Service Manual
for
Breeze

HTC Proprietary
Confidential Treatment Requested

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HTC Corp.
Engineering Mobility

TITLE: Service Manual for Breeze

REV. NO.	DATE	CONTENTS	DEP.	REVISED	APP´D	STGE.PER.
A01	07/05/2006	First release	TSE	Tracy		
A02	08/24/2006	Revised page 32. test item	TSE	Tracy		

Table of contents

Chapter 1 – Introduction

This manual provides the technical information to support the service activities of Breeze. It contains highly confidential information, so any or all of this document should not be revealed to any third party.

1.1 History

Reversion	Update item	Pages effected
A01	First release	N/A

Chapter 2 - Product Specifications

Function	Specification
Platform	● Bar type form factor with Tri-mode HSDPA/ ● UMTS and Tri-band GSM/ GPRS/ EDGE, ● Bluetooth, and mega-pixel camera ● Microsoft Windows Mobile Version 5.0 -Smartphone
Dimensions	● 112.4mm(L) x 49mm(W) x 14.8mm(T)
Weight	● 120g (with battery pack)
Processor	● Qualcomm MSM6275 ● Samsung 2442M stacked CPU with 300MHz
Memory	● Flash ROM: 128MB ● RAM: 64MB SDRAM
HSDPA/UMTS/GPRS/ EDGE/GSM Functional block	● HSDPA/UMTS/GPRS/ EDGE/GSM Functional ● Internal antenna ● Tri-Mode (HSDPA/UMTS, EDGE, GSM/GPRS) ● UMTS/HSDPA(TBD) ● 2100: 1920-1980, 2110-2170MHz ● EDGE/GSM/GPRS ● 900: 880-915, 925-960MHz ● 1800: 1710-1785, 1805-1880MHz 1900: 1850-1910, 1930-1990MHz
Display	● 2.2" 64K colors TFT LCD ● LED backlight
Keyboard/Button	● Power Button/Quick List (Wake up key) ● Two Soft-key Buttons (Wake up key) ● 5 ways navigation pad ● Send Button (Wake up key) ● Quick Press: Start a phone call ● Long Press: Switch On/Off loud speaker ● End button (Wake up key) ● Quick Press: End a phone call ● Long Press: Switch On Key Lock ● Video Telephony Button (Wake up key) ● Home (Wake up key)

	• Quick Press: Home • Long Press (Press and Hold): BT/PDP Quick list • Back/Clear Button (Wake up key) • Text Editing mode: Clear one character (Long press to delete whole text field) • Non-Text mode: Back key • Operator Portal Button (Wake up key) • Numerical dialing keypad (12 buttons / Wake up key) • Keypad is labeled as GSM 02.30 • Camera Button (Right Lower Side / Wake up Key) • 3-Way Jog Wheel (Left Upper Side/ Wake up Key) • Normal function: up/down/action key • Voice volume control function: voice volume up/down in voice call or in video call. • Voice Dial/ Voice Record Button (Right Upper Side / Wake up Key)
Interface	• 1.8V/3V of UICC • USIM Application at least according to 3GPP TS 31.102 • One Infrared IrDA SIR • 11-pin mini-USB (USB1.1 full speed) / audio jack in one • Micro SD card slot • External RF connector with cover
Power	• Battery ♦Rechargeable battery, Li-Ion 1190 mAh ♦ RTC backup battery - golden capacitor for min.20minutes ♦ Battery Meter Showing available battery ♦ Low Battery Warning • AC Adapter: ♦AC input rating: 100 ~ 240 VAC, 50/60Hz ♦DC output: 5VDC, 1A • Ambient light sensor for Keypad LED power consumption Sensor • Support Mi-ni-USB charging

Device to device connectivity	• Bluetooth ♦ Compliant with v2.0 without EDR ⇨ Class 2 transmit power ⇨ Serial Port Profile ⇨ ActiveSync • Infrared IrDA SIR • USB 1.1 with mini-USB plug and receptacle
Digital Camera	• Main Camera: 1.3 Mega Pixels CMOS • Second Camera: CIF CMOS for Video Telephony • Support Landscape mode • Lighting: Min. 5 Lux
Notification	• Notification • One bi-color LED (Green, Red and Amber) for UMTS/GSM standby, UMTS/GSM network status, Event Notification, Power Charging status, PDA Notification • One Blue LED for Bluetooth connectivity status • Vibration for notification and incoming call • Notification by LED, Sound, Message, Vibration Motor
Accessories	• AC adapter (Mini-USB Plug) • USB Sync. Cable • Stereo wired headset with microphone • Standard Battery • User Manual, Quick Start Guide, Sync. • Software CD • Option : Car adapter ,Carrying Case, Bluetooth Headset

Chapter 3 - Servicing Tools

This chapter provides information for the servicing tools for Riemann.

List of Servicing Tools

No.	Item	Use	Remark
1	Disassembly tools	Plastic stick for dismantle the unit Cleaning wipers Philips Screw driver Protective Film Tweezers Air Gun Clean Bench (Mandatory)	 **
2	Mini USB cable	For Synchronization Test	
3	Mini SD Memory Card	For SD card test	
4	Headset	For Hand free / Recording test	
5	AC Adapter	Power supply to this model	
6	Diagnostic Test Program	Test Program for Functional Test	
7	Software Upgrade tools	For software version upgrade or re-flash	
8	Label Printer & Scanner	For Printing & Scanning regulation label when housing or M/B is changed.	**
9	Battery Test Jig	For Main Battery judgment.	
10	Mini SD card for OS reflash	Optional method besides of using RUU via PC	

How to purchase repair tool:

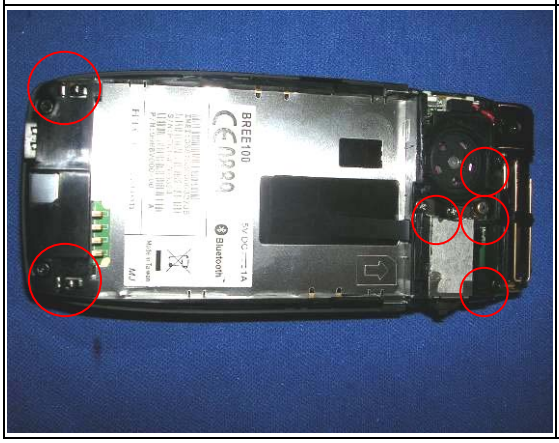
Please place your order for item you need to correspond BSO window; normally it will need 2 ~4 weeks for purchasing lead time.

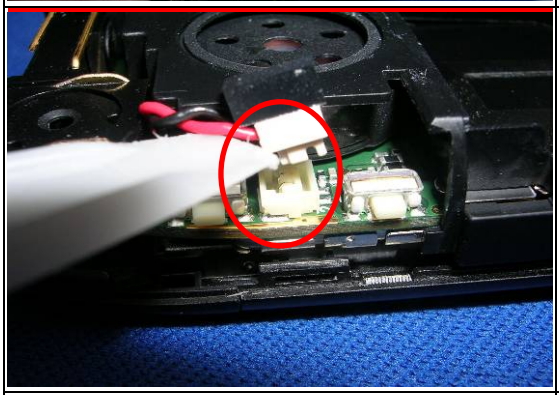
Note: Not suitable for (** IN REMARK)

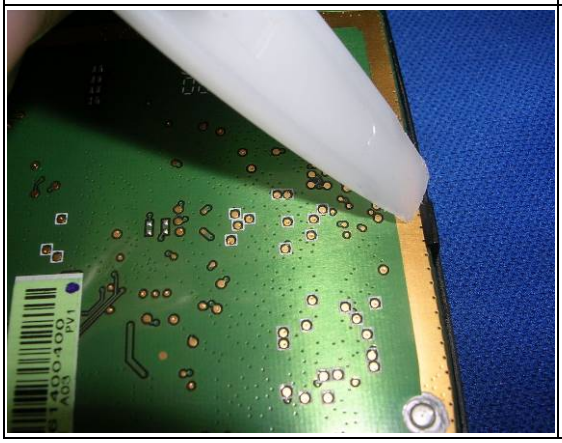
Chapter 4 - Assembling and Disassembling

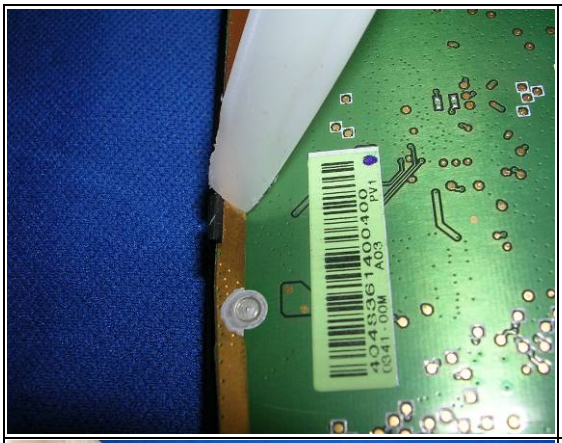
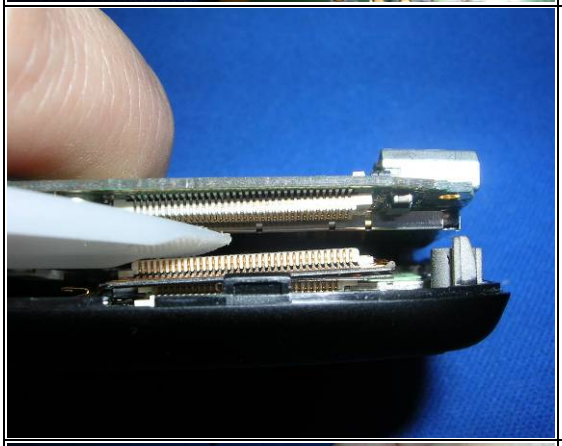
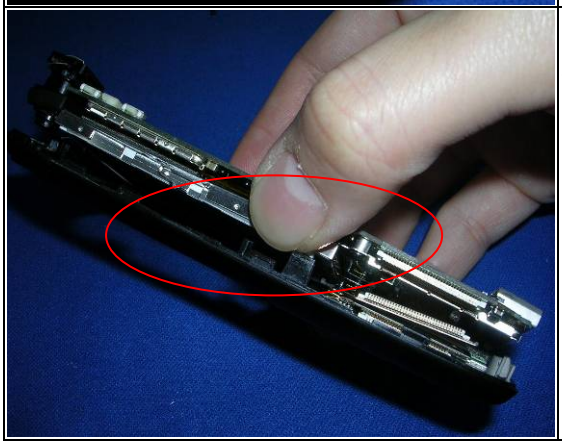
4.1 Disassembling

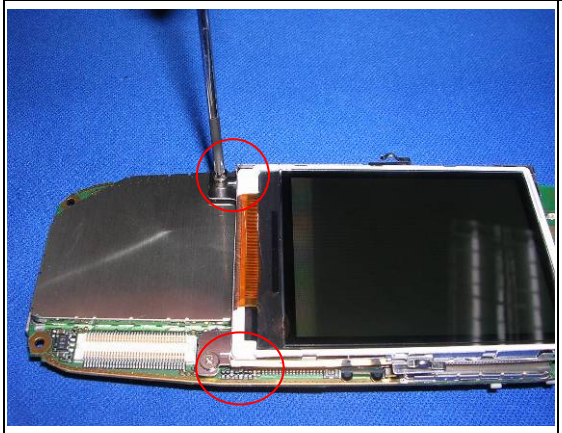
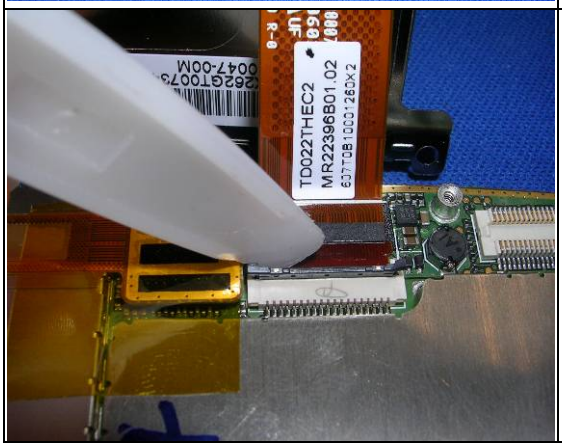
	Tools needed for Assembling and Disassembling the Smart Phone 1. Glove & Lens Cleaning Tissue. 2. Plastic type tweezers. 3. Philip Screw Driver #0. 4. Philip Screw Driver type T6 5. Special Made Plastic Stick 6. Precision flat driver type 0.9mm (⊖)
	Front side
	Remove antenna rubber, battery cover, battery from unit

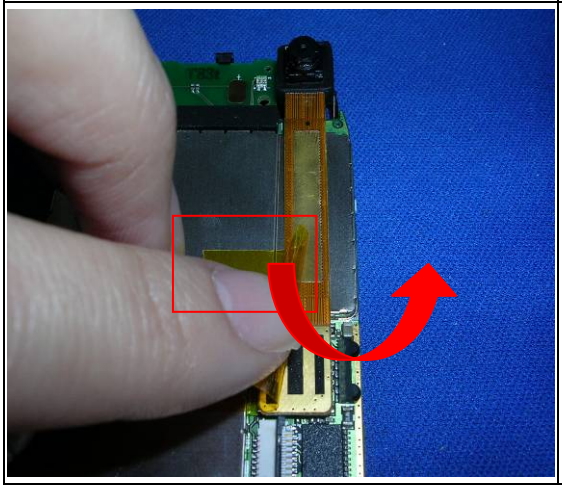
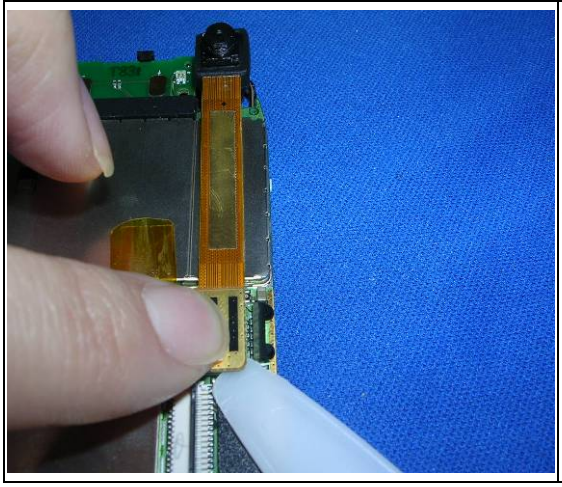
	Release the antenna radiator by inserting Use flat plastic tool to insert into the open gap (1) and the same method with gap (2)
	Release the antenna
	Unfasten 6 screws located on the back side

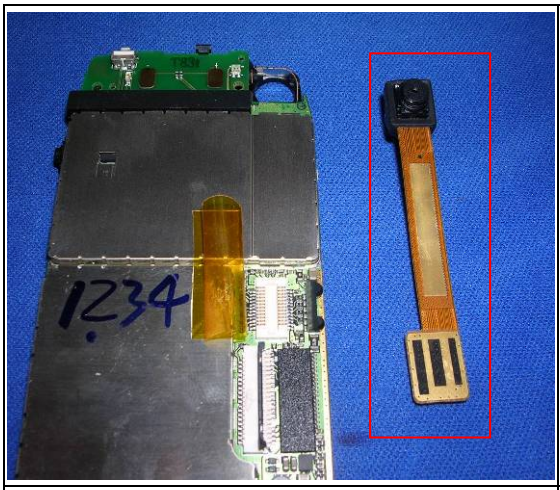
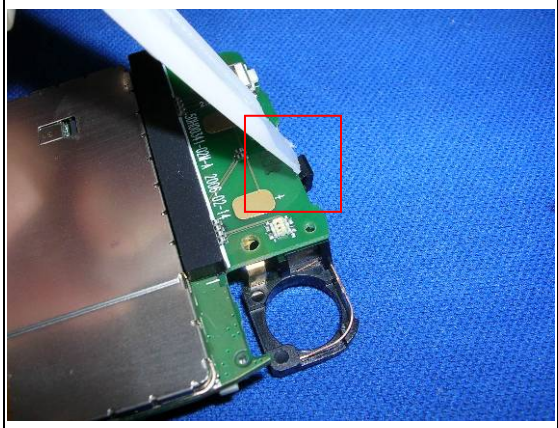
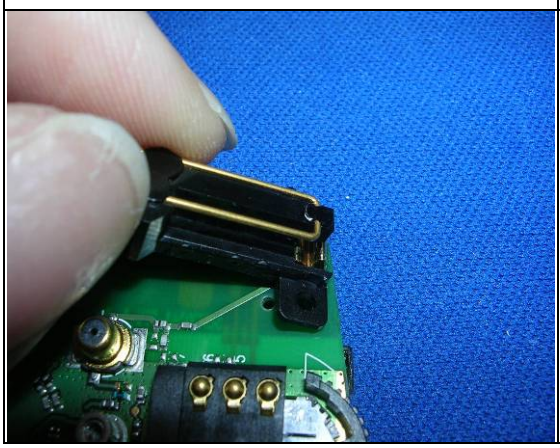
	Insert plastic stick into the gap between upper cover and housing to release hooks which fix them.
	The same method to release hooks on other side.
	Release the Speaker cable before removing the frame.
	Separate the Upper cover from frame housing

	1. To remove the speaker, release speaker rubber from the Housing.
	Separate the speaker rubber and the speaker.
	Release 6 hooks which hold the MB with upper cover, starting from left side.

