Dark Chrome
2	LCD_MODULE	AUA350T214CX		1	
1	Touch Panel	AUE26NXA10CX		1	
No.	NAME	CODE	MATERIAL	QUANTITY	REMARK

➤ Below table lists ONE TOUCH 4030X/A/D/E/Y and MTC 970 L2 spare parts. You could also refer to: <https://css.tclmobile.cn/>.

Item	Description	Partnumber	Remark
1	FUR BATTERY COVER	BCJ26N0B10C0	1SIM&2SIM,PC(EMX1414),,Pure White,with "onetouch" logo
		BCJ26N0E10C0	1SIM&2SIM,Beetle,PC(EMX1414),,Cherry Red,with "onetouch" logo
		BCJ26N0A10C0	1SIM&2SIM,Beetle,PC(EMX1414),,Raven Black,with "onetouch" logo
2	LI-ION Battery	CAB60B0000C1	Black,1400 mAh,3.7 V,4.2 V,ALCATEL,English,4 PINs,LP415060R,64.30x50.00x4.20 mm,TLi014A1,Removable,Reach,Fiji Project,N/A,BYD
3	Charger	CBA3007AG0C1	EUP charger,,,Black,Mexico,with USB standard-A receptacle,without cable,,,5V550mA,,,,,BYD,,,,
		CBA3008AA0C1	MOU charger,,,Black,EU,with USB standard-A receptacle,without cable,,,5V550mA,,,,,BYD,,,,
4	Stereo Earphone	CCB3160A11C2	MX,,,3.5mm audio jack,LRGM,0 Keys,Open Type,Black,ALCATEL,3.0 mW,Non Reach,N/A,TS601-10M38-10,LIANYUN
		CCB3160A15C2	EU,,,3.5mm audio jack,LRGM,0 Keys,Open Type,Black,ALCATEL,3.0 mW,Reach,N/A,TS500-10M01R,SHUNDA
5	Micro USB Cable	CDA3122002C2	MX,,,Piano,,1.0m,10.4mm*7.4mm plug,,Shenhua,,,,
		CDA3122005C2	EU,,,Piano,,1.0m,10.4mm*7.4mm plug,Reach 标准,,Shenghua,,,,
6	Furnished front casing	BCA26NOV20C0	Beetle,前壳 Dark Chrome,,
7	P-Sensor rubbe	BNJ26N0000C0	rubber,Beetle
8	Main LCD	AUA350T214C1	262K,3.5",320x480,TFT-TN,Wide View,MIPI,ZIF 25pin,ILI9486,N/A,TD-TNHV3509-5,TDT

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9	Speaker 2in1	AWA1712L00C1	Racetrack,17×12×WH4.0mm,98dB±3dB,500.0 mW,wire 13.5mm,with foam&mesh&mayler,N/A,MSLD1712-525-8,LIANCHUANG
10	Receiver	AWB0612S13C1	12.00×6.00×2.32mm,19+/-3dB,10 mW,spring,With no Foam ,with mesh&Mayler,Wide Frequency Range,No HAC,N/A,SDRP0612K-J-01-FB,AAC
11	Camera module	ASA3001023C1	CMOS,3M,FF,6.5x6.5xH4.1mm,Socket 24pin,Parallel,S5K5CAGA,KL27Q328M50A,N/A,CM7111-O300BF-E,TRULY
12	Touch Panel	AUE26N0A10C1	Capacitive,Beetle,109.4×56.8×1.23 mm,ZIF 13PIN,MSG2133,PMMA+Film,Black,N/A,ALCATEL Logo,N/A,131075U1,MUTTO
13	Cylindrical Vibrator	AVA1144S00C1	11.5×4.4×WH4.9 mm,3.0 V,255 mW,Spring,Update speed,BL4I2G6-PF74,BAOLONG
14	RECEIVER MALAR	BPC26N0000C0	0.05mm MALAR 片,Beetle
15	CTP IC Foam	BRA26N0000C0	0.4mm foam,Beetle
16	Furnished frame 1SIM	BCC26N0B10C0	Beetle 1SIM,,底壳 Pure White,+Volume key+PTT key+Power key
		BCC26N0E10C0	Beetle 1SIM,,底壳 Cherry Red,+Volume key+PTT key+Power key
		BCC26N0A10C0	Beetle 1SIM,,底壳 Raven Black,+Volume key+PTT key+Power key
17	FUR Volume key	BFC26N0V11C0	Beetle,P+R,Light Chrome
18	FUR PTT key	BFC26N0V12C0	Beetle,P+R,Light Chrome
19	FUR Power key	BFC26N0V13C0	Beetle,P+R,Light Chrome
20	Screw	BMA1421250C0	PM(Machine),PM1.4×0.3P×L2.1mm,Round Head,HD=Φ2.5×T0.5mm,+ type,+1.4P1,With Nylok,SWCH18A,HV 350--550,Plating White ZN,N/A,SEOUL
21	Screw	BMA1645261C0	PB(Self-tapping),PB1.6×0.5P×L4.5mm,Round Head,HD=Φ2.6×T0.6mm,+ type,+1.4P1,Without Nylok,SWCH18A,HV 400--600,Plating White ZN,N/A,SEOUL
22	PTT side key FPC	BAA26N001BC1	Beetle,B Version,2 Layers,Soldering,With Glue,15.00×12.80×0.73 mm,FR4,C-FLEX
23	volume side key FPC	BAA26N002BC1	Beetle,B Version,2 Layers,Soldering,With Glue,21.00×13.24×0.73 mm,FR4,C-FLEX

