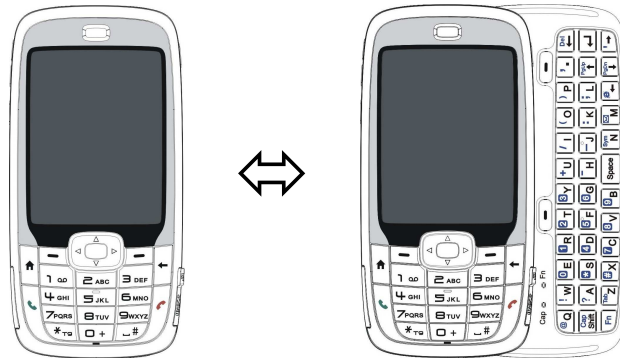


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VOX

Service Manual

HTC Proprietary
Confidential Treatment Requested

Rev. A01
Feb 12,2007

HTC Corp.
Engineering Mobility

REVISION CONTROL TABLE

Rev	Date	Contents	Dept	Revised
A01	02/12	First draft	PSE	

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INTRODUCTION

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

1.1 Product Specification/Feature

Platform

- Bar type form factor integrated quad band EDGE/GPRS/GSM, SIP/VoIP, Bluetooth, WiFi, 2 mega-pixel camera
- One stop sliding QWERTY keyboard
- OS: Windows Mobile Crossbow Platform

Dimension

- 101.5mm (L) x 50mm(W) x 18.6mm(T)
- Weight: 134g (with battery)

Processor/Chipset

- TI OMAP850, 200Mhz

Memory

- ROM: 128 MB ROM
- RAM: 64 MB DDR

LCD Module

- 2.4" QVGA, 64K colors Transmissive LCD
- LED backlight

GSM/EDGE Function

- Internal antenna
- Quad-band (850/900/1800/1900)
 - ✧ 850: 824-849, 869-894MHz
 - ✧ 900: 880-915, 925-960MHz
 - ✧ 1800: 1710-1785, 1805-1880MHz
 - ✧ 1900: 1850-1910, 1930-1990MHz
- Generic Services
 - ✧ Call Holding, Waiting, Forwarding
 - ✧ Call Barring
 - ✧ CLI (Calling Line Identity)
 - ✧ SMS (Short Message Service)
 - ✓ SMSMT, SMSMO, SM Reply, SM Replace, SM Acknowledgement, 8 Bits SMS Data
 - ✓ Concatenated messages, up to 640 characters
 - ✓ Display own number, telephone number storage capability in terminal and SIM card
 - ✧ Network selection
 - ✧ Cell broadcast
 - ✧ Multi-party conference capability
 - ✧ Phase 2+ Unstructured Supplementary Service Data
 - ✧ Audio Codec: AMR/EFR/FR/HR
 - ✧ Network Lock
 - ✧ CPHS partial
 - ✧ E-GPRS Function
- EGPRS class B
 - ✧ Multi-slot standard class 10
 - ✧ MO/MT SMS over GPRS

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- ◇ PBCCH
- SIM
 - ◇ 1.8 / 3V of UICC
 - ◇ SIM Application Tool Kit release 98 class 3 and 99 partial
 - ◇ Over the Air (OTA) programming
 - ◇ Fixed Dialing Number (FDN)
 - ◇ Abbreviation Dial Number (ADN)
 - ◇ Security Pin 1 & 2 control
 - ◇ SIM+/ EAP-SIM support

Camera (manufacture option)

- Color CMOS 2 mega-pixel camera
- Preview mirror

Keyboard/button/Switch

- 2 soft keys
- Home key
- Back key
- Send phone button
 - ◇ Quick press: Start a phone call
 - ◇ Long press (Press & Hold): Switch on or off the Loud Speaker
- End phone button
 - ◇ Short press: End a phone call
 - ◇ Long press (press & hold): turn on Key-lock
- Camera capture button (position: top-right)
- 5-way navigation pad
- Power button (position: on top of device)
- Volume Up and Volume Down button (position: top-left)
- PoC or VC/VR button (position: left & below volume button)
 - ◇ PoC case: (Cingular requirement)
 - ◇ VD/ VR case (others)
 - ✓ Short press: Voice Dialer
 - ✓ Long press: Voice Record
- Numerical dialing pad (12 buttons)
- QWERTY keyboard with 2 additional soft keys
 - ◇ Cap and Function mode indicator on QWERTY keyboard
 - ◇ Auto sound effect when sliding out/ close
 - ◇ Auto display on when sliding out
 - ◇ Light sensor control for backlight

Notification

- One bi-color LED (Green and Red) for GSM/GPRS/EDGE standby, GSM/GPRS/EDGE network status, Event Notification, Power Charging status, and Low battery
- One bi-color LED (Blue and Green) for Bluetooth (blue) and WiFi (Green) connectivity status
- Notification by LED, Sound, Message, Vibration

Audio

- Built-in microphone
- Receiver
- Speaker
- Loud speaker for Hands-Free supported
- Full duplex
- Audio sampling rate
 - ◇ 16-bits with 8KHz, 11KHz, 22KHz, 44.1KHz
- AMR/AAC/WAV/WMA/MP3 codec

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Connectivity & Interface

- Bluetooth
 - ✧ Chipset: TI 6300
 - ✧ Compliant with v2.0
 - ✧ Class 2 transmit power
 - ✧ Supported profiles:
 - ✓ GAP (generic access profile)
 - ✓ SPP (serial port profile)
 - ✓ OPP (object push profile)
 - ✓ PAN (pan area profile)
 - ✓ GOEP (generic object exchange profile)
 - ✓ ActiveSync (legacy application via SPP)
 - ✓ HSP (headset profile)
 - ✓ HFP (handsfree profile)
 - ✓ A2DP (Advanced Audio Distribution profile)
 - ✓ AVRCP (Audio/Video Remote control Profile)
 - ✓ Service Discovery Profile
 - ✓ SAP (SIM Access Profile)
 - ✓ HID (Human interface device profile)
 - ✓ FTP (File Transfer profile)
- WiFi
 - ✧ Chipset: TNETW1251
 - ✧ Internal WLAN antenna
 - ✧ IEEE 802.11b/g
 - ✧ Data rate auto fallback for extended range
 - ✧ ELP mode
 - ✧ Security 802.11i and AES
 - ✓ WPA/WPA 2 authentication – WEP (64 & 128bit), PSK, EAP-TLS, PEAP, LEAP
 - ✓ Signaling interfaces between the terminal device and the servers: mutually authenticated and encrypted utilizing TLS (RFC 2246) with RC4 encryption with SGA1 used as the message integrity check
 - ✧ QoS
 - ✓ 802.11 WME QoS
 - ✓ 802.11e
 - ✓ Fast AP to AP handover
 - ✓ Packet tagging & prioritization
 - ✓ Site Survey, Trace Route (Hidden Feature), Seamless-Secure Roaming, and VLAN Support
- HTC ExtUSB 11-pin mini-USB
 - ✧ USB 1.1
 - ✧ Support Audio jack
 - ✧ Support ActiveSync to PC/NB
 - ✧ Support Charging capability
- MicroSD card slot
- External RF connector with cover

Power

- Talk time: 3.2~7.3 hrs [base on RF power level 5~12]
- Standby time: 120~175hrs [base on multi-frame 2~5]
- Charging time: 2.5~3 hrs [base on OFF mode at 25°C]
- WMA: 12 hours [base on NSTL test case]
- WMV: 8 hours [base on NSTL test case]

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- Battery
 - ✧ Rechargeable battery, Li-Polymer 1,050 mAh
- AC Adapter:
 - ✧ AC input rating: 100 ~ 240 VAC, 50/60Hz
 - ✧ DC output: 5V, 1A

Hanger

Accessories

- Standard
 - ✧ Travel Charger
 - ✧ USB Sync. Cable
 - ✧ Stereo wired headset with microphone
 - ✧ Standard Battery
 - ✧ User Manual, Quick Start Guide, & Software CD
- Option
 - ✧ Mono Bluetooth Headset w/ microphone
 - ✧ Stereo Bluetooth Headset w/ microphone
 - ✧ Car adapter
 - ✧ Battery charger [TBD]
 - ✧ Carrying case
 - ✧ Charging docking (home use)
 - ✧ TTY adaptor
 - ✧ 11 pin Y-Cable

Microsoft Windows Mobile 2005 Smartphone Applications

- Pocket Outlook
 - ✧ Calendar, Contacts, Messaging, Tasks, & Voice Notes
- Push Mail
- Email Setup Wizard
- Microsoft Internet Explorer Mobile
- Microsoft Windows Media Player
- Pictures & Video
- Microsoft ActiveSync
- Microsoft MSN Messenger
- Device Management
- Calculator
- Games
- File Manager
- Smart Dialer for QWERTY keyboard as search input

Value Added Applications

- Camera / Camcorder
 - ✧ Camera Mode
 - ✓ Encoding format: JPEG
 - ✓ Resolution: UXGA 1200x1600, SXGA 960x1280, VGA 480x640, QVGA 240x320, QQVGA 120x160
 - ✓ Night Mode
 - ✓ Digital Zooming: continuous 1x ~ 10x
 - ✓ Time & Date Stamp
 - ✓ Self Timer: 2/10 sec for Photo, Contacts Picture mode
 - ✧ Camcorder Mode
 - ✓ 10 fps encoding up to QCIF resolution
 - ✓ Digital Zooming: 1x ~ 2x
 - ✓ Encoding format

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- ▲ H.263 + AMR-NB (.3gp)
 - ▲ MPEG4 + AMR-NB (.mp4)
 - ▲ Motion JPEG + PCM (.avi)
- Ringtone
 - ◇ MIDI
 - ✓ Software polyphonic & Standard MIDI format 0 and 1 (SMF) / SP MIDI
 - ◇ MP3, AAC, AAC+, WMA, WAV and AMR-NB
- Multimedia support format
 - ◇ Audio: AAC, AAC+, MP3, WMA, WAV, AMR-NB
 - ◇ Video: MPEG4, H.263, WMV, Motion JPEG (AVI)
- Picture Enhancement for Pictures & Videos
 - ◇ Graphics: JPEG, GIF87a, GIF89a, PNG, WBMP
 - ◇ Video Thumbnail Preview: MPEG4, H.263, Motion JPEG (AVI)
- MMS Client
 - ◇ Partial compliant to MMS 1.2
 - ◇ SMIL v2.0 supported
 - ◇ vCalendar v1.0 and vCard v2.1 supported
- Task Manager
- Unlock Screen Clock
- Java virtual machine (MIDP 2.0)
 - ◇ Midlet display area: 220x300
 - ◇ JSR 75 File Connection
 - ◇ JSR 118 MIDP 2.0
 - ◇ JSR 139 CLDC 1.1
 - ◇ JSR 185 JTWI
 - ✓ JSR 135 Mobile Media API
 - ✓ JSR 120 Wireless Messaging API
- Voice Dial/ Voice Command
 - ◇ Speaker Dependent
- Voice Recorder (for AMR only)
- Notes (Text notes)
- T9 IME for Smartphone
- SIM Manager
- Comm. Manager
- FOTA (Firmware OTA)
- Document viewer
 - ◇ Word/ Excel/ PowerPoint
- Adobe PDF Viewer
- OMA DRM v1.0 (2.0 when available)
- Audio Manager
- HTC SIP/VoIP SDK
 - ◇ VoIP codec support
 - ✓ G.711 (64kbps, a-law/u-law)
 - ✓ G.729ab (G.729 with VAD support)
 - ✓ G.723.1
- Carrier Specific Requirement**
 - BlackBerry Client (Orange, T-Mobile)
 - SIP
 - ◇ Protocol support
 - ✓ SDP (RFC 3264)
 - ✓ DHCP or static IP addressing