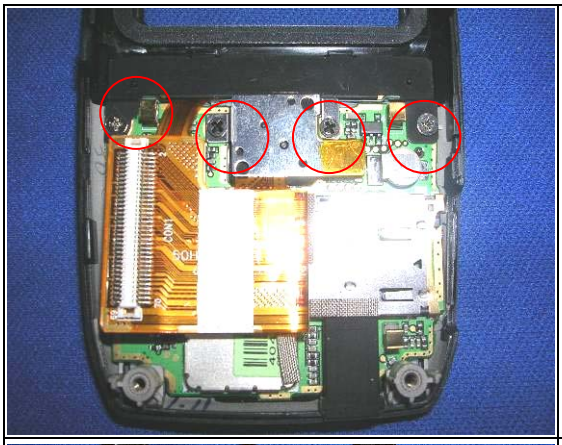
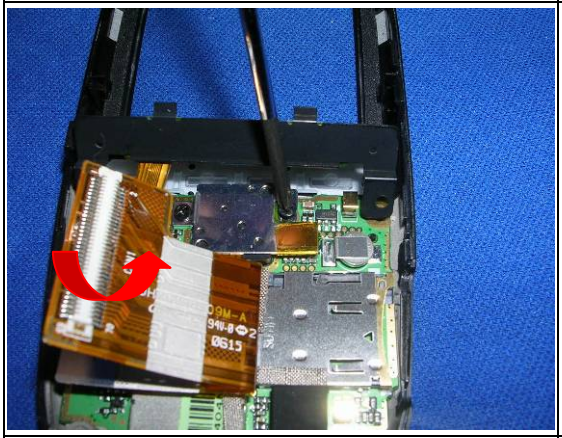
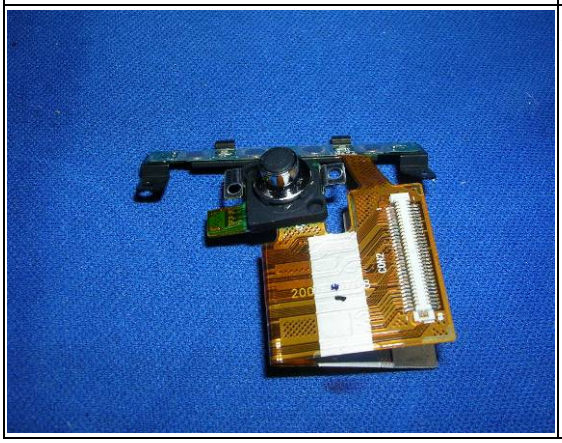
	Same as the other side.
	*.Disconnect the switch board connector first
	Remove the MB together with the LCD from the Bezel, pay attention to the hooks.

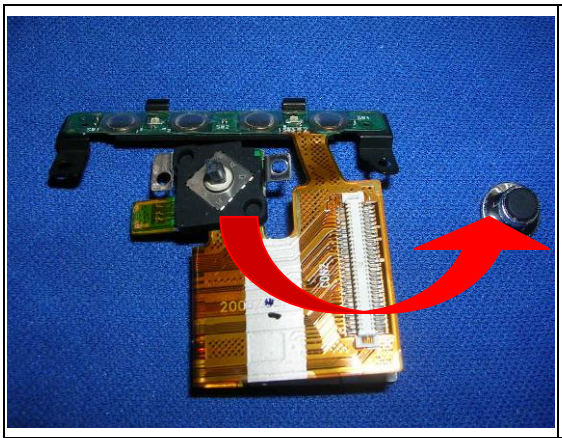
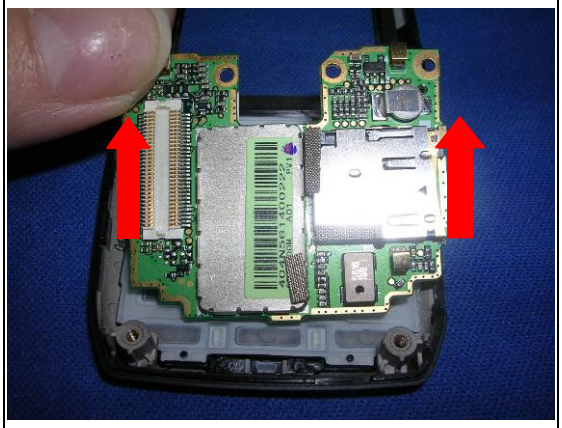
	Take out the MB and LCD Please put on soft surface to protect the LCD Main board and Bezel parts.
	Un-fasten 2 screws to release the LCD from main board.
	Dis-connect the LCD connector. Be slightly on this to avoid the connector damaged.

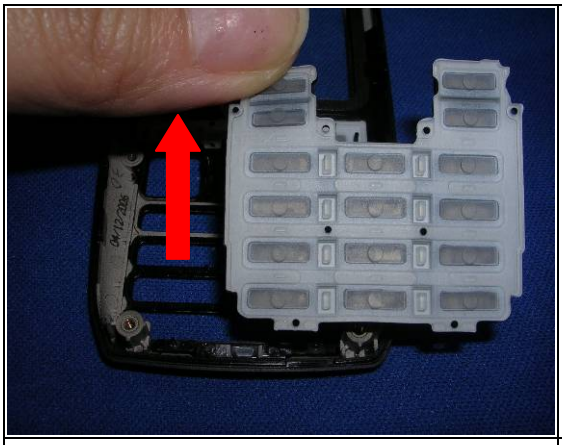
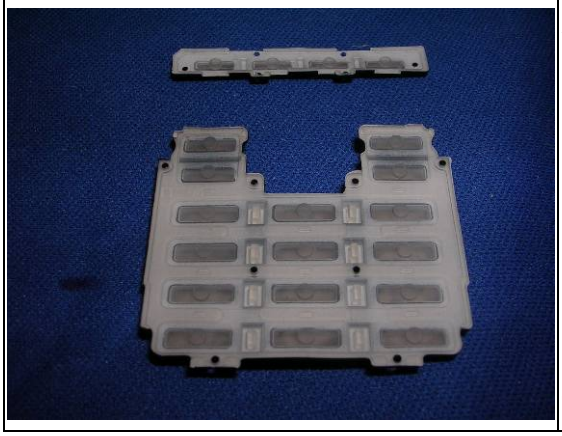
	Take out the LCD
	Remove the tape from the camera connector
	To remove Camera use soft tool such as stylus to take out the camera. **Caution:** Please do not pull out the Camera from its FPC side

	Camera module
	Release the antenna hook
	Take out the antenna module from the main board

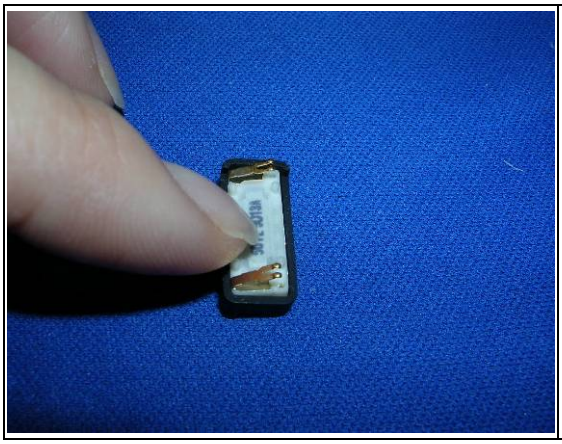
	Antenna module
	Take out the receiver from the bezel .
	Receiver and the rubber .

	Unfasten 4 screws to release the APP switch board switch board .
	Dis-assembly the switch board connector before take out the APP switch board
	APP Switch board

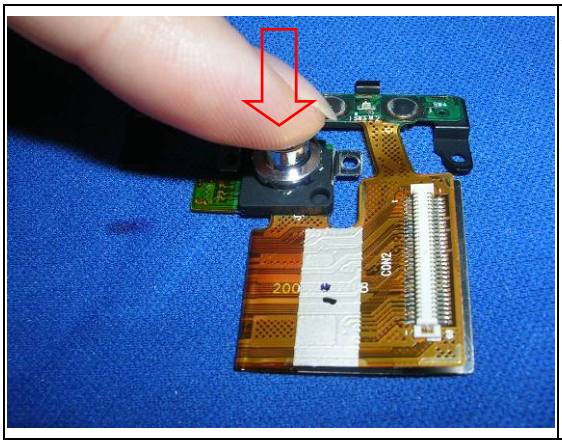
	Take off the Navigation key cap.
	Remove the switch board from the Bezel.
	Switch board

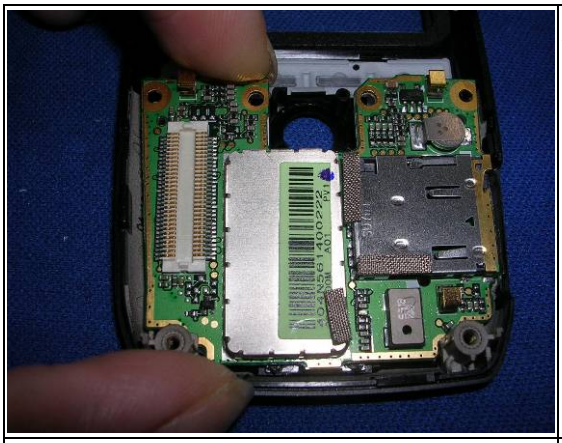
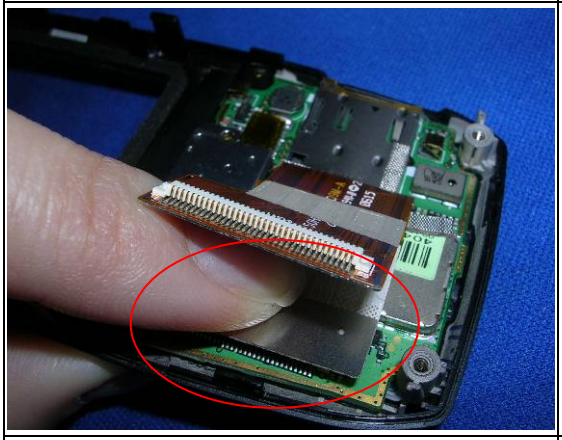
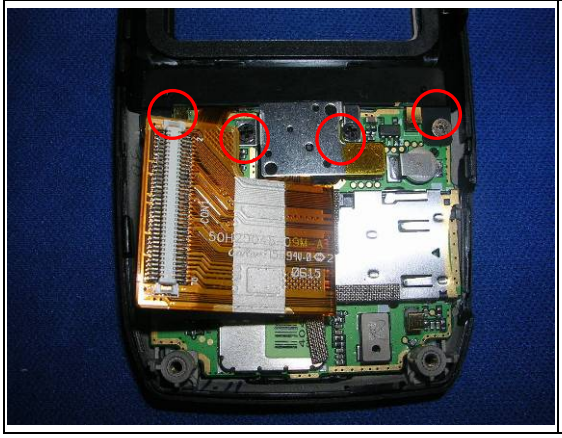
	Take out the APP key pad and switch board key pad from the bezel.
	APP pad and key pad. **The dis-assembly process is done.**

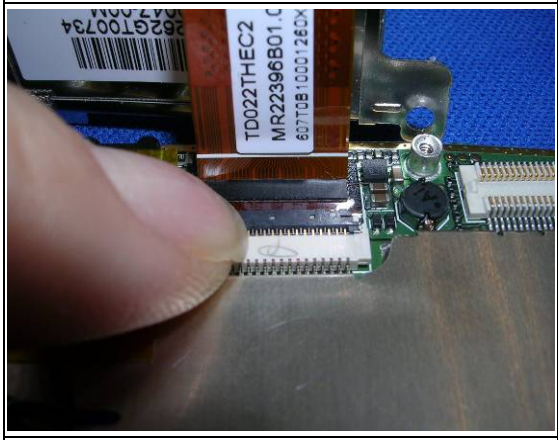
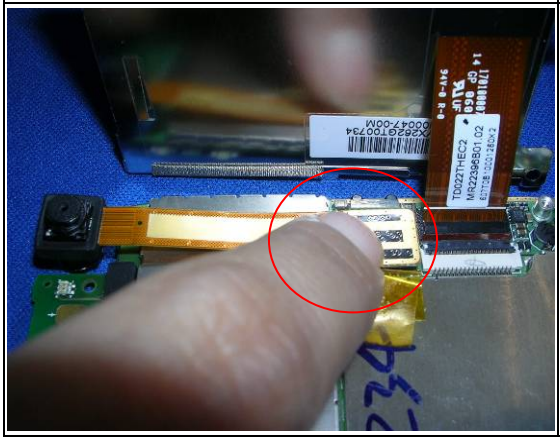
4.2 Assembly Process

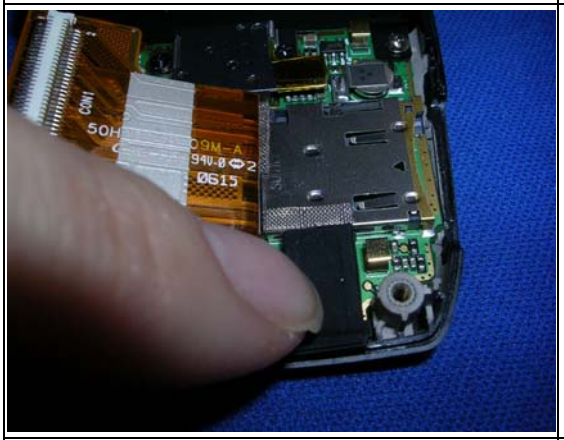
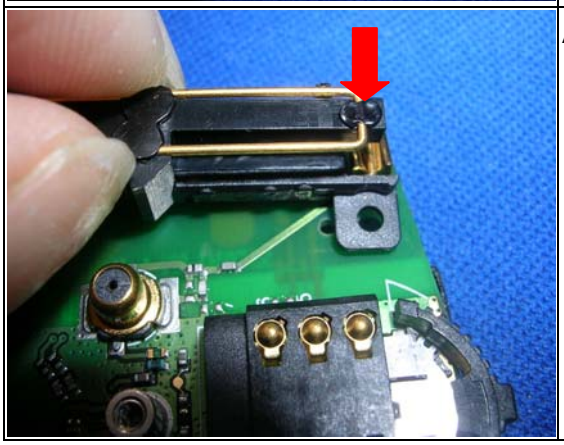
	Put the receiver into the rubber.

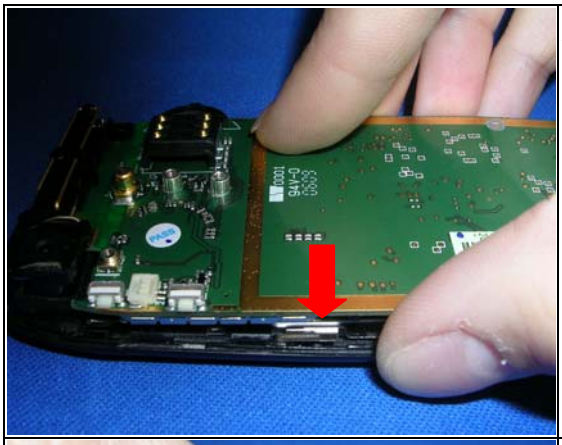
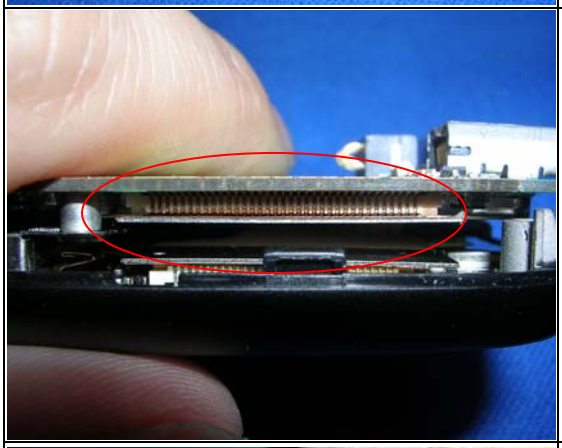
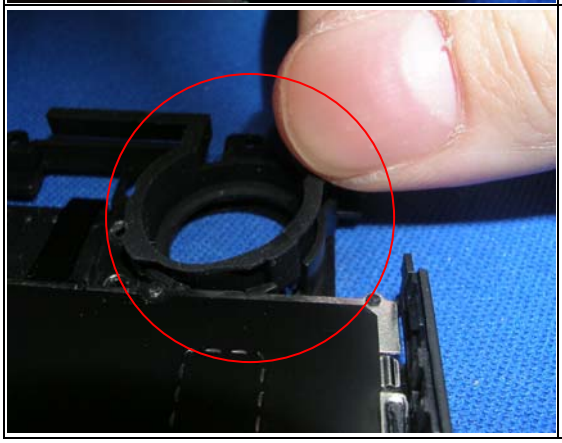
	**Assemble** Receiver into its place, notice the two pins **should not bent** on assembly process.
	Assemble APP keypad and numeric keypad on bezel.

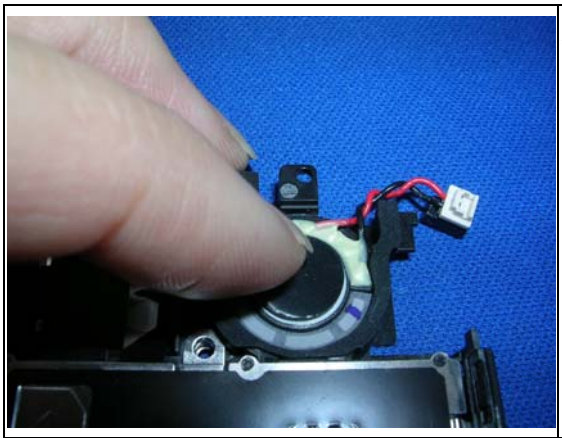
	Assembly the navigation key cap.