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24	power key FPC	BAA26N003CC1	Beetle,C Version,2 Layers,Soldering,With Glue,11.70×11.04×0.88 mm,FR4,C-FLEX
25	Power key FPC protect tape	BNH26N0000C0	Beetle,12.5x4.8x0.05mm,黄色高温胶纸,FWF
26	LCD ELEC Foam	BLA26N0002C0	Beetle,导电泡棉,FWF
27	Antenna	BBC26N1B10C2	Beetle(US),White,长盈,,,,
		BBC26N1A10C2	Beetle(US),,,Black,,,长盈
		BBC26N0B10C2	Beetle(EU),White,长盈,,,,
		BBC26N0A10C2	Beetle(EU),,,Black,,,长盈
28	FPC Connector	ARA0250003C1	Over PCB,25.0 PINs,0.30 mm,9.0×3.5×H1.0mm,W/O POST+W/O DIP,N/A,XF3H-2555-31AR,OMRON
29	LED	AKABL00008C1	Mono-color,Blue,78.0 mW,2.85 V,0603,1.6x0.8x0.4mm,5.0 mA,N/A,HT-193NB5,HARVATEK
30	FPC Connector	ARA0130003C1	Over PCB,13.0 PINs,0.30 mm,5.4X3.5XH1.0mm,W/O POST+W/O DIP,N/A,XF3H-1355-31AR,OMRON
31	SIM Card Connector	ARD0060098C1	With Bridge,6 PINs,2.54 mm,16.3x16.4xH1.5 mm,W/O POST+W/O DIP,N/A,CAF99-06153-SF28,LINKCONN
32	battery connector	ARE0040025C1	Over PCB,4.0 PINs,3.1 mm,12.4x4.3xH5.0mm,With POST+W/O DIP,N/A,KBC24S3H50R,KEIRAKU
33	RF switch	ARF0060003C1	Over PCB,6.0 PINs,2.32 mm,2.5×2.5×H1.5mm,W/O POST+W/O DIP,N/A,ECT818000163,ECT
34	Audio Jack	ARG0040006C1	Cut PCB,6.0 PINs,D3.5 mm,12.5x6.5xH4.4 mm,W/O POST+With DIP,N/A,KJA2333ST50R,KEIRAKU
35	USB Connector	ARH0050030C1	Over PCB,5 PINs,1.3 mm,9.95x6.2xH2.45mm,W/O POST+With DIP,N/A,KIU90531S1M3R,KEIRAKU
36	TFlash Connector	ARJ0080046C1	Hinge Type,8.0 PINs,1.1 mm,14.5x13.6xH1.60mm,W/O POST,N/A,CAH11-08163-SF05,LINKCONN
37	Camera socket	ARK0240006C1	Over PCB,24.0 PINs,0.60 mm,8×8×H3.5mm,W/O POST+W/O DIP,N/A,WKUBI017-001,JTCONN
38	MIC	AWC4013M10C1	ECM,D4.0xH1.3 mm,-42+/-2 dB,SMT,N/A,SOM4013SL-G422-RC-HS,GETTOP, 2pcs for EU version, only 1pc for Latam version

