

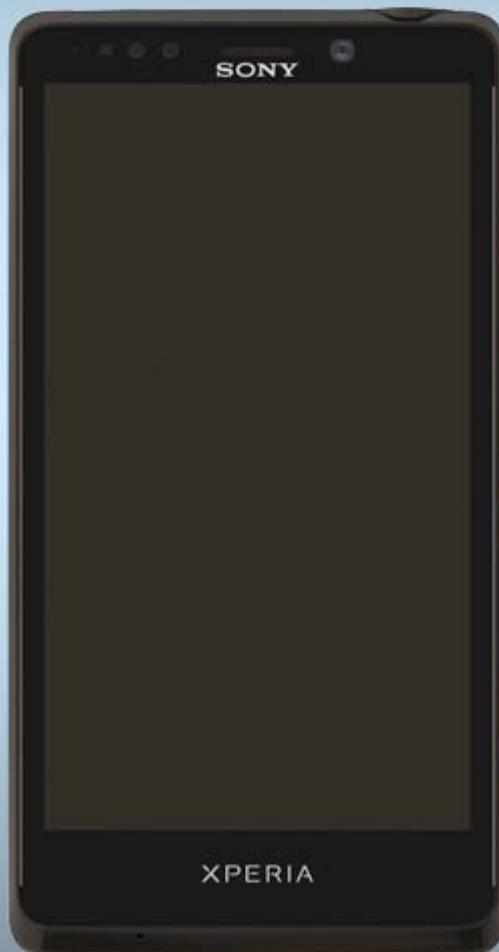
# SONY

make.believe

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## Test Instructions

- mechanical -



*Xperia™ T*

*LT30p, LT30a & LT30at*

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***For general information about test procedures, refer to  
1220-1333: Generic Repair Manual - mechanical***

## 1 Pre-Test Preparations

### 1.1 Hardware

#### 1.1.1 Water indicator inspection

Before starting any tests the liquid intrusion indicator has to be checked.

The Water Indicator is located as shown in this picture after the Carrier Label Tray has been pulled out.

If affected (red color) - handle the phone according to the local directives.

If not affected by liquid, proceed to the 'Pre-Test Preparation' below.

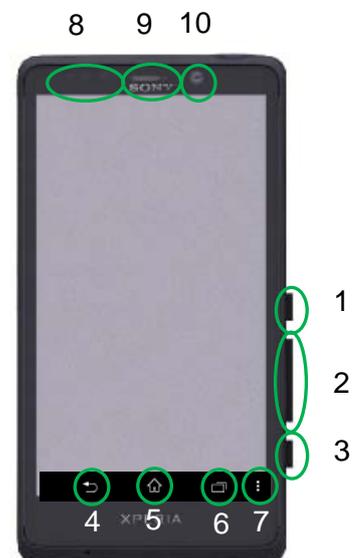


#### 1.1.1 Test Enablers

These are items on the phone that are used during the test of the unit.

##### Front:

1. On/Off Key
2. Volume up/down Key
3. Camera Key
4. Back Key
5. Home Key
6. Multi Key
7. Menu key
8. Ambient Sensor, Proximity Switch & Led
9. Earphone
10. Secondary Camera



##### Back:

11. Camera
12. Flash LED
13. Speaker



## Pre-Test Preparations

### 1.2 Software

#### 1.2.1 Software update

##### 1.2.1.1 Software version verification

Check the software version of the phone for fault verification, you find latest improvements on the support pages under the support news <http://www.sonymobile.com/global-en/support/>

- Start up the phone
  - Note: Please make sure the phone is in call setup.
- Pressing keypad combination: **\*##7378423##\***
- select 'Service info'
- select 'Software info'
- check the software file revisions and, if needed, update as described below

**For more information, refer to 1220-1333: Generic Repair Manual - mechanical**

##### 1.2.1.2 Software version update

**Mandatory first repair action!**

**Use the Micro USB to USB cable for this purpose!**

Fully charged battery first, ensure the phone is powered off and proceed as follows:

- Open the Emma application and log in.
- Press and keep the Volume down key on the phone, connect the phone to the USB cable and then release the Volume down key.
- Select the appropriate service and follow the on-screen instructions.

## 2 Tests

### 2.1 Service Test Mode

**Note: Please make sure the phone is in call setup when pressing these touching keypads to get into the Service menu!**

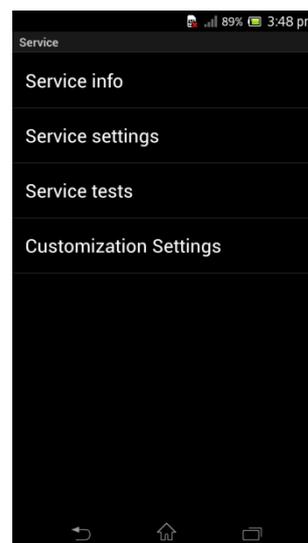
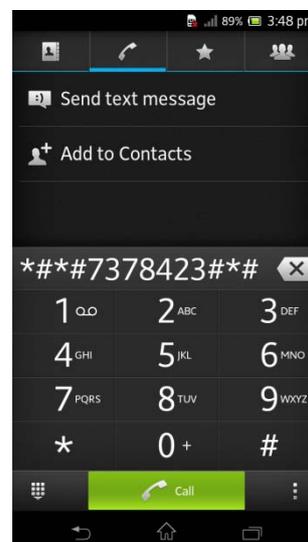
Start up the phone and enter the service menus:

- press the keypad combination with the following order:  
\*##7378423##\*

- select 'Service tests'
- select one of the tests and follow the test instructions as described below

To stop the test and return to the 'Service tests' menu, press the Back key

**For more information, refer to  
1220-1333: Generic Repair Manual - mechanical**



**The pictures to follow will show a simplified basic phone for a general visualization of the service tests!**

## Tests

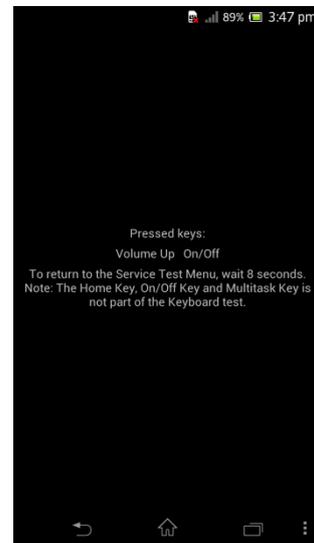
### 2.2 Service Tests

#### 2.2.1 Keyboard & Switch

**To return to the Service Test Menu, wait for 8 seconds.**

Press all keys:

- Back key: notification on screen
- Auto Focus key(*half pressed*)/Camera key(*fully pressed*): notification on screen
- Volume Up key: notification on screen
- Volume Down key: notification on screen
- Power key: screen will go black, press Power key again
- Task key: Taskbar is shown
- Home key: Leaving Test menu for Home screen



#### 2.2.2 Touch Screen

Move your finger across the Display, a line will be drawn as you touch the Display.

Press Back key to return to Service Test Menu.



#### 2.2.3 Display

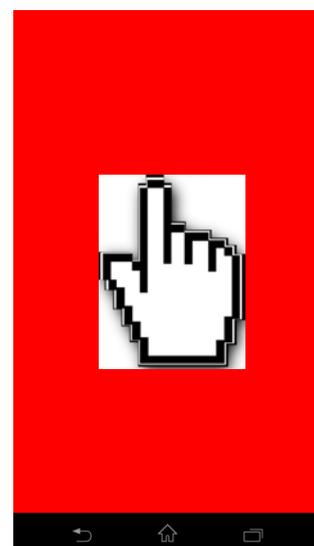
**Minor variations in display brightness and color may occur between phones.**

**There may be tiny bright dots on the display, so called defective pixels and occur when individual dots have malfunctioned and cannot be adjusted.**

**Two defective pixels are considered to be acceptable.**

Touch the display using a finger. With every touch, the display will show six test patterns of White, Black, Red, Green, Blue and Rainbow colors on the full screen. Make sure that there are no missing segments and that the colors and contrast are OK.

Press Back key to return to Service Test Menu.



## Tests: Service Tests

### 2.2.4 LED/Illumination

Check that the:

- Display Backlight illumination goes from low to high strength back to low again.
- Notification LED on the top left corner changes, showing four colors in the following sequence: red, green, blue, and off.
- The illumination of Task, Home and Back keys goes from low to high strength back to low again.

Press the Back key to return to the Service Test Menu.



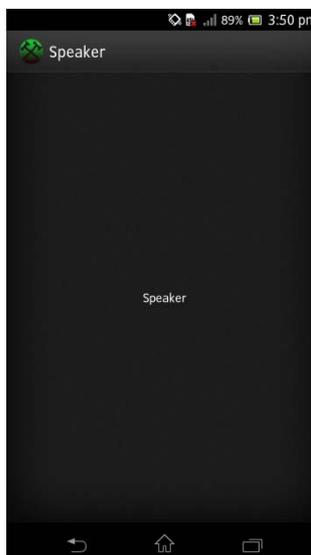
### 2.2.5 Speaker

**Do not hold the phone close to your ear during this test!**

Make sure that the sound from the speaker port at the bottom of the back side of the phone is emitted loud and clear and that the test include maximum volume.

Press Volume up/Volume down key to adjust speaker volume.

Press Back key to return to Service Test Menu.



### 2.2.6 Stereo speaker

N/A – Do not use!

Press Back key to return to Service Test Menu.



## Tests: Service Tests

### 2.2.7 Earphone

**Do not hold the phone close to your ear during this test!**

Make sure that the sound from the Earphone port on the top of the phone is emitted loud and clear and that the test include maximum volume.

Press Volume up/Volume down key to adjust earphone volume.

Press Back key to return to Service Test Menu.



### 2.2.8 Microphone

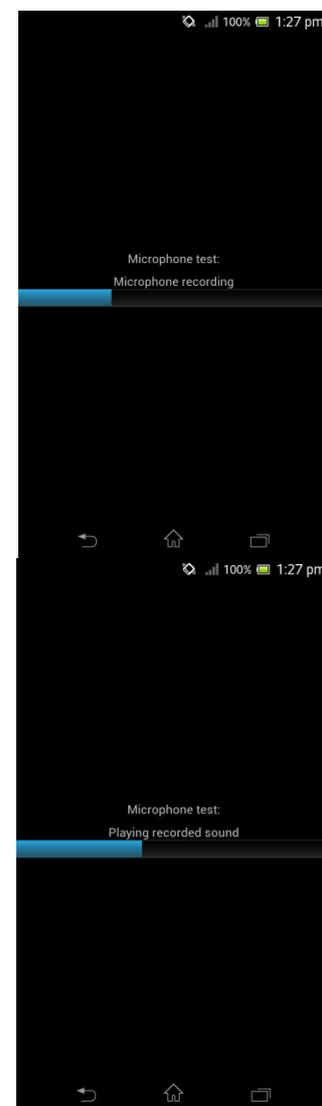
**The previous test 'Speaker' should have been successfully carried out before doing this test!**

The phone will start to record and after approximately ten seconds the sound is played back through the Speaker.

- Speak into the microphone during the 'Microphone Recording' phase.

- Check the quality by listening to the recording from the Speaker during the 'Playing recorded sound' phase at maximum volume.

Press Back key to return to Service Test Menu.



## Tests: Service Tests

### 2.2.9 Secondary Microphone

**The previous test 'Speaker' should have been successfully carried out before doing this test!**

The phone will start to record and after approximately ten seconds the sound is played back through the Speaker.

- Speak into the microphone during the 'Microphone Recording' phase.

- Check the quality by listening to the recording from the Speaker during the 'Playing recorded sound' phase at maximum volume.

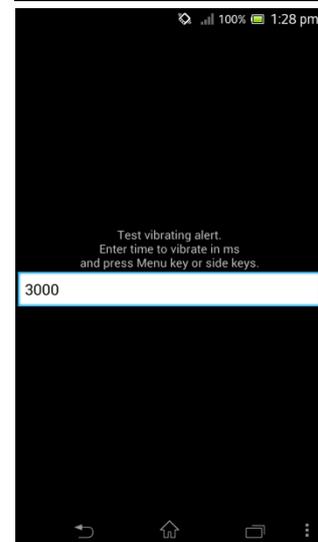
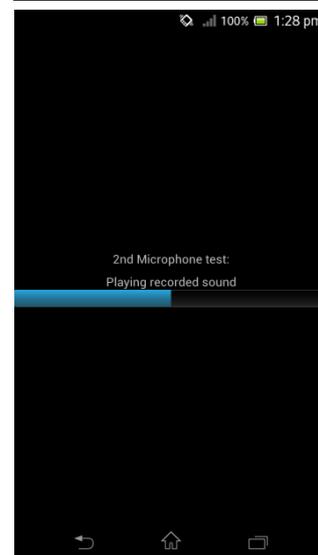
Press Back key to return to Service Test Menu.

### 2.2.10 Vibrator

Press the Menu key or Volume keys to start the vibrator test.

It is possible to modify the duration of this test.

Press Back key to return to Service Test Menu.



## Tests: Service Tests

### 2.2.11 Camera

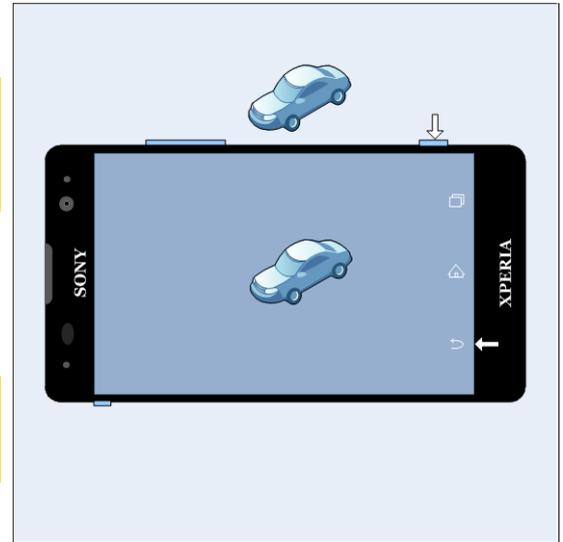
**Minor variations in image appearance may occur between phones, but is not uncommon and should not be regarded as an indication of a defective camera module!**

Aim the camera (located back of the phone) at an object and check the quality of the image shown in the display. Press the Camera key to preview the photo's quality about autofocus.

**Do the same thing at an object on a different distance to secure that autofocus works!**

**Photos is taken but not saved during this test!**

Press Back key to return to Service Test Menu.



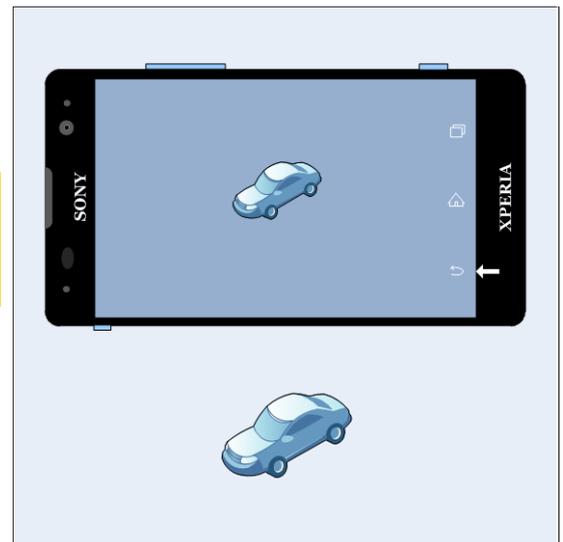
Only symbolic view

### 2.2.12 Secondary Camera

**Minor variations in image appearance may occur between phones, but is not uncommon and should not be regarded as an indication of a defective camera module!**

Aim the camera (located in front of the phone) at an object and check the quality of the image shown in the display.

Press Back key to return to Service Test Menu.



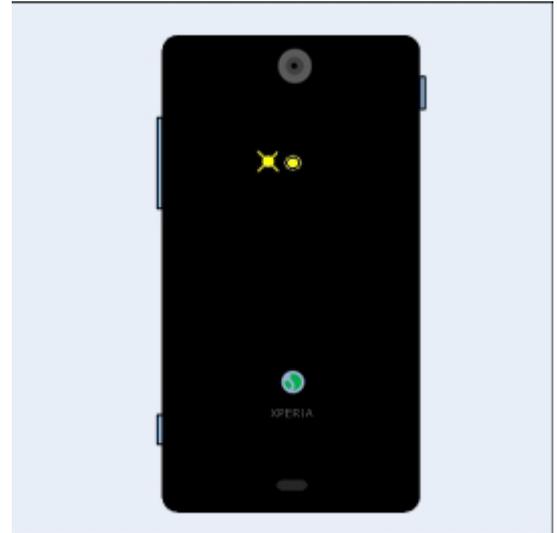
Only symbolic view

## Tests: Service Tests

### 2.2.13 Flash LED

Check the Flash LED at the back side of phone whether it's turned on.

Press Back key to return to Service Test Menu.



Only symbolic view

### 2.2.14 Bluetooth

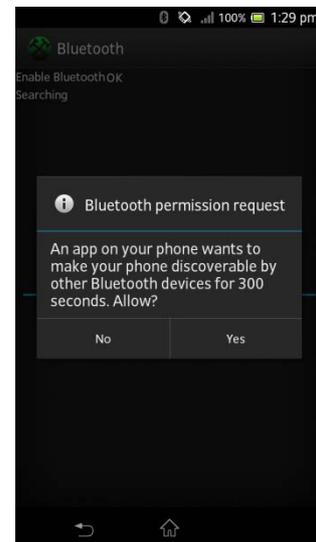
**During this test, the distance between the phone and the target Bluetooth device must be 1.5 to 5 meters!  
Make sure the target Bluetooth device is enabled and visible always!**

The Bluetooth test will be done in following sequences:  
Step 1: Enable Bluetooth; wait 4-5 seconds, shows OK;

**There is a permission request, select 'Yes'.**

Step 2: Search;

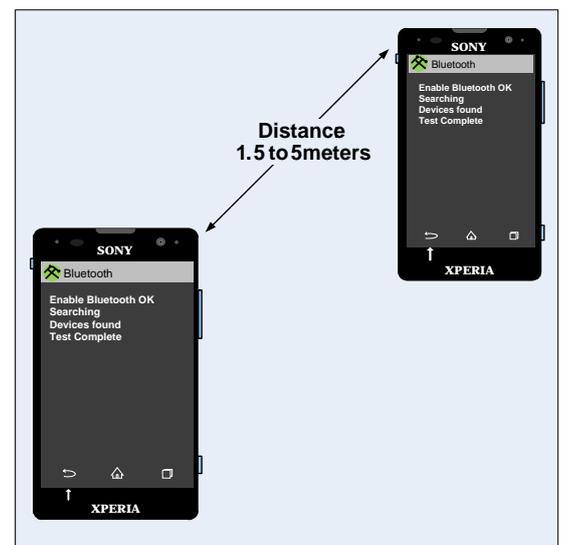
Step 3: Show the Device Found list;



Step 4: Select the Target Bluetooth Device, and Type PIN code to pair.

Step 5: Type the Pairing PIN code on Target Bluetooth Device also, when succeeded, it shows "Test Complete".

Press Back key to return to Service Test Menu.