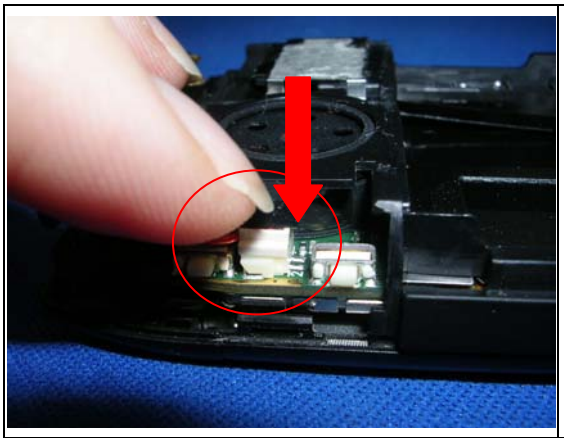
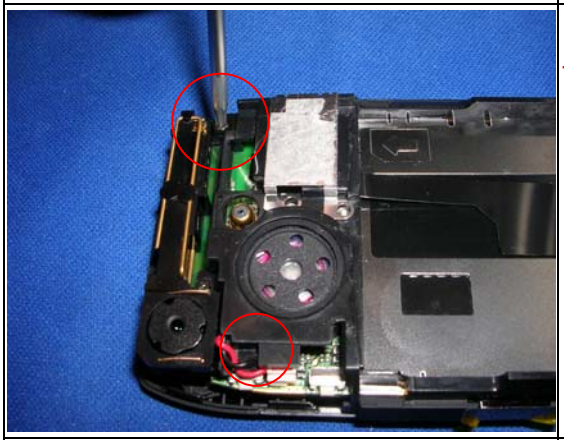
	Assembly Switch Board into bezel.
	Add the navigation switch board on the switch board and connecting the switch board's connector.
	Fasten 4 screws to fix the switch board. Upper part assembly is done **Torque 0.6±0.1 kgf-cm**

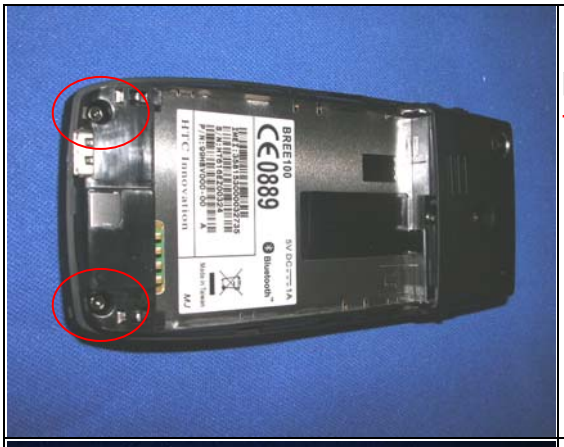
	**LCD assembly.** Insert the LCD into MB connector which refer to white guide line Use your finger to push the FPC black Mylar on FPC
	Lock the connector. Note: Once down the white line should be in parallel with connector cover. **Remark: Make sure the LCD is installed properly.** ***.Note** **Please don't pull the LCD FPC directly ,hold the edge of LCD instead.**
	Connecting the camera module as the picture shown.

	Fasten 2 screws to fix the LCD with main board.
	Remember to put the MIC rubber on the MIC.
	Assembly the Antenna on the main board .

	Assemble the MB AND LCD into the bezel. Make sure the LCD & MB is inserted properly into hooks.
	Connecting the switchboard connector with main board.
	Put the speaker rubber into the Housing .

	Assembly the speaker into the rubber .
	Assemble housing to bezel part. Starting from bottom part, match the connector into their place.
	Fix along each side of unit

	Remember to connect the speaker cable.
	Fasten 2 screws to fix the housing part. Torque: 1.0+-0.1kgf-cm
	Assembly the antenna cover. Be aware of install the antenna cover when insert the volume switch.

	Fasten 2 screws follow the sequence on picture. Torque: 1.0+-0.1kgf-cm
	Attach the battery.
	Put the battery cover.

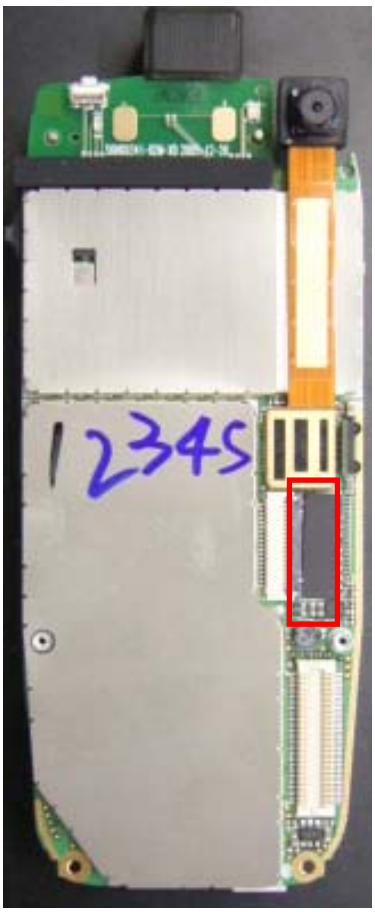
	Add the antenna rubber into the antenna cover. **If the warranty seal is broken on receiving,please treat as out of Warranty(F216).** **The assembly proc The unit now is ready for Functional TEST** **ess is done.**

4.3 MB Pre-assembly

MB Pre-assembly (P/N:)

Parts that need to pre-assembled first upon replacing to new one:

Main board.(A SIDE)

Rubber P/N: 76H01179-00M	Sponge 76H01218-00M	
		

Chapter 5. Diagnostics Program

5.1 List of Test Item

- You will see HTC Copy right on the first page of Diagnostic program.
- Totally there are 20 items content of Diagnostic test.

No.	Item	Description	Remark
*	Function test		
1	Auto-test	Functional test automatically	
2	SDRAM TEST	RAM Memory Test	
3	DISP TEST	LCD pattern display test	
4	LED Test	LED (BLUE/GREEN/RED/Key) test	
5	Key Test	Keypad & soft-key pressing test	
6	Timer Test	RTC timer test	
7	VIB. Test	Vibrator On/Off test	
8	FLight TEST	Front light Test	
9	SD TEST	SD card read / write test	
10	Receiver TEST	Test Receiver output	
11	INT Audio TEST	Internal Audio test	
12	Ext Audio TEST	External Audio test	
13	LI Sensor	Light Sensor Test	
14	Checksum	Checksum value check after Reflash	
*	Device Info	Show Unit Serial No and IMEI No.	
*	RUN IN Perform RUN IN Test		
Some items need to test under OS Mode			
1	USB TEST	Link with PC/Notebook to check USB Link function	
2	SIR Test	Infrared port test	Test with second unit
3	Camera Test	Test Camera Function	
4	Bluetooth	Test Bluetooth function	

5.2 Test procedure

(a) Power OFF.

(b) Insert Diagnostic Micro SD card (provide by HTC) to Smart phone Unit

(c) Set the Unit into Boot loader Mode (Press & Hold **Capture** + **Power** button).
Then press Action key into Diagnostic test.

(d) On test menu, use Navigation button to select the item then press Action key for testing, you could also use numeric key to select the test item. Use Right/Left to change to other page.

(e) Remove the battery directly to exit the Diagnostic program when finish the testing.

(f) If the system fails while testing, please also remove the battery directly to turn off power.

IMPORTANT NOTICE:

1. Please do not leave the mini SD diagnostic card left on the unit while booting to Windows mode. Because mini SD card do not have lock mechanism, easily to be formatted accidentally.
2. Once the unit has been entering Windows mode (HOME SCREEN), the SD card might be formatted already and once executing the diagnostic will stop on “CHECKSUM ERROR “without successfully entering the Diagnostic.
3. Once happen, you might need to ask HTC assistance for card replacement.
4. Please use one of SD card with diagnostic program pre-loaded as your master sd card ,in case of your SD card accidentally formatted, use it to restore the diagnostic software.

5.3 Test procedure and description

No.	Item	Description	Remark
1	Auto TEST	Functional test by automatically	Will stop once FAILED.
2	DISP TEST	Press Action to change display mode	Press Action to change display mode
3	LED Test	LED ON for RED>GREEN>BLUE>AMBER >Keypad	Press Action to NEXT
4	Button Test	JOGACT>JOGAUP>JOGADN>Record>Launch(capture)> Key up> Key Down> Key Left >Key Right>Key Action> AP1 >AP2 >AP3 >AP4 >Talk >HOME>End > Back>Numeric(1 ~ #)	Back to Main MENU automatically
5	Time Test	RTC timer test	Back to Main MENU automatically
6	Vibrator. Test	Select this item will activate Vibrator	Press Action to MENU
7	FLight TEST	Back light adjust from MAX >DIM > OFF	Press Action to MENU
8	SD TEST	Performing SD R/W test	Back to Main MENU automatically
9	Receiver Test	Select this item to check Receiver quality	Back to Main MENU automatically
10	Int. Audio Test	Recording test via MIC > Speaker	Back to Main MENU automatically
11	Ext. Audio Test	Recording test via MIC > Receiver	Back to Main MENU automatically
12	LI Sensor	Light Sensor Test	Put your finger into light sensor on bottom part of unit, under 0 keypad. Follow procedure on screen.
13	Batt Info	Show Battery capacity(ref)	Press Action to exit
14	Unit Info	Show Unit Serial No and IMEI No.	Press “ 0 “ to exit
15	RUN IN	For RUN IN Test	Could be selected as 1,2,4,8.
16	CheckSum	Calculate checksum of Flash-ROM	Could be use for verifying after OS reflash
17	SD RAM test	RAM Memory test	
Some items need to test under OS Mode			
1	USB TEST	Link with PC/Notebook to check USB Link function	

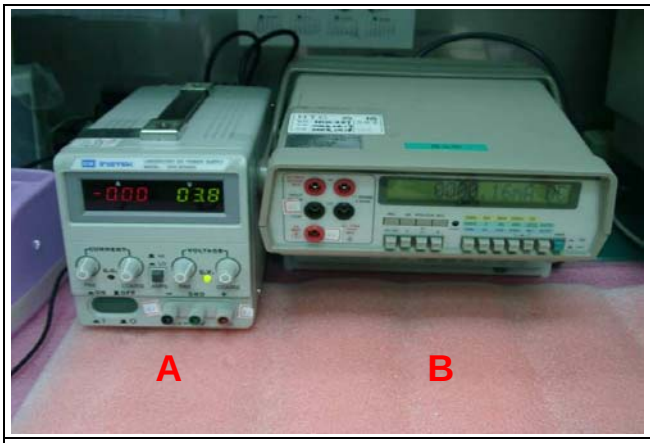
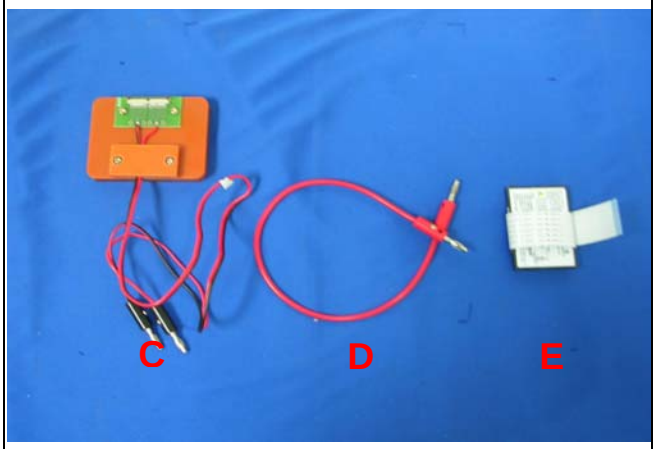
2	SIR Test	Infrared port test	Test with second unit
3	Camera Test	Test Camera Function	
4	Bluetooth	Test Bluetooth function	

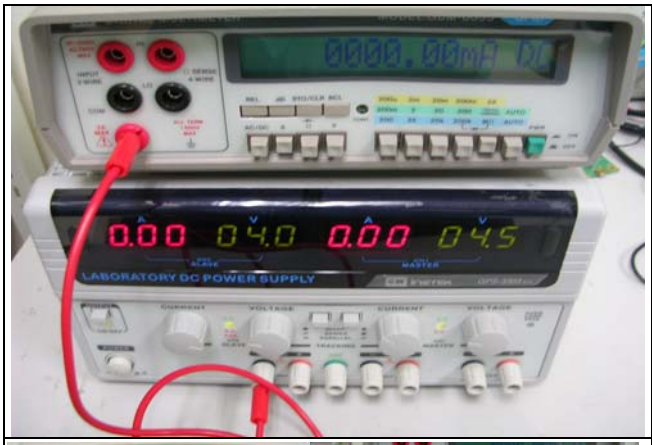
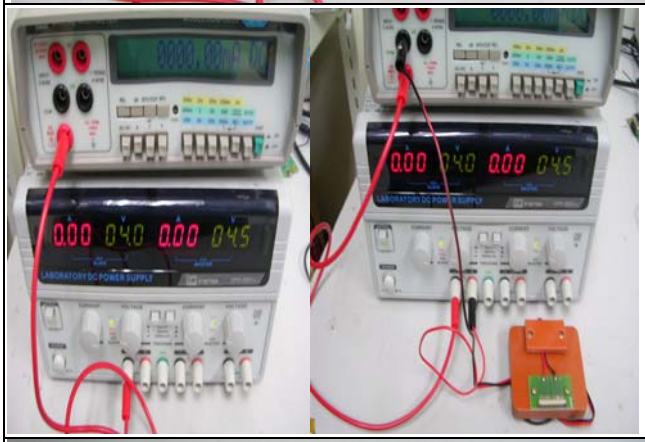
Chapter 6 – Leakage current measurement

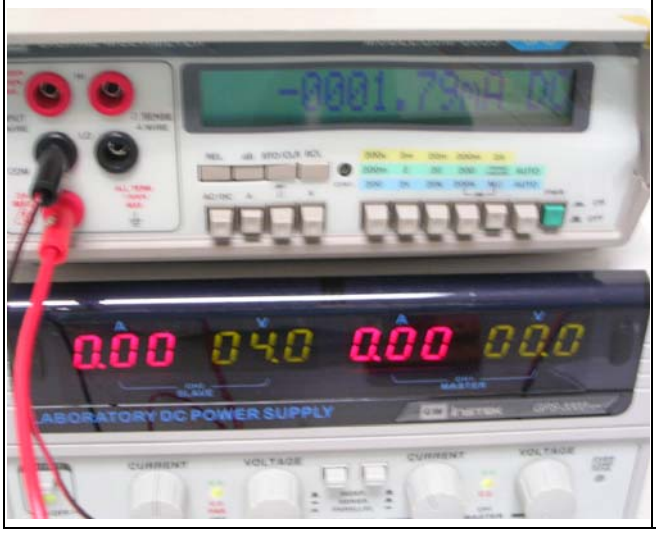
This is a quick method to measure if any abnormal leakage current on main board which caused high power consumption compare to GOOD main board.

(1) Requirement：

- Power Supply
- Micro-current Meter
- Current series JIG
- CABLE
- Battery JIG

	Equipment : A. Power Supply (set at 4 V /1A). B. Micro-Current Meter (support 0.5mA ~ 1A).
	Fixture : C. Current series jig.(with black and red cable). D. Cable. E. Battery with extension cable.

	Connect cable (D) to positive polarity of power supply (A) and current meter (B).
	Connect cable of fixture (C) to negative polarity of power supply (A) and current meter (B).
	Setting is Ready now for testing.(Don't turn the power on at this moment)

	**Turn on power supply (4V) and current meter (2A)** **Set the unit to :** * Flight mode * Turn off Bluetooth
	**Measure flight mode current** Wait about 1 minutes, display will be off, in this condition, please check current value on the current meter, Current value must under **64 mA**, if over, it means M/B failed, please replace M/B for repair.
	Switch OFF the unit. Unit is turn off and no display. Measure power off current Check current value on the current meter, Current value must less than 4.2 mA, if over, it means M/B failed, please replace M/B for repair.

Conclusion:

If current consumption is passed at both of flight and power off mode, it means M/B is GOOD.

If there is any item FAILED at flight or power off mode, it means M/B is failed, please replace M/B for repair.