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39	Camera module	ASA0300001C2	CMOS,0.3M,FF,3.24x2.8xH2.74mm,SMT 20pin,Parallel,OV7690,LCC1,N/A,OVM7690- RYAA,OMNIVISION
40	Antenna Sprin	ARM0010029C1	Over PCB,1 PINs,0 mm,3.0×1.2×H2.8 mm,N/A,update shape,PAN00-01280-0506,LINKCONN
41	CTP ADH 03	BPA26N0007C0	电容屏双面胶 03,CTP ADH 03,Beetle,109.15*56.6*0.15, 3M9495MP,FWF
42	Swap PCBA	F-B26N0ALEU1	Beetle,1SIM,EU,软件:4030X-2*ALEU1,ONE TOUCH 4030,
		F-B26N1ALMX1	Beetle,1SIM,US,软件:4030A-2*ALMX1,ONE TOUCH 4030A,
43	Swap Handset	F-A26N0AB101	Beetle 1SIM,,,Dark Chrome+Pure White,,软件:4030X- 2AALEU1,ONE TOUCH 4030,
		F-A26N0AE101	Beetle 1SIM,,,Dark Chrome+Cherry Red,,软件:4030X- 2BALEU1,ONE TOUCH 4030,
		F-A26N0AA101	Beetle 1SIM,EU,Dark Chrome+Raven Black,,软件:4030X- 2CALEU1,ONE TOUCH 4030,
		F-A26N1AB101	Beetle 1SIM,US,Dark Chrome+Pure White,,软件:4030A- 2AALMX1,ONE TOUCH 4030A,
		F-A26N1AE101	Beetle 1SIM,US,Dark Chrome+Cherry Red,,软件:4030A- 2BALMX1,ONE TOUCH 4030A,
		F-A26N1AA101	Beetle 1SIM,US,Dark Chrome+Raven Black,,软件:4030A- 2CALMX1,ONE TOUCH 4030A,

6 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;

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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	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.

7 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

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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”.

8 Other component exchange

The other components exchange such as

- 1) LCD module
- 2) Touch lens
- 3) USB connector
- 4) Receiver
- 5) Speaker
- 6) Main Camera
- 7) Sub camera
- 8) Volume key
- 9) Power key
- 10) Other related mechanical components

Please follow the detail steps 4.3 (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.