Only symbolic view

## Tests: Service Tests

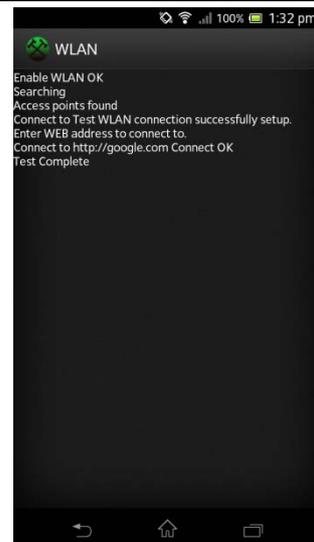
### 2.2.15 WLAN

**Make sure there's WLAN network before performing this test.**

The WLAN test will be done in following sequences:

- Step 1: Enable WLAN; wait 4-5 seconds, shows OK;
- Step 2: Search;
- Step 3: Access points Found list;
- Step 4: Select the Target WLAN network, and type the password to get connected;
- Step 5: Enter a web address (ex. Google.com)
- Step 6: When Connection succeeded, it shows "Test Complete".

Press Back key to return to Service Test Menu.



### 2.2.16 NFC

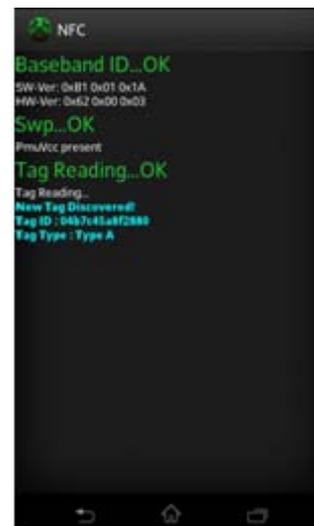
**A NFC SIM card 3FF should be inserted in the phone before the start of this test!**

The NFC test will be done in following sequences:

- Step 1: Select 'NFC';
- Step 2: NFC Diag Test;
- Step 3: After 'Tag Reading...Enabled' can be seen on the display, bring a NFC Tag close to the Label NFC on the Cover Battery Assy.
- Step 4: When Tag is identified, a sound will be made and an OK message will be displayed.

**Don't touch each other to avoid Cover Battery Assy scratch.**

Press the Back key two times to return to Service Test Menu.



## Tests: Service Tests

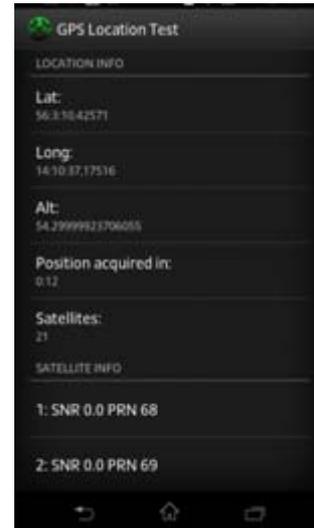
### 2.2.17 GPS

Enter GPS Location Test, wait some time to get GPS location data.

***If permission is requested, select 'Yes'!***

Press Back key to return to Service Test Menu.

***For GPS testing, refer to  
1220-1333: Generic Repair Manual – mechanical***



## Tests: Service Tests

### 2.2.18 Compass

Do calibration with hand movements as shown in the phone, and then check the actual direction with measured value.

(Yaw:0=North, 90=East, 180=South, 270=West)

Press Back key to return to Service Test Menu.

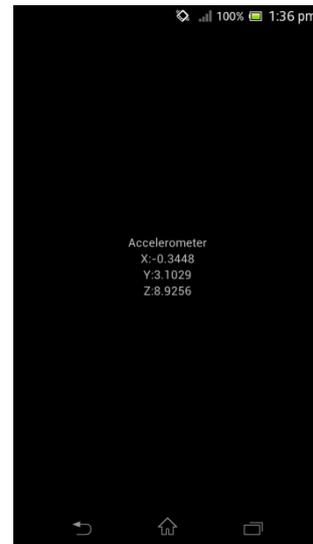


**Tests: Service Tests**

**2.2.19 Accelerometer**

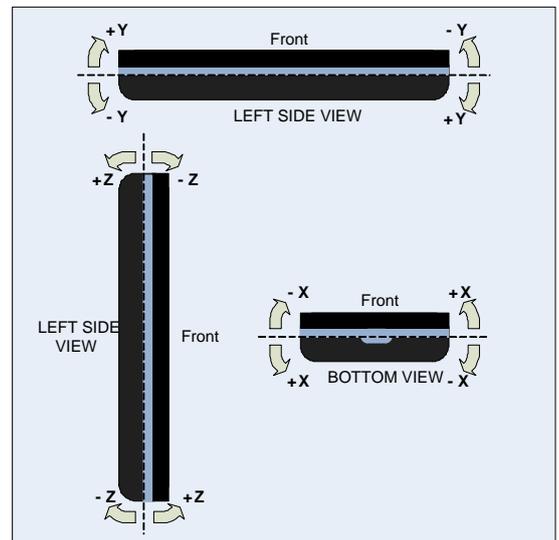
The accelerometer test displays the actual position of the phone as a 3D coordinate X:Y:Z

Press Back key to return to Service Test Menu.



By tilting the phone in various directions, the X: Y: Z values will change in size and polarity depending on angle and direction as shown in the adjacent picture. Check by tilting the phone that the X: Y: Z values shown in the display are in accordance with the tilting shown in the picture.

Press Back key to return to Service Test Menu.



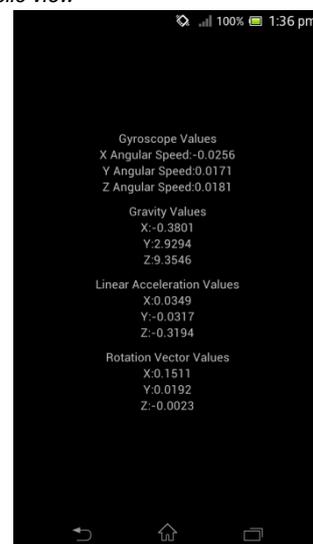
Only symbolic view

**2.2.20 Gyroscope**

The gyroscope test displays the actual position of the phone as a 3D coordinate X:Y:Z.

Check by moving the phone that the X: Y: Z values shown in the display are in accordance with the moving.

Press Back key to return to Service Test Menu.

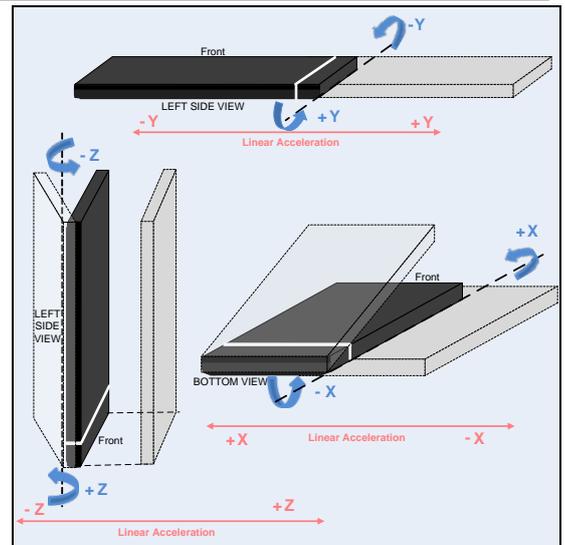


## Tests: Service Tests

Check “Gravity Values” “Linear Acceleration Values” “Rotation Vector Values” and “Gyroscope Values” by moving the phone:

“Gravity Values” can be refer to Accelerometer; “Linear Acceleration Values” and “Rotation Vector Values” are in accordance with the action shown in the picture. “Gyroscope Values” are updated while moving the phone.

Press Back key to return to Service Test Menu.

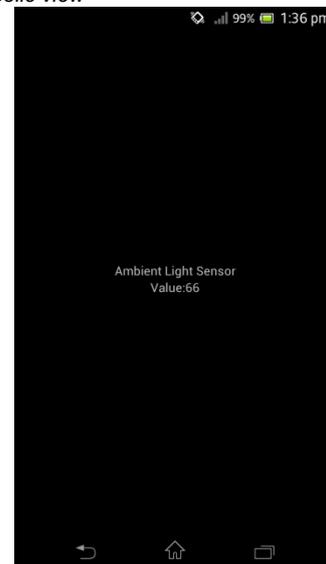


Only symbolic view

### 2.2.21 Ambient Light Sensor

The Ambient light test states a value.

Validate when, covering the Ambient Light Sensor (on the left side of the Ear Speaker), the value will decrease.



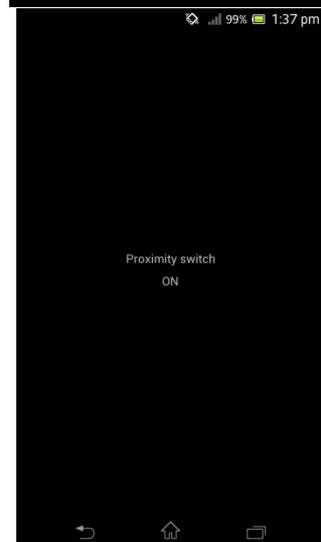
### 2.2.22 Proximity switch

**The previous test ‘Speaker’ should have been successfully carried out before doing this test! Make sure the phone is not in ‘silent mode’ before performing this test.**

When entering into the test, the screen shows “Proximity switch OFF” and a tone is emitted.

When covering the proximity switch area (on the left side of the Ear Speaker), the screen will show ‘Proximity switch ON’ with a different type of tone.

Press Back key to return to Service Test Menu.



## Tests: Service Tests

### 2.2.23 Pressure Sensor

N/A.

***This test is not available for this product!***

### 2.2.24 Water Proof test

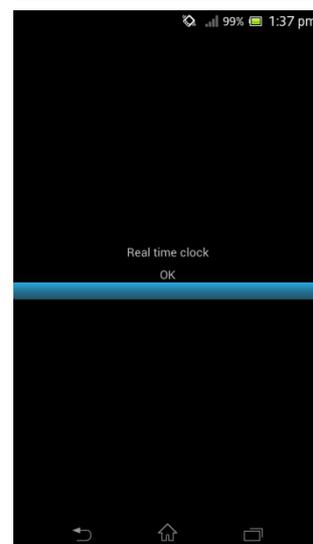
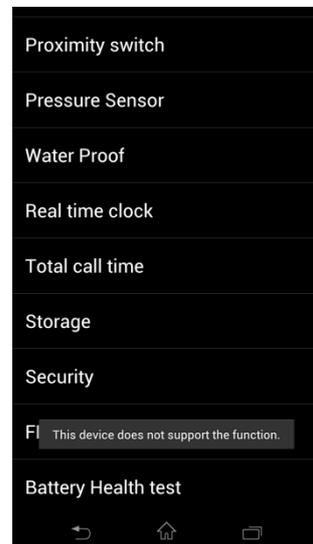
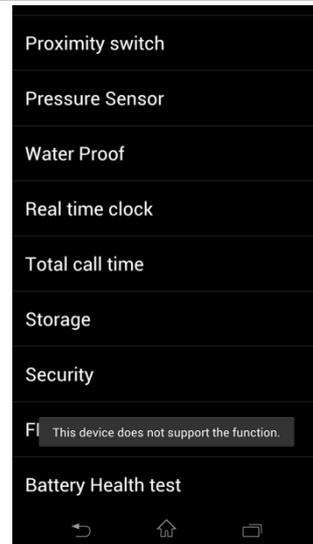
N/A.

***This test is not available for this product!***

### 2.2.25 Real time clock

During the actual test the text 'Real time clock / Please wait' is displayed, then followed by a message stating whether the test was OK or not.

Press Back key to return to Service Test Menu.

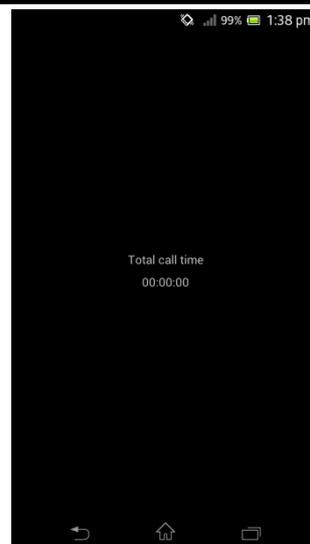


## Tests: Service Tests

### 2.2.26 Total call time

The total call time is displayed in the format HH:MM:SS (hours: minutes: seconds).

Press Back key to return to Service Test Menu.



### 2.2.27 Storage

Memory Storage status:

- Internal Mass Storage is 'Inserted/Mounted' as shown on the screen;

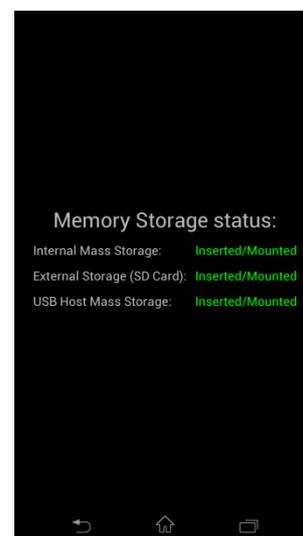
**A memory card should be inserted in the phone before starting this test!**

- External Storage (SD Card) is 'Inserted' as shown on the screen;

**Attach USB Adaptor between phone and an USB disk as shown in picture.**

- The USB Host Mass Storage status is shown on the screen.

Press the Back key to return to the Service Test Menu.



### 2.2.28 Security

The DRM keys are shown in the display.

There may be some different content showed based on the different market software versions.

Press Back key to return to Service Test Menu.



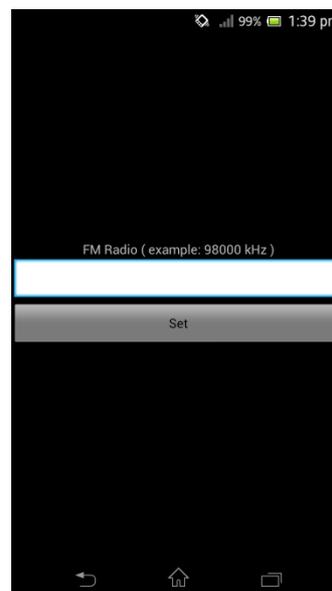
## Tests: Service Tests

### 2.2.29 FM Radio

Verify that the phone can detect a radio station:  
Connect a headset and then set your local radio station in kHz.

Verify that the reception and sound quality is normal.

Press the Back key to return to the Service Test Menu.



### 2.2.30 Battery Health test

N/A.

***This test is not available for this product!***

Press the Back key to return to the Service Test Menu.



### 2.2.31 Flip slider counter

N/A.

***This test is not available for this product!***

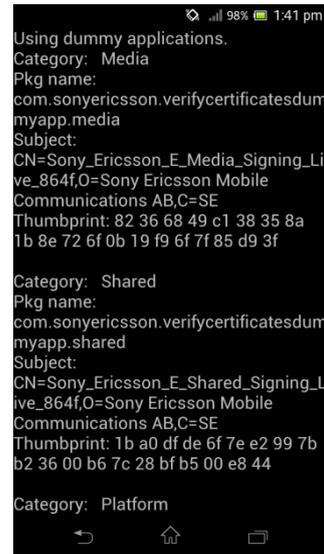
Press the Back key to return to the Service Test Menu.



## Tests: Service Tests

### 2.2.32 Verify certificates

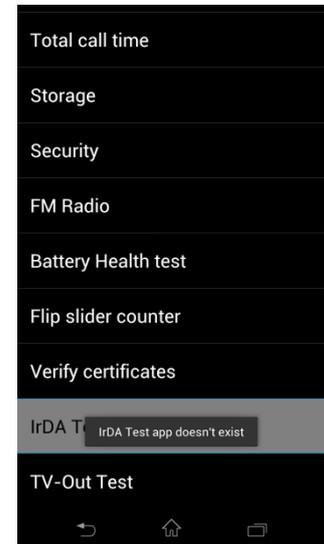
N/A.



### 2.2.33 IrDA Test

N/A.

***This test is not available for this product!***

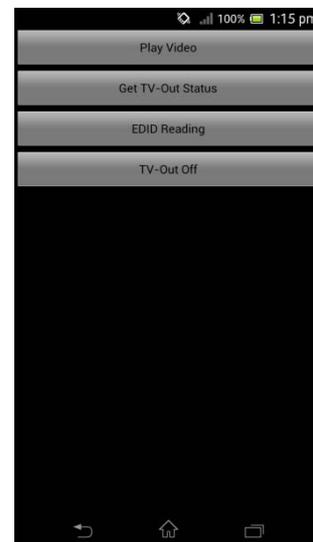
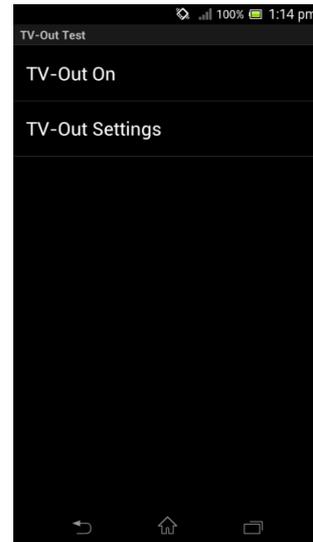


## Tests: Service Tests

### 2.2.34 TV-Out Test

**MHL adapter, HDMI Type A Cable, charger and TV should be connected with the phone before the start of this test!**

Press 'TV-Out On'.  
(TV-Out Settings is usually not needed since the unit should be in automatic resolution and the TV-Out monitor should set the resolution automatic. If you get no picture on the TV-Out monitor you can try different resolutions under TV-Out Settings.)

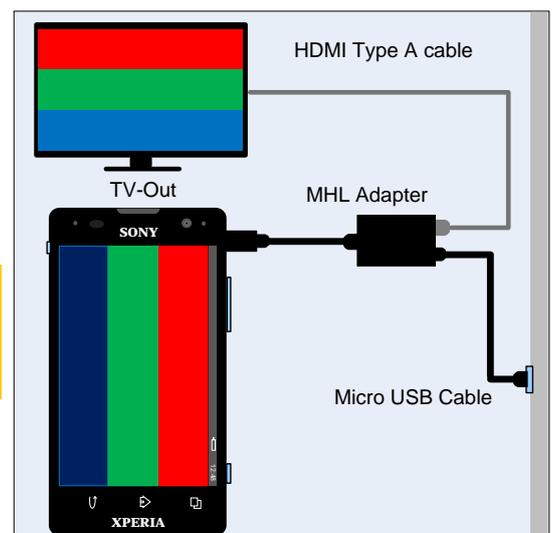


Step 1: Attach cable between phone and TV-Out;

Step 2: Press 'Play Video'.

Receive a test tone and a red-green-blue test picture in the TV-Out Monitor and phone.

**Note: If the TV-Out Monitor doesn't automatically identify the picture, the Monitor may require to set the TV-Out port chosen as source manually in the Monitors menus.**



Only symbolic view

## Tests: Service Tests

Press 'Get TV-Out Status':

You should now get:

Power Status: Active

HPD Status: H

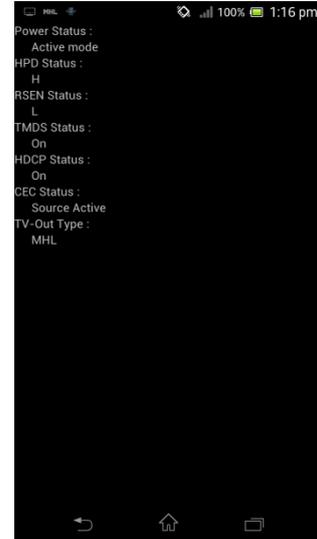
RSEN Status: L or H (Might differ between TVs)

TMDS Status: On

HDCP Status: On

CEC Status: Active

Press the Back key to return to the Service Test Menu.