Measurement parameter

Measurement mode	Measured Current	REMARK
Flight Mode & Display off	Under 64mA	MB is good
	Over 64mA	Fail, MB need to be further repaired
POWER OFF	Under 4.2 mA	MB is good
	Over 4.2mA	Fail, MB need to be further repaired

Chapter 7 – Software Upgrade Procedure

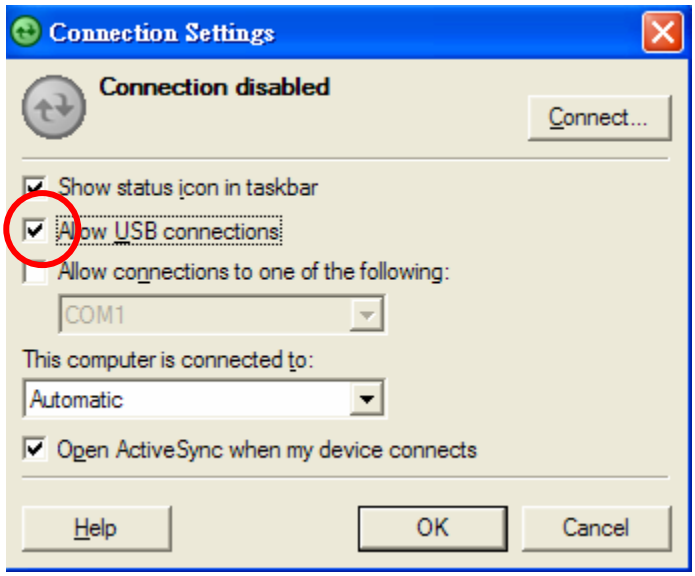
7.1 Software upgrades

(1) System Requirement：

- Windows XP on PC
- USB Cable
- ActiveSync v4.0 above
- **RUU** tool for Smart phone
- 128MB Micro SD card with latest software version (optional)

(2) Software upgrades procedure

(a) Enable the USB Connection Settings in ActiveSync.

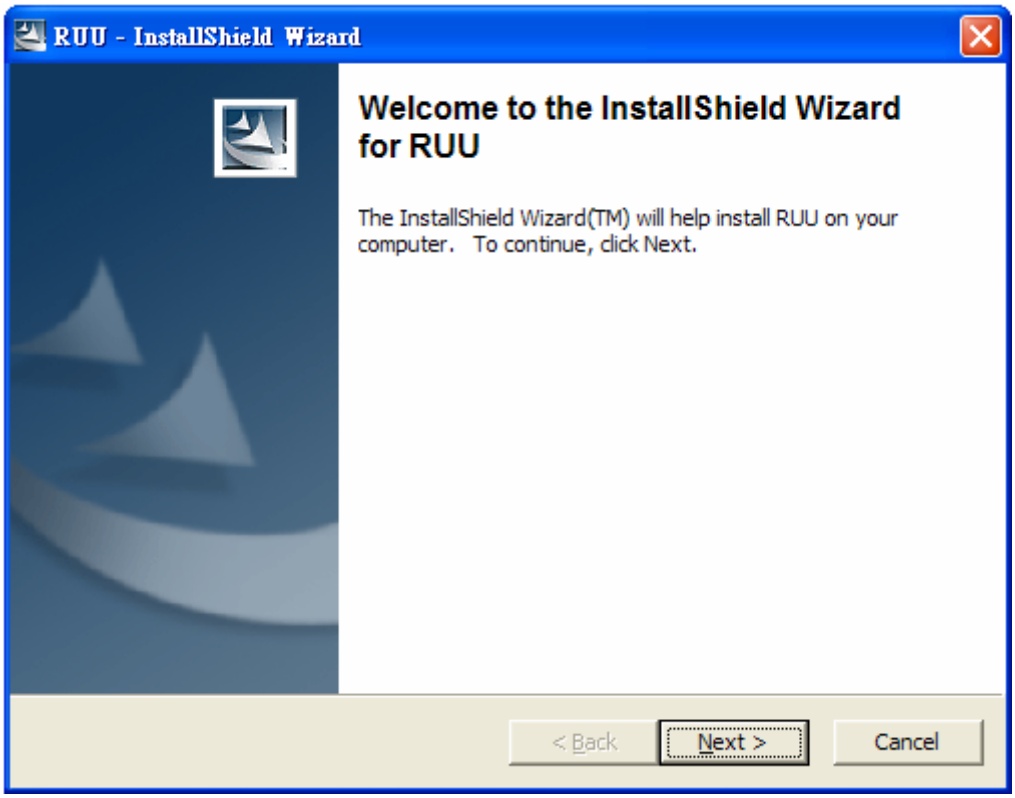


(b) Set the Smartphone into **OS** Mode.

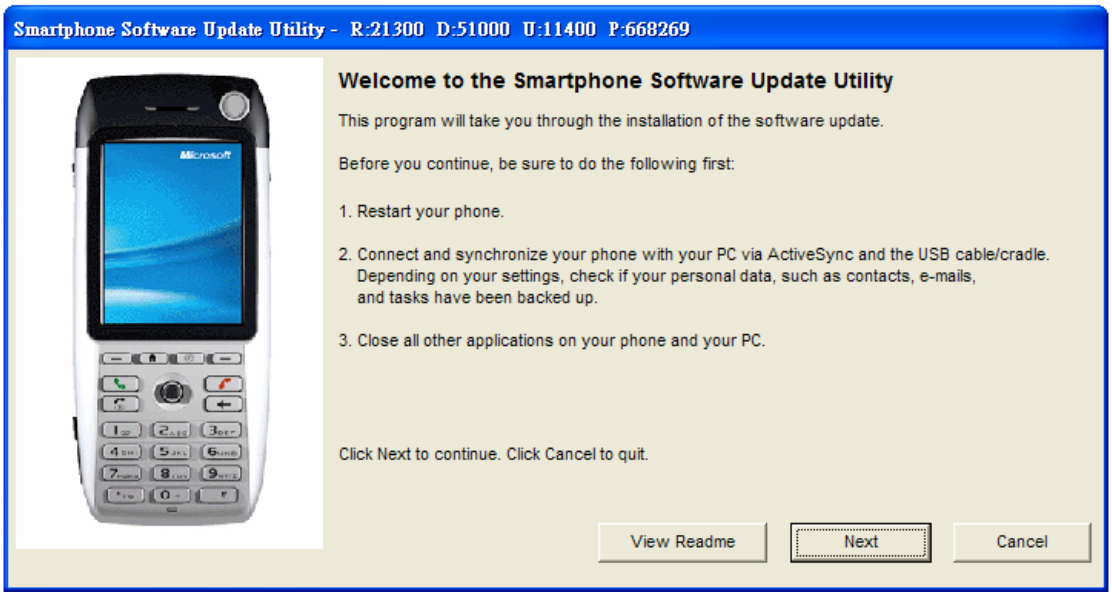
(c) Sync Smartphone to PC via **USB cable** and synchronize with PC.

(d) Make sure the battery capacity is more than 50%

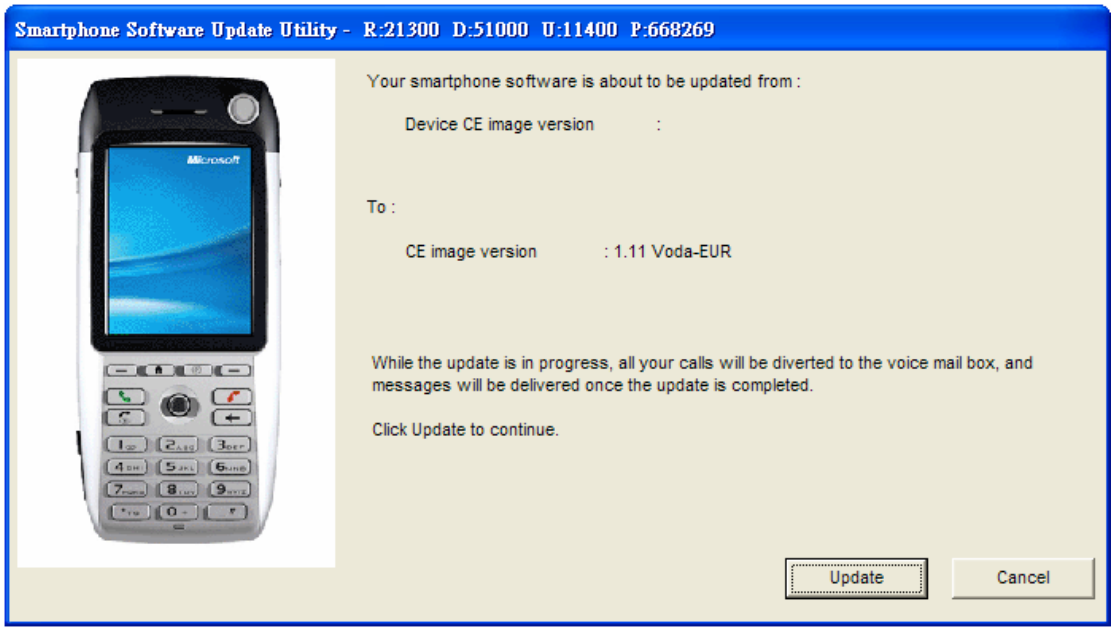
(e) Run "**RUU**" tool under Window XP. Then Click "Next" to continue.



(f) Select the location to save file then click “Next” to continue.



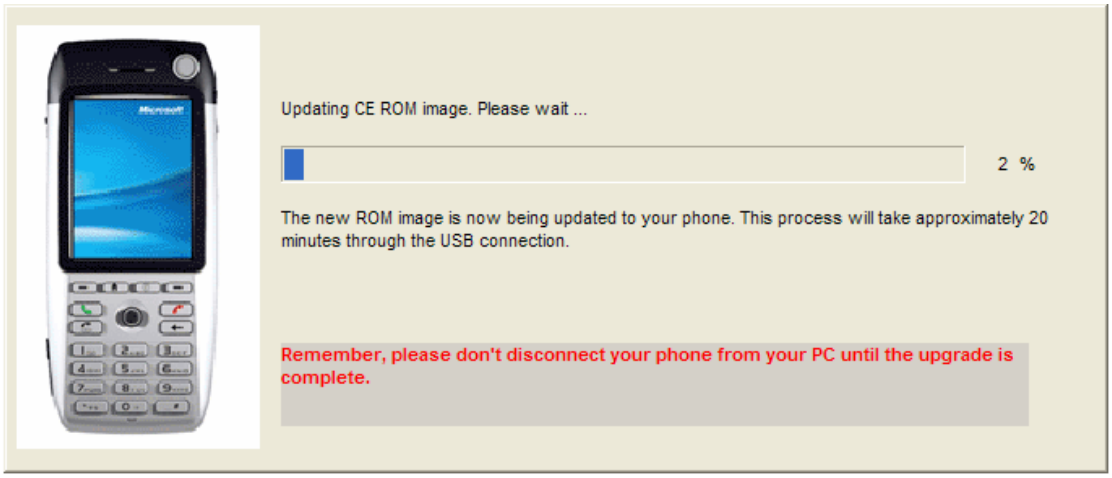
(g) During the process, PC will show current information about your smart phone, choose update after confirm.



(k) Choose NEXT if you have verified and want to update

(l)It will take about 20 minutes to complete.

(j) PC will show the RUU progress



(k) When software upgrade is finished, the Unit will reboot automatically.

(3) Software upgrade from 128MB Micro SD card (with latest software version)

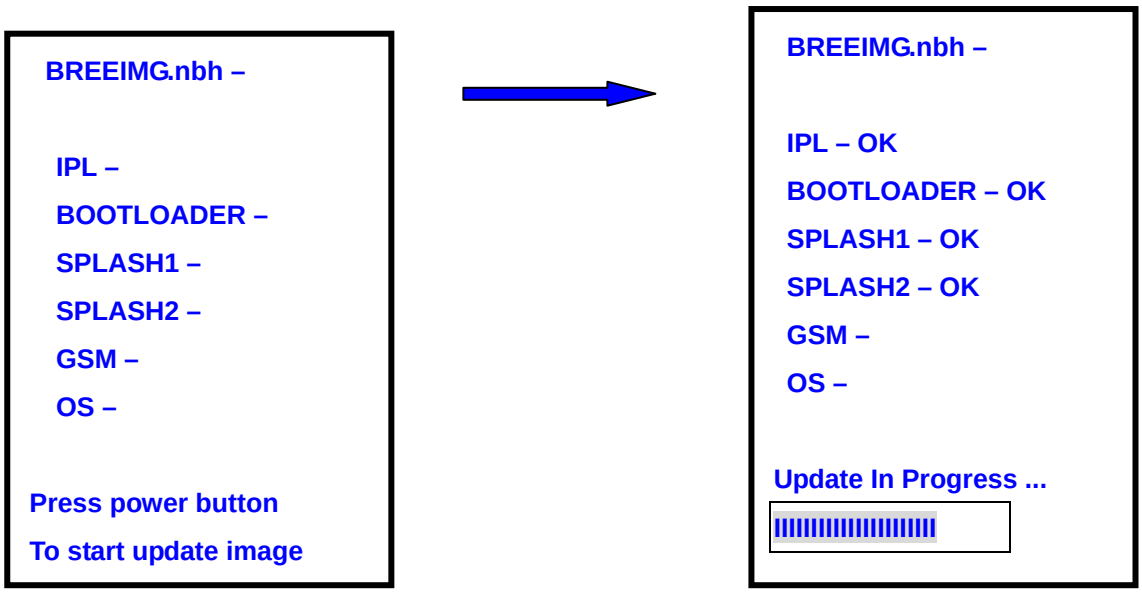
Caution: The unit must have at least 50% of battery capacity before starting the re-flash process. Charge the battery in advance if necessary.

(a) Take one smartphone unit and turn off power.

(b) Insert 128MB Micro SD card (with latest software version) to unit and set it into SPL Mode (Press and Hold Camera + Power button). The screen shows as below.

(c) Press power button to start update image.

(d) This will need about 20 minutes to finish the update process.



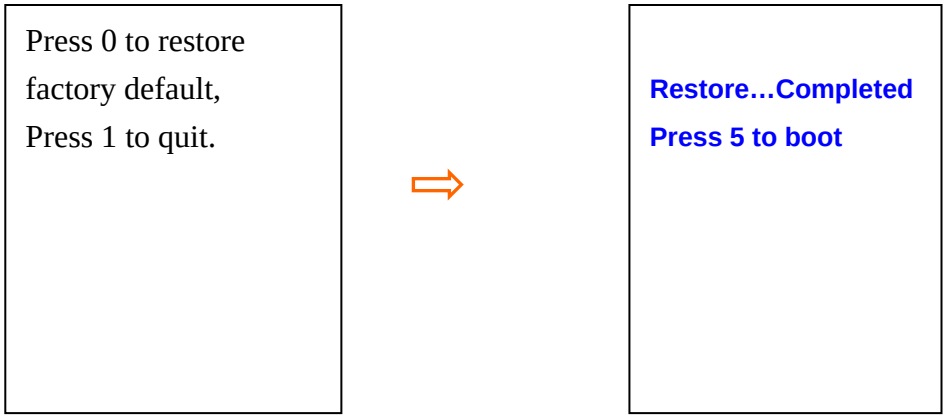
(e) Once update complete, remove battery and reboot it.

7.2 Smart phone Hard-Reset.

In case if the system is freezing or not working under OS mode, service center could perform “RESET” the smart phone to fix the problem:

(a) Release the battery and attached again to unit.

(b) Hold two soft key together, then press power button till the display shows:



Warning: This will set phone to original factory setting , there is risk of loosing customer data.

(c) Press 0 to restore

(d) Press 5 to boot

(e) Device will reboot.

7.3 Smartphone rebuild

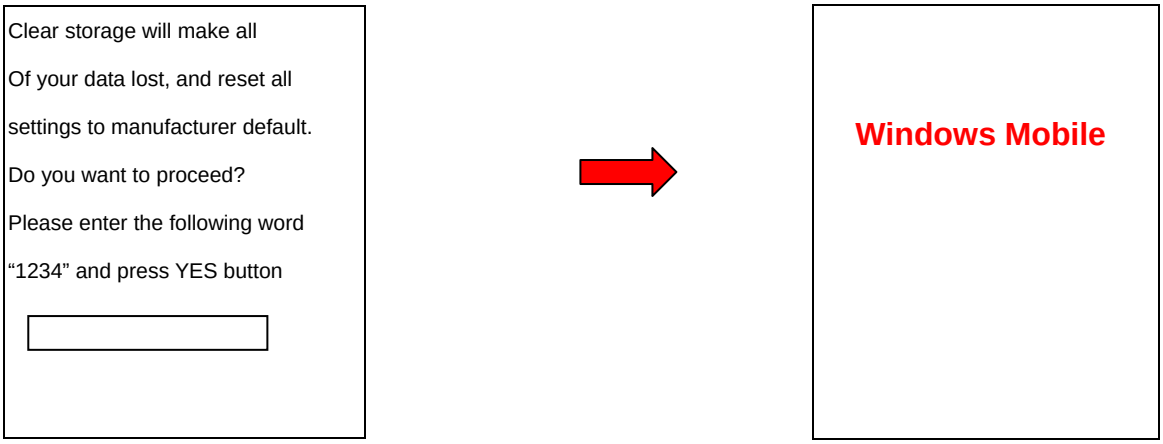
-Use only if you feel system is slow performance (weight loading may cause system run slowly).

-Please be noted that there is a Risk of Loosing customer data and back to factory default setting.

Procedure:

(1) On Windows mode, Press Start > More > tools > Clear Storage.

On display it will show:



7.4 Software back up to SD card

(A) ***Build your own Golden MicroSD card***

1. Download the up to date ROM code file (BreeIMG.nbh).
2. Format 128M micro SD card to FAT32 by PC
3. Copy BREEIMG.nbh to micro SD card

"Your Micro SD card is ready now for doing Reflash"

(B) ***Flash unit with golden Micro SD"***

1. Insert micro-SD card into unit.
2. Enter SPL: Press and hold camera button + Power button
3. SPL will ask if you want to flash the unit.
4. IF Yes, Press Power button. Check the screen. Wait for the percentage bar reach to the end.
5. After it is completed, power down device by taking out battery.
7. Remove micro-SD card.
8. Insert SIM card.
9. Power on the unit.
10. Boot into OS.