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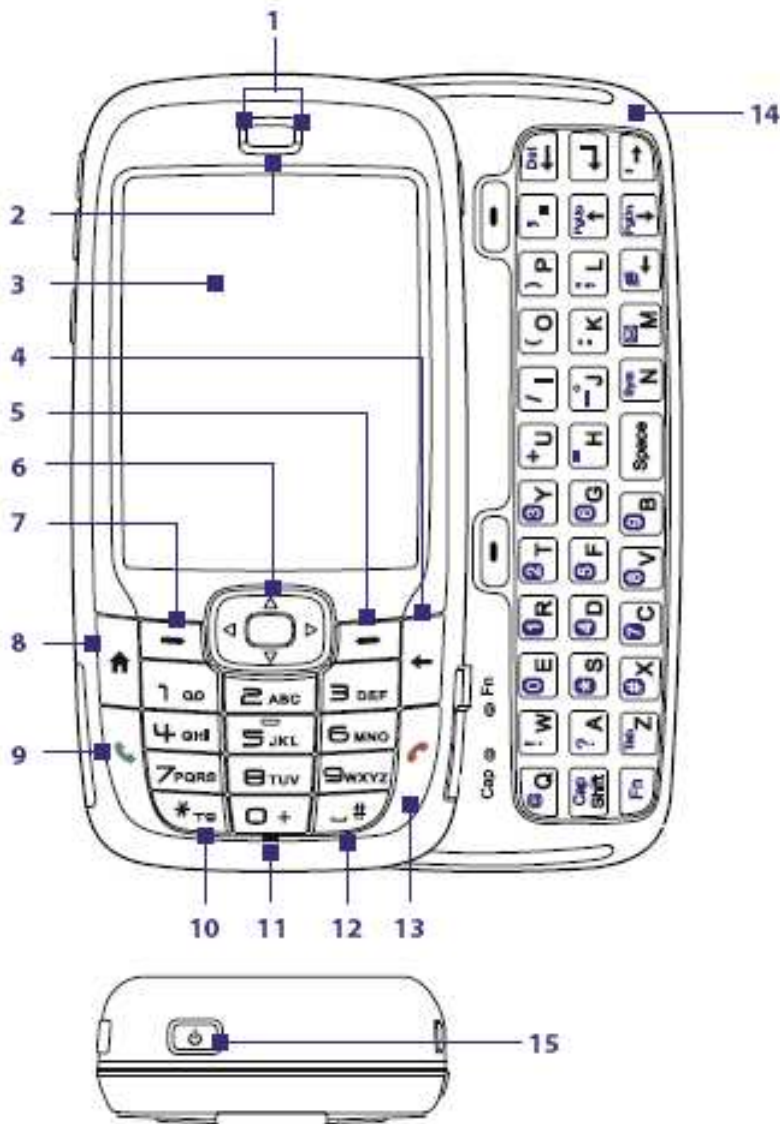
- ✓ Authentication (login/password)
 - ✧ DTMF transmission over RTP (RFC 2833)
 - ✧ No static IPv4 address configuration
 - ✧ DHCP locating
- Security
 - ✧ 802.11i compliant (WEP, WPA, WPA2)
 - ✧ Authentication by EAP-SIM should follow 3GPP TS 23.234
- Generic Call service
 - ✧ Calling line identification presentation (CLIP)
 - ✧ Calling line identification restriction (CLIR)
 - ✧ Call forward unconditional (CFU)
 - ✧ Call forward on mobile subscriber busy (CFB)
 - ✧ Call forwarding on no reply (CFNRy)
 - ✧ Call forward on mobile subscriber not reachable (CFNRc)
 - ✧ Call waiting (CW)
 - ✧ Call Hold (HOLD)
 - ✧ Multiparty (MPTY)
 - ✧ Barring of all outgoing calls (BAOC)
 - ✧ Barring of all incoming calls (BIC)
 - ✧ Pre-dialing before sending
 - ✧ Redial
 - ✧ Call mute
 - ✧ Comfort noise generation (CNG), voice activity detection (VAD), adaptive jitter buffer, and echo cancellation

Regulatory

- GCF certification [Operator dependent]
- R&TTE: EMC / EMI, Safety SAR
- FCC Approval
- FCC HAC (Hearing Aid Compatibility)
- PTCRB Approval [Operator dependent]
- WiFi Certification
- BQB (Bluetooth Qualification Body) certification
- Windows Mobile Logo (NTSL)
- USB certification

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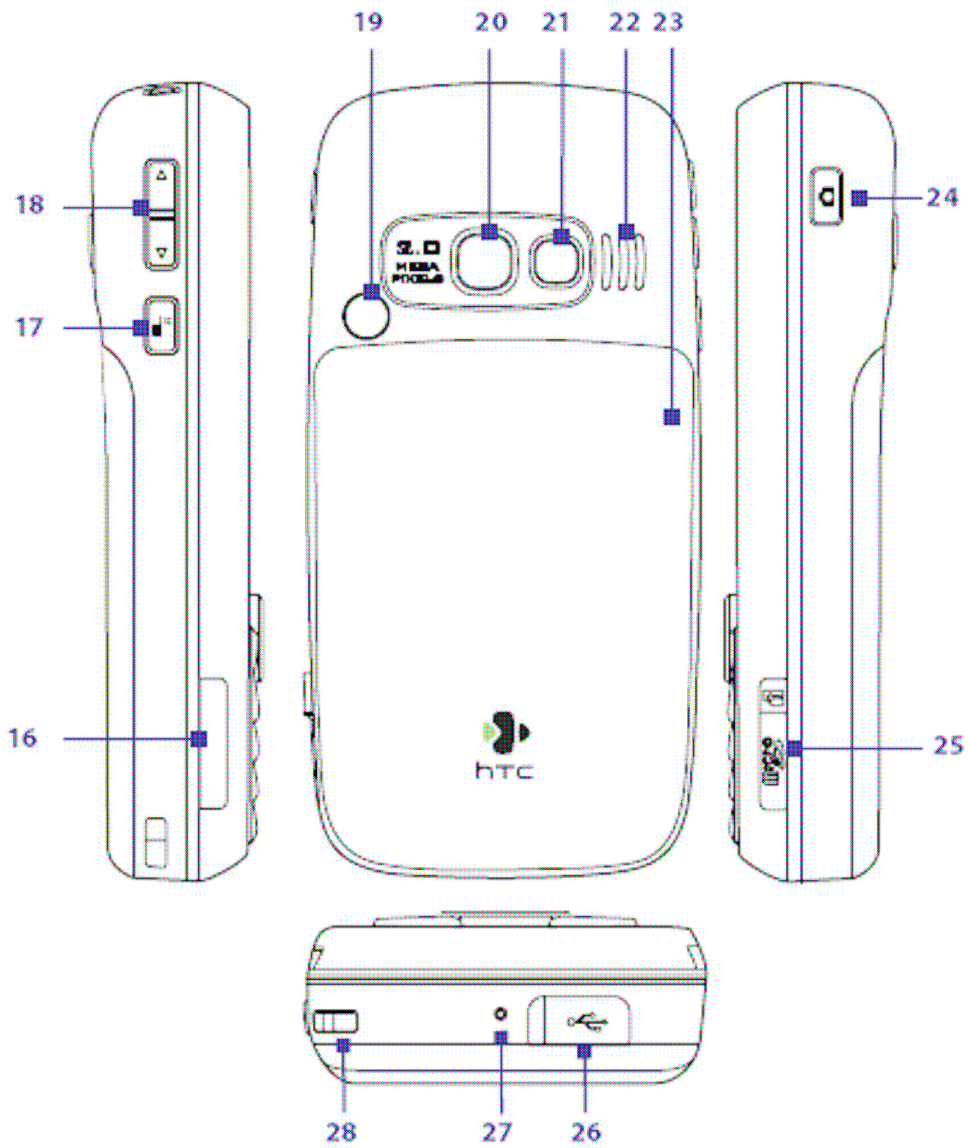
2.1 Definition



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Item	Function
1. LED Indicators	The left LED indicators (blue/green) notify you of Bluetooth and Wi-Fi connectivity status, while the right indicators (green/red/orange) notify you of the battery and network status of your phone respectively. For more information about LED Indicators, see the table at the end of this section.
2. Ear piece	Listen to a phone call.
3. Display Screen	
4. BACK	Press to go to the previous screen, or backspace over characters.
5. Right SOFT KEY	Press to perform the command shown in the label above the button.
6. NAVIGATION CONTROL/ CENTER OK	Use to scroll left, right, up, or down. Press the center to use as the CENTER OK button.
7. Left SOFT KEY	Press to perform the command shown in the label above the button.
8. HOME	Press to go to the Home Screen.
9. TALK	Press to dial a phone number, answer a call, switch to another call, or put a call on hold. Press and hold to activate/deactivate speakerphone mode.
10. *T9	Press to switch to different input modes or press and hold to choose an input mode from a list.
11. Light Sensor	Dark conditions sensed here will activate a backlight under the keypad and keyboard..
12. #Space	Press to add a space or press and hold to display a list of symbols.
13. END	Press to end a call, or press and hold to lock the phone.
14. QWERTY Keyboard	Slide out to use the QWERTY keyboard. This is similar to a standard keyboard on a PC. For more information about the QWERTY keyboard, see "Using the QWERTY Keyboard" in this chapter.
15. POWER	Press to turn on (more than 1 second) and off the phone. Or press and quickly release the POWER button to display the Quick List. See "Quick List" later in this chapter for more details.

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Item	Function
16. SIM card door	Slide open the QWERTY keyboard to open the SIM card door. To learn how to insert the SIM card, see "Inserting the SIM Card" in this chapter.
17. VOICE RECOGNITION/ VOICE NOTES	Press to open the voice recognition program; Press and hold to open the Voice Notes program where you can record your voice.
18. Volume buttons	Press to turn the volume up or down.
19. Car Antenna connector	Lets you attach your phone to the car antenna for better network reception. Remove the back cover, then peel off the rubber cap and connect the antenna jack.
20. Camera Lens	
21. Self-portrait mirror	Turn the back side of your phone to face yourself so that your image reflects on the mirror when taking self-portrait shots.
22. Speaker	Listen to audio media or a phone call when using speakerphone mode.
23. Back Cover	Remove to insert battery.
24. CAMERA	Press to open the Camera program. If the Camera program is already opened, press to take the photo or to start shooting video.
25 microSD slot	Pry open the rubber cover to insert the microSD card.
26 HTC ExtUSB™ port	Pry open the rubber cover to connect the USB cable to synchronize data or recharge the battery. You can also connect the earphone to listen to audio media or use the phone's hands-free kit.
27 Microphone	Speak into the microphone when in a call or recording voice.
28 Strap Holder	Lets you attach a strap to carry your phone. Loop the end of a strap through this opening.

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LED indicator lights

Various colors that might display in the two LED Indicators are summarized here.

Left LED	Status
Flashing blue	Bluetooth mode set to "On" or "Visible" mode.
Flashing green	Connected to Wi-Fi network.
Right LED	Status
Solid green	Battery is fully charged.
Blank	Battery case is empty, no SIM card inserted or phone is off.
Solid orange	Battery is charging or the phone is using ActiveSync to synchronize with a PC.
Solid red	Battery is not installed or battery is over-discharged.
Flashing green	Connected to the network.
Flashing red	Battery very low (less than 10%).
Flashing orange	Battery temperature is hotter or colder than the functional limits of 0 to 48 degrees Celsius (32 to 118 degrees Fahrenheit), and has stopped charging.
Orange/Green LED off	Battery fault. The "Battery Fault" indicator  is displayed. In this case, the flashing green LED can be recovered by unplugging the AC adapter.

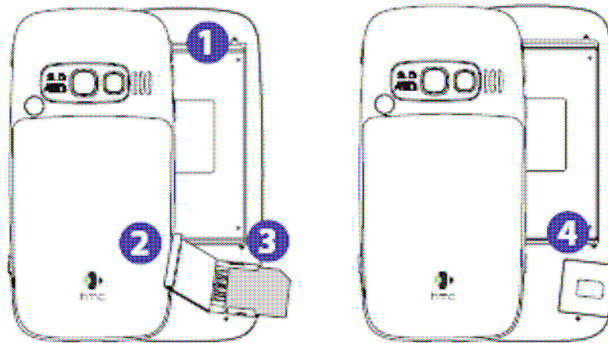
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Inserting the SIM card

Before you begin, make sure the phone is turned off.

To insert the SIM card

1. Slide out the QWERTY keyboard.
2. Open the SIM card door by pulling it out and then flipping it open.
3. Insert the SIM card into the slot.
4. Close and lock the SIM card door. The SIM card door is locked when you hear a "click" sound.

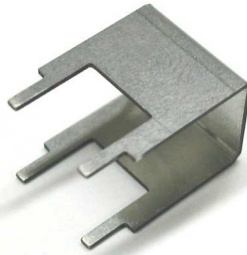


Notes

- The phone will not turn on if the SIM card door is not locked.
- Opening the SIM card door while the phone is turned on will turn off the phone.
- DO NOT open the SIM card door while the phone is turned on.

2. DEVICE ASSEMBLING AND DISASSEMBLING PROCEDURE

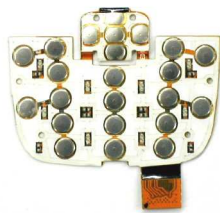
2.1 Assembling procedure



TOOLS NEEDED FOR ASSEMBLING AND DISASSEMBLING PROCESS.

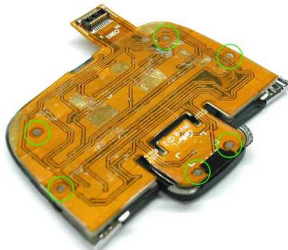
LENS CLEANING CLOTH. (No. 1)
TORX SCREW DRIVER T6X50. (No. 2)
PHILIPS SCREW DRIVER 00X40. (No. 3)
FLAT PLASTIC STICK. (No. 4)
PLASTIC TWEEZERS. (No. 5)

CAMERA MODULE UN-INSTALL TOOL



PREPARE NUMERIC KEYPAD AND NUMERIC KEYPAD FPC.

REMOVE THE STICKER PROTECTOR (DOME SIDE)



MAKE SURE NUMERIC KEYPAD GUIDE PINS GO THROUGH THE FPC HOLES.