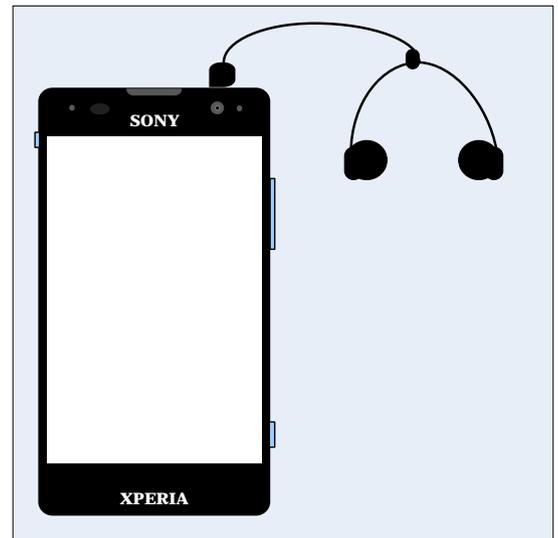


### 2.2.35 Audio Jack test

Connect a Sony CTIA headset.

Repeat the test of "2.2.5 Speaker", "2.2.7 Earphone" and "2.2.8 Microphone".

Make sure that the sound from Headset earphone ports are emitted loud and clear.



## Tests

### 2.3 Manual Tests

#### 2.3.1 SIM

Verify that the phone can detect a SIM card:

Step 1: Insert a SIM card, and start the phone;

If the SIM card is detected by the phone, the start-up procedure will continue.

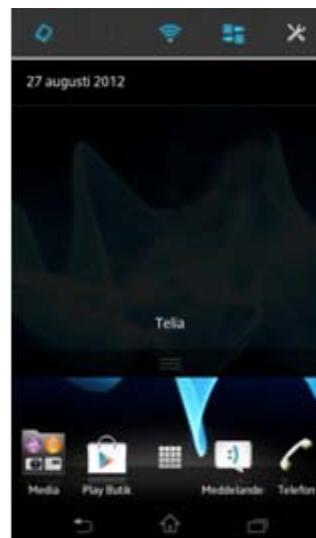
Step 2: Pull down the Status Bar (put finger next to the receiver and drag the menu down from the Status Bar);

Step 3: See SIM card operator name.

The SIM card operator name will be displayed above the Time Clock when phone is in Lock status.

If not detected, the message 'Emergency call only' will be displayed instead in the pull down Status Bar.

Press Back key to return to Standby Menu.



## Tests: Manual Tests

### 2.3.2 Charging via USB (Charger or Computer)

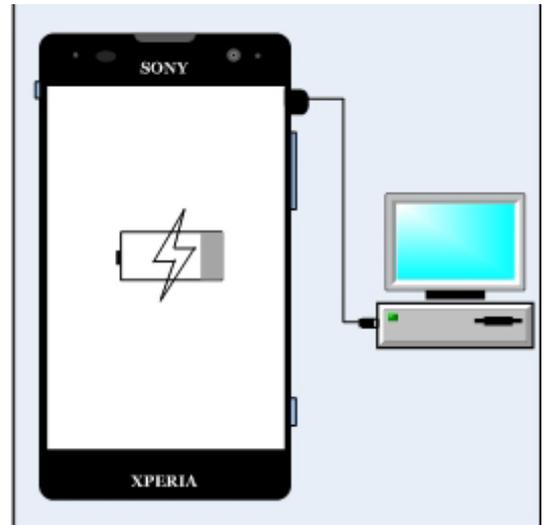
Verify that the phone can charge the battery by a USB port:

**Ensure that no computer application, such as PC Suite or Emma, is active!**

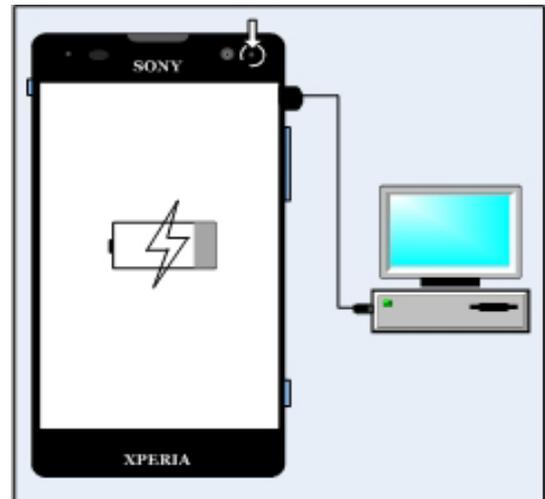
**Do not start the phone.**

- Connect a USB cable from a computer or charger to the phone.
- Verify that the phone is being charged by the notification LED and Battery icon in the display.

Remove the USB cable from the connector and verify that the notification LED and Battery icon no longer indicates charging.



Only symbolic view



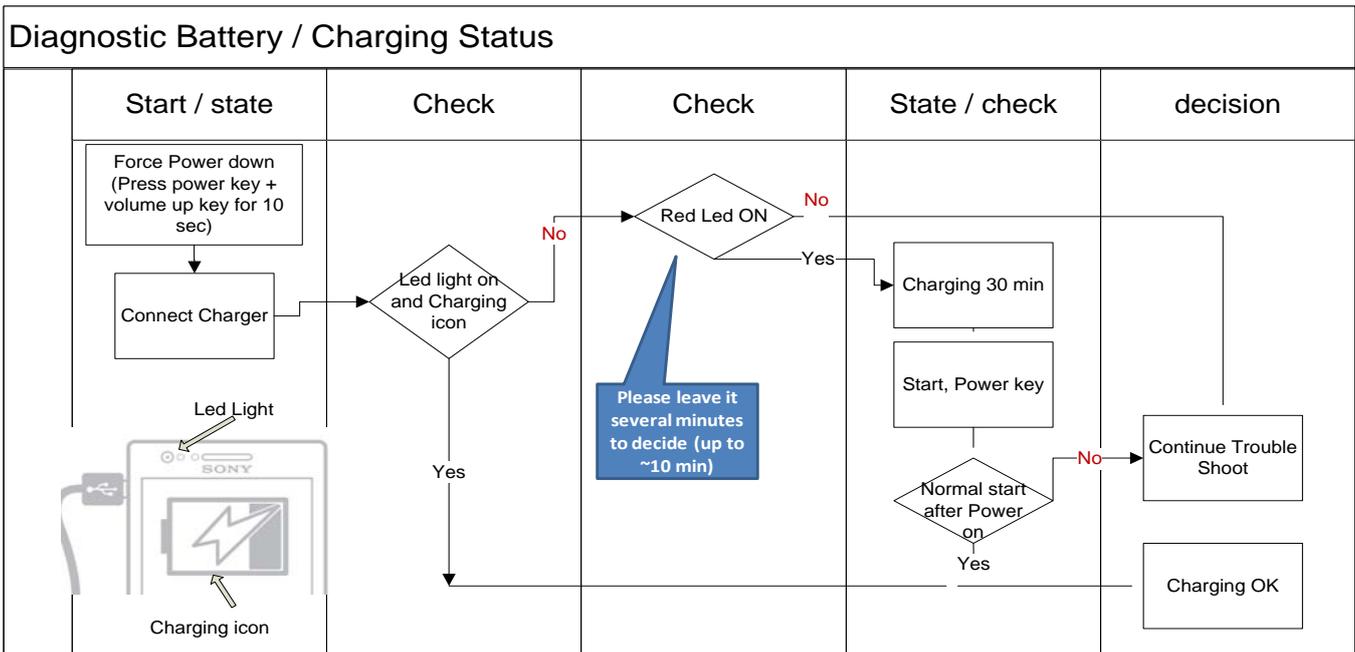
Only symbolic view

The Notification LED colour status is depended on battery remaining capacity:

- Red: Battery level is between 1% and 89%;
- Green: Battery is between 90% and 100%;

If above fails, perform below Diagnostic battery / Charging Status check.

Perform a force shut down (Press Power key + Volume Up for 10sec). If phones vibrate three times the shutdown is performed. If no vibration is detected, the battery might be discharged.



## Tests: Manual Tests

### 2.4 Battery Test

If bad battery performance or capacity problem is claimed, the battery and charging function can be tested by using an application designed for this purpose.

By using this application the battery is tested in a fast and controlled environment.

This is especially convenient when phones with embedded batteries should be checked, to avoid unnecessary work to disassembly the phone to access the battery.

This test is designed to identify a faulty battery or a hardware issue in the phone or with the charger. The guide will describe different procedures depending on the battery level when the battery test is initiated.

The test is downloaded to the phone, using cable or Bluetooth, and executed.

The test is available in CSPN at Level: Mechanical,

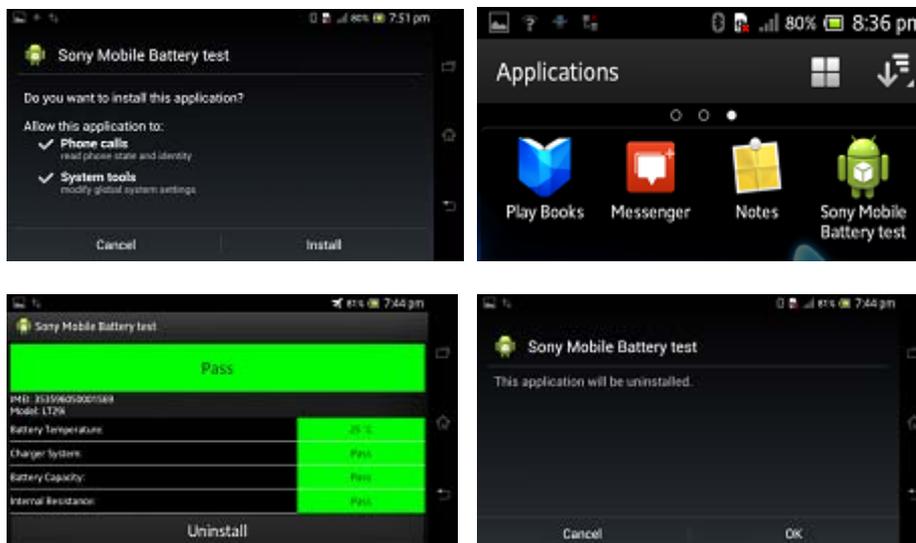
Title: **Sony Mobile Battery test Application 1266-2711.**

Unzip this file, where you find the application, installation and user guide content.

The Charger and charging cable is specified. (**Charger EP 800, Cable EC480**)

After the test the Sony Mobile Battery test.apk shall be removed by tap “Uninstall” “OK” in the application.

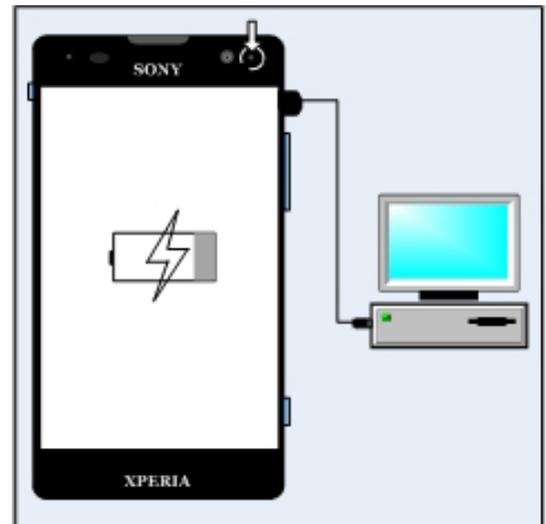
Error messages are described in the user guide for the Sony Mobile Battery test.



## Tests: Manual Tests

### 2.4.1 Data Communication test

- Connect a USB cable from a computer to the started phone.
- Verify that Data Communication works by transferring a file from Computer to phone
- Erase the file



Only symbolic view

## Tests

### 2.5 Network Test

**This test can only be performed if the phone has got an activated SIM/USIM card (no Test SIM/USIM) and an available network signal!**

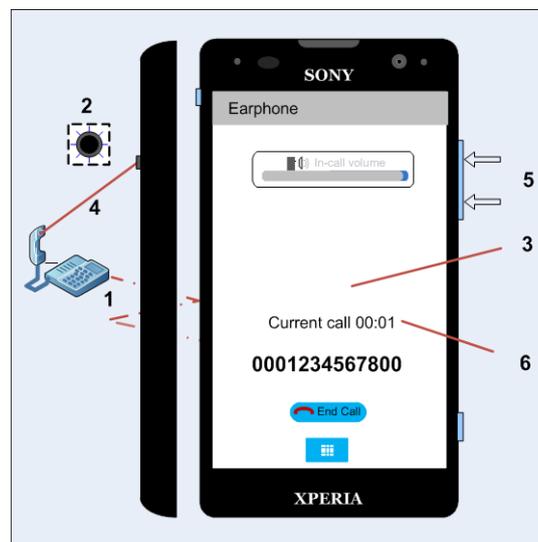
**There are two versions of the test depending on whether a UMTS network is available or not! If a UMTS network is available, the network test has to be done separately for GSM and UMTS!**

#### 2.5.1 On-the-air call to mobile (no UMTS network available)

To verify the radio functions (GSM) of the phone, follow the procedure below

##### 2.5.1.1 Procedure

- Step 1: Set up a call from a landline phone (PSTN).
- Step 2: Check that there is a ring signal.
- Step 3: Check that the display backlight illuminates.
- Step 4: Answer the call and check the sound quality in both phones.
- Step 5: Adjust the volume up and down with the side keys and verify that the sound level is altered.
- Step 6: End the call and check that the elapsed time is displayed and that the termination is done properly.



Only symbolic view

#### 2.5.2 On-the-air call to mobile (UMTS network available)

##### GSM

Go to the phone menu and set:

Press Menu key → *Settings* ⇒ *Wireless controls* ⇒ *Mobile Networks* ⇒ *Network mode* ⇒ *GSM only*

To verify the radio functions (GSM) of the phone, follow the '2.4.1.1 Procedure' above.

##### UMTS

Go to the phone menu and set:

Press Menu key → *Settings* ⇒ *Wireless controls* ⇒ *Mobile Networks* ⇒ *Network mode* ⇒ *WCDMA only*

Switch off the phone and then start it up again to enable search for an available UMTS signal.

Ensure that the UMTS/3G icon now is visible at the top of the display.

To verify the radio functions (UMTS) of the phone, follow the '2.4.1.1 Procedure' above.

## 3 Revision History

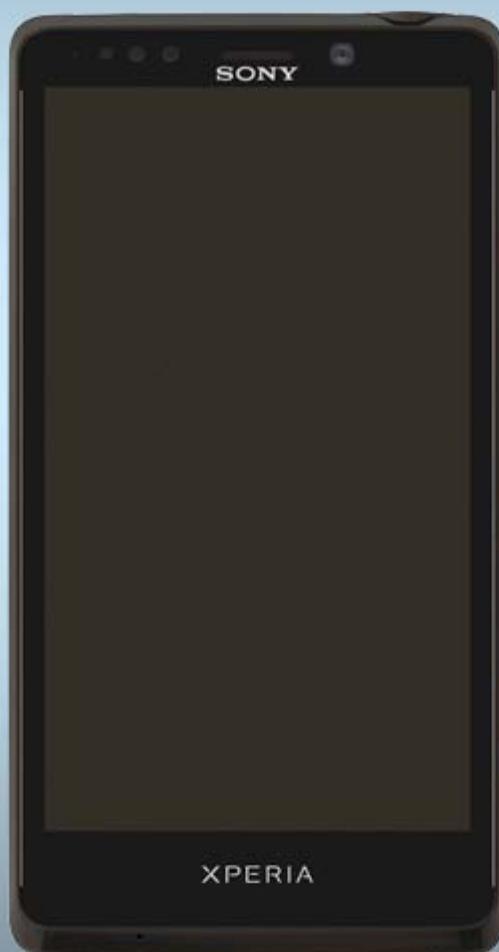
Rev.	Date	Changes / Comments
1	2012-Sep-14	Initial release
2	2012-Sep-21	Non English screenshots changed
3	2012-Oct-31	LT30a & LT30at added

# SONY

make.believe

## Working Instructions

- mechanical -



*Xperia™ T*  
*LT30p, LT30a & LT30at*

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***For general information about mechanical repair related issues, refer to  
1220-1333: Generic Repair Manual - mechanical***

## 1 Exterior Views

### 1.1 LT30p



## Exterior Views

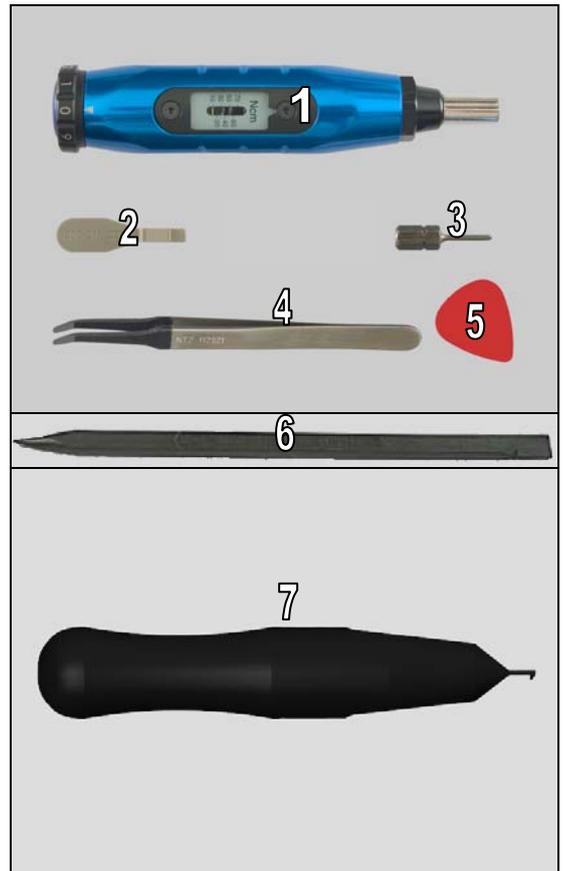
### 1.2 LT30a & LT30at



## 2 Tools

### SPECIAL TOOLS

1. Torque Screwdriver
2. Front Opening Tool
3. Bits (JCIS No 0)
4. Flex Film Assembly Tool
5. Guitar Pick
6. Nylon pointer
7. Battery Connector Removal Tool



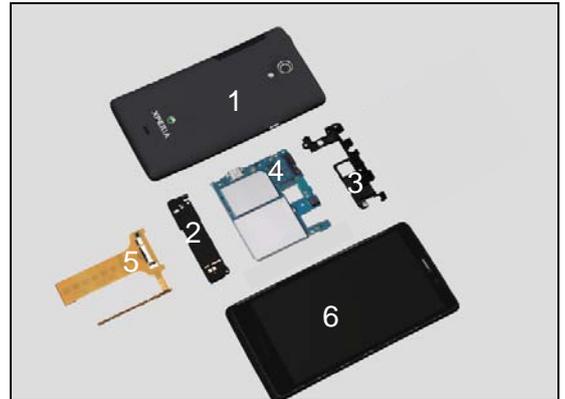
**For part not on the tools above, refer to the 'Tools Catalogue/Matrix'!**

## 3 Disassembly

### LT30p

The Disassembly is done to the following modules:

1. Cover Back Assembly
2. Carrier Lower Frame Assembly
3. Carrier Upper Frame Assembly
4. PBA Complete
5. PBA SideKey FPC
6. Front Cover



### LT30a & LT30at

The Disassembly is done to the following modules:

1. Cover Back Assembly
2. Carrier Lower Frame Assembly
3. Carrier Upper Frame Assembly
4. PBA Complete
5. PBA SideKey FPC
6. Front Cover
7. Cap Lower Cap Assembly
8. Cap Upper Cap Assembly



## 3.1 Cover Back Assembly

### LT30p

Open the SIM/memory card hatch and remove the screw M1.4X4.0 by using a screwdriver with Bits (JCIS No 0).