CAUTIONS:

- Per customer request, due to security reason, UPGRADE/ Reflash to different CID will be blocked, and will not continue.
- Repair for different region or Customer ID should be treated as OOW repair.

Chapter 8 – RF Antenna test spec and criteria

Items	Test Name	TxLevel	TCH	lst Downlink CellPower	Note
1	Camp @ DCS Band	0	512	-75	BCCH=600
2	BS Originate Call	0	512	-75	
E-GSM 900 ReceiverTest					
3	Fast Bit Error Rate	5	975	-104	<= 2 %
4	Fast Bit Error Rate	5	37	-104	
5	Fast Bit Error Rate	5	124	-104	
E-GSM 900 Ttansmitter Test					
15	Check TX Power	5	975	-104	>=28 dBm
16	Check TX Power	5	37	-104	
17	Check TX Power	5	124	-104	
DCS 1800 ReceiverTest					
1	Fast Bit Error Rate	0	512	-104	<= 2 %
2	Fast Bit Error Rate	0	698	-104	
3	Fast Bit Error Rate	0	885	-104	
DCS 1800 Ttansmitter Test					
13	Check TX Power	0	512	-104	>=26 dBm
14	Check TX Power	0	698	-104	
15	Check TX Power	0	885	-104	
PCS 1900 ReceiverTest					
1	Fast Bit Error Rate	0	512	-104	<= 2 %
2	Fast Bit Error Rate	0	661	-104	
3	Fast Bit Error Rate	0	810	-104	
PCS 1900 Ttansmitter Test					
13	Check TX Power	0	512	-104	>=26 dBm
14	Check TX Power	0	661	-104	
15	Check TX Power	0	810	-104	

Items	Test Name	TxLevel	Uplink/Downlink UARFCN	lst Downlink CellPower	Note
1	Camp @ W-CDMA Band I	3	9613/10563	-60	
2	BS Originate Call	3	9613/10563	-60	
ReceiverTest					
3	Bit Error Rate	3	9613/10563	-104	<= 0.1 %
4	Bit Error Rate	3	9750/10700	-104	
5	Bit Error Rate	3	9887/10837	-104	
Ttansmitter Test					
6	Check TX_Max Power	3	9613/10563	-60	>= 18 dBm
7	Check TX_Max Power	3	9750/10700	-60	
8	Check TX_Max Power	3	9887/10837	-60	

Chapter 9 – Inspection Criteria

9.1 Definition

The inspection criteria HTC defined is for service center repair ONLY. All service centers must follow below inspection criteria to judge if customer returned unit is exactly “defective” caused by out of HTC’s specification.

9.2 Inspection Area

The inspection area of Smartphone is for LCD module ONLY.

9.3 Criteria

Definition:

D: Diameter; L: Length; W: Width ;N: Number of defects ; S: Distance from dot to dot ;H: Height.

Viewing distance for LCM is, approximately: 30cm Inspection time:5 secs

Ambient illumination is to be 500~1000lux

Inspection viewing angle range: ±30degree Horizontal and ±45 degree Vertical:

(1) Defective Dot

Item	Status	Criteria
1	Defective dot ＞ 0.25mm	**Fail**
2	0.15＜ Defective dot ≦ 0.25mm	If the Q’ty of defective dot ≦ 6, **Pass**
3	Defective dot ≦ 0.15mm	**Neglect**

Total dot ≦6; Distance between dot and dot >5mm

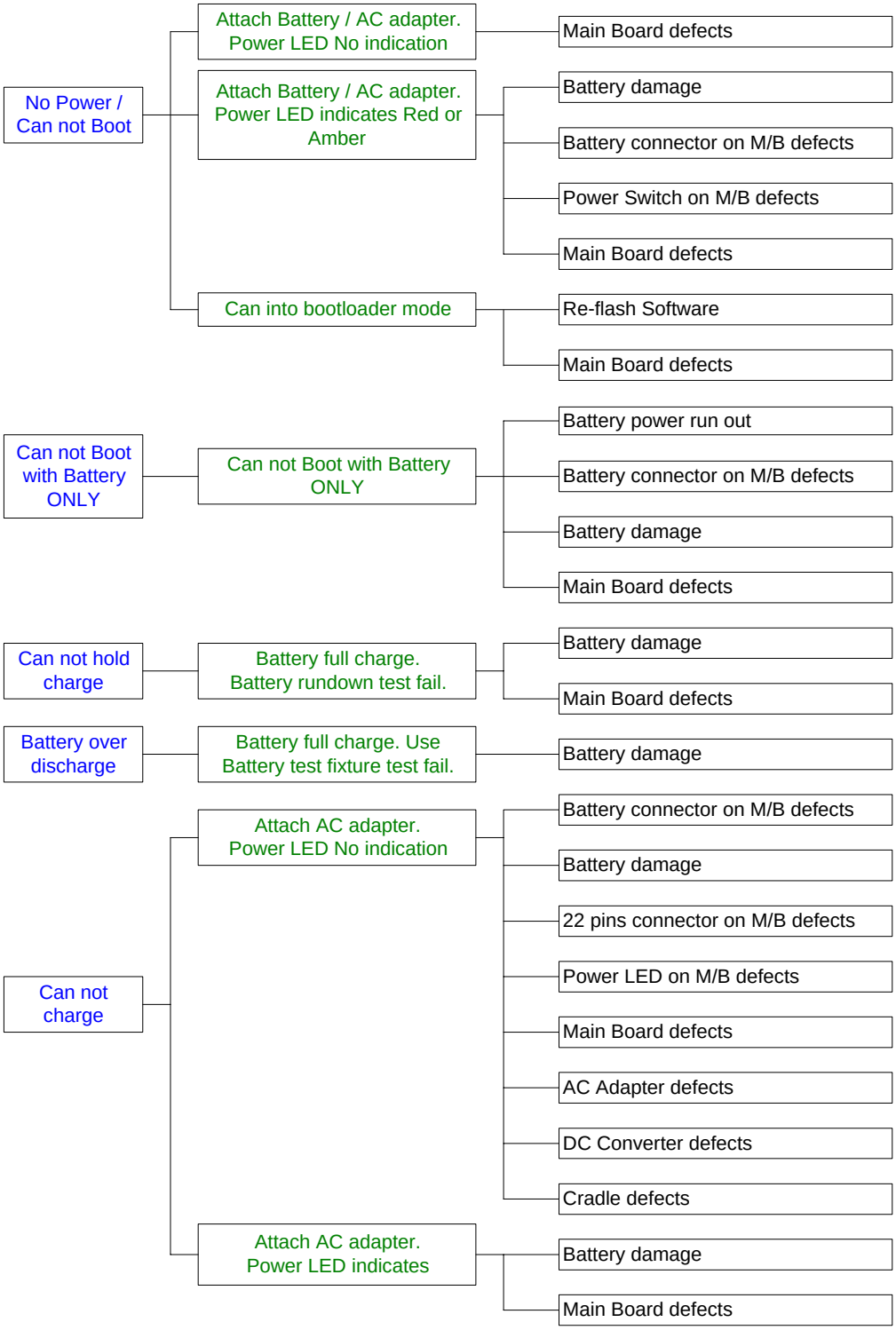
Defective Pixel

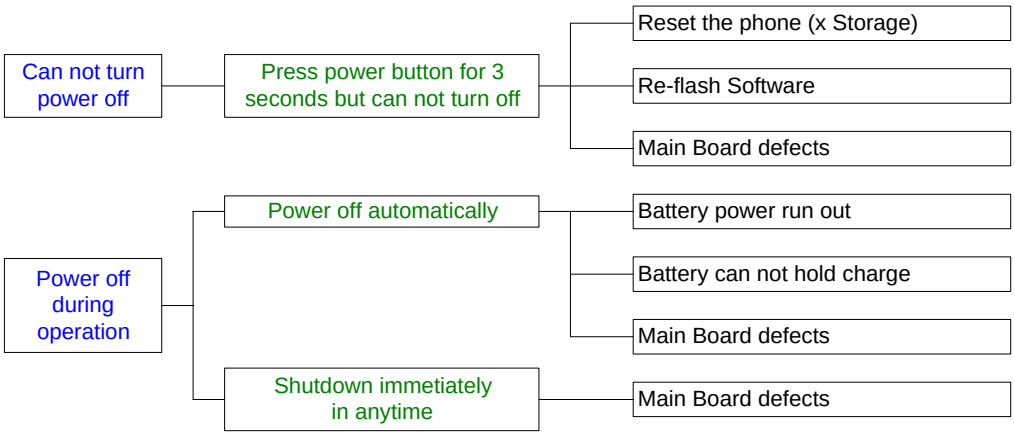
Item	Description/Specifications	Notes	
Missing Sub-Pixels	1) Bright Defect	n≦3pcs	**MA**
	2) Dark Defect	n≦2pcs	**MA**
	3)1+2.	n≦5pcs	**MA**
	4)Bright Defects Conjunction	n≦0set	**MA**
	5)Dark Defects Conjunction	n≦0set	**MA**

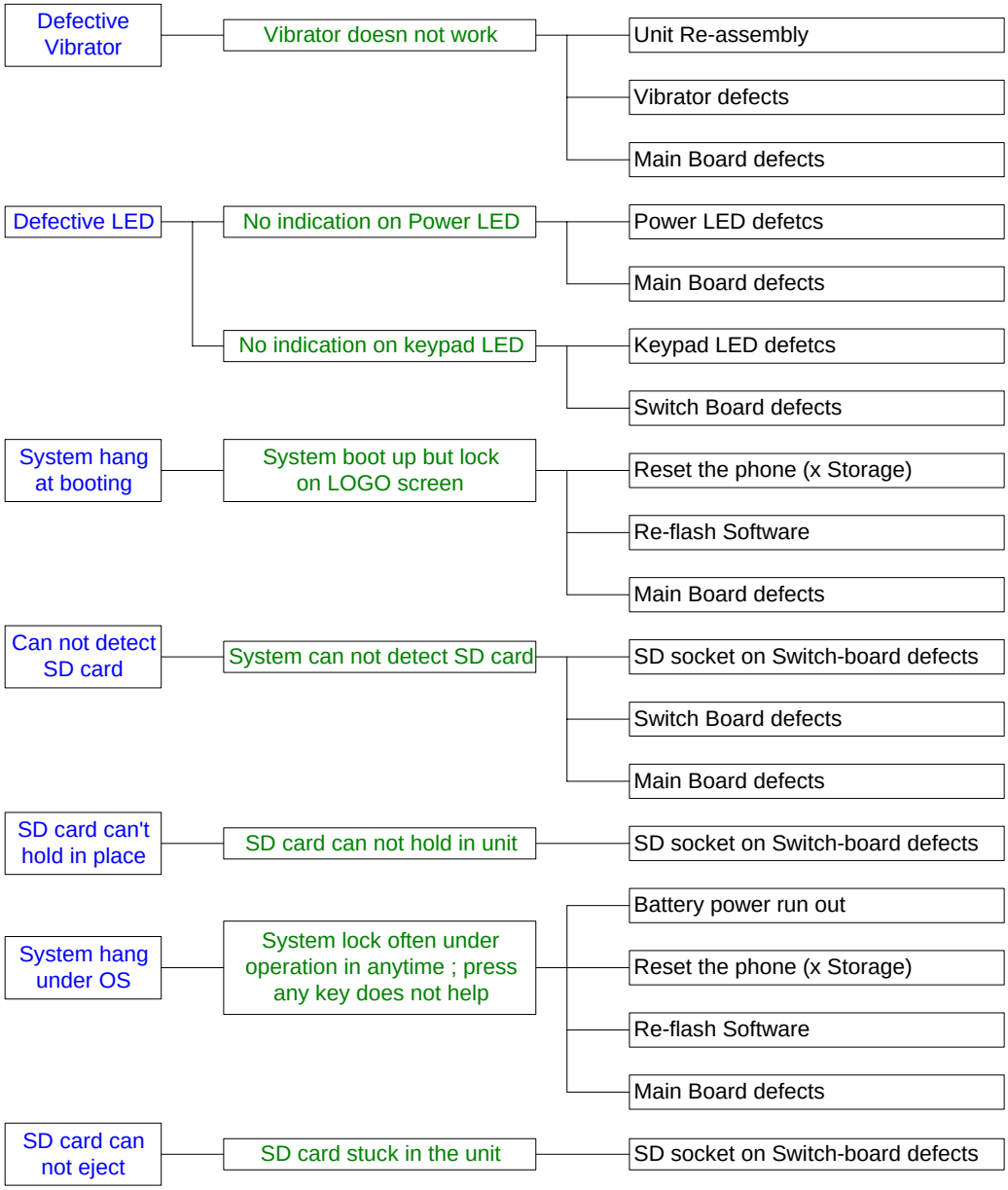
	6) 4+5	n≦0set	**MA**
	7)Bright Defect to Bright Defect Distance	S≧5mm	**MA**
	8)Dark Defect to Dark Defect Distance	S≧5mm	**MA**