REMOVE STICKER PROTECTOR (FPC SIDE)

PASTE THE NUMERIC KEYPAD FPC ONTO THE NUMERIC KEYPAD.

INSTALL THE NUMERIC KEYPAD ASSY TO THE BEZEL.



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AFTER INSTALL THE NUMERIC KEYPAD ONTO THE DISPLAY UPPER COVER, MAKE SURE YOU CAN SEE TWO HOOKS FROM THE BACK SIDE.



PREPARE "LCD"

ASSEMBLE THE LCD.



PASTE EMI GASKETS.



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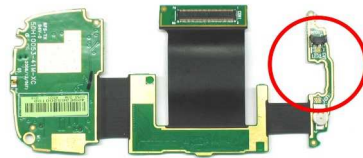
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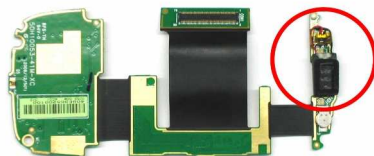
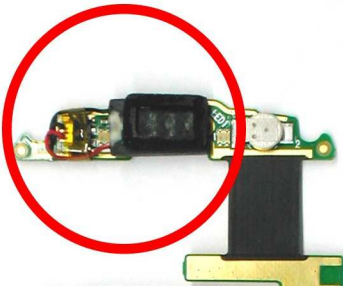
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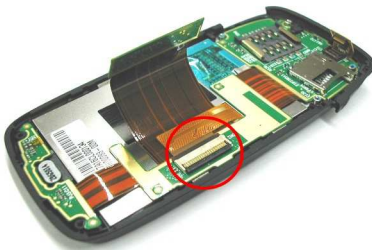
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INSTALL RECEIVER INTO ITS CONNECTOR ON THE RIGID-FLEX BOARD.

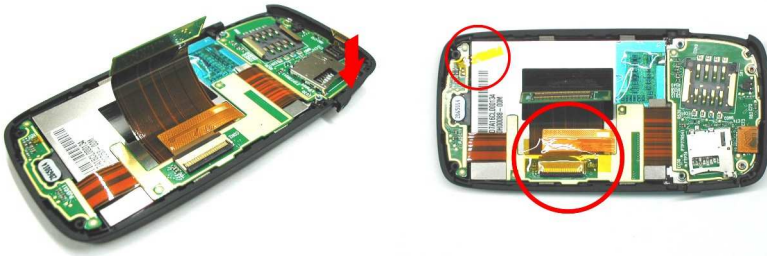


ALIGN THE RECEIVER WIRES BESIDE THE CONNECTOR AS SHOWN ON THE LEFT.



INSTALL THE LCD FPC INTO ITS CONNECTOR ON THE RIGID-FLEX BOARD.

INSTALL THE KEYBOARD FPC PRE-ASSY CONNECTOR ON THE RIGID-FLEX BOARD



ATTACH THE MICROSD RUBBER ONTO BEZEL.



PREPARE SLIDER-HINGE AND DISPLAY BOTTOM COVER BEZEL.



ASSEMBLE SLIDER-HINGE TO DISPLAY BOTTOM COVER BEZEL.

FASTEN 4 SCREWS ON DISPLAY BOTTOM COVER.

NOTE: **SCREW TORQUE 1.2 ± 0.05 KGF-CM**



ASSEMBLE DISPLAY BOTOM COVER TO DISPLAY UPPER COVER.

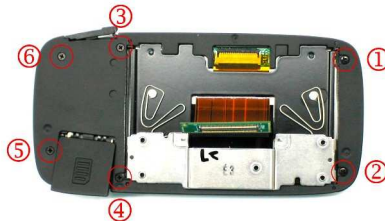


Fig. 1

TURN THE DISPLAY BOTTOM COVER ABOUT 30 DEGREE TO LET THE RIGID-FLEX BOARD CONNECTOR PASS TROUGH.



Fig. 2



PRESS THE AREA AROUND THE DISPLAY BOTOM COVER TO FIX THE DISPLAY BOTTOM AND UPPER COVER.

FASTEN SCREW LOCATION NUMBER 1 & 2 BY USING FIG. 1 SCREW AND SCREW LOCATION NUMBER 3, 4, 5 & 6 BY USING FIG. 2 SCREW.

NOTE: 1. DON'T CLOSE OR LOCK MICROSD AND SIM CARD DOOR

2. SCREW TORQUE 0.6 ± 0.05 KGF-CM



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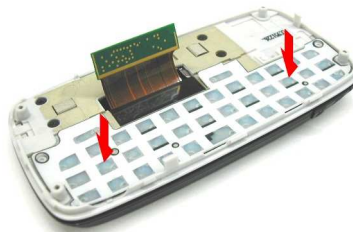
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ASSEMBLE KEYBOARD UPPER COVER ONTO LCD BOTTOOM COVER AND FASTEN 4 SCREWS ON IT.

NOTE: SCREW TORQUE 1.2 ± 0.05 KGF-CM



ATTACH ALPHABETIC KEYPAD ONTO KEYBOARD UPPER COVER.

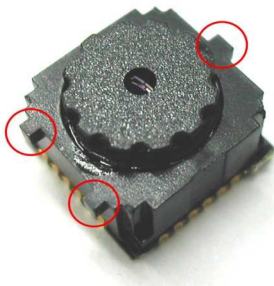


PREPARE SPEAKER AND SOUND BOX.

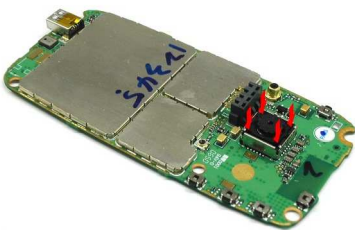


ATTACH SPEAKER INTO SOUND BOX.

MAKE SURE THE SPEAKER IS ATTACHED IN THE CORRECT DIRECTION.



PREPARE CAMERA MODULE AND MAIN BOARD.



ATTACH CAMERA MODULE INTO CAMERA SOCKET ON THE MAIN BOARD (BE CAREFULL WITH CAMERA AND SOCKET DIRECTION)

INSTALL CAMERA SHIELDING



SLIDE THE KEYBOARD BOTTOM COVER TO THE CENTER POSITION.

CONNECT THE RIGID-FLEX BOARD CONNECTOR WITH THE MAIN BOARD.



Fig. 1

PREPARE SOUND BOX



Fig. 2



ATTACH SOUND BOX ONTO THE MAIN BOARD

FASTEN SCREW LOCATION NO.1 AND 2 WITH FIG.2 SCREW THEN FASTEN SCREW LOCATION NUMBER 3 WITH FIG. 1 SCREW.

NOTE: 1. SCREW TORQUE 1.0 ± 0.05 KGF-CM (FIG.2)
2. SCREW TORQUE 0.4 ± 0.05 KGF-CM (FIG.1)



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ATTACH MICROPHONE RUBER ONTO THE MICROPHONE.



INSTALL VIBRATOR INTO KEYBOARD BOTTOM COVER.



ASSEMBLE KEYBOARD BOTTOM COVER, START FROM THE USB CONNECTOR SIDE.

PRESS THE AREA AROUND THE KEYBOARD BOTTOM COVER TO FIX THE KEYBOARD BOTTOM AND UPPER COVER.

PREPARE THE "SCREWS".

FASTEN TWO SCREWS ON THE KEYBOARD BOTTOM COVER.

NOTE: **SCREW TORQUE 1.0 ± 0.05 KGF-CM**



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PREPARE "ANTENNA RUBBER".

INSERT THE ANTENNA RUBBER INTO THE HOLE.

BE CAREFUL WITH THE DIRECTION.



PREPARE "BATTERY"

ALIGN THE EXPOSED METAL CONTACTS ON THE EDGE OF THE BATTERY WITH THE PRONGS IN THE BODY OF THE PHONE.

PUSH THE BOTTOM OF THE BATTERY INTO PLACE.



PREPARE "BATTERY COVER"



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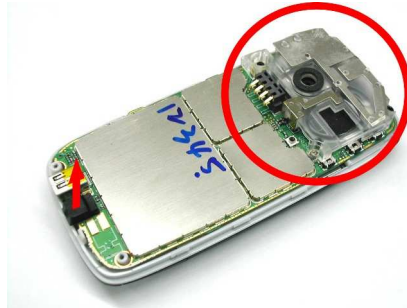


REPLACE THE BATTERY COVER

ASSEMBLY PROCESS IS DONE, DEVICE IS
READY FOR INSPECTION

2.2 Disassembling procedure

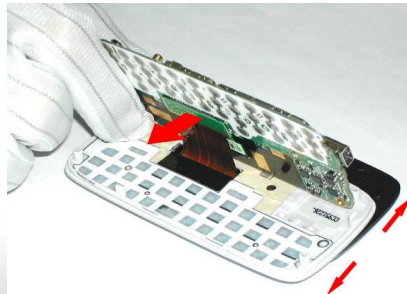
	<p>SLIDE THE BATTERY COVER DOWN TO OPEN IT</p>
	<p>REMOVE THE BATTERY BY LIFTING IT UP FROM THE BOTTOM END.</p>
	<p>LOOSEN TWO SCREWS FROM KEYBOARD BOTTOM COVER.</p> <p>INSERT THE FLAT PLASTIC STICK BETWEEN THE KEYBOARD BOTTOM AND UPPER COVER THEN FOLLOW THE LEFT PICTURE TO SEPARATE THE KEYBOARD BOTTOM COVER.</p> <p>(DON'T DO THIS STEP TO THE BOTTOM PART / USB CONNECTOR SIDE)</p>



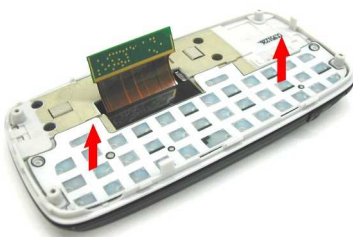
TAKE THE VIBRATOR OUT FROM KEYBOARD BOTTOM COVER.

REMOVE MICROPHONE RUBBER.

LOOSEN AND TAKE OUT THREE SCREWS FROM SOUND BOX AS SHOWN ON THE LEFT.



SLIDE THE KEYBOARD UPPER COVER TO THE CENTER POSITION THEN DISCONNECT RIGID-FLEX BOARD CONNECTOR FROM THE MAIN BOARD.



REMOVE ALPHABETIC KEYPAD.

LOOSEN 4 SCREWS FROM KEYBOARD UPPER COVER.



OPEN MICROSD AND SIM CARD DOOR.
LOOSEN 6 SCREWS FROM DISPLAY BOTTOM COVER.



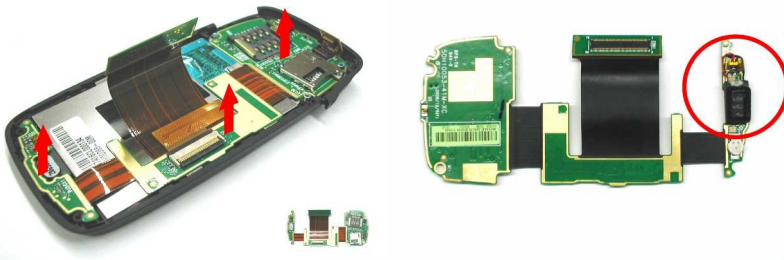
INSERT THE FLAT PLASTIC STICK BETWEEN THE DISPLAY BOTTOM AND UPPER COVER THEN FOLLOW THE LEFT PICTURE TO SEPARATE THE DISPLAY BOTTOM COVER.
TURN THE DISPLAY BOTTOM COVER ABOUT 30 DEGREE TO LET THE RIGID-FLEX BOARD CONNECTOR PASS THROUGH.
TAKE OUT THE DISPLAY BOTTOM COVER.



REMOVE KAPTON TAPE ON THE TWO LOCATION AS SHOWN ON THE LEFT PICTURE.
DISASSEMBLE "KEYPAD FPC"



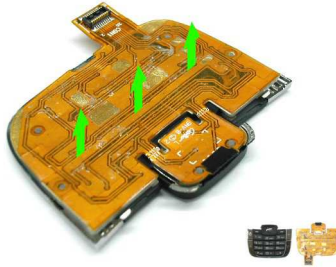
DISASSEMBLE MICROSD COVER RUBBER.
DISASSEMBLE LCD FPC.



TAKE THE RIGID-FLEX BOARD OUT FROM THE BEZEL (INCLUDING THE RECEIVER)
REMOVE KAPTON TAPE AND DISCONNECT THE RECEIVER.

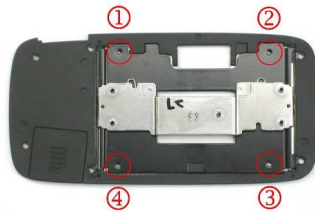


REMOVE THE EMI GASKET AS SHOWN ON THE LEFT PICTURE.
TAKE THE LCD OUT FROM THE DISPLAY UPPER COVER.



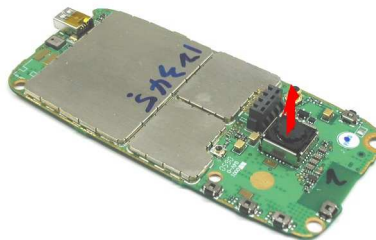
DISASSEMBLE NUMERIC KEYPAD AS SHOWN ON THE LEFT.