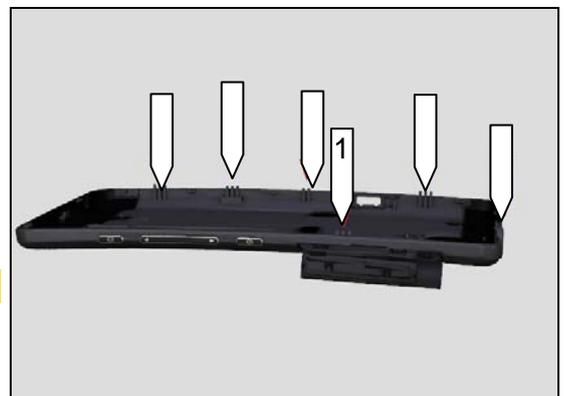
**Scrap! Not to be reused!**



Insert a Guitar Pick as shown in picture below and gently loosen all the hooks marked on the picture.

Gently break open the Cover Back Assembly and use the Guitar pick to un-hatch the snaps. Start with hatch marked with '1' and do it in chronologic order

**Enlarge picture to see hooks more clearly!**



## Disassembly

**It is important that you start at the SIM-hatch.**



### LT30a & LT30at

#### Cap Upper Cap Assembly

Gently insert a Guitar pick into the Cap Upper Cap Assembly and un-hatch the snaps. When the hole side is loosened, 'break open' it to free it



When the hole side is loosened, 'break open' it to free it



#### Cap Lower Cap Assembly

Do the same thing for the Cap Lower Cap Assembly.



## Disassembly



Loosen the 2 screws at the top with Bits (JCIS No 0).

**Scrap! Not to be reused!**



Loosen the 2 screws at the bottom with Bits (JCIS No 0).

**Scrap! Not to be reused!**

**Be aware of the MComp Screw Bushing under the bottom left screw!**



Gently insert the Guitar pick at the Cover SIM/SD Door



## Disassembly

Assembly side and separate that side first to remove the Cover Back Assembly.

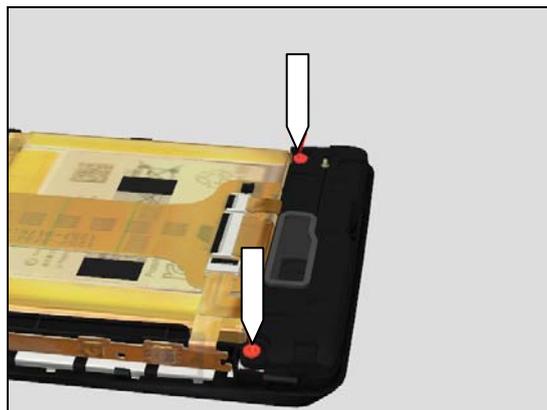


## Disassembly

### 3.2 Carrier Lower Frame Assembly

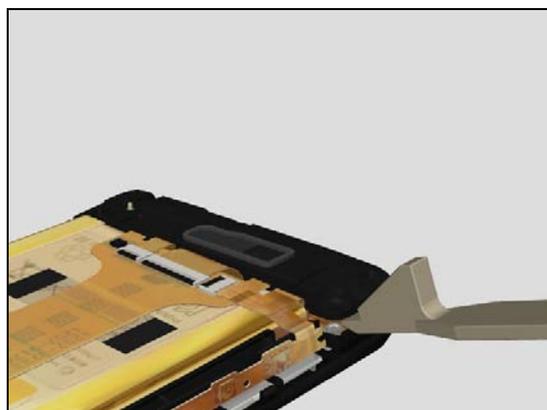
Remove the two screws M1.4X3.0 by using a screwdriver with Bits (JCIS No 0).

**Scrap! Not to be reused!**



Remove the Carrier Lower Frame Assembly with a Front Opening tool by insert it in the same place as the left hand screw.

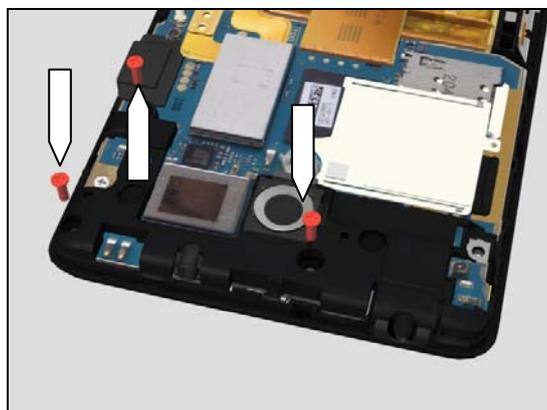
**Be careful not to damage the springs!**



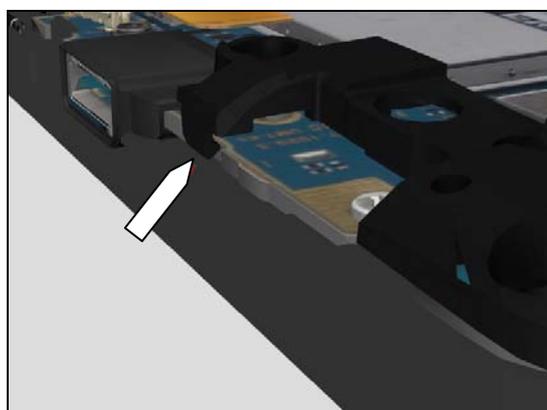
### 3.3 Carrier Upper Frame Assembly

Remove the three screws M1.4X4.0 by using a screwdriver with Bits (JCIS No 0).

**Scrap! Not to be reused!**



Gently remove the snap with a Front Opening Tool and remove the Carrier Upper Frame Assembly.

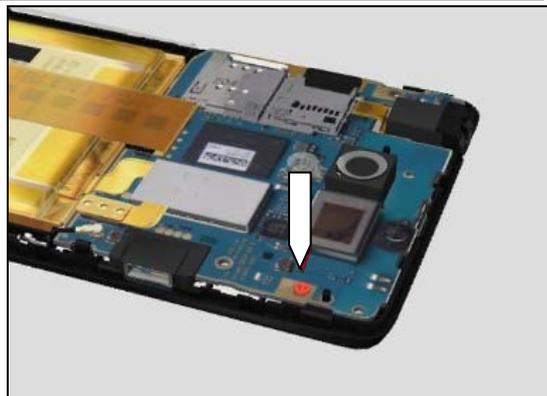


## Disassembly

### 3.4 PBA Complete

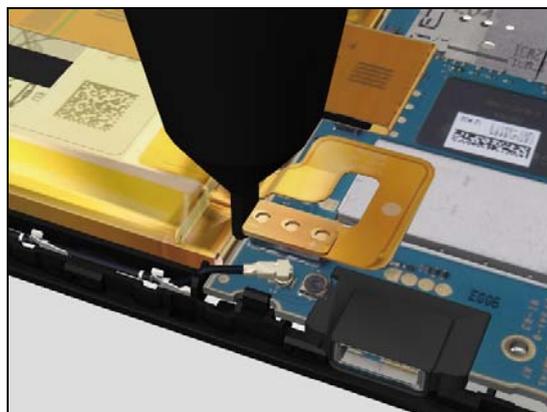
Remove the screw M1.4X3.0 by using a screwdriver with Bits (JCIS No 0).

**Scrap! Not to be reused!**

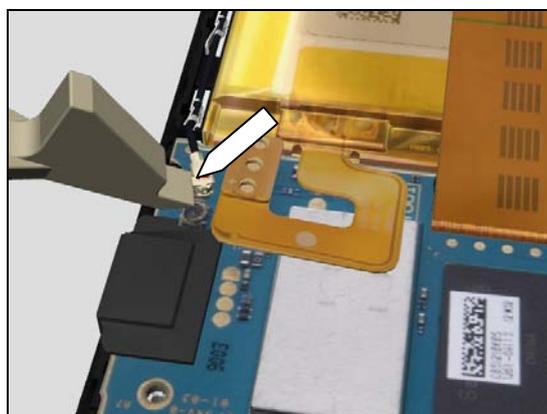


Remove the Battery BtB connector with the Battery Connector Removal Tool.

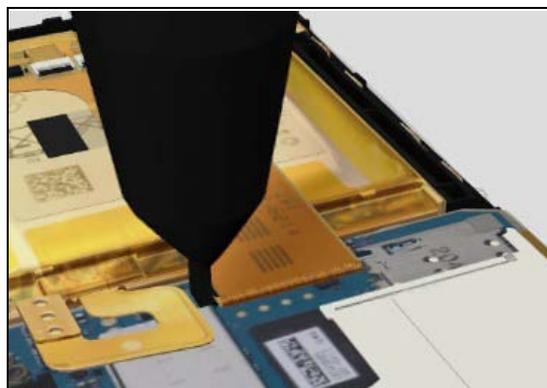
**Do not damage the components on the Main PBA!**



Remove the Cable Coax with a Front Opening Tool.



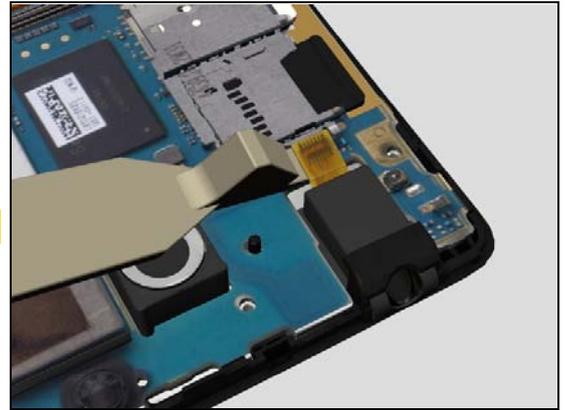
Remove the PBA SideKey FPC with the Battery Connector Removal Tool.



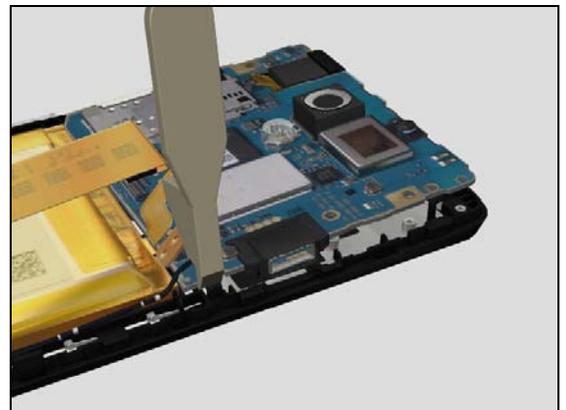
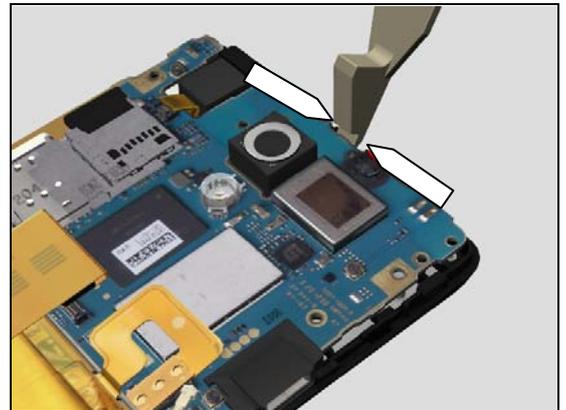
## Disassembly

Remove the PBA AVP FPC with the Front Opening Tool.

**Do not touch the Camera!**



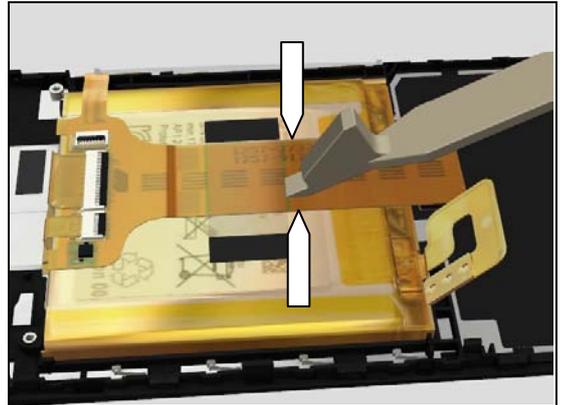
Remove the PBA Complete with the Front Opening Tool by un-hatching the two snaps.



## Disassembly

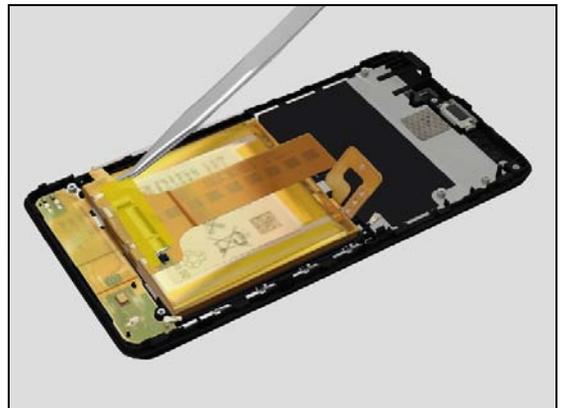
### 3.5 PBA SideKey FPC & Front Cover

Use a Front Opening Tool to gently lift the Key FPC Tape so it is possible to remove without damaging the Battery.

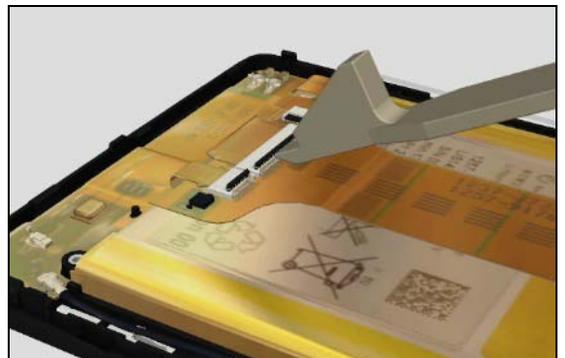


Gently remove the Key FPC ZIF tape by using a Flex Film Assembly Tool.

**Scrap! Not to be reused!**  
**Be careful not to damage the flexes!**

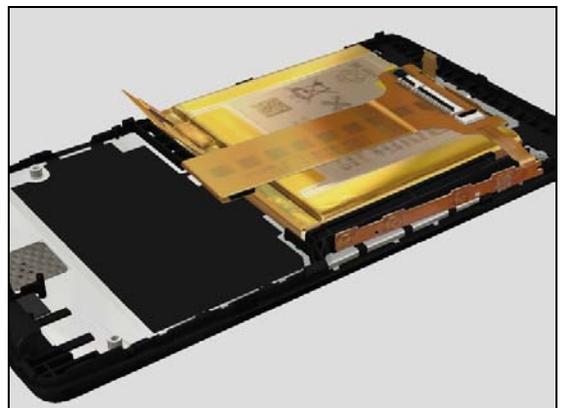


Unlock and disconnect the three ZIF connectors by using a Front Opening Tool.



Peel of the PBA SideKey FPC.

**Scrap! Not to be reused!**



## 4 Replacement

### 4.1 Cover Back Assembly

#### LT30p

Follow the 3.1 Disassembly instructions section 'LT30p'!

Prepare a new Cover Back Assembly.

Follow the 5.6 Reassembly instructions section 'LT30p'!



#### LT30a & LT30at

Follow the 3.1 Disassembly instructions section 'LT30a & LT30at'!

Prepare a new Cover Back Assembly.

Follow the 4.17 and 4.22 Installation instructions!

Follow the 5.6 Reassembly instructions section 'LT30a & LT30at'!

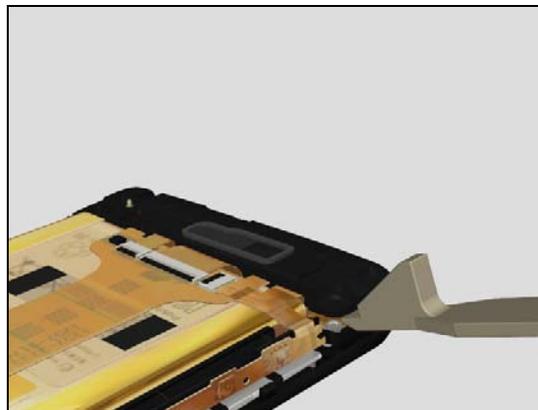


### 4.2 Carrier Lower Frame Assembly

Follow the 3.1 and 3.2 Disassembly instructions!

Prepare a new Carrier Lower Frame Assembly.

Follow the 5.4 and 5.6 Reassembly instructions!

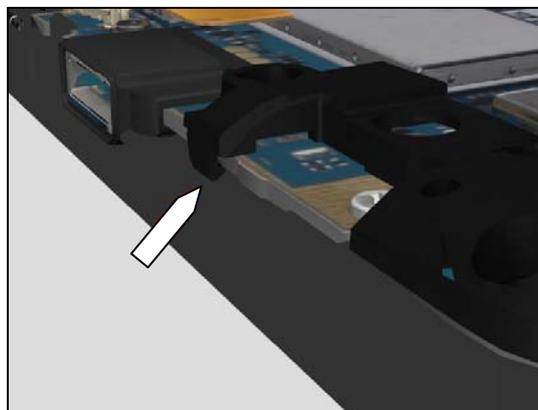


### 4.3 Carrier Upper Frame Assembly

Follow the 3.1 and 3.3 Disassembly instructions!

Prepare a new Carrier Upper Frame Assembly.

Follow the 5.3 and 5.6 Reassembly instructions!



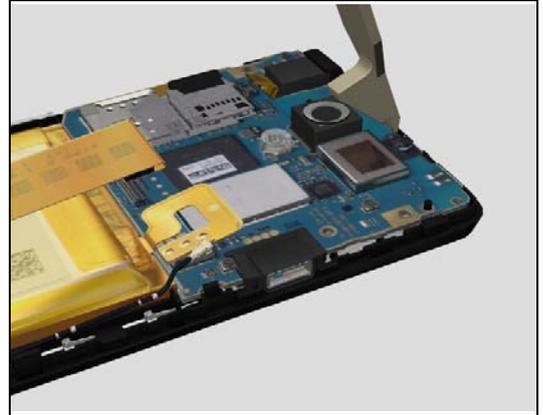
## Replacement

### 4.4 BPA Complete

*Follow the 3.1, 3.3 and 3.4 Disassembly instructions!*

Prepare a new PBA Complete.

Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!