Chapter 10 - Trouble Shooting Guide

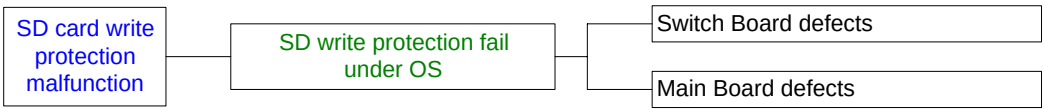
(1) Power / Battery



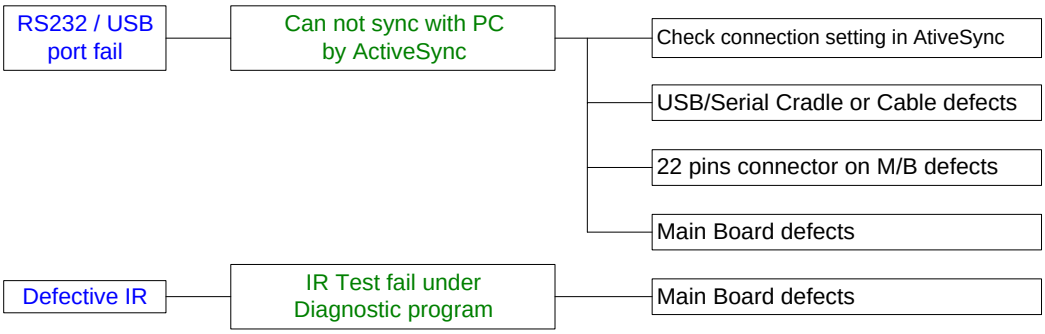




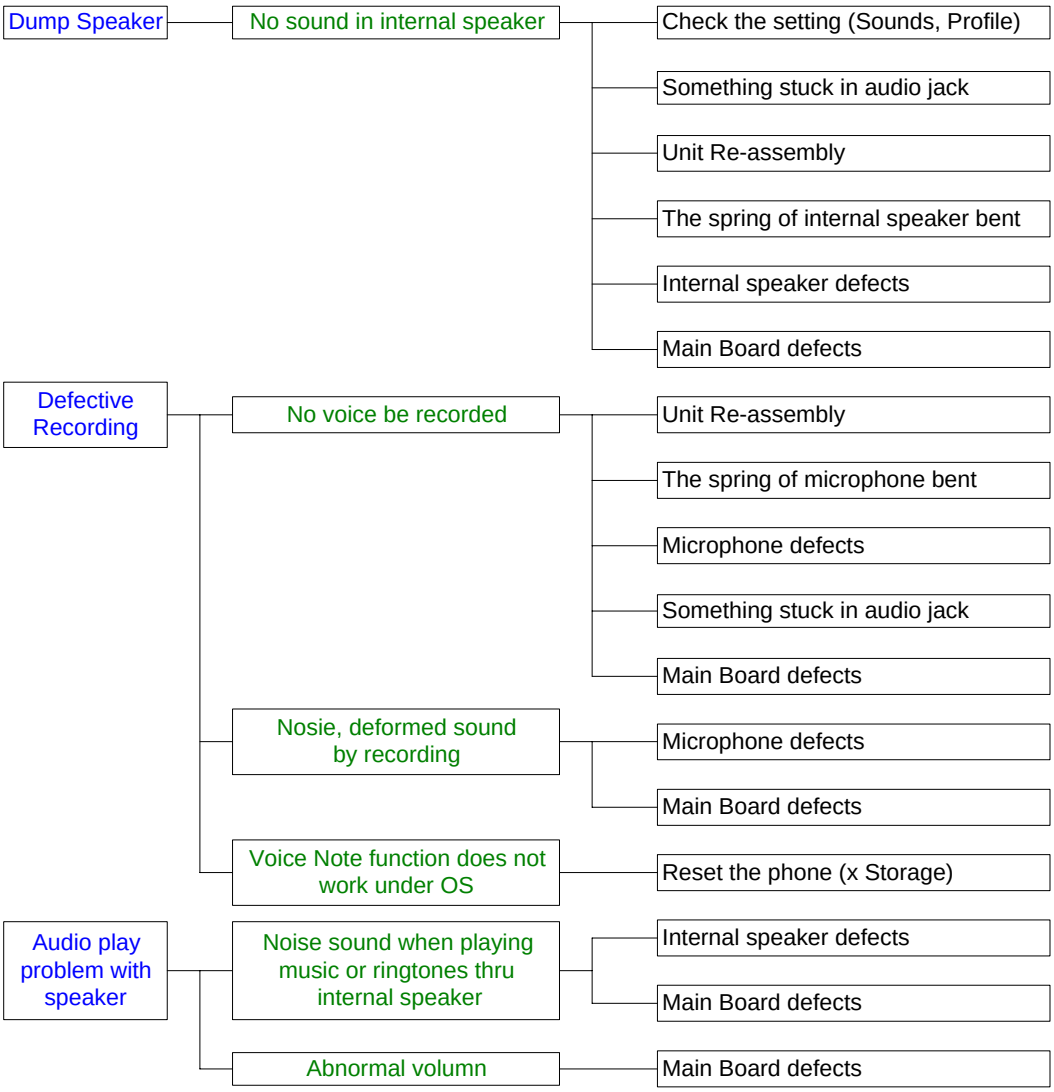
(2) System

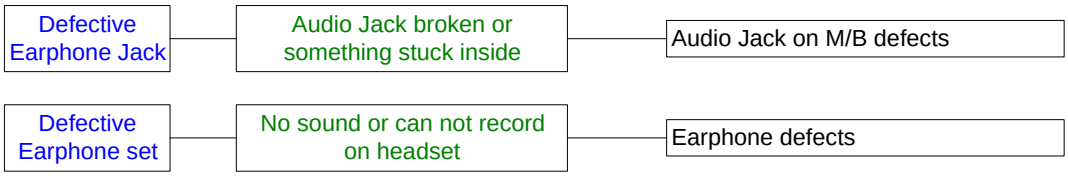


(3) Communication

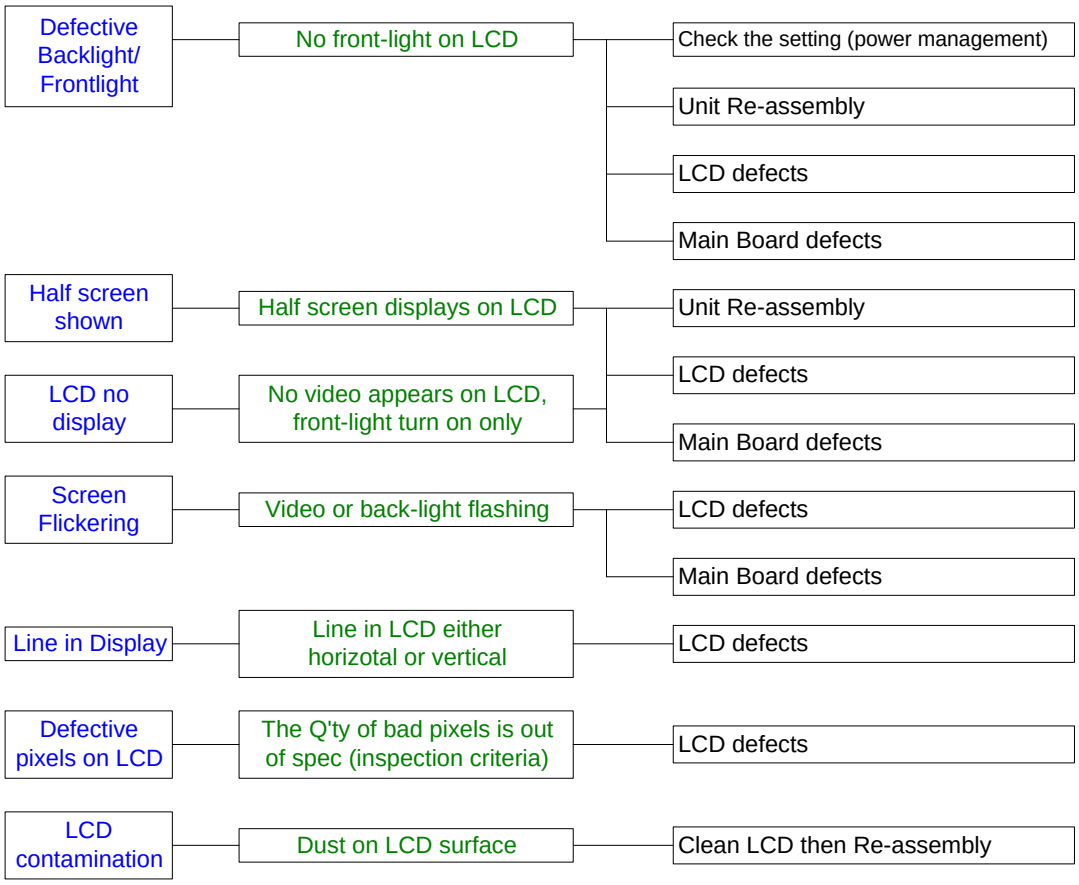


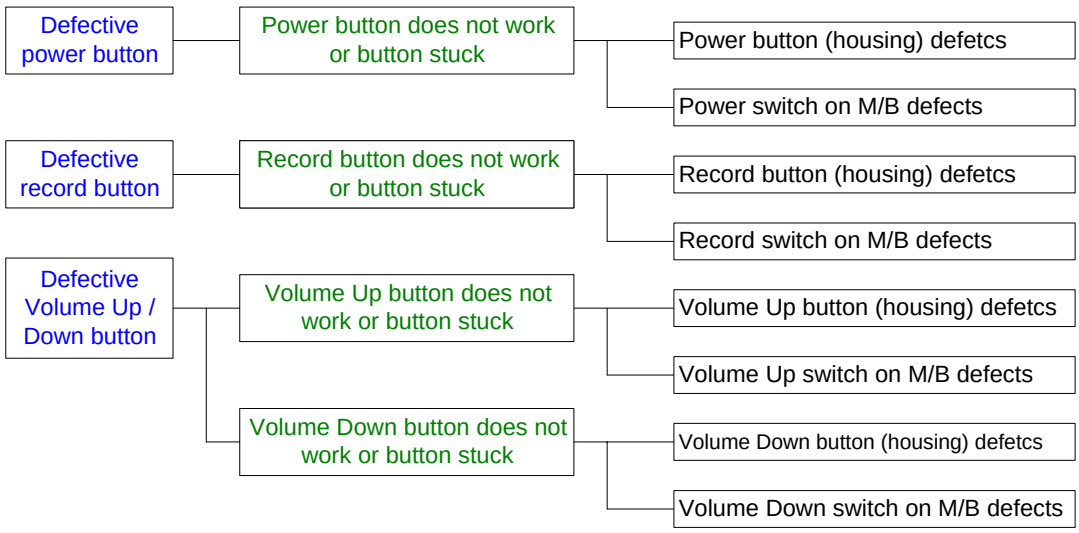
(4) Audio



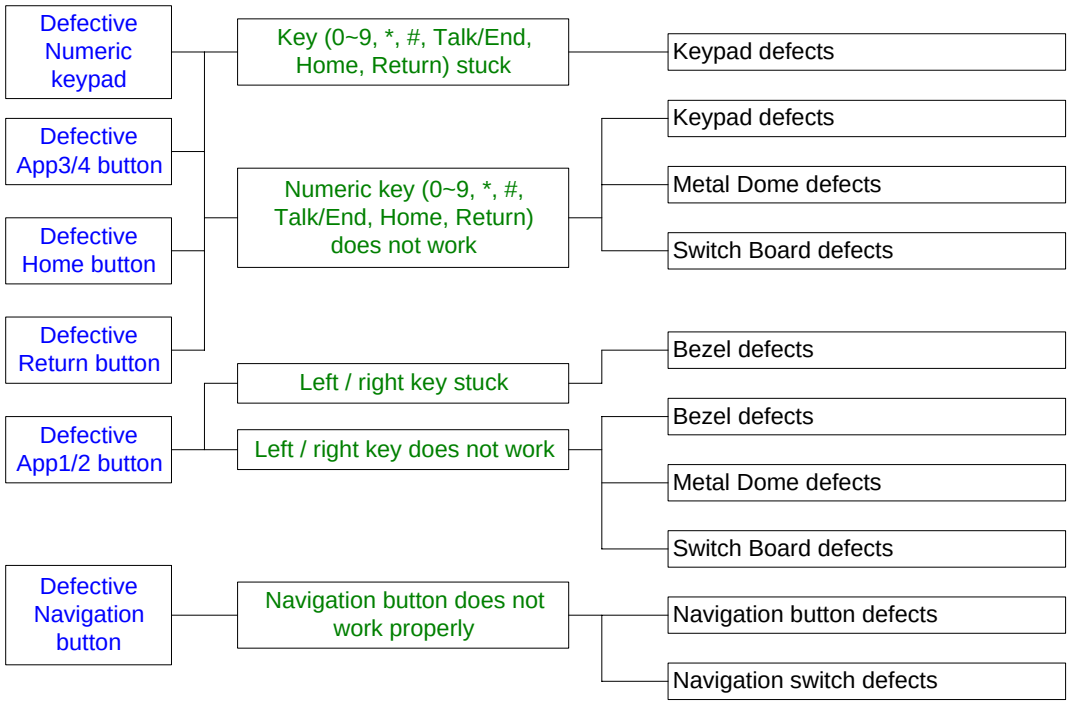


(5) Screen

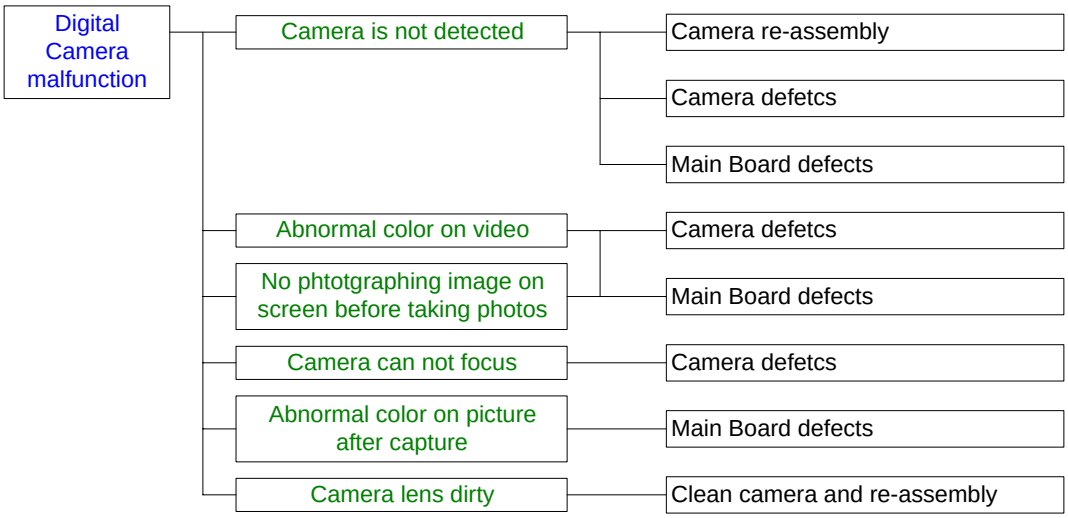




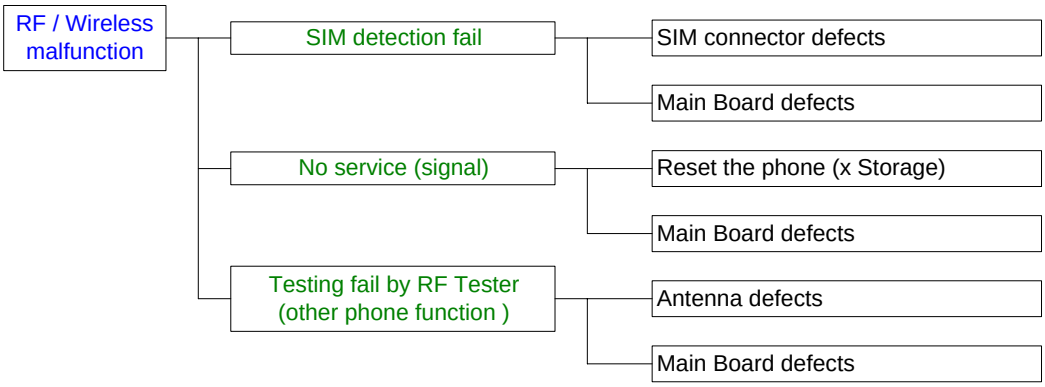
(6) Mechanical



Camera



(7) RF / Wireless

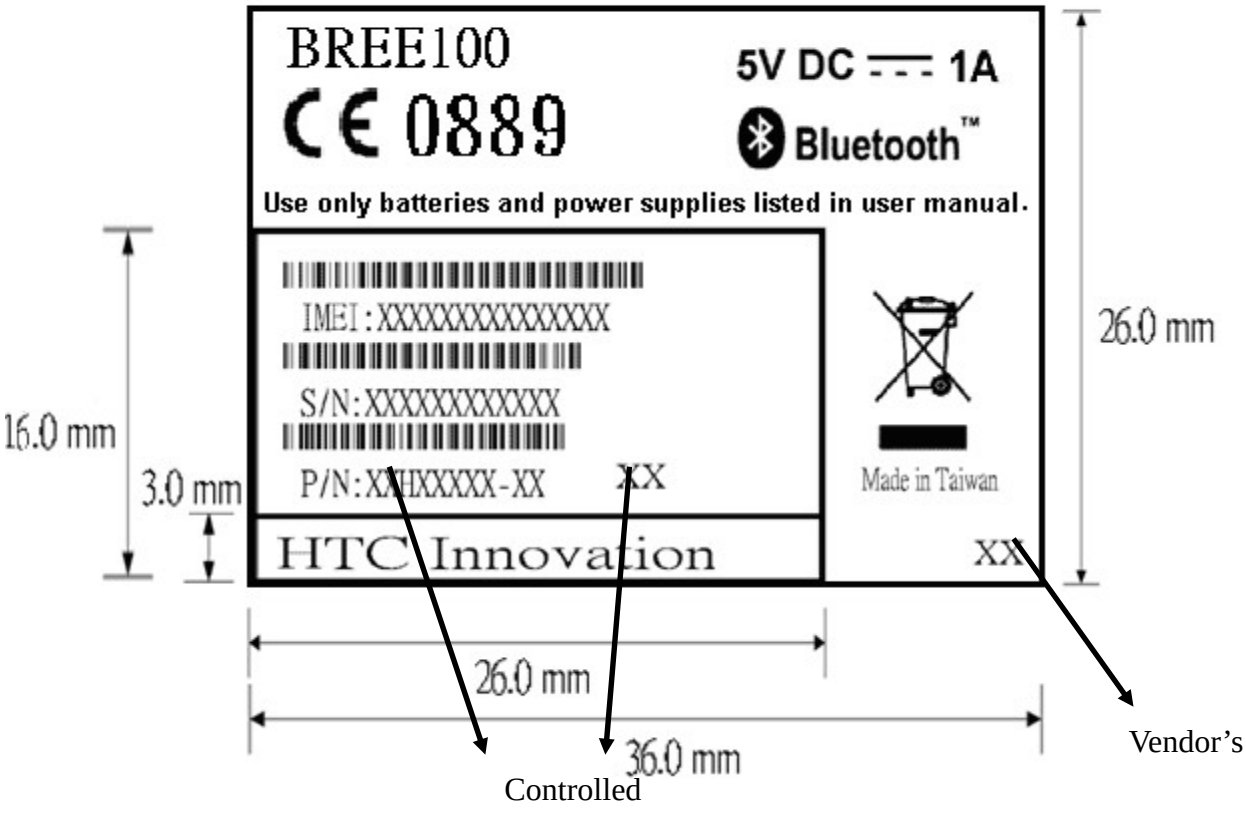


Chapter 11 – Label Plan

11-1 Regulation label-main unit

11-1.1 Regulation Label (on the rear housing of main unit)

HTC P/N: 77H00355-00M
Size:26.0*36.0 mm
Barcode Type: Code 128 symbology
The brand or trademark will be shown on front Bezel.



Above label will support following SKU

HTC Part Number	Countries Supported
99HBV000-00	Generic

For S/N: SSYWWPPZZZZZ

SS: SITE CODE --> HT

Y: Year Last Digital of the Year.