SEPARATE THE NUMERIC KEYPAD AND NUMERIC KEYPAD FPC.



UN-INSTALL SPEAKER FROM SOUND BOX.

LOOSEN 4 SCREWS TO SEPARATE SLIDER-HINGE AND DISPLAY BOTTOM COVER.



REMOVE CAMERA SHIELDING.

USE SPECIAL TOOL AS SHOWN ON THE LEFT BELLOW AND FOLLOW BELOW STEP TO UN-INSTALL CAMERA MODULE



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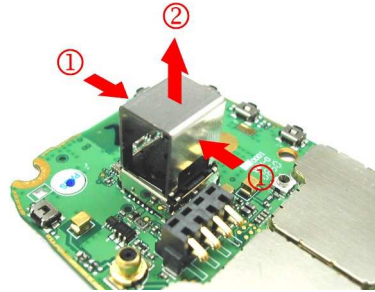
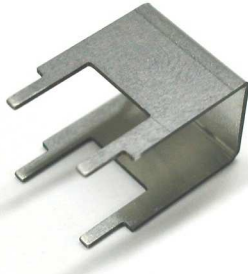
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DISASSEMBLY PROCESS IS DONE

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3. DIAGNOSTICS PROGRAM AND WINCE TEST ITEM

3.1 Test Plan

Mode	No	Item	Description	Remark
Diagnostic	Function Test			
	1	Auto Test	Full functions test automatically.	
	2	SDRAM Test	RAM memory test.	NA
	3	Display Test	Color bar/R/G/B/Black/White/Gray pattern.	
	4	LED Test	Green/Red/Blue/Key Pad.	
	5	Key Test	Soft1/Soft2/Home/Back/Talk/End/5-way Navigation/ Numeric / Alphabetic Keypad/Vol Up-Down/ESG /PC/ Power/Camera, SIM door	
	6	B. L Test	Front light test (Dim/High/Off).	NA
	7	Timer Test	RTC (Real time clock) test.	NA
	8	SD Card Test	SD card Read/Write test.	
	9	Checksum Test	ROM checksum test.	
	10	Battery Test	Battery info check.	NA
	11	Vibrator	Vibrator on test.	
	12	Speaker Play Test	Speaker out test.	
	13	Receiver Play Test	Receiver out test.	
	14	Headset Play Test	Headset out test.	
	15	Int. Rec-Spk out Test	Internal MIC record and play to Speaker test.	
	16	HST Rec-HST out Test	External MIC record and play to Headset test.	
	Run-in Test			
	1	1 Hour	1 Hour Run-in Test	Option
	2	2 Hours	2 Hours Run-in Test	Option
3	4 Hours	4 Hours Run-in Test	Option	
4	8 Hours	8 Hours Run-in Test	Option	
Unit Information Check				
Format Storage				
Mode	No	Item	Description	Remark
WinCE	1	USB Test	USB link test (Microsoft ActiveSync).	
	2	Camera Test	Picture capture test.	
	3	Bluetooth Test	Bluetooth test.	
	4	Wifi Test	Wifi Test	

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3.2 How to enter diagnostic mode and boot-loader mode

- Power OFF.
- Insert Diagnostic Micro SD card (provide by HTC) to device.
- Press and hold "[Camera + Power](#)" button simultaneously then release the power button first after hold for about 1 seconds, and then the device will enter boot-loader mode.
- On the test menu, use Navigation key to select the item then press Action key to test, and you could use numeric key also to select the test item. Use Right/Left to change to go to the next page.
- Remove the battery directly to exit the Diagnostic program when finish the testing.
- If the system fails while testing, please also remove the battery directly to turn the power off.

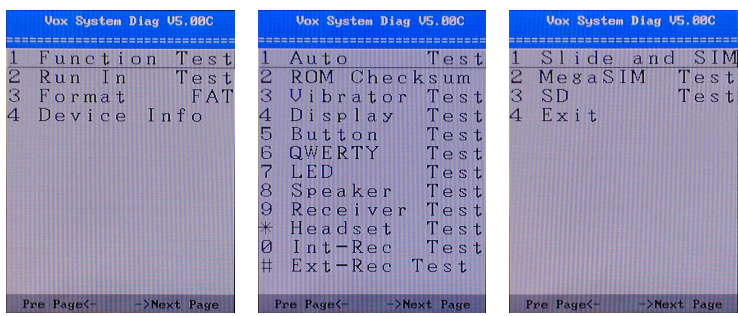
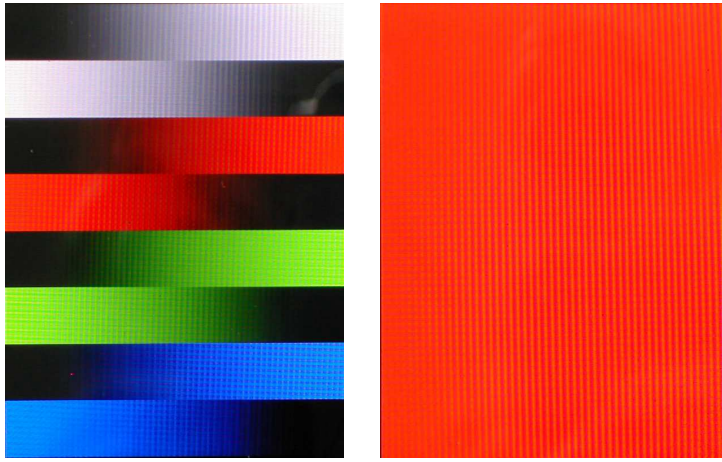


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3.3 Test Procedure

<p>A. Diagnostic test menu.</p>	
<p>B. Display test screen.</p> <ul style="list-style-type: none">- Color bar pattern.- Red pattern.	



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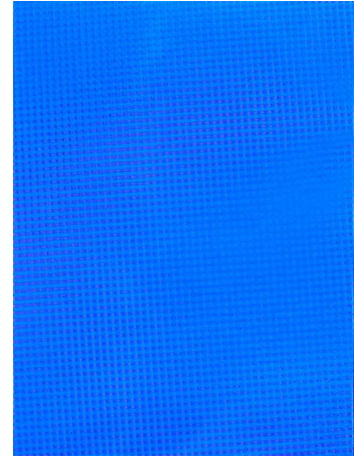
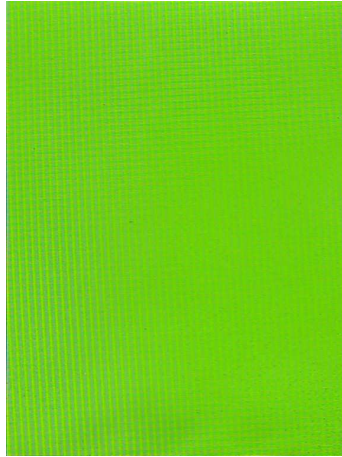
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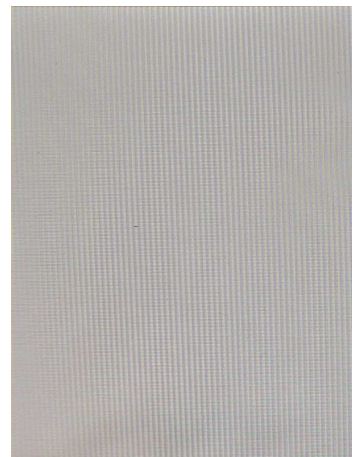
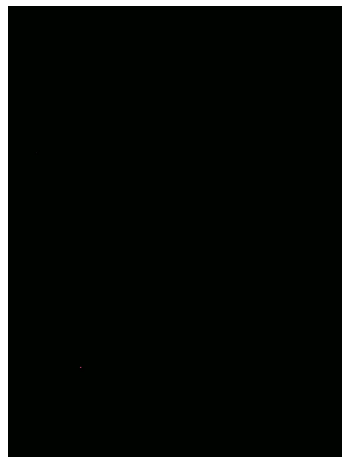
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- Green pattern.
- Blue pattern.



- Black pattern.
- White pattern.



D. QWERTY test screen

```

QWERTY Test
Q => OK
W => OK
E => OK
R => OK
T => OK
Y => OK
U => OK
I => OK
O => OK
P => OK
Dot => OK
Backspace => OK
Cap/Shift => OK
A => OK
S =>
  
```

```

QWERTY Test
D => OK
F => OK
G => OK
H => OK
J => OK
K => OK
L => OK
Up => OK
Enter => OK
Function => OK
Z => OK
X => OK
C => OK
U => OK
B =>
  
```

```

QWERTY Test
Space => OK
N => OK
M => OK
Left => OK
Down => OK
Right => OK
Soft3 => OK
Soft4 =>
  
```



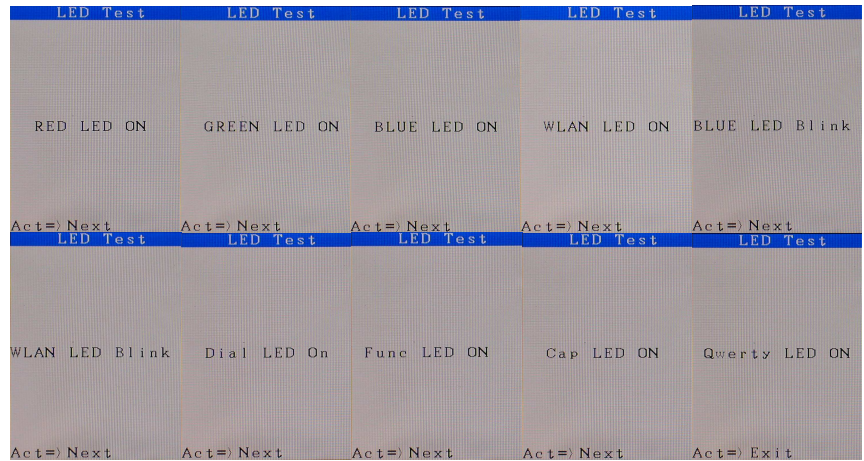
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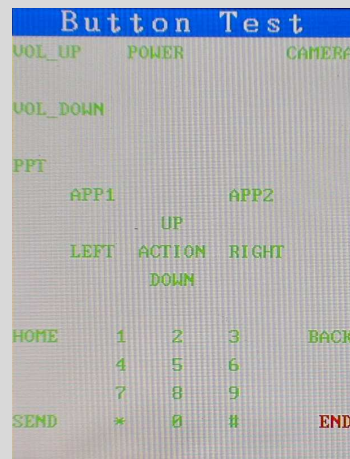
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C. LED test screen.
LED RED>GREEN>BLUE>WLAN>
BLINKING BLUE AND WLAN LED
>DIAL>FUNC>CAPS>QWERTY

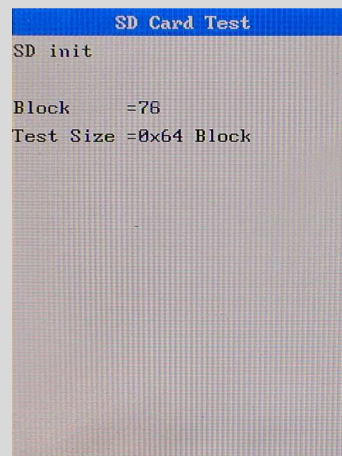
Press<Act> to next



D. Button test screen.



E. SD Card Test

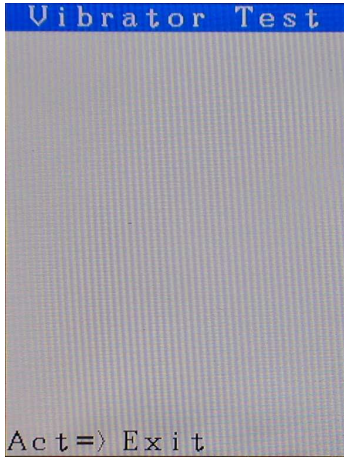
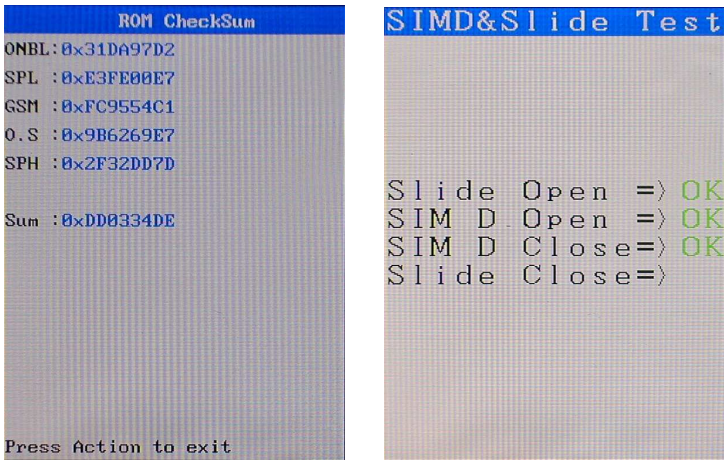
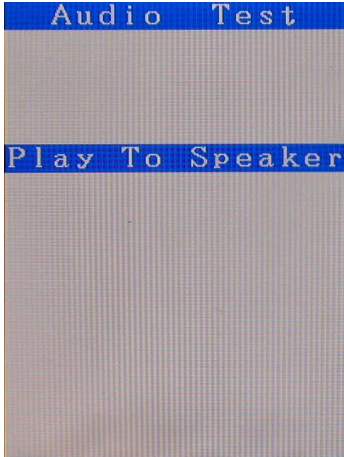