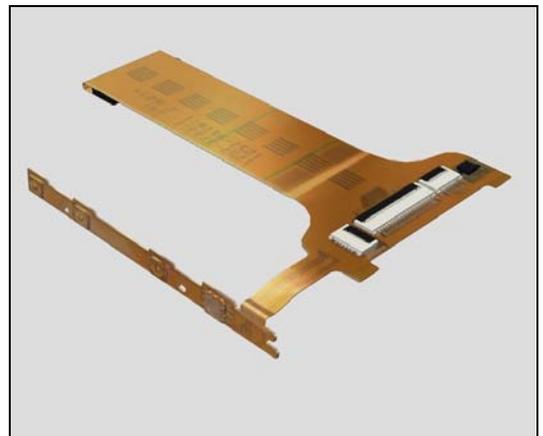


### 4.5 PBA SideKey FPC & Front Cover

*Follow the 3.1 and 3.5 Disassembly instructions!*

Prepare a new PBA SideKey FPC.

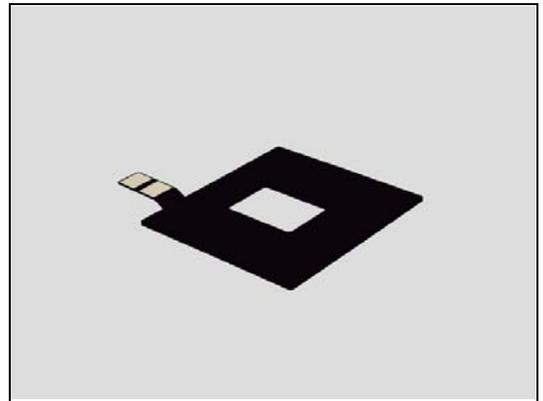
Follow the 5.1, 5.5 and 5.6 Reassembly instructions!



## Replacement

### 4.6 Ant. NFC

Follow the 3.1 Disassembly instructions!  
Carry out the Removal as described below!  
Prepare a new Ant. NFC.  
Carry out the Installation as described below!  
Follow the 5.6 Reassembly instructions!



#### **REMOVAL**

##### **LT30p**

Remove the Ant. NFC with a Flex Film Assembly Tool.

**Scrap the Ant. NFC, not to be reused!**



##### **LT30a & LT30at**

Remove the Ant. NFC with a Flex Film Assembly Tool.

**Scrap the Ant. NFC, not to be reused!**



## Replacement

### **INSTALLATION**

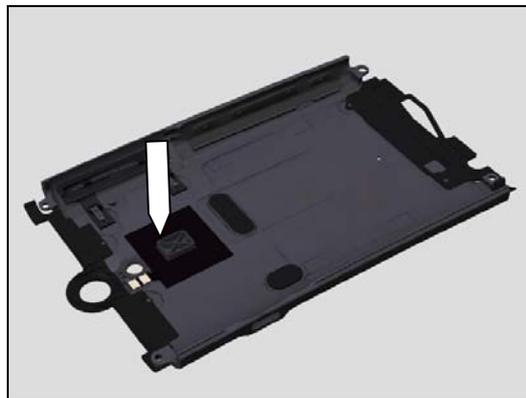
#### **LT30p**

Place the new Ant. NFC in its position on the Back Cover Assembly and press it in place with your fingers.



#### **LT30a & LT30at**

Place the new Ant. NFC in its position on the Back Cover Assembly and press it in place with your fingers.



## Replacement

### 4.7 Battery & Battery Adhesive

Follow the 3.1, 3.3 and 3.4 Disassembly instructions!

Follow the 4.29 and 4:30 Removal instructions!

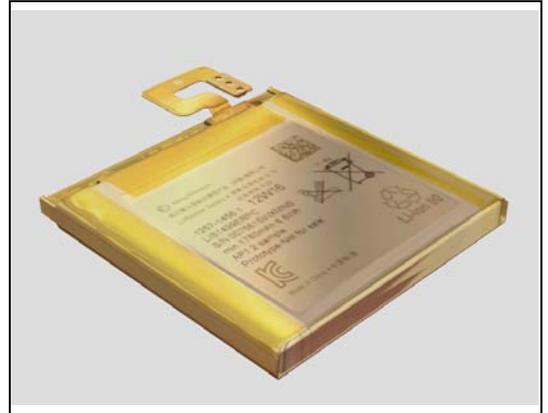
Carry out the Removal as described below!

Prepare a new Battery & Battery Adhesive!

Carry out the Installation as described below!

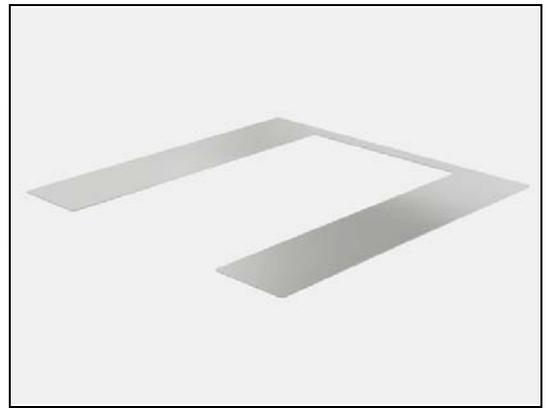
Follow the 4.30 and 4:29 Installation instructions!

Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!



**Both Battery and Battery Adhesive must be changed together!**

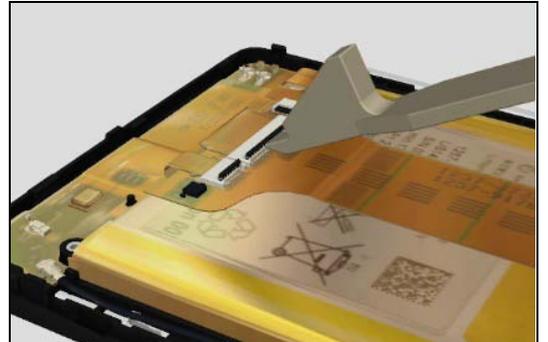
**Scrap the Battery and Battery Adhesive, not to be reused!**



#### REMOVAL

Unsnap and loosen the PBA SideKey FPC from the PBA Complete to be able to lift the battery

**Be care full not to damage the PBA SideKey FPC during the Battery exchange!**



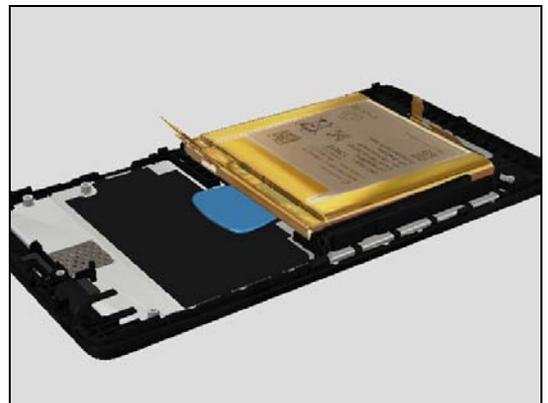
Use a plectrum to gently remove the battery

**Be careful not to puncture the Battery!**

**Scrap the Battery! Not to be reused!**

Peel of the Battery Adhesive and its deposits with your fingers.

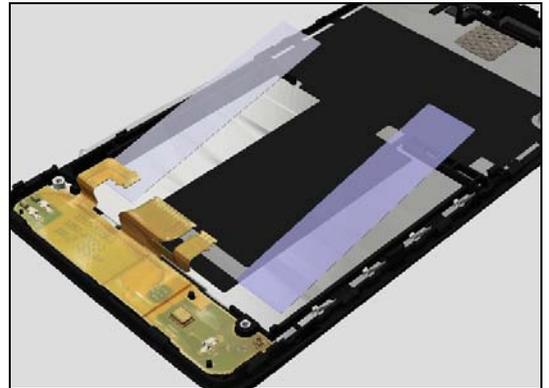
**Scrap the Battery Adhesive, not to be reused!**



## Replacement

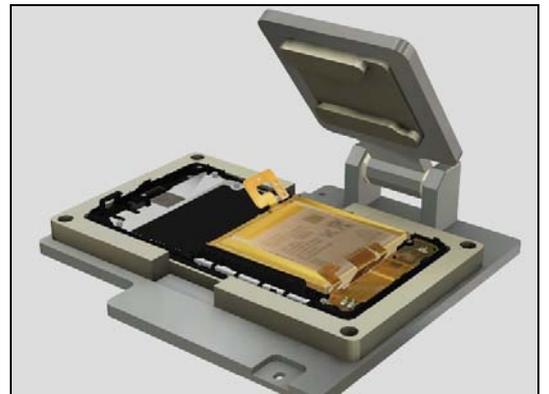
### INSTALLATION

Place the Battery Adhesive with the protection film at its place and apply some pressure with your fingers before removing the protection film.

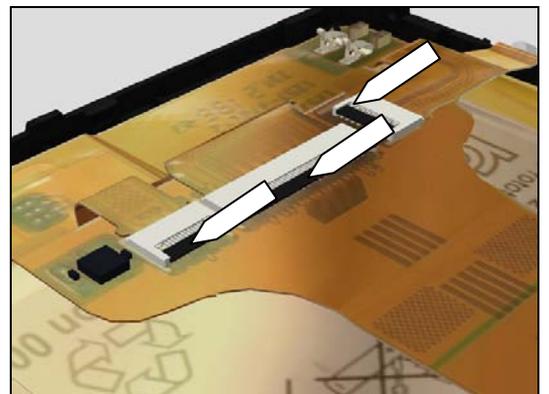


Place the Battery centralised on its position and fixate it with the pressure tool at **100N** in **10s**.

**Make sure that PBA SideKey FPC and PBA Lower FPC are not squashed!**



Connect and then lock the ZIF connections with an Front Opening Tool



## Replacement

### 4.8 Cable Coax

*Follow the 3.1 and 3.2 Disassembly instructions!*

*Carry out the Removal as described below!*

Prepare a new Cable Coax.

*Carry out the Installation as described below!*

Follow the 5.4 and 5.6 Reassembly instructions!

#### REMOVAL

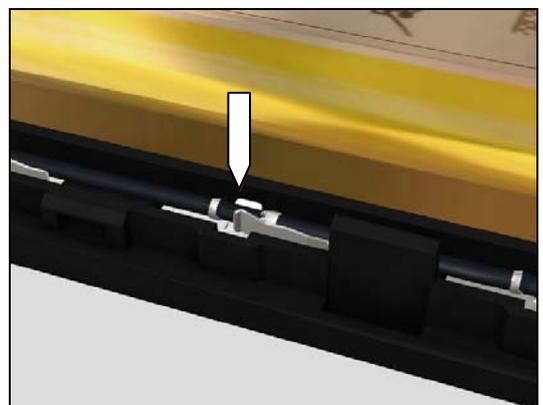
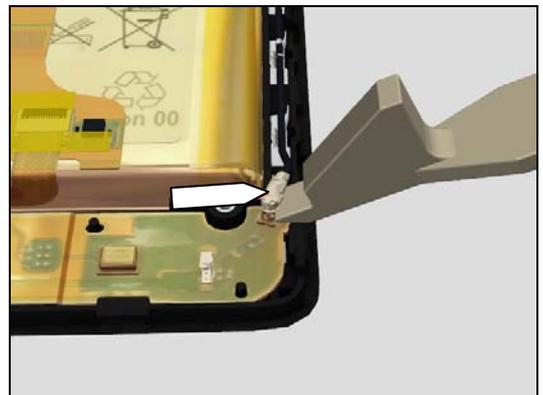
Loosen the Cable Coax on both sides with a Front Opening Tool.

Gently remove the Cable Coax by pulling it straight out of the holdings.

#### INSTALLATION

Attach the Cable Coax to the PBA Complete and PBA Lower FPC.

**Make sure that the Cable Coax is in place in all snaps!**



## Replacement

### 4.9 Camera 13.1 MPixel CMOS

Follow the 3.1, 3.3 and 3.4 Disassembly instructions!

Carry out the Removal as described below!

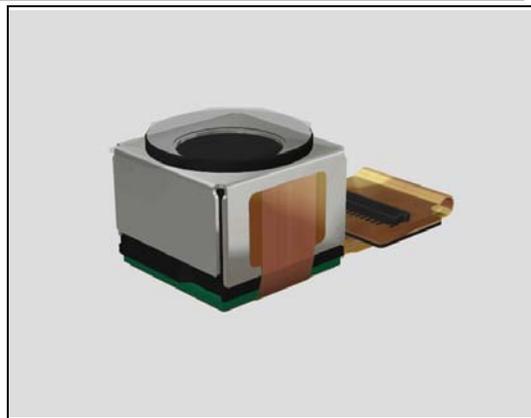
Carry out 4.21 Removal Instructions!

Prepare a new Camera 13.1 MPixel CMOS.

Carry out 4.21 Installation Instructions!

Carry out the Installation as described below!

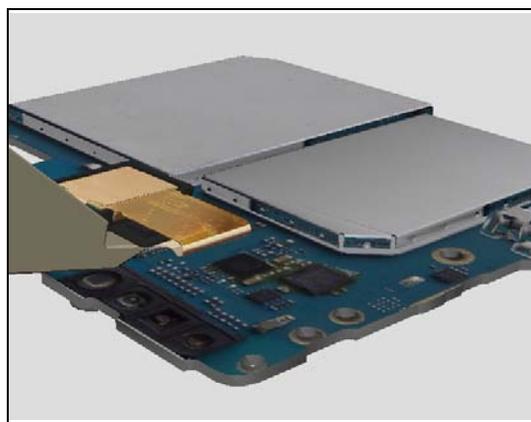
Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!



#### REMOVAL

Remove the Camera 13.1 MPixel CMOS with a Front Opening Tool.

**Don't touch the camera lens!**



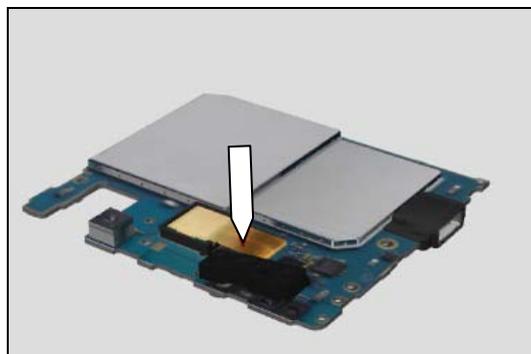
#### INSTALLATION

**Don't touch the camera lens!**

Place the Camera 13.1 MPixel CMOS with the Gasket Camera Grommet, into the hole on the Main BPA.

Connect the Camera 13.1 MPixel CMOS to the PBA

Complete and secure the connection by pressing the BtB connectors together with your fingers.



## Replacement

### 4.10 Cap Lower Cap Assembly

Follow the 3.1 Disassembly instructions section '[LT30a](#) & [LT30at](#)' → Cap Lower Cap Assembly!

Prepare a new Cap Lower Cap Assembly.

Follow the 5.6 Reassembly instructions section '[LT30a](#) & [LT30at](#)' → Cap Lower Cap Assembly!



### 4.11 Cap Upper Cap Assembly

Follow the 3.1 Disassembly instructions section '[LT30a](#) & [LT30at](#)' → Cap Upper Cap Assembly!

Prepare a new Cap Lower Cap Assembly.

Follow the 5.6 Reassembly instructions section '[LT30a](#) & [LT30at](#)' → Cap Upper Cap Assembly!



## Replacement

### 4.12 Carrier Label Tray

*Follow the 3.1 Disassembly instructions!*

*Carry out the Removal as described below!*

Prepare a new Carrier Label Tray.

*Carry out the Installation as described below!*

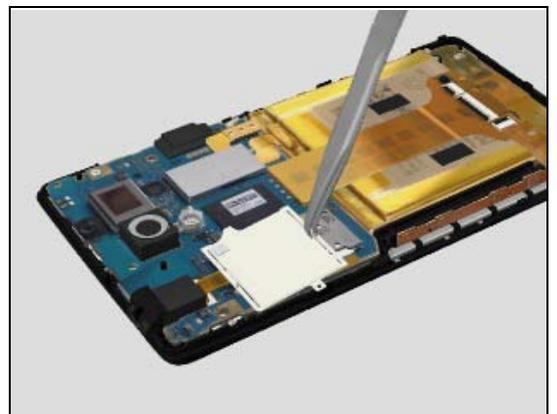
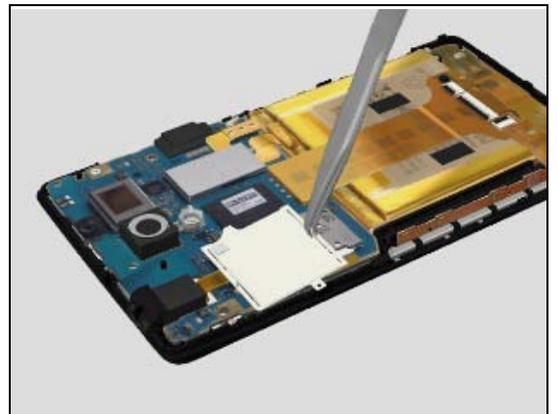
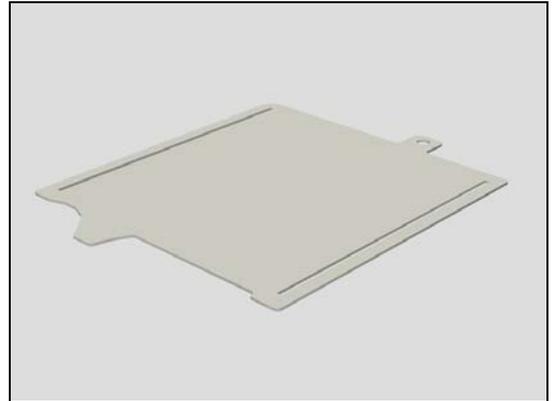
Follow the 5.6 Reassembly instructions!

#### REMOVAL

Use a Flex Film Assembly tool to expand the opening on the Label and then remove it.

#### INSTALLATION

Replace the Carrier Label Tray by expanding the gaps with a Flex Film Assembly tool and put it in place.



## Replacement

### 4.13 Carrier Label Tray Holder Assembly

*Follow the 3.1 Disassembly instructions!*  
*Follow the 4.12 Removal instructions!*  
*Carry out the Removal as described below!*  
Prepare a new Carrier Label Tray Holder Assembly.  
*Carry out the Installation as described below!*  
*Follow the 4.12 Installation instructions!*  
Follow the 5.6 Reassembly instructions!

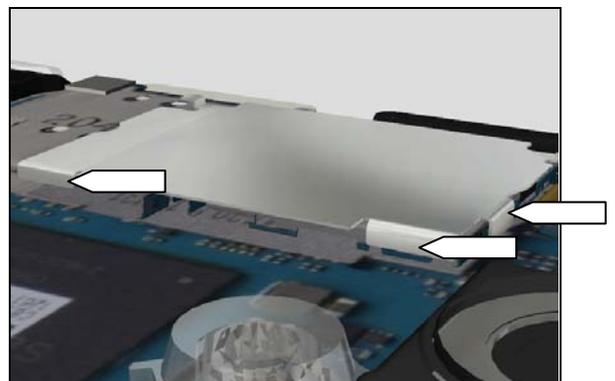
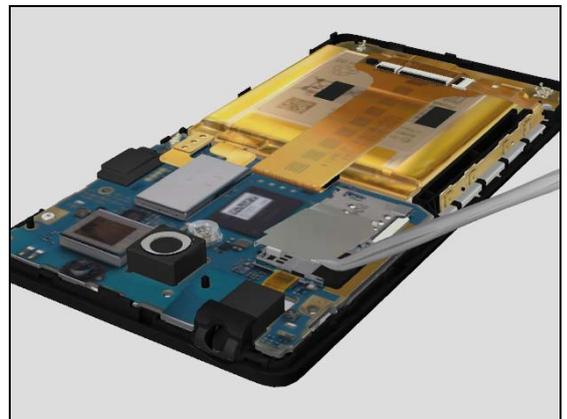
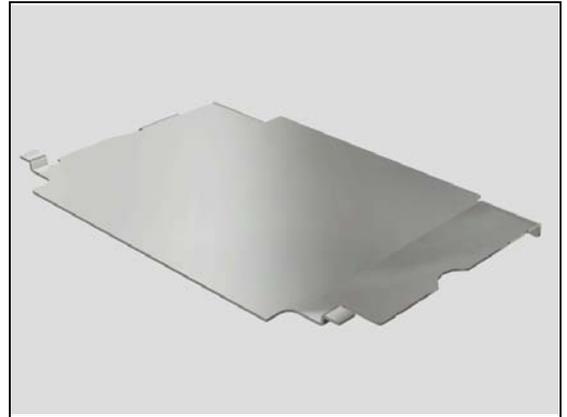
#### REMOVAL

Use a Flex Fillm Assembly Tool to remove the Carrier Label Tray Holder Assembly.