WW: Week Code : **01 ~ 54**

PP: Product Code : EZ

ZZZZZ: Serial Number (00001 ~ 99999) Use Base 10

MODEL ID: BREE100

Label Characteristic :

Material: polyester

Color:pantone 422c

Ink:pantone 425c

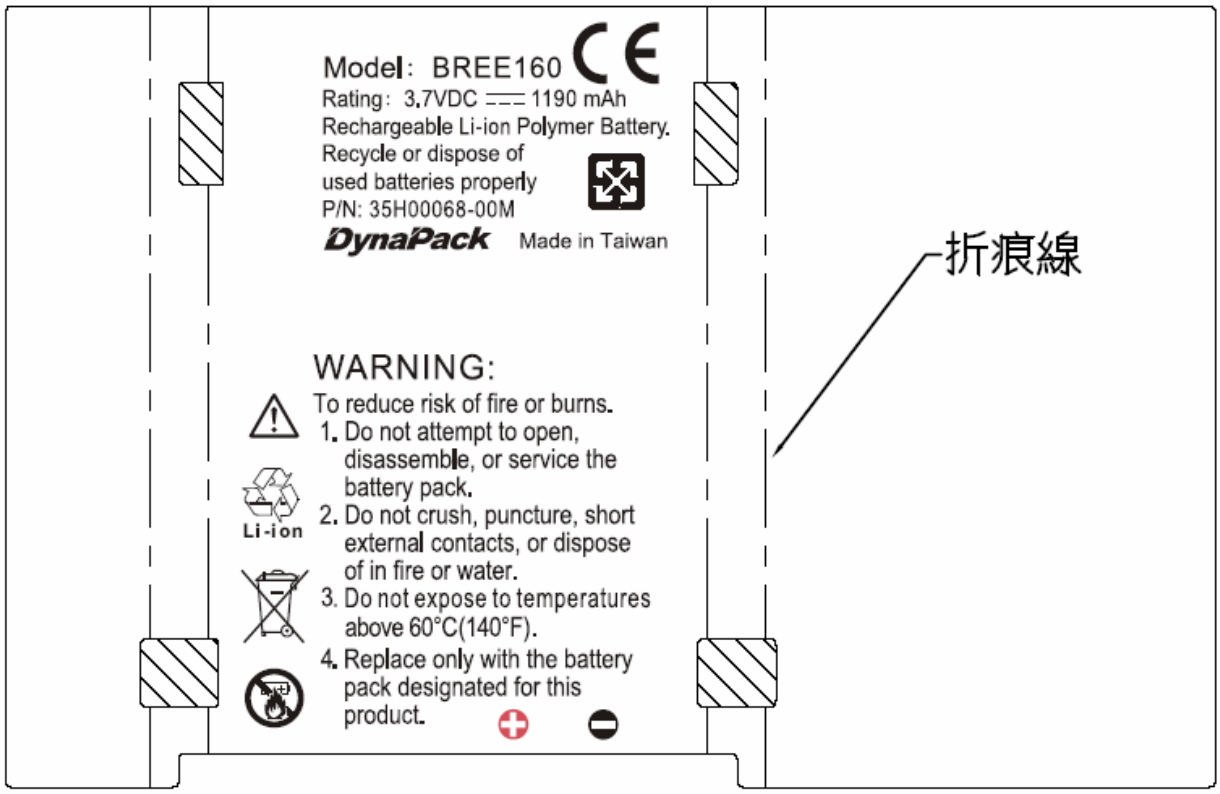
11-2. Battery Label

11-2.1 Main Battery label (Main source)

HTC P/N: 35H00068-00M

Size: 60.9 x 40.7 mm

Manufacture by battery vendor.



Label characteristic:

Material : **TBD**

Color: **TBD**

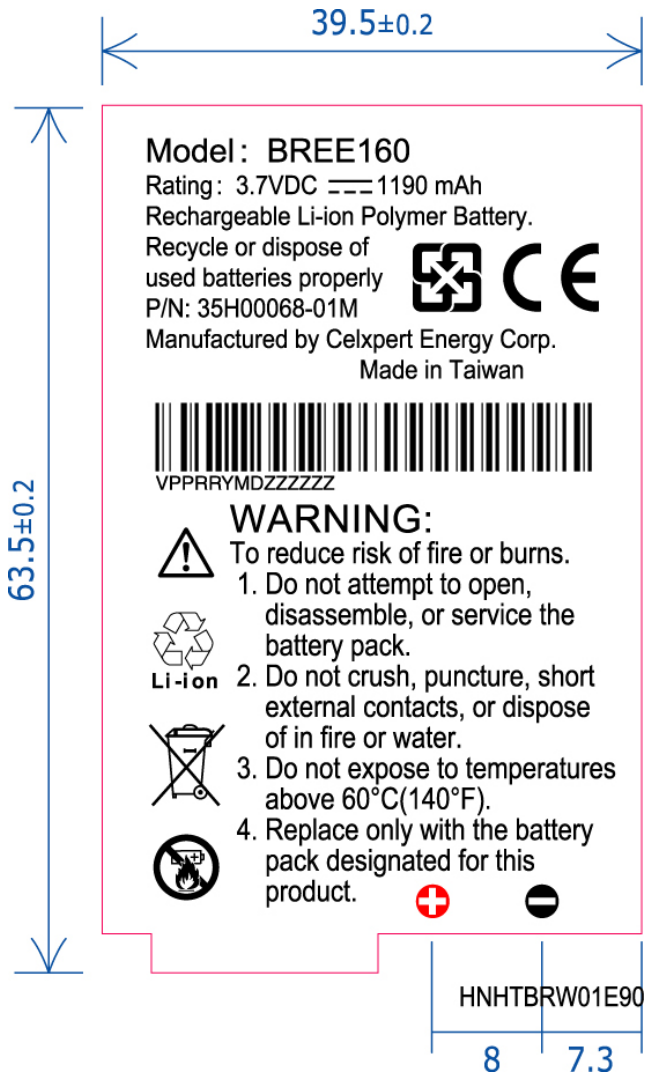
Ink: **TBD**

11-2.2 Main Battery label (2'nd source)

HTC P/N: 35H00068-01M

Size: 63.5 x 39.5 mm

Manufacture by battery vendor.



Label characteristic:

Material : **TBD**

Color: **TBD**

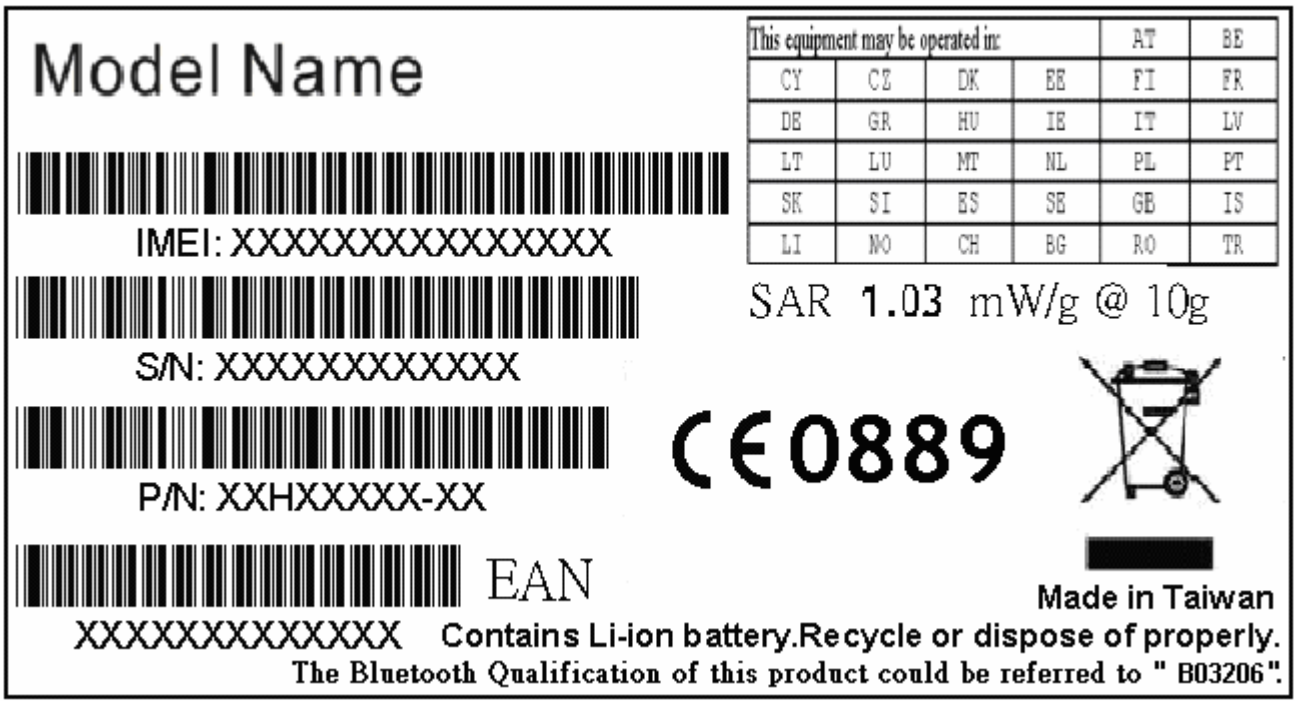
Ink: **TBD**

11-3. Packing Label

11-3.1 Overpack Box label 1

HTC P/N: 77H30025-00M

Size:93.0 × 48.0 mm



Table

HTC P/N	Country	Model name	EAN Code	Product Code	SAR Value
99HBV000-00	Generic				

Label Characteristic:

Material: Hi Fi printing paper

Color: pantone White

Ink: B110

11-3.2 Overpack Box label 2 (on 5-in-1 box)

HTC P/N: 77H30026-00M

Size:152.4 × 101.6 mm

Table

HTC P/N	Country	Model name	EAN Code	Product Code	SAR Value
99HBV000-00	Generic				

Label Characteristic:

Material: Hi Fi printing paper

Color: pantone White

Ink: B110

11-4. Pallet label

11-4.1 Pallet ID label

HTC P/N: 77H30026M-00

Size:101.6 × 152.4 mm

Label Characteristic:

Material: Hi Fi printing paper

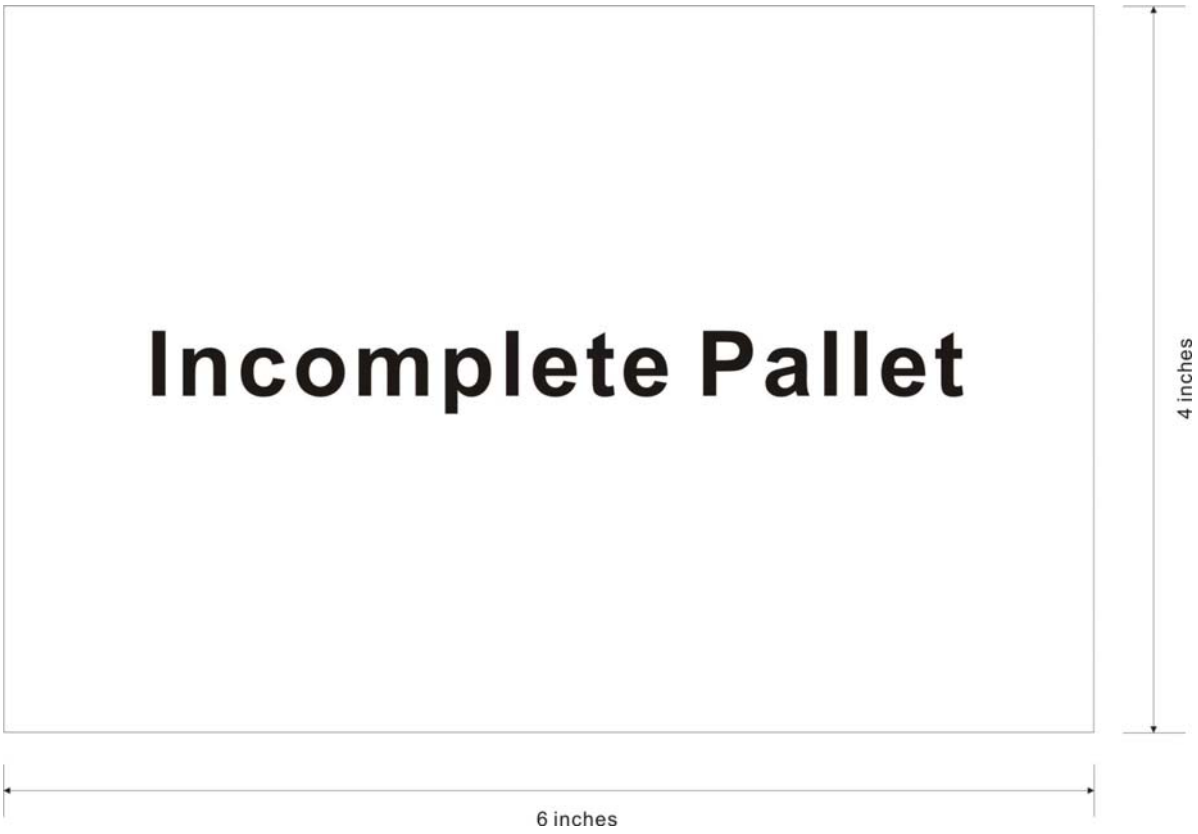
Color: pantone White

Ink: B110

11-4.2 Pallet ID label for Incomplete Pallet

HTC P/N: 77H30026-00M

Size:101.6 × 152.4 mm



Label Characteristic:

Material: Hi Fi printing paper

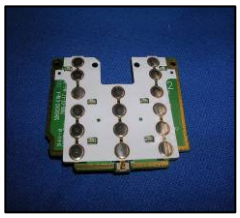
Color: pantone White

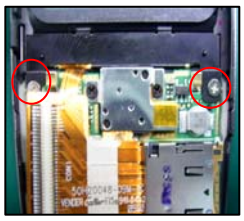
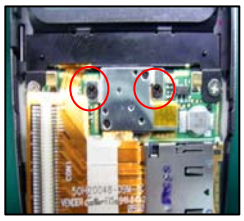
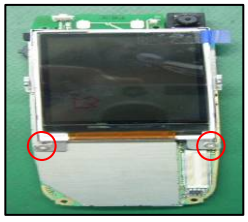
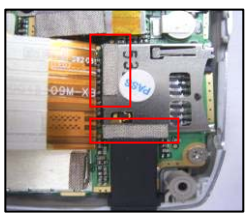
Ink: B110

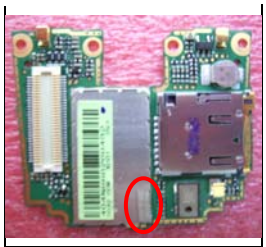
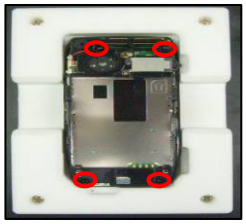
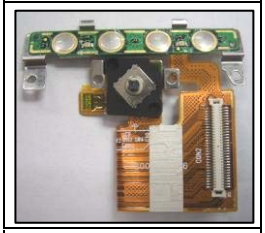
Charpt 12 Spare parts list

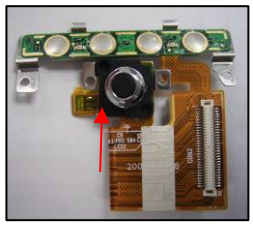
12.1 Spare Part List for Repair

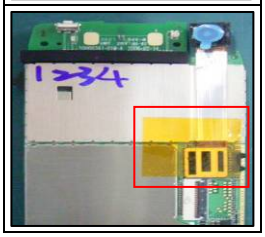
(Please be noticed that Part no on the list below is for reference only, please refer to List from our logistic team which differ per customer)

Photo	HTC P/N	Description	Q'ty
	36H00226-00M	Receiver,EASG1D501E2,NAIS	1
	36H00381-00M	Antenna,GAN40034,AMPHENOL,Breeze	1
	36H00389-00M	Speaker,SAMBU,SBS001541P-CC02-K	1
	51H00341-00M	PCBA-MAIN BOARD,Breeze	1
	51H00342-00M	PCBA-SWITCH BOARD,Breeze	1

	54H10003-00P	Multi-Module Assy,9*9*11.55mm,LITEON,05P142,Breeze	1
	60H00047-00M	LCD,TD022THEC2,2.2inch,TOPPOLY,QVGA,262K Colors,Breeze	1
	72H00724-00M	Screw,PH,FD,T1.4*2.9, Nickel,Black,AISI 1018	2
	72H00739-00M	Screw,1.6*3,D3,d0.5,Ni	4
	72H01170-00M	Holder,LCD,BREEZE	1
	72H01182-00M	Screw,M1.4*2.55,NECK,BREEZE	2
	72H01261-01M	EMI Gasket,microSD shielding case,8*2*0.5mm,U-TEK,Breeze	2

	72H01317-00M	EMI Gasket,Mic,5.5*2*0.8mm,U-TEK,Breeze	1
	72H30037-00M	SCREW,M1.6*0.35P*6mm	4
	73H20048-09M	FPC Pre-Assy,CAREER,Breeze	1
	74H00588-00M	Bezel Pre-Assy,Generic,Metal Gray,BREEZE	1
	74H00589-02M	Button Pre-Assy,NAVI,Black,Breeze	1
	74H00590-02M	Keypad Pre-Assy,KEYPAD,Black,Breeze	1
	74H00591-02M	Keypad Pre-Assy,SOFTKEY,Black,Breeze	1

	74H00592-02M	Housing Pre-Assy,Black,Breeze	1
	74H00593-02M	Cover Pre-Assy,Antenna,Black,Breeze	1
	74H00594-00M	Cover Pre-Assy,Battery,Generic,Metal Gray,Breeze	1
	76H01179-00M	Rubber,LCM_SUPPORT,BREEZE	1
	76H01181-00M	Rubber,BUTTON_NAVI_HOLDER,BREEZE	1
	76H01182-00M	Rubber,MIC,BREEZE	1
	76H01185-00M	Rubber,SPEAKER,RUBBER,BREEZE	1

	76H01218-00M	Mylar,LCM,CONN,Breeze	1
	76H01311-00M	Tape,CAMERA,BREEZE	1
N/A	76H01313-00M	Rubber,CONN,Breeze	1
N/A	77H00203-00M	Water Sensitive Label,4*2.5mm,Ming Jye,BlueAngels	1

Chapter 13- Board Level Repair

If you are authorized by HTC to perform board level repair, you could ask below material/parts from HTC .

13.1 Problem Identification & Troubleshooting

(1) Basic Repair Instructions for Component Replacement：

Step 1. Place the solder-proof tape to cover the surrounding area of the components which being replaced.