9 Final 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

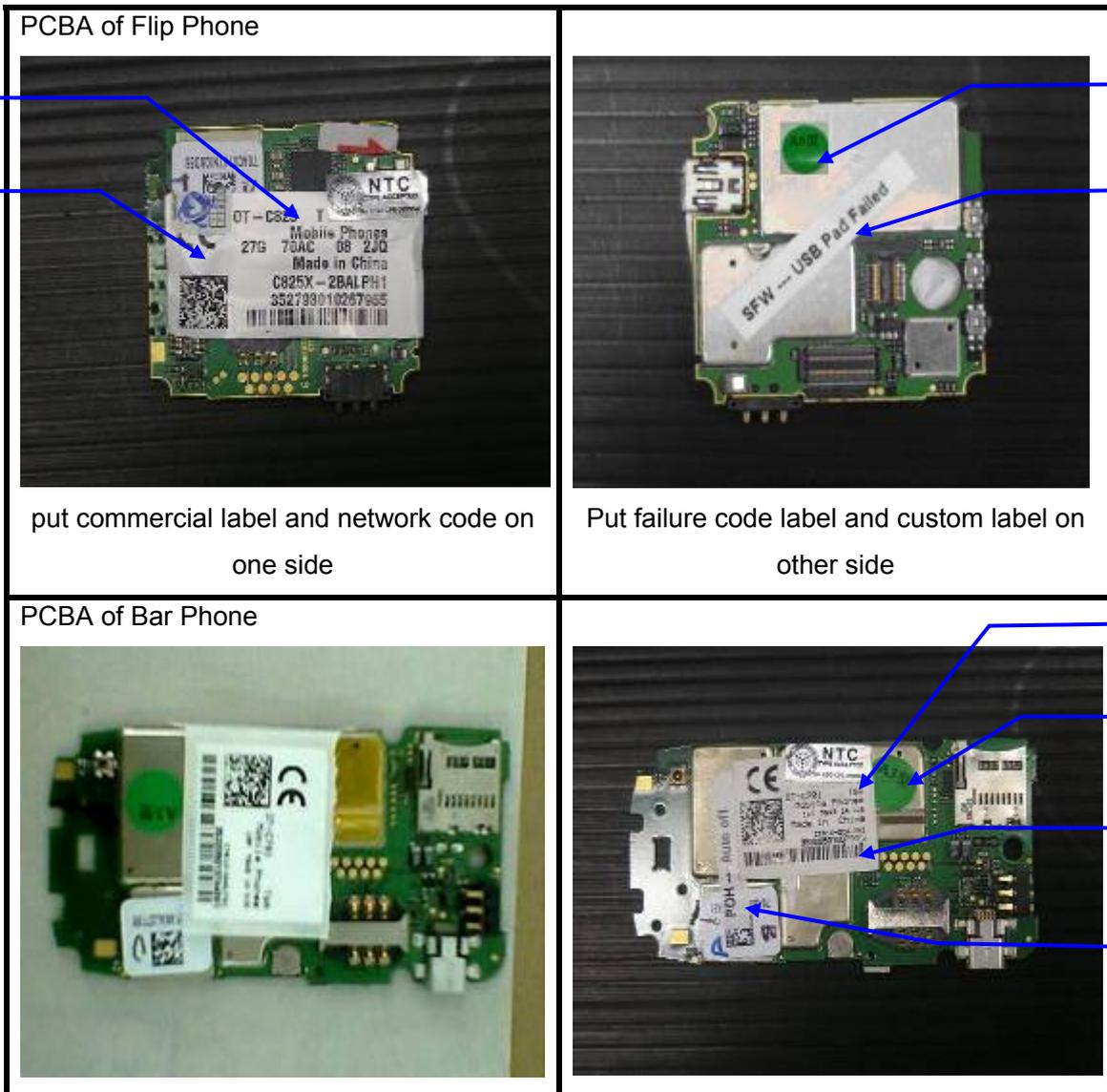
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- 4) Default welcome message
- 5) Press *#2886# on the idle screen to start the auto test

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



<p>Put commercial label and custom label on PCBA</p>	<p>At the same time put network code label and failure code label</p>
--	---

2、 PCBA Packing Requirements

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

 <p>Inner packing is anti-static bag</p>	 <p>Outer packing is anti-vibration bag</p>
 <p>Put commercial label on anti-vibration bag</p>	

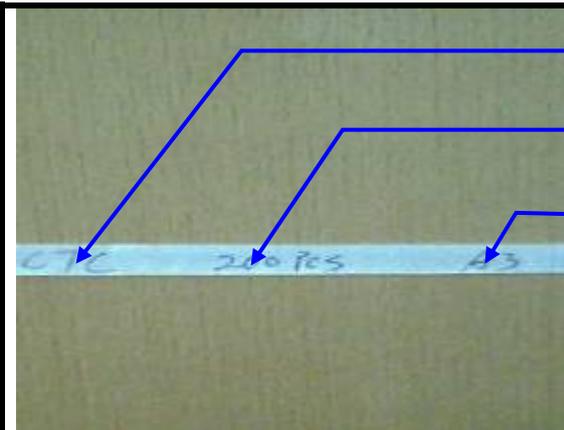
Custom label is easy to see

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



Stick up the same models with tapes



- Model
- Quantity
- Specification

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.

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