**Scrap the Carrier Label Tray Holder Assembly, not to be reused!**

#### INSTALLATION

Place the Carrier Label Tray Holder Assembly at correct position..



## Replacement

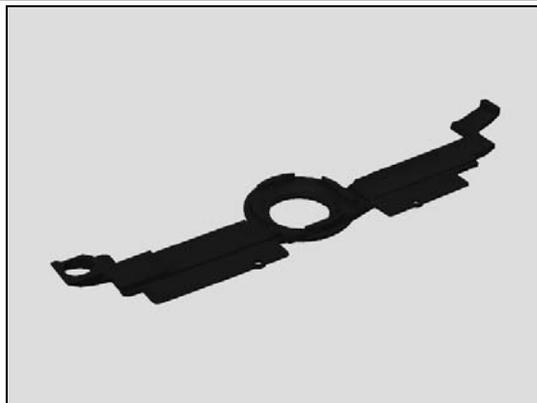
### 4.14 Cover Camera Ring Assembly

*Follow the 3.1 Disassembly instructions!*  
*Carry out the Removal as described below!*  
Prepare a new Cover Camera Ring Assembly.  
*Carry out the Installation as described below!*  
Follow the 5.3 and 5.6 Reassembly instructions!

#### REMOVAL

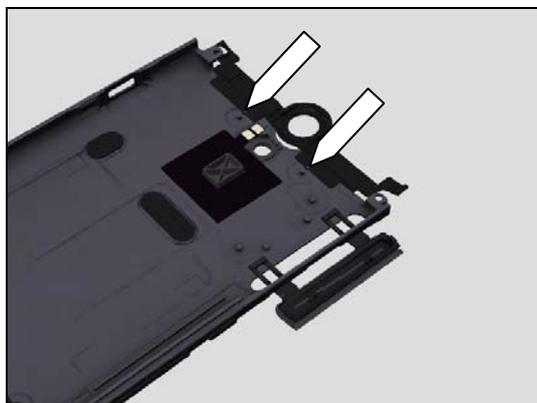
*Peel of the old Cover Camera Ring Assembly!*

**Scrap the Cover Camera Ring Assembly, not to be reused!**



#### INSTALLATION

Place the new Cover Camera Ring Assembly in its position on the Back Cover Assembly guided by the holes and pins and press it in place with your fingers!



### 4.15 Cover SIM/SD Door Assembly

*Follow the 3.1 Disassembly instructions!*  
*Carry out the Removal as described below!*  
Prepare a new Cover SIM/SD Door Assembly.  
*Carry out the Installation as described below!*  
Follow the 5.6 Reassembly instructions!



## Replacement

### REMOVAL

#### LT30p

Remove the old Cover SIM/SD Door Assembly with a Flex Film Assembly Tool by expanding the gaps in the rubber strings on the Cover SIM/SD Door Assembly.



#### LT30a & LT30at

Remove the old Cover SIM/SD Door Assembly with a Flex Film Assembly Tool by expanding the gaps in the rubber strings on the Cover SIM/SD Door Assembly.



### INSTALLATION

#### LT30p

Use a Flex Film Assembly Tool by expanding the gaps in the rubber strings on the Cover SIM/SD Door Assembly to assemble it.



#### LT30a & LT30at

Use a Flex Film Assembly Tool by expanding the gaps in the rubber strings on the Cover SIM/SD Door Assembly to assemble it.



## Replacement

### 4.16 Cushion Earspeaker

Follow the 3.1, 3.3 and 3.4 Disassembly instructions!

Carry out the Removal as described below!

Prepare a new Ear Speaker Cushion.

Carry out the Installation as described below!

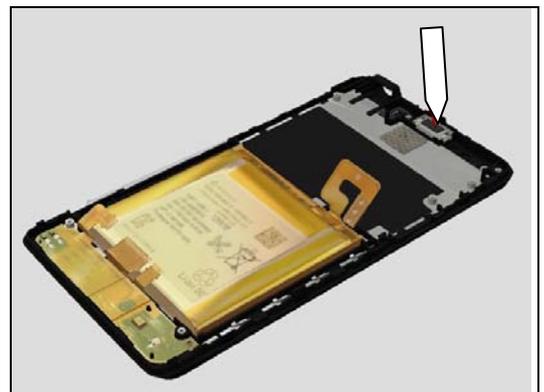
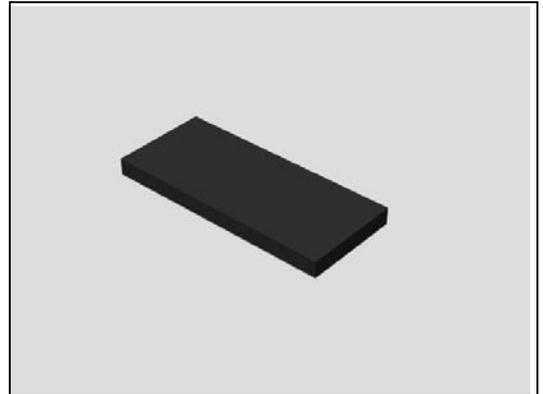
Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!

#### REMOVAL

Gently peel of the Ear Speaker Cushion with your fingers.

**Be careful not to damage the Springs on the Ear Speaker!**

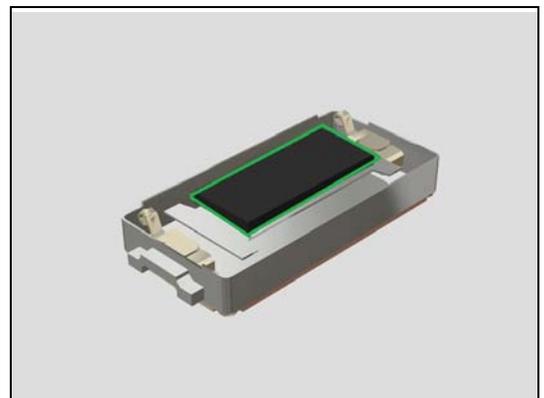
**Scrap the Cushion Earspeaker, not to be reused!**



#### INSTALLATION

**Be careful not to damage the Springs on the Ear Speaker!**

Place the Cushion Earspeaker at correct position.



## Replacement

### 4.17 Cushion Flash lens

Follow the 3.1 and 3.3 Disassembly instructions!

Carry out the Removal as described below!

Prepare a new Cushion Flash lens.

Carry out the Installation as described below!

Follow the 5.3 and 5.6 Reassembly instructions!

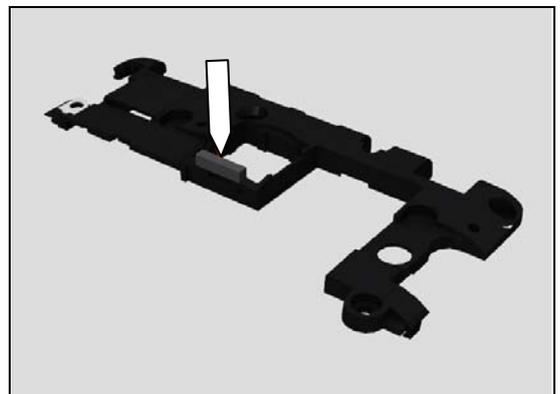
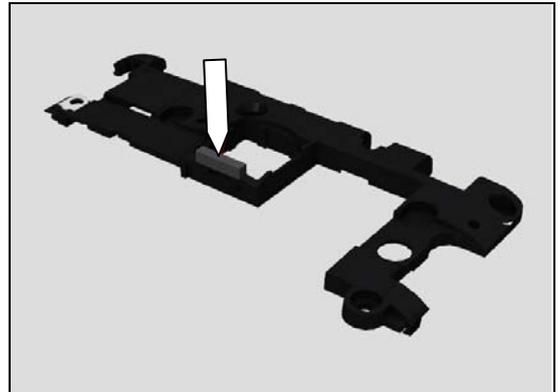
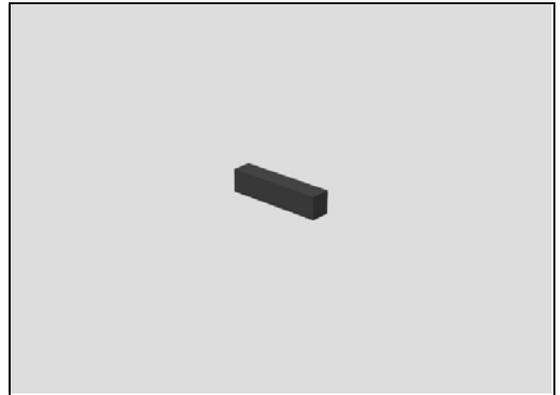
#### REMOVAL

Gently peel of the Cushion Flash lens.

**Scrap the Cushion Flash lens, not to be reused!**

#### INSTALLATION

Place the *Cushion Flash lens* at correct position.



## Replacement

### 4.18 Ear Speaker

*Follow the 3.1, 3.3 and 3.4 Disassembly instructions!*

*Carry out the Removal as described below!*

*Prepare a new Ear Speaker.*

*Follow the 4.16 Installation instructions!*

*Carry out the Installation as described below!*

*Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!*

#### REMOVAL

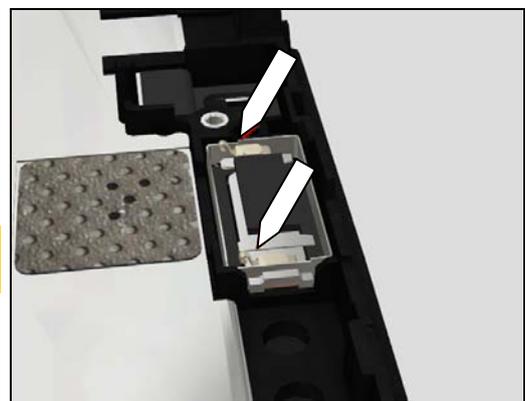
*Remove the Ear Speaker with the Front Opening Tool.*



#### INSTALLATION

Place the Ear Speaker at the correct position.

**Be careful not to damage the Springs on the Ear Speaker!**



## Replacement

### 4.19 Ear Speaker Gasket

*Follow the 3.1, 3.3 and 3.4 Disassembly instructions!*

*Carry out 4.18 Removal instructions!*

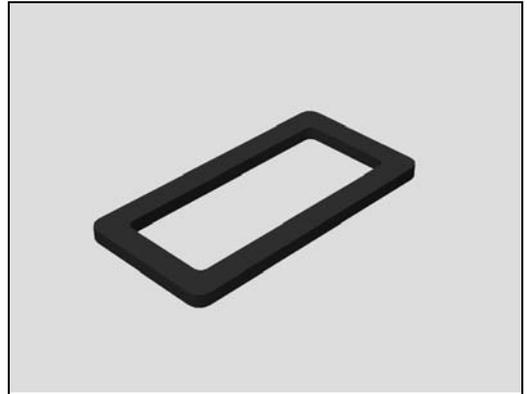
*Carry out the Removal as described below!*

Prepare a new Ear Speaker Gasket.

*Carry out 4.18 Installation instructions!*

*Carry out the Installation as described below!*

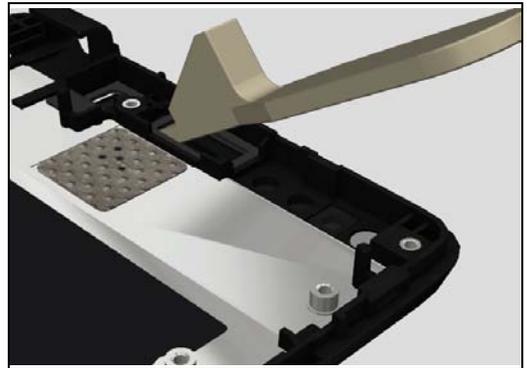
Follow the 5.2, 5.3 and 5.6 Reassembly instructions!



#### REMOVAL

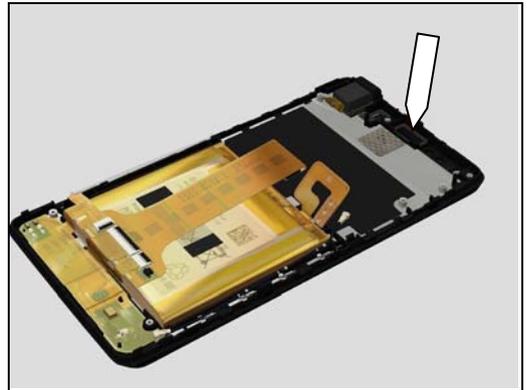
*Remove the Ear Speaker Gasket with the Front Opening Tool.*

**Scrap the Ear Speaker Gasket, not to be reused!**



#### INSTALLATION

Place the Ear Speaker Gasket in the cavity.



## Replacement

### 4.20 Gasket Audio Jack Grommet

*Follow the 3.1, 3.3 and 3.4 Disassembly instructions!*

*Carry out 4.27 Removal Instructions!*

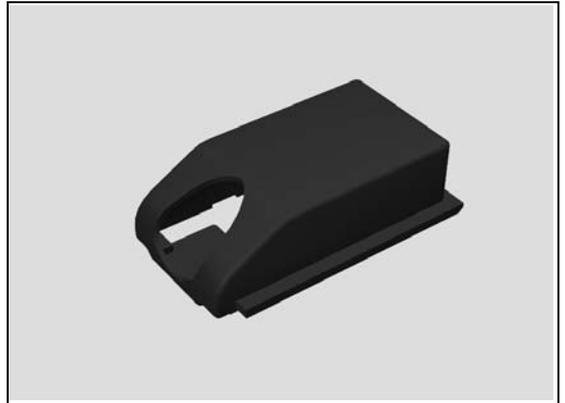
*Carry out the Removal as described below!*

Prepare a new Gasket Audio Jack Grommet.

*Carry out the Installation as described below!*

*Carry out 4.27 Installation Instructions!*

Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!



#### REMOVAL

*Peel of the Gasket Audio Jack Grommet with your fingers.*



#### INSTALLATION

Place the PBA AVP FPC in the new Gasket Audio Jack Grommet.



## Replacement

### 4.21 Gasket Camera Grommet

*Follow the 3.1, 3.3 and 3.4 Disassembly instructions!*

*Carry out 4.9 Removal instructions!*

*Carry out the Removal as described below!*

Prepare a new Gasket Camera Grommet.

*Carry out the Installation as described below!*

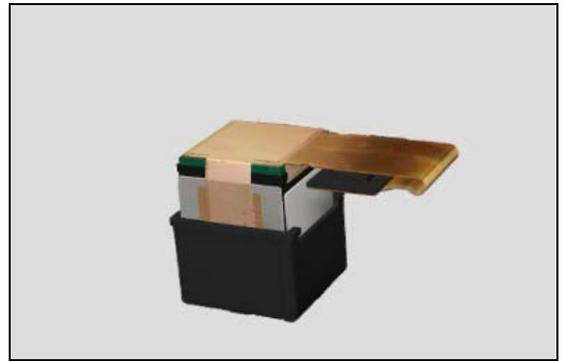
*Carry out 4.9 Installation instructions!*

Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!



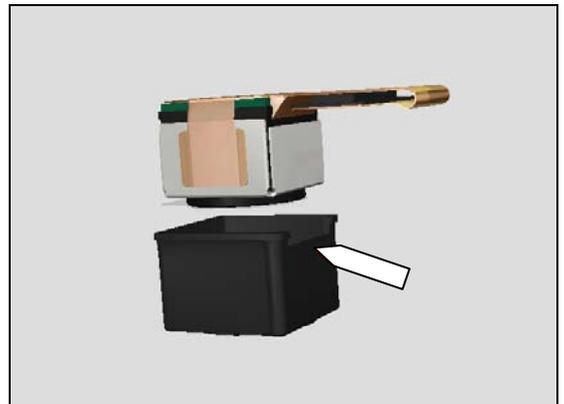
#### REMOVAL

*Gently peel of the Gasket Camera Grommet with your fingers.*



#### INSTALLATION

Place the Camera 13.1 MPixel CMOS in the Gasket Camera Grommet.



## Replacement

### 4.22 Gasket Lower Cap Sealing

*Follow the 3.1 Disassembly instructions!*  
*Carry out the Removal as described below!*  
Prepare a new Gasket Lower Cap Sealing.  
*Carry out the Installation as described below!*  
Follow the 5.3 and 5.6 Reassembly instructions!

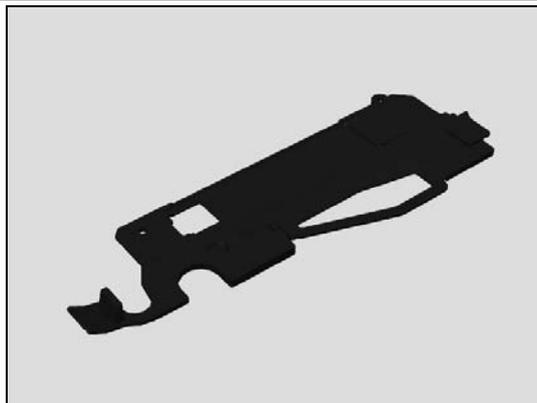
#### REMOVAL

*Peel of the old Gasket Lower Cap Sealing!*

**Scrap the Gasket Lower Cap Sealing, not to be reused!**

#### INSTALLATION

Place the new Gasket Lower Cap Sealing in its position on the Back Cover Assembly and press it in place with your fingers!



## Replacement

### 4.23 Gasket Mic 2 Grommet

Follow the 3.1 and 3.3 Disassembly instructions!

Carry out the Removal as described below!

Prepare a new Gasket Mic 2 Grommet.

Carry out the Installation as described below!

Follow the 5.3 and 5.6 Reassembly instructions!