Warning ***：DO NOT*** *overheat the tape and components to avoid the tape melted and make the component damage.*

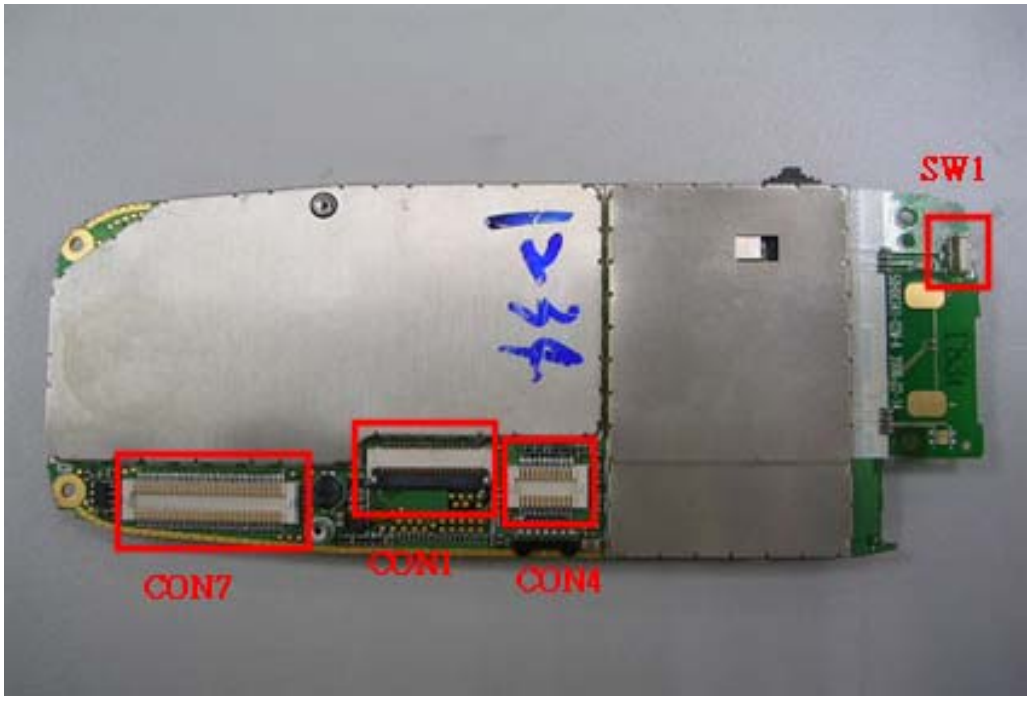
Step 2. Use Heater Gun (HAKO850B, set the temperature between 350℃, Air Speed 3~5) to remove the components.

Step 3. It has to wait the temperature cool down before the damaged components been removed. Or, the others components could be gone when the solder-proof tape been taken off.

Step 4. After the damaged component has been replaced, clear the surroundings for solder and flux residues.

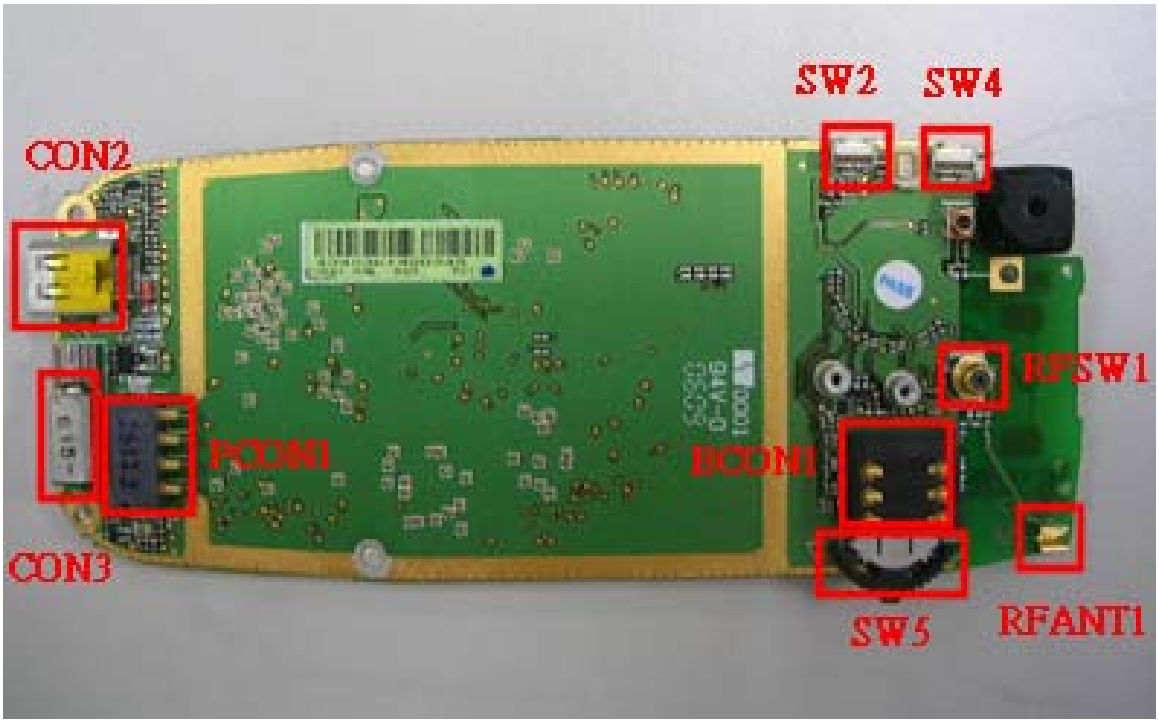
13.2 Components to be replaced：

Front side:



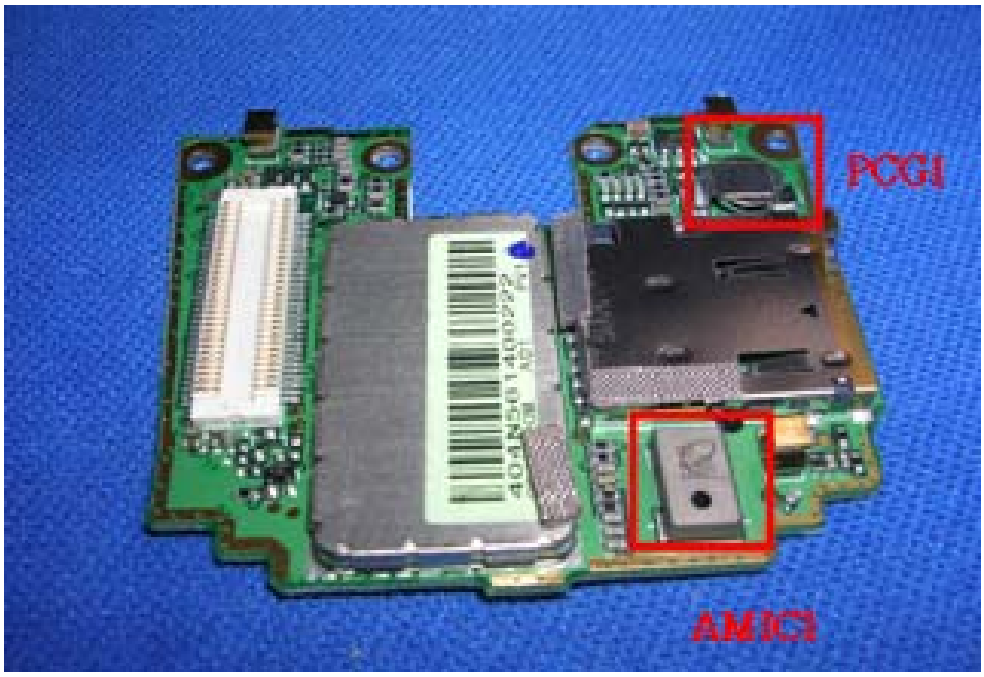
Parts that could be replaced from MB front side			
NO	**Part location name**	**HTC Part No**	**REMARK**
1	Power button	36H00303-00M	SW1
2	Camera connector	75H00360-00M	CON4
3	LCD connector	75H00371-10M	CON1
4	Switch Board connector	75H00462-00M	CON7

Back side:



Parts that could be replaced from MB Back side			
NO	**Part location name**	**HTC Part No**	**REMARK**
1	Camera button	36H00303-00M	SW2
2	Record button	36H00303-00M	SW4
3	Jog wheel	36H00311-00M	SW5
4	Vibrator	36H00355-00M	CON3
5	RF connector	75H00321-00M	RFSW1
6	USB connector	75H00465-00M	CON2
7	Battery connector	75H00475-00M	PCON1
8	SIM connector	75H00477-00M	BCON1
9	Antenna connector	75H00493-00M	RFANT1

Switch Board:



Parts that could be replaced from Switch Board			
NO	**Part location name**	**HTC Part No**	**REMARK**
1	Golden capacitor	16H00012-00M	PCG1
2	MIC	36H00208-00M	AMIC1

Chapter 14- Return to Vendor (RTV)

Please attached the DIC (Defect identity card)on each RTV part.

HTC Defect Identification Card	
ASP	Teleplan
Date	MM/DD/YYYY (repair date)
RMA Number	(HTC RMA number)
Part Number	(bar code)
	(number)
Series Number	(bar code)
	(number)
IMEI Number	(bar code)
(optional)	(number)
Technician	(Name of the person repairing the device)
Customer Reported Failure Symptom	(Original failure description reported by the end user)
Verified HTC Failure Code	(ASP verified failure symptom in HTC failure code)
Verified HTC Failure Description	(ASP verified failure symptom in HTC failure descrption)
Remark	

Chapter 15 –Repair report format and definition

Repair Report Definition

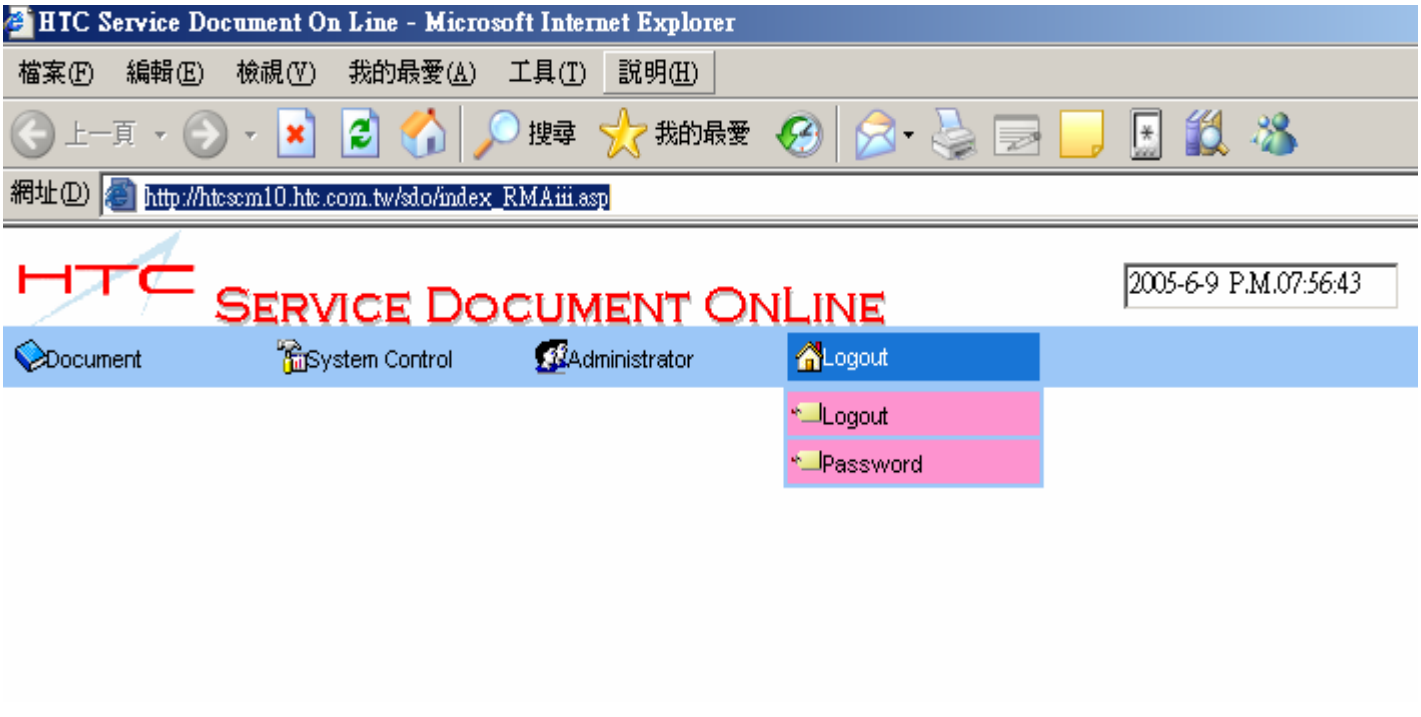
No	Column	Data	Format	Description	Your Comments
1	A	Service Centre	**FreeFormat**	Your Name of the Repair Sites	
2	B	RMA_No	**FreeFormat**	Reference no. for tracking this RMA	
3	C	Work_Order	**FreeFormat**	ASP internal tracking control code	
4	D	RMA_Source	**CallMail / Store / Hub**	WHERE the RMA comes from	
5	E	Claim Date	**mm/dd/yy**	WHEN the RMA is claimed	
6	F	Receive_Date	**mm/dd/yy**	WHEN the RMA is received	
7	G	Confirm_Date	**mm/dd/yy**	WHEN the OOW charge/ repair is confirmed with the client	
8	H	ReStock_ShipDate	**mm/dd/yy**	WHEN the repair is done [Weekly Report is Based on this Date]	
9	I	TAT	**Column H - Column F**	In House Repair Turn Around Time	
10	J	Service_Model	**Exchange / DOA / Express**	WHAT is the SERVICE Model	
11	K	Refurbishment	**Y/N**	Is Refurbishment reqired by POLICY	
12	L	Warranty	**(0,1, 2, 3)**	**Warrany Status** **0: In Warranty** **1: OOW (Beyond warranty period)** **2: OOW (Customer abuse/ misuse)** **3: OOW (Broken warranty seal)**	
13	M	Part_No	**HTC 99 H**	HTC unit Part Number 99Hxxxxxxx	
14	N	Product	**Model and Mem Size**	HTC unit Description	
15	O	Device_SN	**HTC SN**	RMA Unit Serial Number	
16	P	Device_IMEI	**HTC IMEI**	Unit under repair IMEI Number	
17	Q	OS_Rev	**ex: 3.14.16**	OS reversion of received unit	

18	R	Repeat_Return	**Y/N**	Did the same unit return more than once?	
19	S	Reported_Code	**Code or NA**	The original failure/ claim code from customer	
20	T	Reported_Symptom	**Text description or NA**	The original failure/ claim description from customer	
21	U	Failure_code	**HTC definition**	Failure code after ASP verification	
22	V	Failure_Description	**HTC definition**	Failure description after ASP Verification	
23	W	Repair_Code	**HTC definition**	What your action for the Repair. Functional first. If NFF, you may add	
24	X	Repair_Description	**HTC definition**	What your action for the Repair ; IF NFF, you may apply C001 or C003 or C004 according to your service model	
25	Y	Repair_Level	**(1, 2, 3)**	The repair level defined in HTC list and agreement	
26	Z	SN_for_Replacement	**As labeled**	Series Number of the unit replacement	
27	AA	IMEI_for_Replacement	**As labeled**	IMEI number of the unit or M/B replacement	
28	AB	Material Used_1	**HTC P/N**	Major material part number used for repair	
29	AC	Warranty1	**Y/N**	Material for IW or OOW purpose	
30	AD	Material1_SN	#	Major material Serial No.	
31	AE	Material Used_2	**HTC P/N**	2nd material Part Number used for repair	
32	AF	Warranty2	**Y/N**	Material for IW or OOW purpose	
33	AG	Material2_SN	#	2nd material Serial No.	
34	AH	Material Used_3	**HTC P/N**	3rd material Part Number used for the repair	
35	AI	Warranty3	**Y/N**	Material for IW or OOW purpose	
36	AJ	Material3_SN	#	3rd material Serial No.	
37	AK	Material Used_4	**HTC P/N**	4th material Part Number used for repair	
38	AL	Warranty4	**Y/N**	Material for IW or OOW purpose	
39	AM	Material4_SN	#	4th material Serial No.	
40	AN	Material Used_5	**HTC P/N**	5th material Part Number used for repair	
41	AO	Warranty5	**Y/N**	Material for IW or OOW purpose	
42	AP	Material5_SN	#	5th material Series No.	

43	AQ	Material Used_6	**HTC P/N**	Cosmetic Material Part Number used for repair	
44	AR	Warranty6	**Y/N**	Material for IW or OOW purpose	
45	AS	Material Used_7	**HTC P/N**	Cosmetic Material Part Number used for repair	
46	AT	Warranty7	**Y/N**	Material for IW or OOW purpose	
47	AU	Engineer_Badge_No	**FreeFormat**	WHO did the Repair/Technician batch no.	

Chapter 16 – HTC service document on line (SDO)

http://htcscm10.htc.com.tw/sdo/index_RMAiii.asp



The HTC SDO system which you could down load such as following items

1. **Failure/Repair code**
2. **ROM code**
3. **Service Advisory**
4. **Service Manual**
5. **Training VCD**

Note: Please get the authorization from HTC Technical Support Center for access authority.

~End of Service Manual~