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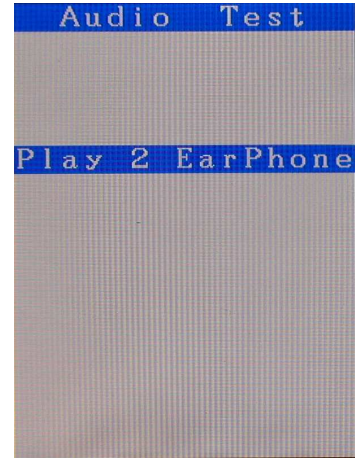
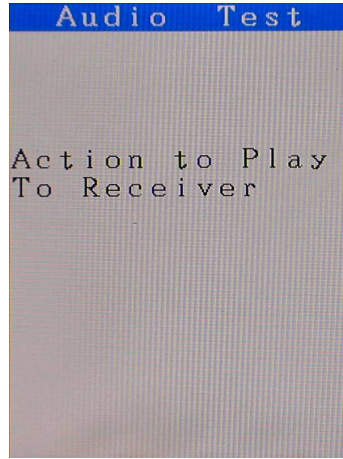
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F. Vibrator test screen.	 <p>Vibrator Test</p> <p>Act=> Exit</p>
G. ROM checksum test screen. H. Slide and SIM door test screen.	 <p>ROM CheckSum</p> <p>ONBL: 0x31DA97D2 SPL : 0xE3FE00E7 GSM : 0xFC9554C1 O.S : 0x9B6269E7 SPH : 0x2F32DD7D</p> <p>Sum : 0xDD0334DE</p> <p>Press Action to exit</p> <p>SIM D & Slide Test</p> <p>Slide Open => OK SIM D Open => OK SIM D Close=> OK Slide Close=></p>
I. Speaker play test screen.	 <p>Audio Test</p> <p>Play To Speaker</p>

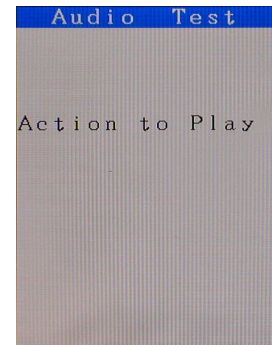
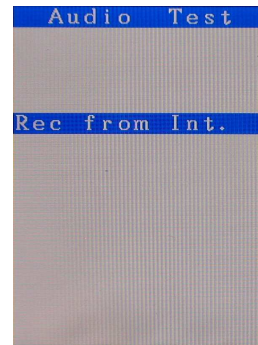
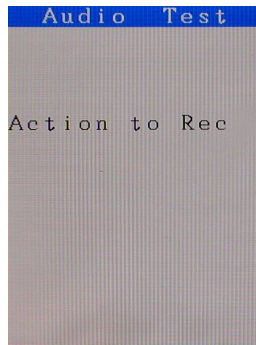


- J. Receiver play test screen.
- K. Headset play test screen.



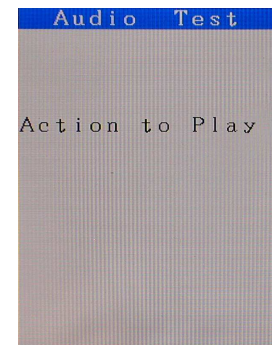
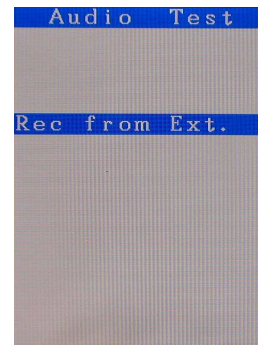
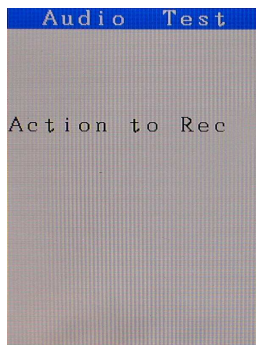
- L. Int. Record – SPK out test screen.

[Note]
The recording path of normal distance for internal microphone is around 15 to 30 cm.



- M. Ext. Record – Hst out test screen.

[Note]
The recording path of normal distance for internal microphone is around 15 to 30 cm.



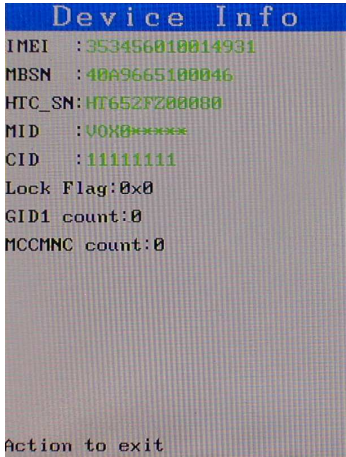
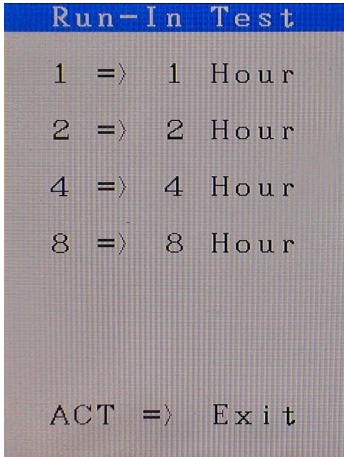


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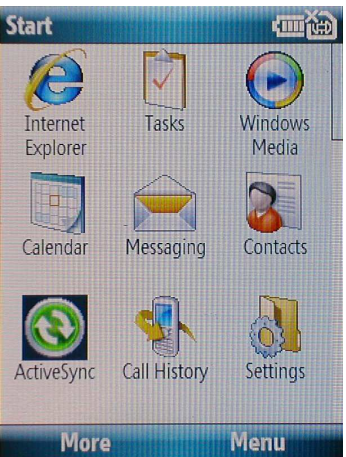
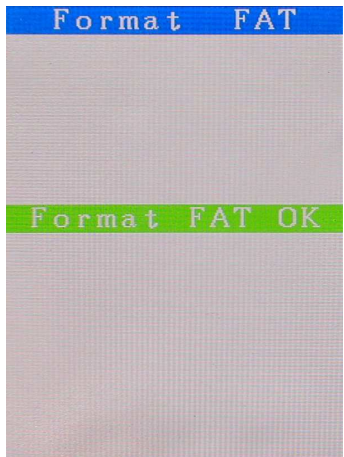
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N. Run-in test screen.
O. Device information test screen.



P. Format storage test screen.
Q. USB link test screen (ActiveSync)
- Start->ActiveSync.



R. Bluetooth test screen.
- Start->Settings->Connections
->Bluetooth->Bluetooth
S. Camera test screen.
- Start->Camera.





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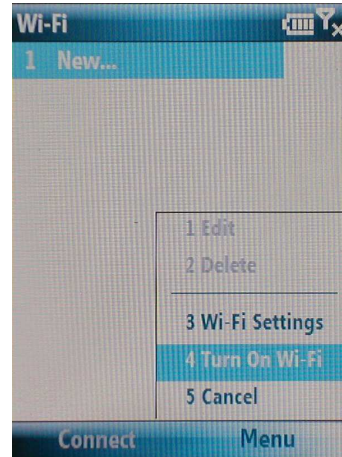
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- T. Wi-Fi test screen.
- Start->Settings->Connections
 - > WLAN Settings->Wi-Fi

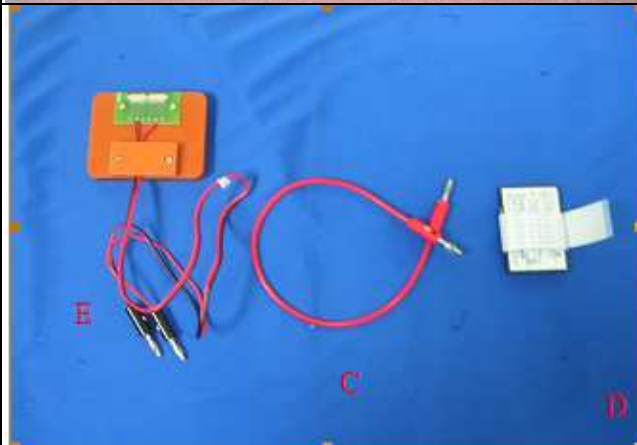


4. LEAKAGE CURRENT MEASUREMENT



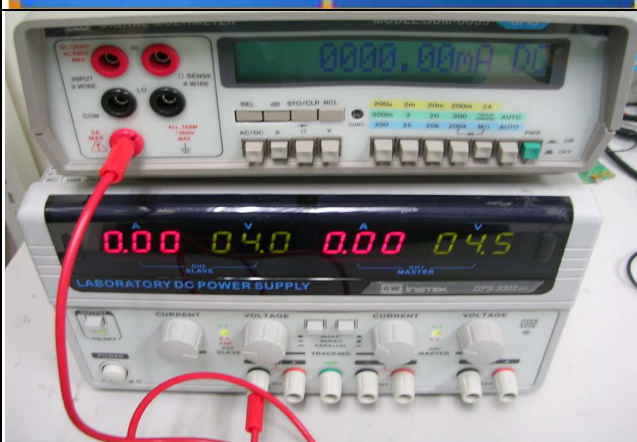
Equipment need:

- A. Power Supply (set at 4 V /1A).
- B. Micro-Current Meter (support 0.5mA ~ 1A).

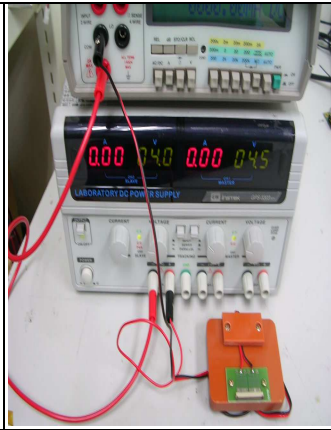
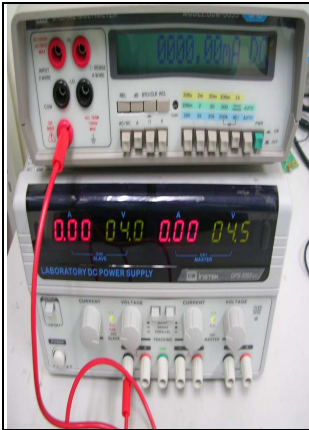


2. Fixture needed:

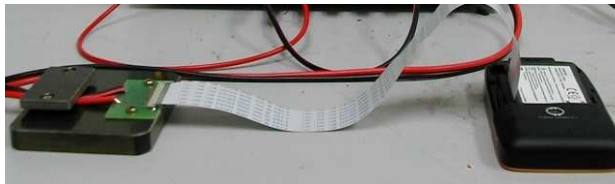
- C. Cable
- D. Battery with extension cable
- E. Current series jig.(with black and red cable)



3. Connect cable (C) to positive polarity of power supply (A) and current meter (B)



4. Connect cable of fixture(E) to negative polarity of power supply (A) and current meter (B)



5. Setting is Ready now for testing
(Don't turn the power on at this moment)



6. Turn on power supply (4V) and current meter (2A)

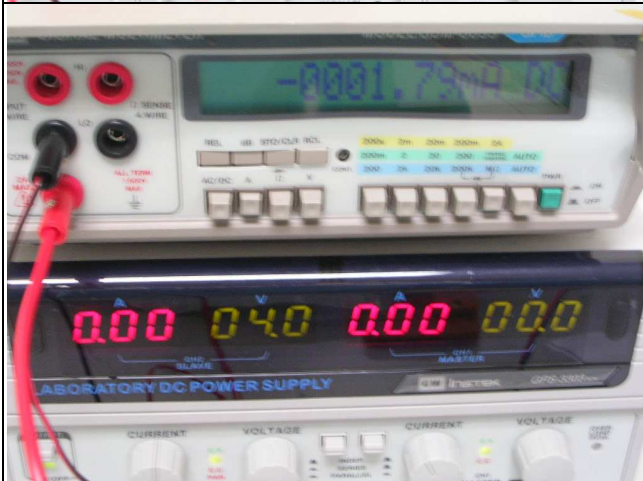
Unit setting:
* Flight mode
* Turn off Bluetooth
* Turn off Wi-Fi



7. Measure flight mode current (condition: Display & BL off/RF off/BT off)

Wait about 15 sec, back light will be off and after 30 sec display will be off as well, in this condition, please check current value on the current meter.

Current value must be under **TBD mA**, if over, it means M/B failed, please replace M/B for repair.



8. Measure power off current

Check current value on the current meter, Current value must be under **0.1 mA**, if over, it means M/B failed, please replace M/B for repair.