#### REMOVAL

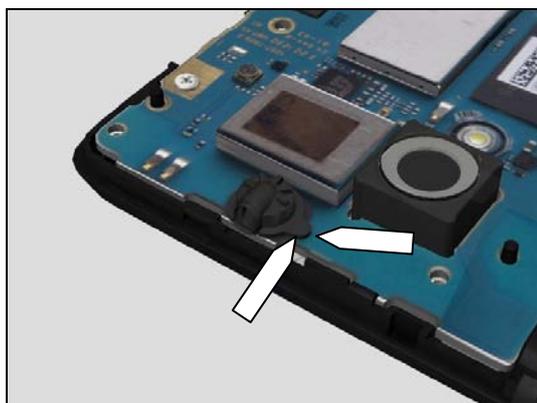
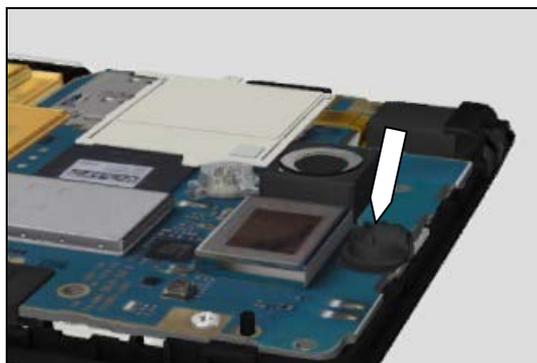
Peel of the Gasket Mic 2 Grommet.

**Scrap the Gasket Mic 2 Grommet, not to be reused!**

**Be careful not to damage the components on the PBA!**

#### INSTALLATION

Use the steering pin and hole as guidance and secure it by pressing the Grommet slightly onto the BPA Complete.



## Replacement

### 4.24 Gasket Proxy Grommet PBA Assembly

Follow the 3.1, 3.3 and 3.4 Disassembly instructions!  
Carry out the Removal as described below!  
Prepare a new Gasket Proxy Grommet PBA Assembly.  
Carry out the Installation as described below!  
Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!

#### REMOVAL

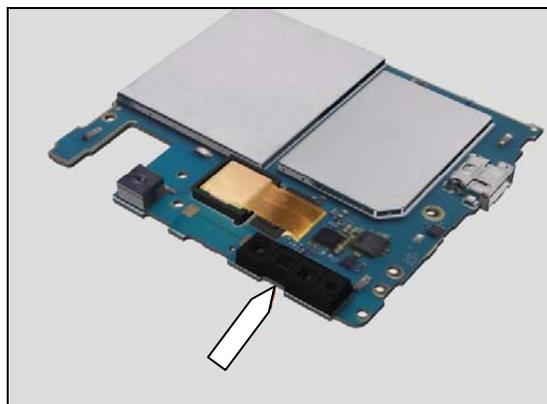
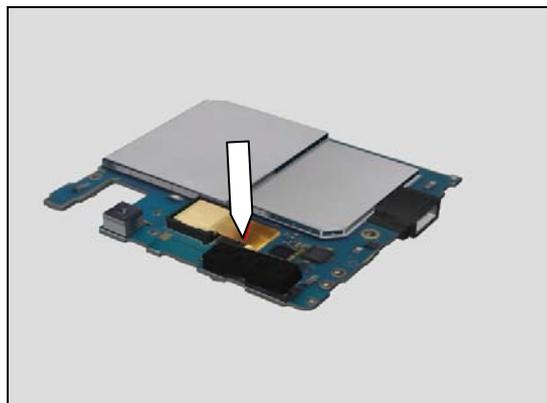
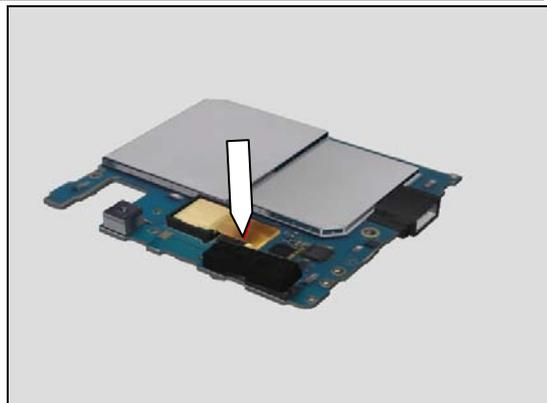
Gently peel of the Gasket Proxy Grommet PBA Assembly with your fingers.

**Scrap the Gasket Proxy Grommet PBA Assembly, not to be reused!**

**Be careful not to damage the components on the PBA!**

#### INSTALLATION

Place it on the PBA at correct position.



## Replacement

### 4.25 Gasket USB Grommet

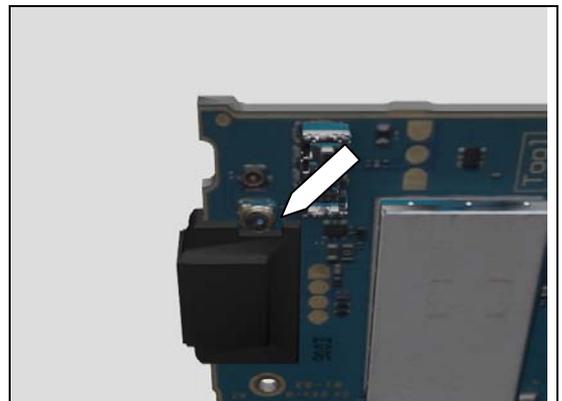
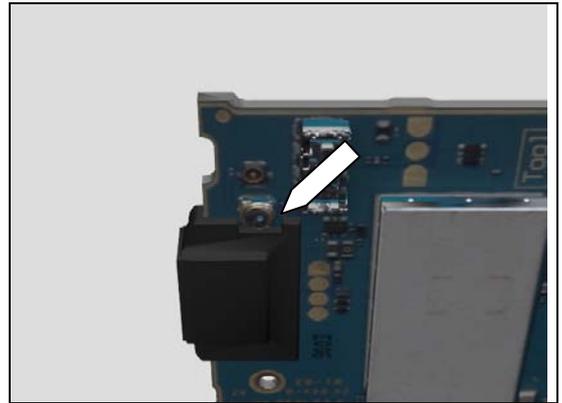
Follow the 3.1, 3.3 and 3.4 Disassembly instructions!  
*Carry out the Removal as described below!*  
Prepare a new Gasket USB Grommet.  
*Carry out the Installation as described below!*  
Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!

#### REMOVAL

Gently peel of the Gasket USB Grommet with your fingers.

#### INSTALLATION

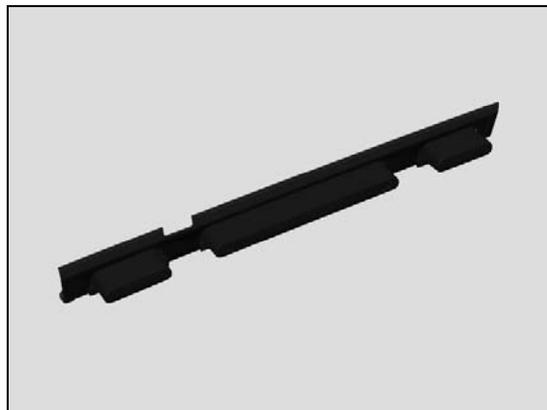
Place it on the PBA at correct position.



## Replacement

### 4.26 Key Multifunc Assembly

*Follow the 3.1 Disassembly instructions!  
Carry out the Removal as described below!  
Prepare a new Key Multifunc Assembly.  
Carry out the Installation as described below!  
Follow the 5.6 Reassembly instructions!*



#### **REMOVAL**

##### **LT30p**

Remove the old Key Multifunc Assembly with a Flex Film Assembly Tool.

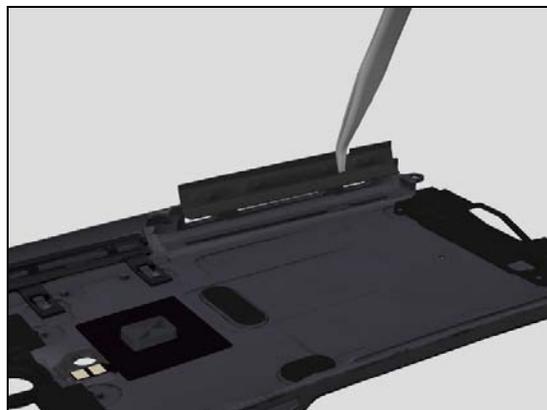
**Scrap the Key Multifunc Assembly, not to be reused!**



##### **LT30a & LT30at**

Remove the old Key Multifunc Assembly with a Flex Film Assembly Tool.

**Scrap the Key Multifunc Assembly, not to be reused!**

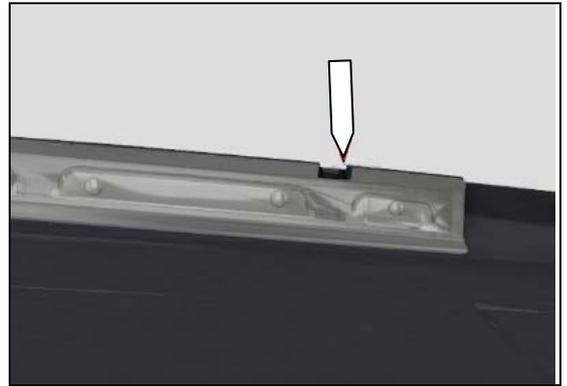


## Replacement

### **INSTALLATION**

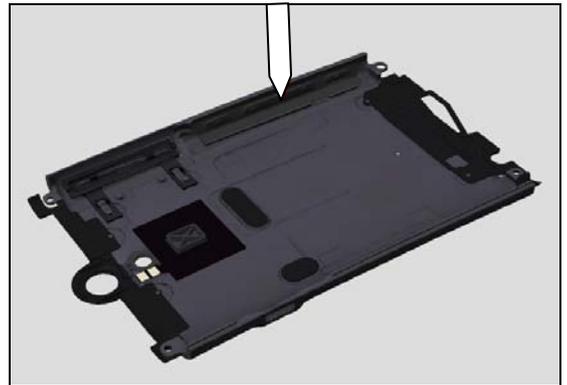
#### **LT30p**

Attach the Key Multifunc Assembly to the Cover Back Assembly with a Flex Film Assembly Tool.  
Press with your fingers to secure its position.



#### **LT30a & LT30at**

Attach the Key Multifunc Assembly to the Cover Back Assembly with a Flex Film Assembly Tool.  
Press with your fingers to secure its position.



## Replacement

### 4.27 PBA AVP FPC

*Follow the 3.1, 3.3 and 3.4 Disassembly instructions!*

*Carry out the Removal as described below!*

*Carry out 4.20 Removal Instructions!*

Prepare a new PBA AVP FPC.

*Carry out 4.20 Installation Instructions!*

*Carry out the Installation as described below!*

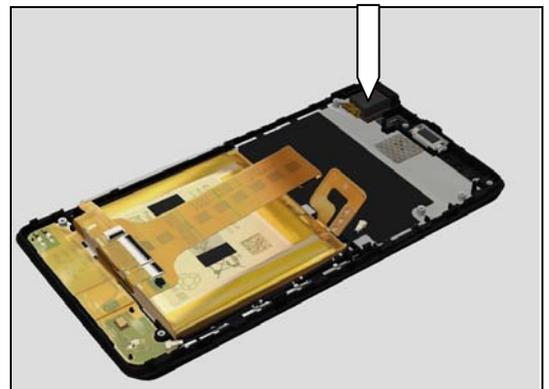
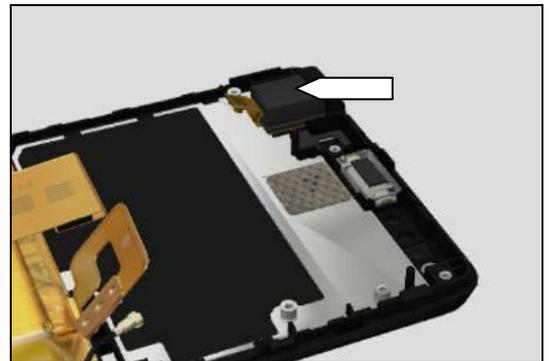
Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!

#### **REMOVAL**

Remove the PBA AVP FPC with your fingers from the Main BPA.

#### **INSTALLATION**

Place the Assembly in the cavity on the Front Cover.



## Replacement

### 4.28 PBA Lower FPC

*Follow the 3.1 and 3.2 Disassembly instructions!*

*Carry out the Removal as described below!*

*Prepare a new PBA Lower FPC.*

*Carry out the Installation as described below!*

*Follow the 5.4 and 5.6 Reassembly instructions!*

#### REMOVAL

Gently remove the Key FPC ZIF tape by using a Flex Film Assembly Tool.

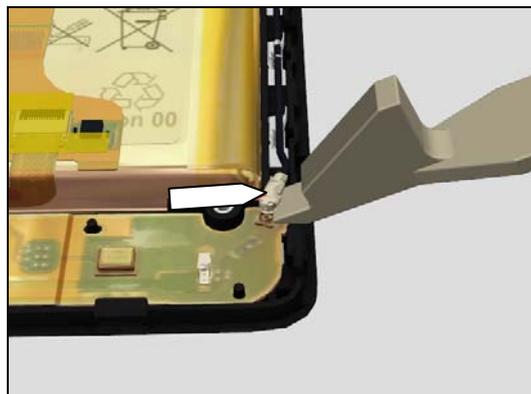
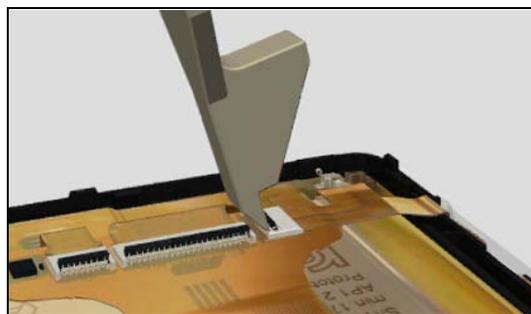
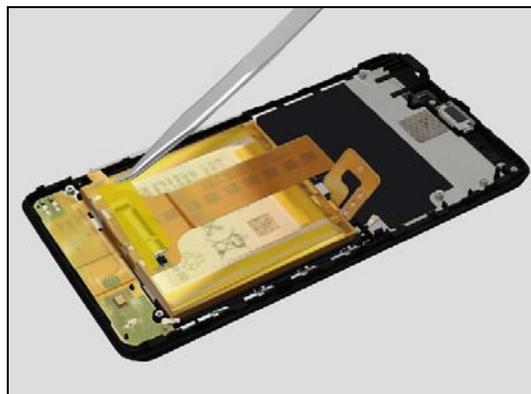
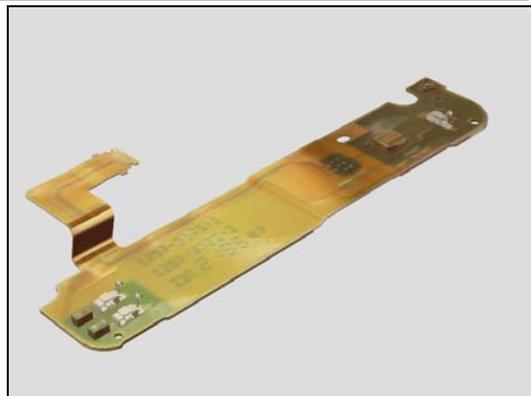
**Scrap the Key FPC ZIF tape, not to be reused!**

*Open the ZIF connector attached to the PBA SideKey FPC with a Front Opening Tool and use a Flex Film Assembly Tool to separate it.*

Loosen the Cable Coax from the PBA Lower FPC with a Front Opening Tool.

*Gently peel of the PBA Lower FPC.*

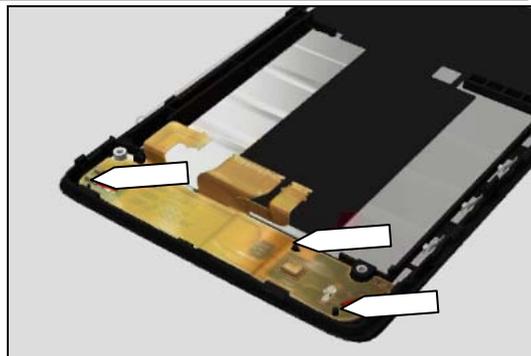
**Scrap the PBA Lower FPC, not to be reused!**



## Replacement

### INSTALLATION

Assemble the PBA Lower FPC guided by the pins and holes.

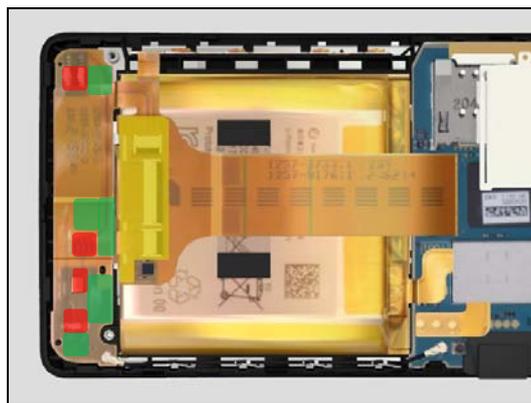


Use the big end of the Nylon Pointer to press on the areas marked in green.

**Putting pressure on the green areas is very important.**

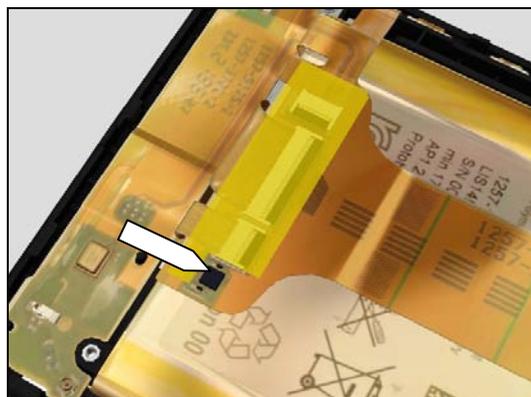
**Don't touch the components, areas marked in red!**

Connect the ZIF connector from the PBA Lower FPC to the PBA SideKey FPC.



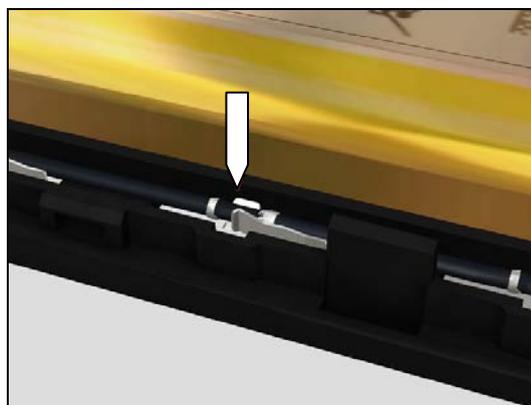
Assemble the new Side key FPC ZIF tape without covering the components on the PBA SideKey FPC as shown in the picture.

Secure its position with your fingers.



Attach the Cable Coax to the PBA Lower FPC.