Conclusions

If above measurement results are Pass both in flight mode and power off mode, then the Main board is judged as normal (Good)

If any of measurement modes is **FAILED**, please replace the main board.

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5. COSMETIC INSPECTION CRITERIA

5.1 Definition of Cosmetic Standard

- Standard is for refurbishment inspection.

5.2 Visual Inspection Requirements

- Examination of the device shall be made with workbench light turned on.
- Ambient illumination is to be 500-1000 Lux.
- The inspector shall examine the device at a distance of 30cm ±45degrees.
- Inspection time: 2 seconds per surface.

5.3 Definitions of Inspection Defects and Areas

- Scratch : A linear cut that penetrated beyond the surface of the material / a scratch can be felt by running your finger over it.
- Dot / Dent : A recessed spot or void in the surface of the material.
- Lint : A linear foreign object beyond the surface of the LCD.
- D: Diameter/ L: Length/ W: Width/ N: Number of defects/ S: Distance of dot to dot.
- Area A: The front side of main unit.
- Area B: Alphabetic keyboard area.
- Area C: Five sides of device (Top, Bottom, Left, Right and Back view).
- Area D: Internal area covered by battery cover and internal side of battery cover.



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5.4 Cosmetic Criteria Table

➤ Main unit inspection:

Description	Criteria
Area A	1.Exposure of substratum is not acceptable 2.Scratch : L□4mm ,W□0.2mm ,N□2 (ACCEPT), S□10mm
Area B	1.Exposure of substratum is not acceptable 2.Scratch : L□7mm ,W□0.25mm ,N□3 (ACCEPT), S□10mm 3. Unconscious scratch on IR window is ignored. 4.IR window conscious scratch: L□3mm,W□0.2mm,N□3 (ACCEPT) 5.Bright mark area should be less than 1 mm x 10 mm
Area C	1. Label area could be ignored.. 2. Exposure of substratum is not acceptable. 3.Scratch : L□10mm ,W□0.4mm ,N□5 (ACCEPT), S□5mm
Area D	1. No broken, no interfere 2. No foreign particle 3. Surface rub scratch < 1cm ² 4. Battery, SIM or microSD pin connector deform is not allowed

➤ LCM inspection:

- Electrical characteristic inspection standard

Symptom		Standard	Distance between defect dots
Bright Dots	Single	Red+ Green+ Blue □3	S□5 mm
	2 adjacent	N□0	
	3 or more adjacent	N=0	
Dark Dots	Single	Total Number □ 2	S□5 mm
	2 adjacent	N□0	
Dark or Bright lines		N=0	
All Allowable Dots Defects		Total Number □ 3	S□5 mm
2 adjacent of dark dot and bright dot shall be counted as 1 bright dot.			

* The total of LCM defect number must be less than 3 counts.



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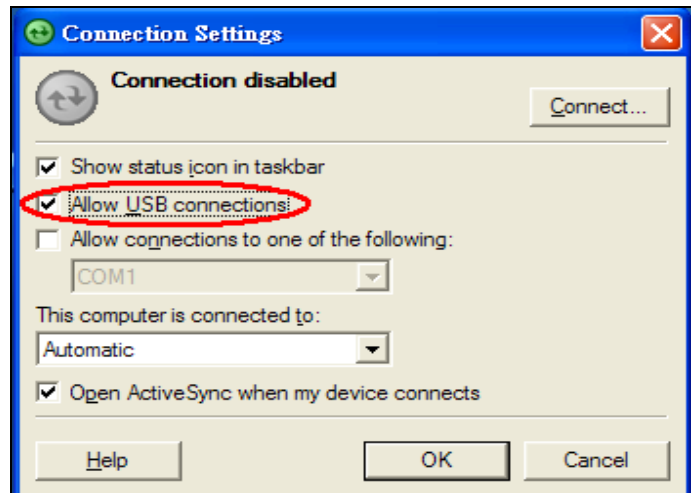
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6. OS, GSM ROM IMAGE RE-FLASH PROCEDURE

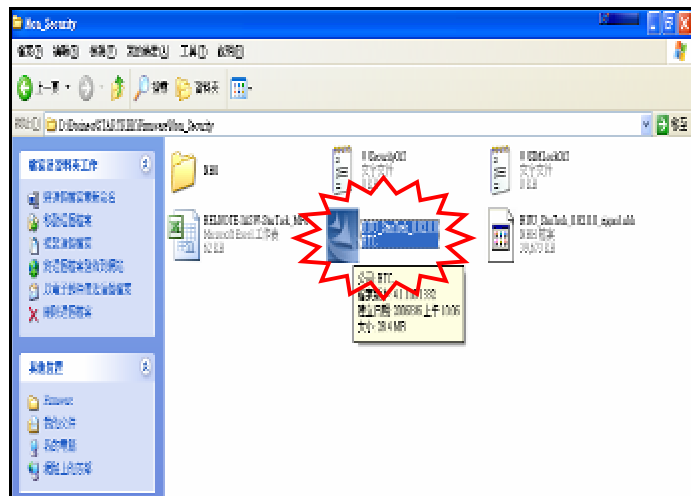
6.1 OS upgrade trough RUU

- Requirement:
 - Windows 2000/XP.
 - Microsoft ActiveSync 4.5 or above.
 - USB Cable.
 - Firmware.
- Procedure:

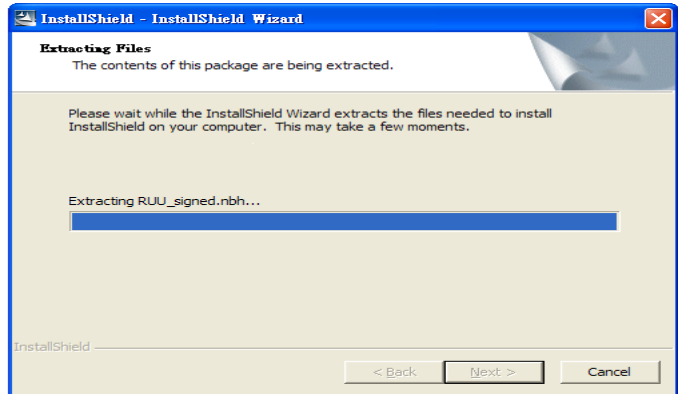
- Boot up the device and entry WinCE mode.
- Select "Allow USB connections" in Microsoft ActiveSync.
- Connect your device to desktop or laptop via USB cable.
- Check the pop-up message from Microsoft ActiveSync when device is synchronized with PC.



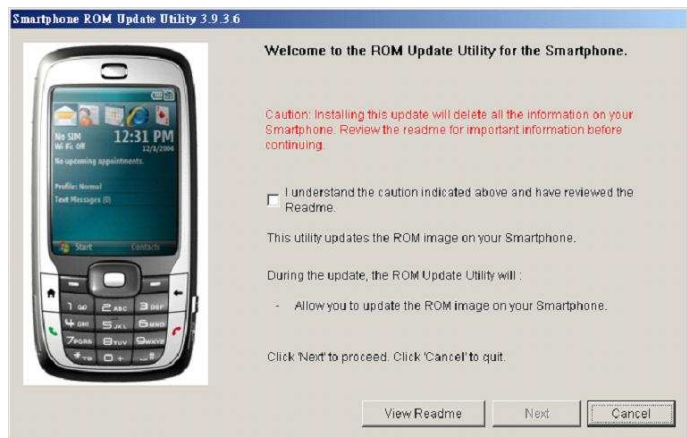
- Execute RUU program from your PC.



- Read the pop-up message form ROM update utility.
- Click “Next” to proceed.



- On the **Welcome Screen**, select the “I understand...” checkbox then click **Next** to begin the ROM update installation



- On the next screen, follow the listed instructions in the dialog box first and select the “I completed...” checkbox. When you are done, click **Next** to proceed.
- Note: You should read and follow all the instructions listed before clicking **Next**.





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- The following message will then be displayed, indicating that the utility is verifying and acquiring information about the device as preparation for the update process. Wait for this verification process to finish.

Verifying the information on your Smartphone... Please wait...

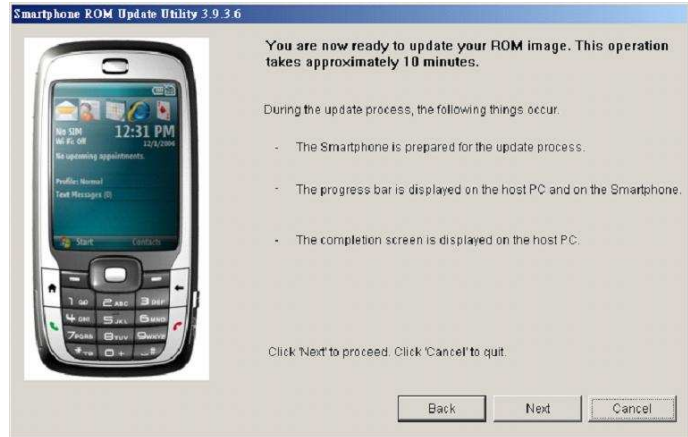
- Current information about the device, such as the model ID, image version and language will then be displayed. Click **Update** to proceed.



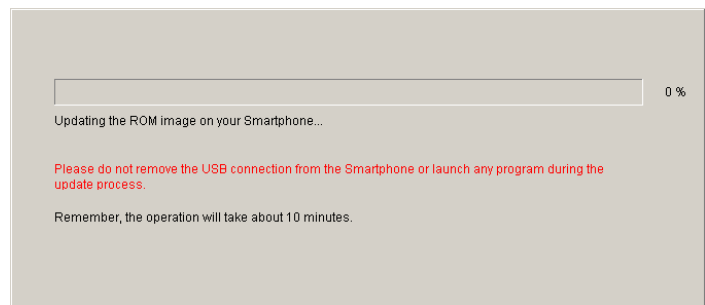
- The information about the new ROM update will then be displayed. If you are certain that you want to install the Mobile Device with the new ROM update, click **Next** to proceed



- A confirmation message then appears and shows the length of time it will take to copy the necessary files (including radio image) to the device. Click **Next** to begin the update.



- A progress bar will run through the screen during the update process.
- Note: In the middle of the update process, the progress bar may stop running. This is normal as the RUU is adjusting itself to complete the update process automatically.

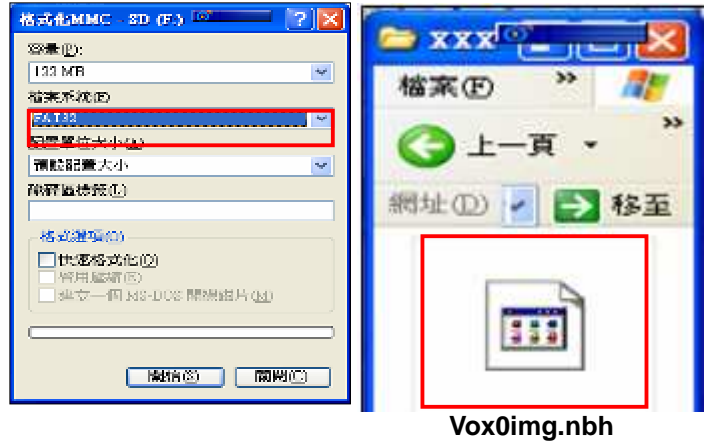


- When you see the screen below, it means update is complete. Click Finish to exit the utility.
- The OS update is completed.



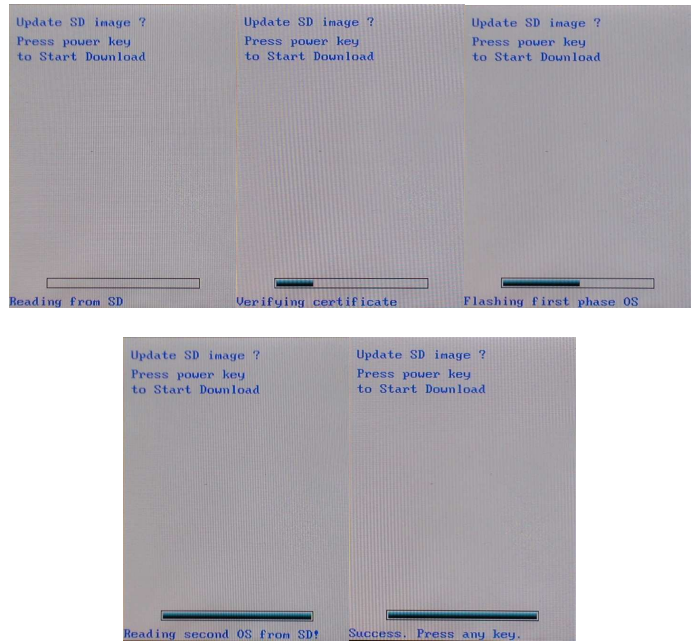
6.2 OS upgrade trough CD card procedure

- Prepare a micro SD card and format as FAT32 by your PC.
- Copy image file XXX.nbh to the micro SD card and rename to **Vox0img.nbh**.



Vox0img.nbh

- Put this micro SD card in your device and enter Boot-Loader mode.
- Press the **“Camera + Power”** button simultaneously and release the Power button first after hold for 2 seconds, and then the device will enter boot-loader mode.
- When enter boot-loader mode and see the download message, follow the instruction on display for download process.



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7. GENERIC TROUBLESHOOTING

(1) Power related:

➤ No Power / Can Not Boot

1. Charge the device or boot the device using AC adapter and check if work.
2. If Charge LED is not ON, fuse might be open, replace one.
3. If device stay in boot loader mode (Four color display), link device with PC and execute RUU.
4. Check battery connector with no damage
5. Check if LCM is connected properly.
6. Replace MB.

➤ Cannot hold charge (low standby/operation)

1. Check leakage current measured should be within spec.(Refer Chapter Leakage current measurement)
2. Ensure abnormal current measured is not caused by camera.
3. Replace MB.

➤ Cannot charge

1. Attach AC adapter, Charge LED has no indication.
2. Check battery connector if damage
3. Ensure charge LED is good (not defective)
4. MB defective
5. Device accessory such as AC adapter, battery defective.

➤ Cannot switch off the phone

1. Press power button for 3 seconds.
2. Reset phone (Remove and re-attach the battery)
3. Perform clear storage (all user data will be lost) by following either process 1 or process 2:

Process 1

>Power off device

>Hold APP1 (Start key) + APP2 (Contacts key) + Power button simultaneously around 3 seconds, and release power button first.

Process 2

In Windows mode go to Setting>Accessory>Clear storage

Device will back to factory default and rebuild its configuration.

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Continue page for cannot switch off device:

4. Perform OS Re-flash
5. Possibly MB defective

➤ **Power off during operation**

Power off automatically

1. Battery power runs out.
2. Battery cannot hold charge
3. MB defective

Shutdown immediately in anytime

1. Battery defective
2. MB defective

(2) Communication

➤ USB port failure

1. Check connection setting in activesync.
2. Check cable is connected properly.
3. USB cable is defective
4. Connector in MB is defective
5. Replace MB

➤ Defective IR

1. Ensure port is clean and within allowed distance
2. MB is defective.

(3) Audio

➤ Dump speaker (No sound heard from internal speaker)/ Speaker faulty

1. Check the setting (sound, profile)
2. Something (foreign particle) stuck in audio jack.
3. Check pads of connecting speaker to PCB are clean.
4. Check speaker spring/pin is not bent or broken
5. Speaker is defective

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6. MB is defective

- Microphone does not work (Defective recording)

No voice is recorded

1. Please check if any damage on microphone.
2. Microphone defective
3. MB is defective

Voice note function does not work under OS.

1. Perform Clear storage
2. Re-flash OS

Noisy, sound deformed during recording

1. Microphone defective
2. MB is defective

(4) Others

Camera malfunction

1. Verify that the camera module is assembled properly.
2. Ensure to tear off the protect film before testing.

System Hang on Booting

Reboot the device (Remove the battery and install it again)

Abnormal display

1. Ensure device is not coming with liquid damage (check water indicator)
2. Ensure device is not dismantled (abuse)
3. Check LCM connection
4. Replace LCM if necessary
5. Replace Rigid-Flex board if necessary

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6. Replace Main Board if necessary.

Buttons Do Not Respond

1. Dismantle the unit, check the status of switches on the Main Board and the plastic parts of button of the Button not responding.
2. Try with another Main Board, rigid-Flex or keypad.
3. Replace Main Board, rigid-Flex or keypad if necessary.
4. Once the defective part has been identified, verify it again with the defective part whether the symptom could be duplicated.
5. Hard Reset The unit.



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8. GENERIC SPARE PART LIST AND PICTURES

Item	Number	Description	Qty
1	35H00082-00M	BATTERY_LI-POLYMER,1050mAh,3.7V,A94CA010F,SIMPLO,60/-20degC,54.1*39.7*5.25mm	1
2	36H00486-00M	Speaker,MERRY,DSH962-002	1
3	36H00523-00M	Vibrator,JT0406-30CSR1,JNTECH,Cylindrical,3V,100mA,12000+/-3000 rpm,60/-20degC,11.2*5.1*5.8mm	1
4	36H00524-00M	Receiver,DTR882-002,MERRY	1
5	51H00386-00M	PCBA-MAIN BOARD,w/WIFI,Mega SIM,EU,VOX	1
6	51H10053-00M	Rigid-Flex Board ASSY,VOX	1
7	54H00211-00M	Camera Module,DCM-200MES,LITE-ON SEMICONDUCTOR,SOC2020 sensor,9*9*5.65mm,Vox	1
8	60H00087-00M	TFT-LCD Module,TX06D10VM0AAA,HITACHI,59.3*42.6*2.25mm	1
9	71H01810-00M	Cover,Battery,CHEW CHIENG,VOX	1
10	72H01548-00M	Screw,POINT SCREW,KH-M16-L14-NI,Libra	8
11	72H01875-00M	Shielding,Camera,JUN-YEN,Vox	1
12	72H01876-00M	Screw,M1.6,KH,D2.5*3,NI+NYLOK	1
13	72H01889-00M	EMI Gasket,LCD,CATERON,Vox	1
14	72H01892-00M	Screw,PHK14*3.8,BLACK	2
15	72H01893-00M	Screw,FPHM1.4-0.3*3.3(2.45,0.3),AISI-1018,BLACK	4
16	72H01894-00M	Screw,HAMA NAKA SHOUKIN,PH M1.6,T6,3.2D*4L,Nickel(Silver)	4
17	73H20099-41M	FPC Pre-Assy,numeric FPC,GLOBAL FLEX,VOX	1
18	74H00816-00M	Bezel Pre-Assy,Display bottom cover assy,CHEW CHIENG,VOX	1
19	74H00817-00M	Bezel Pre-Assy,keyboard upper cover assy,VOX	1
20	74H00818-00M	Bezel Pre-Assy,Display upper cover assy,CHEW CHIENG,VOX	1
21	74H00819-00M	Bezel Pre-Assy,keyboard bottom cover assy,CHEW CHIENG,VOX	1
22	74H00820-00M	Sound Box Pre-Assy,VOX	1
23	74H00822-00M	Slider-Hinge Pre-Assy,Semi-Auto,VOX	1
24	74H00823-00M	Keypad Pre-Assy,QWERTY KEY,VOX	1
25	74H00824-00M	Keypad Pre-Assy,Number key,VOX	1
26	76H01719-00M	ME Gasket,qwerty mylar,Vox	2
27	76H01721-00M	Rubber,Silicon,Microphone,VOX	1
28	76H01723-00M	Rubber,TPU,Micro-SD cover,UNITEL,VOX	1
29	76H01724-00M	Rubber,Silicon,B to B,5.5*2.5*0.85mm,VOX	2
30	76H01728-00M	Tape,RF_BD,insulation,T-TEK,VOX	2
31	76H01729-00M	Mylar,main-pcb-TP,FR1,VOX	1
32	76H01730-00M	Tape,LCDFPC,insulation,T-TEK,VOX	1
33	76H01777-00M	ME Gasket,Soundbox,Vox	1
34	76H01778-00M	Rubber,Silicon,A-Metal,Vox	1
35	77H00474-00M	Water Sensitive Label,5*5mm,MING JYE,ATLAS	1
36	76H01734-00M	Rubber,external antenna,UNITEL,VOX	1
37	77H00460-01M	Tamper-Evident Label,VOID wording,black background,3*3mm,MING JYE	1



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Pictures

Part no	74H00817-00M		Part no	73H20099-41M	
Description	Keyboard upper cover assy		Description	Numeric FPC Pre-Assy	
Quantity	1		Quantity	1	
Part no	74H00816-00M		Part no	74H00822-00M	
Description	Display bottom cover assy		Description	Slider-Hinge Pre-Assy	
Quantity	1		Quantity	1	
Part no	74H00818-00M		Part no	72H01876-00M	
Description	Display upper cover assy		Description	Screw	
Quantity	1		Quantity	1	
Part no	74H00819-00M		Part no	74H00820-00M	
Description	Keyboard bottom cover assy		Description	Sound Box Pre-Assy	
Quantity	1		Quantity	0.001	
Part no	74H00824-00M		Part no	76H01723-00M	
Description	Numeric Keypad		Description	Micro-SD Cover Rubber	
Quantity	1		Quantity	1	



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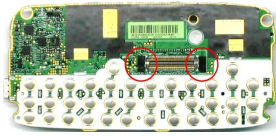


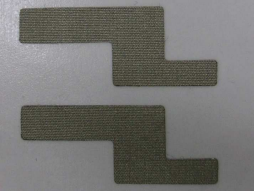

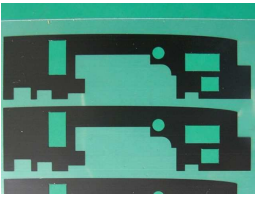

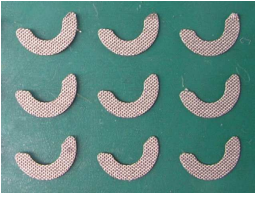
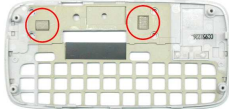
Part no	71H01810-00M		Part no	35H00082-00M	
Description	Battery Cover		Description	BATTERY_LI-POLYMER 1050mAh,3.7V	
Quantity	1		Quantity	1	
Part no	74H00823-00M		Part no	51H00386-00M	
Description	QWERTY Keypad		Description	PCBA-MAIN BOARD	
Quantity	1		Quantity	1	
Part no	54H00211-00M		Part no	51H10053-00M	
Description	Camera Module		Description	Rigid-Flex Board	
Quantity	1		Quantity	1	
Part no	60H00087-00M		Part no	72H01548-00M	
Description	TFT-LCD Module		Description	Screw	
Quantity	1		Quantity	8	
Part no	72H01875-00M		Part no	36H00486-00M	
Description	Camera Shielding		Description	Speaker	
Quantity	1		Quantity	1	
Part no	36H00523-00M		Part no		
Description	Vibrator		Description	Receiver	
Quantity	1		Quantity	1	
Part no	76H01721-00M		Part no	77H00474-00M	
Description	Microphone Rubber		Description	Water Sensitive Label	
Quantity	1		Quantity	1	




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Part no	72H01892-00M		Part no	72H01893-00M	
Description	Screw		Description	Screw	
Quantity	2		Quantity	4	
Part no	72H01894-00M		Part no	76H01724-00M	
Description	Screw		Description	B to B Silicon Rubber	
Quantity	4		Quantity	2	
Part no	76H01734-00M		Part no	77H00460-01M	
Description	External Antenna Rubber		Description	Tamper-Evident Label	
Quantity	1		Quantity	1	
Part no	72H01889-00M		Part no	76H01728-00M	
Description	EMI Gasket, LCD		Description	Tape, RF_BD	
Quantity	1		Quantity	2	
Part no	76H01729-00M		Part no	76H01730-00M	
Description	Main-PCB-TP Mylar		Description	Tape, LCD FPC	
Quantity	1		Quantity	1	
Part no	76H01777-00M		Part no	76H01719-00M	
Description	ME Gasket, Soundbox		Description	ME Gasket, qwerty mylar	
Quantity	1		Quantity	2	

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APPENDIX

A.GENERIC LABELING PLAN

1. Agency label

1.1.1 Agency label_VOX0101

HTC P/N: 77H00477-00M

Size: 50.54 X 38.75mm



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1.1.2 Agency label_VOX0110

HTC P/N: 77H00477-01M

Size: 50.54 X 38.75mm



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1.2 Unit label location explanation

Water sensitive label

HTC P/N: 77H00474-00M

Qty: 1

Tamper evident label

HTC P/N: 77H00460-01M

Qty: 1




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1.3 Screen Protector

HTC P/N: 76H01681-00M

Size: 53.65 X 57.5mm



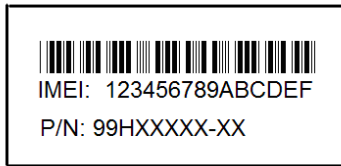
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2. FRU label

2.1. IMEI Label for all Main Board Bulk PKG

HTC P/N: 77H00019-00

Size: 25.0 × 10.0 mm



Label Characteristic:

Material: Hi Fi printing paper

Color: pantone White

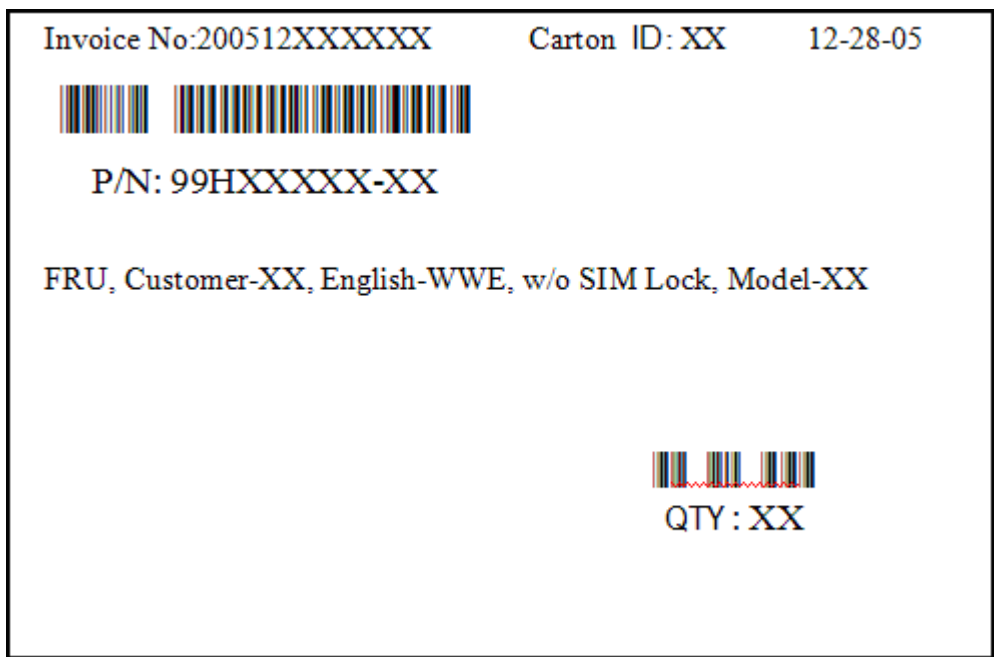
Ink: B110

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2.2 FRU Box label (Bulk Packing)

HTC P/N: 77H30026-00M

Size:152.4 × 101.6 mm



Remark: Please refer above label description on the next page

Label Characteristic:

Material: Hi Fi printing paper

Color: pantone White

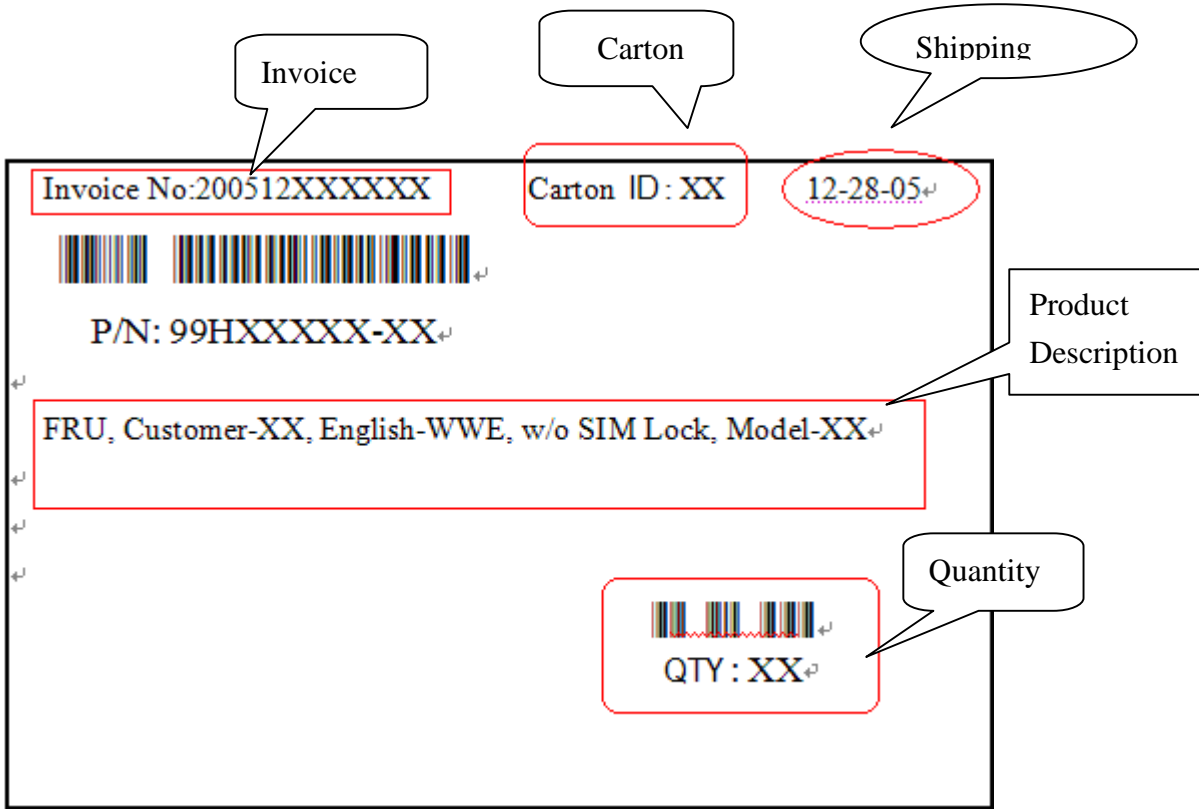
Ink: B110



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Note: Above printing contents is just for reference only

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2.3 FRU Pallet ID label

HTC P/N: 77H30026-00M

Size: 101.6 × 152.4 mm



Label Characteristic:

Material: Hi Fi printing paper

Color: pantone White

Ink: B110

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B. RF Antenna Test Specification

Items	Test Name	TxLevel	TCH	Ist 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	
4	Fast Bit Error Rate	5	42	-104	
5	Fast Bit Error Rate	5	124	-104	
E-GSM 900 Ttansmitter Test					
6	TX Phase RMS Error	5	975	-75	
7	TX Phase Peak Error	5	975	-75	
8	TX Frequency Error	5	975	-75	
9	TX Phase RMS Error	5	42	-75	
10	TX Phase Peak Error	5	42	-75	
11	TX Frequency Error	5	42	-75	
12	TX Phase RMS Error	5	124	-75	
13	TX Phase Peak Error	5	124	-75	
14	TX Frequency Error	5	124	-75	
15	Check TX Power	5	975	-75	
16	Check TX Power	5	42	-75	
17	Check TX Power	5	124	-75	
DCS 1800 ReceiverTest					
1	Fast Bit Error Rate	0	512	-104	
2	Fast Bit Error Rate	0	698	-104	
3	Fast Bit Error Rate	0	885	-104	
DCS 1800 Ttansmitter Test					
4	TX Phase RMS Error	0	512	-75	
5	TX Phase Peak Error	0	512	-75	
6	TX Frequency Error	0	512	-75	
7	TX Phase RMS Error	0	698	-75	
8	TX Phase Peak Error	0	698	-75	
9	TX Frequency Error	0	698	-75	
10	TX Phase RMS Error	0	885	-75	
11	TX Phase Peak Error	0	885	-75	
12	TX Frequency Error	0	885	-75	
13	Check TX Power	0	512	-75	
14	Check TX Power	0	698	-75	
15	Check TX Power	0	885	-75	
PCS 1900 ReceiverTest					



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1	Fast Bit Error Rate	0	512	-104	
2	Fast Bit Error Rate	0	661	-104	
3	Fast Bit Error Rate	0	810	-104	
PCS 1900 Ttansmitter Test					
4	TX Phase RMS Error	0	512	-75	
5	TX Phase Peak Error	0	512	-75	
6	TX Frequency Error	0	512	-75	
7	TX Phase RMS Error	0	661	-75	
8	TX Phase Peak Error	0	661	-75	
9	TX Frequency Error	0	661	-75	
10	TX Phase RMS Error	0	810	-75	
11	TX Phase Peak Error	0	810	-75	
12	TX Frequency Error	0	810	-75	
13	Check TX Power	0	512	-75	
14	Check TX Power	0	661	-75	
15	Check TX Power	0	810	-75	
GSM 850 ReceiverTest					
1	Fast Bit Error Rate	5	128	-104	
2	Fast Bit Error Rate	5	189	-104	
3	Fast Bit Error Rate	5	251	-104	
GSM 850 Ttansmitter Test					
4	TX Phase RMS Error	5	128	-75	
5	TX Phase Peak Error	5	128	-75	
6	TX Frequency Error	5	128	-75	
7	TX Phase RMS Error	5	189	-75	
8	TX Phase Peak Error	5	189	-75	
9	TX Frequency Error	5	189	-75	
10	TX Phase RMS Error	5	251	-75	
11	TX Phase Peak Error	5	251	-75	
12	TX Frequency Error	5	251	-75	
13	Check TX Power	5	128	-75	
14	Check TX Power	5	189	-75	
15	Check TX Power	5	251	-75	

C. BOARD LEVEL REPAIRS

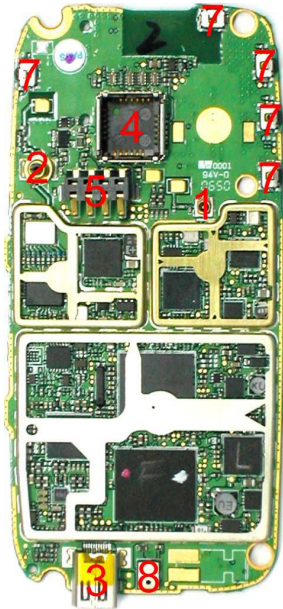


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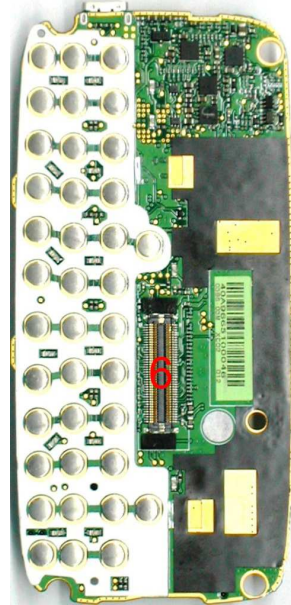
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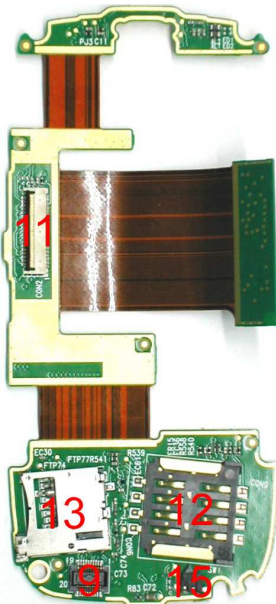
M/B TOP SIDE



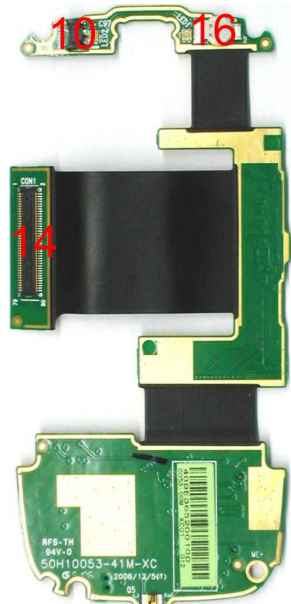
M/B BOTOM SIDE



RIGID-FLEX BOARD TOP SIDE



RIGID-FLEX BOARD BOTOM SIDE





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Item	Part Number	Description	Qty
1	75H00248-00M	COAXIAL CONNECTOR,RF,WITH SWITCH,SMD,MM8430-2600RA1,MURATA	1
2	75H00276-00P	Connector RF,5.8*5.4*3.9,Female,MS-147(06),4pin,HRS	1
3	75H00465-01M	Connector I/O,Reverse,11P,0.4mm Pitch,MJE21-11K7P21,ACON	1
4	75H00615-00M	Connector Others,90mohm,24P,0.9Pitch,0.5A,60V,CAM-F94M09,MITSUMI	1
5	75H00633-00M	Connector,Battery,4Pin,2.5mmPitch,250042MB004G315ZR,SUYIN	1
6	75H00636-00P	Connector B to B,80P,0.4Pitch,24 5801 080 002 829+,KYOCERA,Female,without position boss	1
7	36H00230-00M	SWITCH,SOH-213HST,MITSUMI,70/-20degC	5
8	36H00440-00M	Microphone,SPM0208HE5-SB,KNOWLES,100/-40degC,4.72*3.76*1.25mm	1
9	75H00535-00P	Connector B to B,20P,0.4Pitch,0.5A,60V,70mohm,AXK720147G,MATSUSHITA,6.3*5.1*1.5mm	1
10	75H00572-00P	Connector B to C,female,2P,1.52mmPitch,KYOCERA,24-8005-502-100-867+,receiver connector ,wire to board	1
11	75H00624-00M	Connector FPC,39P,0.3pitch,0.2A,50V,DDK,FF12-.39A-R11B	1
12	75H00635-00M	Connector SIM Card,8P,2.54 Pitch,4330816-SINR01,HAMBURG	1
13	75H00637-00M	Connector SD Card,8P,1.1Pitch,80mohm,0.5A,100V,s-060079,HONDA TSUSHIN KOGYO,4.95*1.25*1.75mm	1
14	75H00638-00M	Connector B to B,80P,0.4Pitch,14 5801 080 012 829+,KYOCERA,Male,without position boss	1
15	36H00522-00M	Switch,DT24,ROKI	1
16	16H00012-00M	Gold Cap,0.07F,70ohm,3.3V,-25/+50%,XH414H II02E,SEIKO,7.6*4.8*1.72mm,,70/-25degC	1

----- END OF SERVICE MANUAL -----