**Make sure that the Cable Coax is in place in all snaps!**



## Replacement

### 4.29 Side Key FPC tape

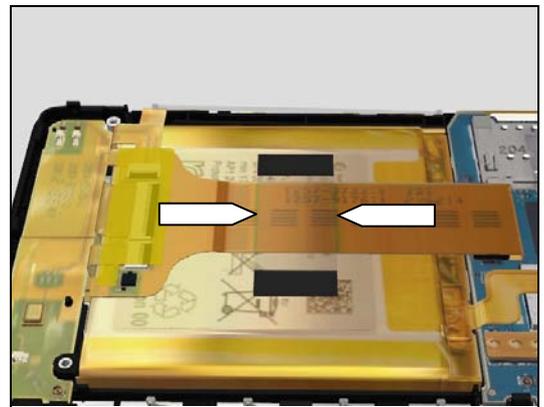
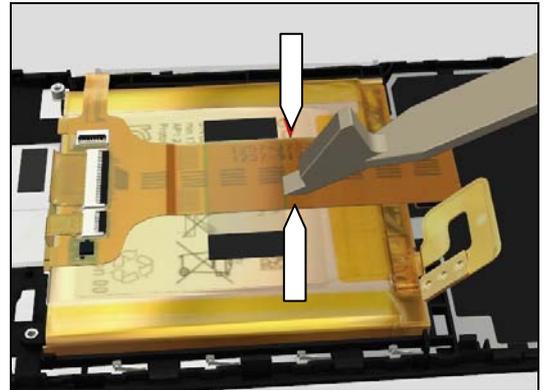
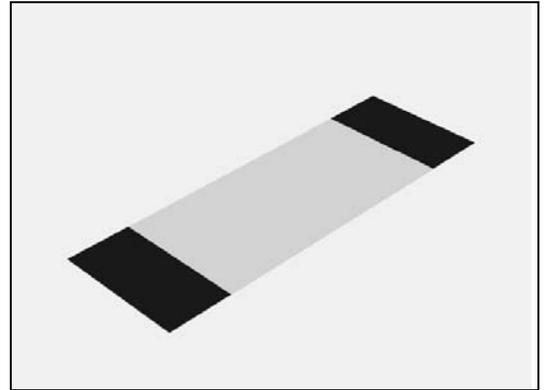
Follow the 3.1 Disassembly instructions!  
Carry out the Removal as described below!  
Prepare a new Side Key FPC tape.  
Carry out the Installation as described below!  
Follow the 5.6 Reassembly instructions!

#### REMOVAL

Use a Front Opening Tool to remove the Side Key FPC tape.  
**Scrap the Side Key FPC tape, not to be reused!**

#### INSTALLATION

Assemble the Side Key FPC tape between the lines on the PBA SideKey FPC.  
Secure its position with your fingers



## Replacement

### 4.30 Side Key FPC ZIF tape

Follow the 3.1 Disassembly instructions!  
Carry out the Removal as described below!  
Prepare a new Side Key FPC ZIF tape.  
Carry out the Installation as described below!  
Follow the 5.6 Reassembly instructions!

#### REMOVAL

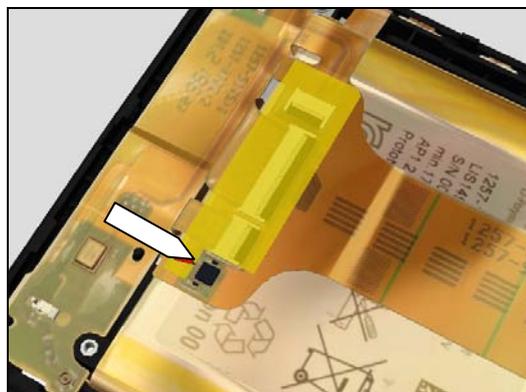
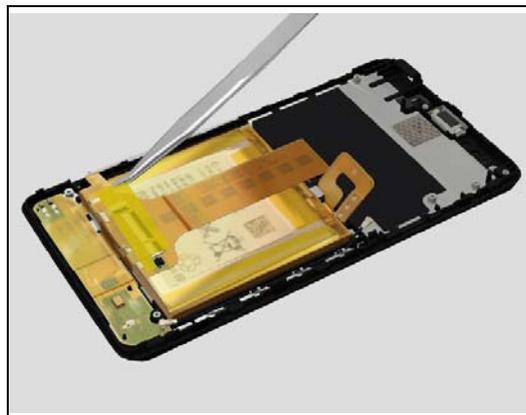
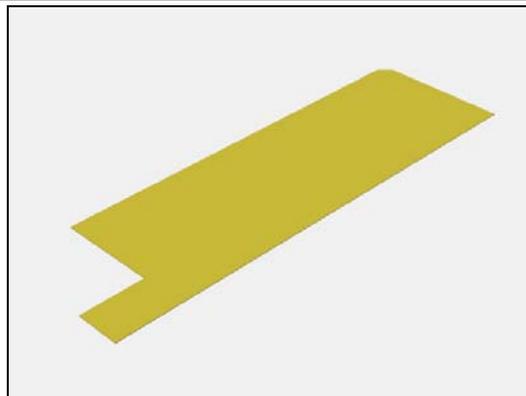
Remove the old Side key FPC ZIF tape with a Flex Film Assembly tool.

**Scrap the Side Key FPC ZIF tape, not to be reused!**

#### INSTALLATION

Assemble the new Side key FPC ZIF tape without covering the components on the PBA SideKey FPC as shown in the picture.

Secure its position with your fingers.



## Replacement

### 4.31 Water Indicator

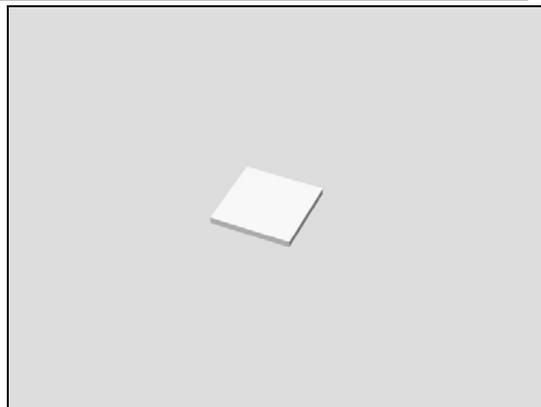
*Follow the 3.1 Disassembly instructions!*

*Carry out the Removal as described below!*

Prepare a new Water Indicator.

*Carry out the Installation as described below!*

Follow the 5.6 Reassembly instructions!

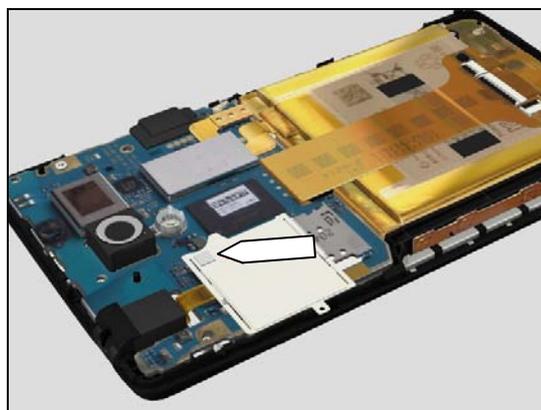


#### REMOVAL

*Peel of the Water Indicator.*

#### INSTALLATION

Place the new Water Indicator at inner left side of the Carrier Label Tray.



### 4.32 Window Camera Flash Inner Lens

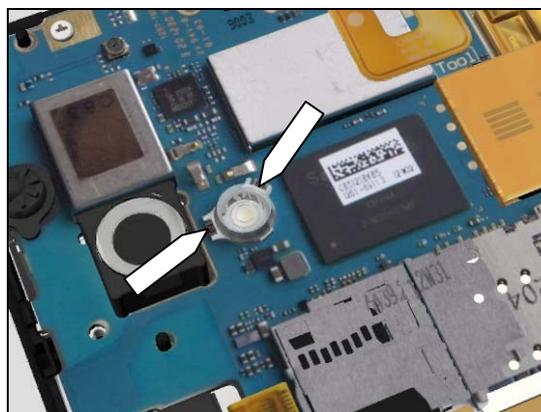
*Follow the 3.1 and 3.2 Disassembly instructions!*

**Window Camera Flash Inner Lens is not possible to remove!**

Prepare a new Window Camera Flash Inner Lens.

Place the new Window Camera Flash Inner Lens on the PBA Complete guided by the shape of part and components.

Follow the 5.6 Reassembly instructions!



## Replacement

### 4.33 Board Swap - Replacement

*Follow the 3.1, 3.3 and 3.4 Disassembly instructions!*

*Carry out 4.9, 4.12 and 4.25 Removal instructions!*

**Re-use the Camera 13.1 MPixel CMOS , Gasket Camera Grommet, Gasket USB Grommet and the Carrier Label Tray!**

Replace the Swap Board.

*Carry out 4.9, 4.12, 4.13, 4.23-4.25 and 4.32 Installation instructions!*



*Follow the 5.2, 5.3, 5.5 and 5.6 Reassembly instructions!*

Press the Key On/Off to power on the phone, place unit on flat desk and wait 4 minutes until system boot up has been completed.

**Please DO NOT move the phone during starting up until "Select Language" menu is shown on the display!**

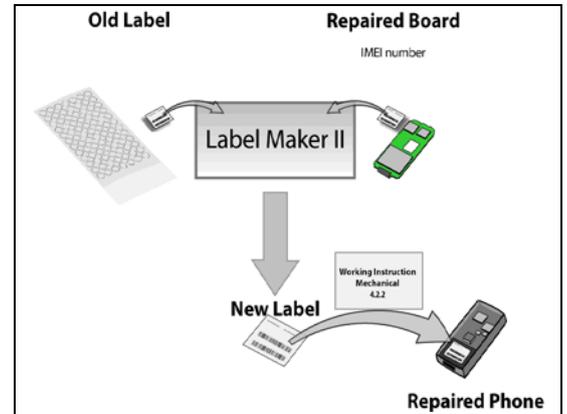
*After "Select Language" menu, turn off the phone.*

## Replacement

### 4.34 Board Swap – Change Label

#### CHANGE LABEL

Follow the instructions in the Generic Repair Manual –  
Build swap for change of label.

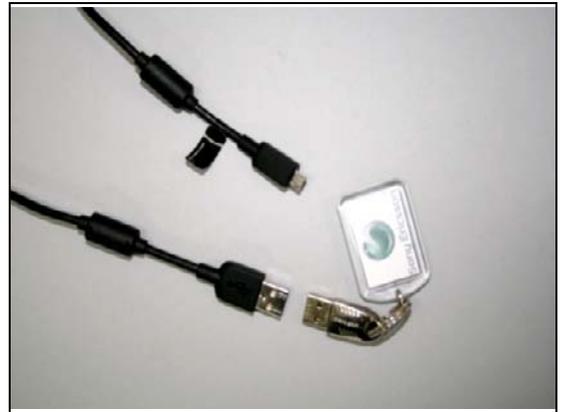


## Replacement

### 4.35 Board Swap – Customize of Software

#### CUSTOMIZE OF SOFTWARE

*Follow the instructions in the Generic Repair Manual –  
Build swap for customization of the software.*



## 5 Re-Assembly

### LT30p

The Re-Assembly is done in the following order:

1. Front Cover
2. PBA SideKey FPC
3. PBA Complete
4. Carrier Upper Frame Assembly
5. Carrier Lower Frame Assembly
6. Cover Back Assembly



### LT30a & LT30at

The Disassembly is done to the following modules:

1. Front Cover
2. PBA SideKey FPC
3. PBA Complete
4. Carrier Upper Frame Assembly
5. Carrier Lower Frame Assembly
6. Cover Back Assembly
7. Cap Lower Cap Assembly
8. Cap Upper Cap Assembly



## Re-Assembly

### 5.1 PBA SideKey FPC & Front Cover

Prepare a new PBA SideKey FPC

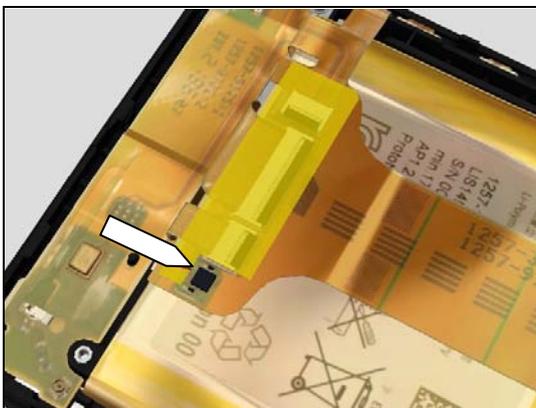
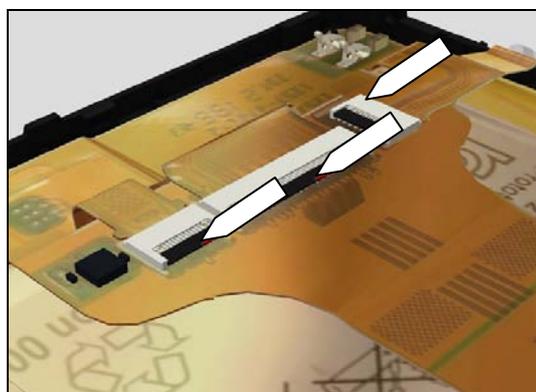
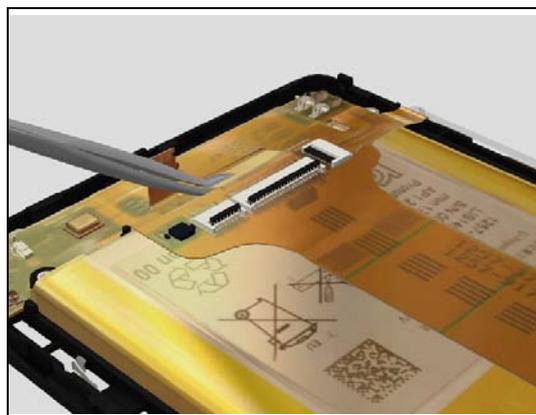
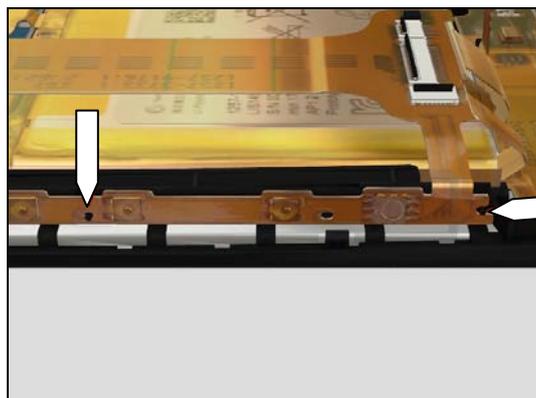
Securely place the FPC on its proper position as indicated by the pegs and holes.

Press to secure its position.

Use a Flex Assembly Tool to securely attach the 3 ZIF connections from the Front Assembly and the PBA Lower FPC.

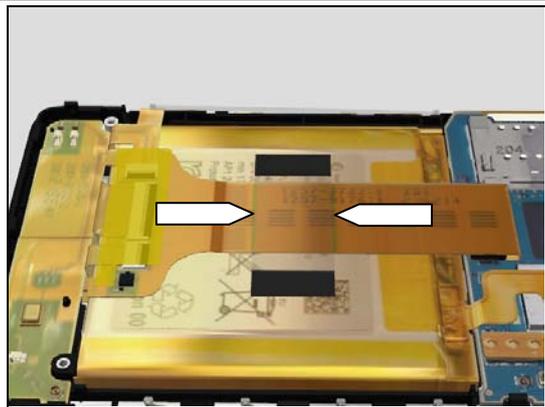
Lock the ZIF connections with an Front Opening Tool

Gently apply the Key FPC ZIF tape by using a Flex Film Assembly Tool, not covering the components.



## Re-Assembly

Assemble the Side Key FPC tape between the lines on the PBA SideKey FPC.  
Secure its position with your fingers



## Re-Assembly

### 5.2 BPA Complete

Prepare the BPA Complete.

Secure that the flex from the battery is not damaged and securely place the corner of the PBA Complete into its position.

Lower the other corner guided by the steering pin on the frame of the front.

Hold the Flex on the PBA AVP FPC in place while putting the opposite side of the BPA Complete into its position.

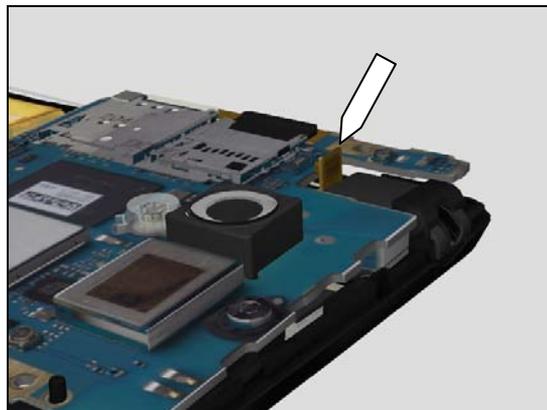
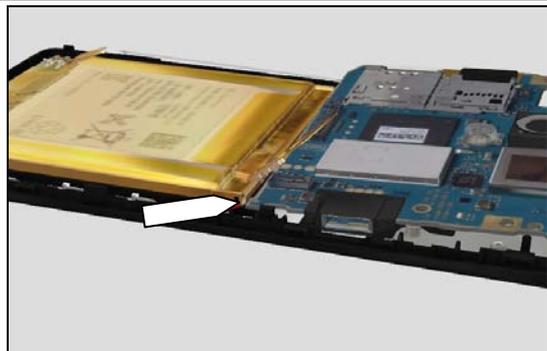
Hold the Flex on the PBA AVP FPC in place while putting the opposite side of the BPA Complete into its position.

Press the main PBA to snap the hooks as shown and secure it by a new M1.4X3.0 screw.

Use Bits (JCIS No 0 →  $14 \pm 2$  Ncm torque).

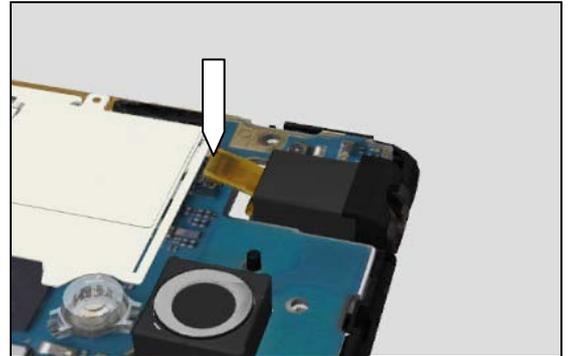
**Do not touch the lens of the Camera 13.1 MPixel CMOS !**

Securely snap the BtB connector from the PBA AVP FPC on to the BPA Complete.

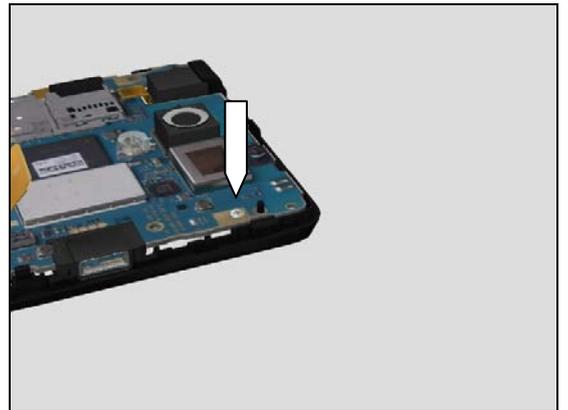


## Re-Assembly

Attach the BtB connector from the PBA AVP FPC to PBA Complete.

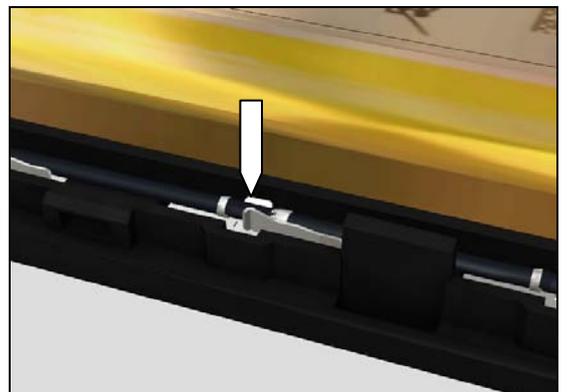


Take a new M1.4X3.0 screw and secure the PBA complete.  
Use Bits (JCIS No 0 → 14 ± 2 Ncm torque).

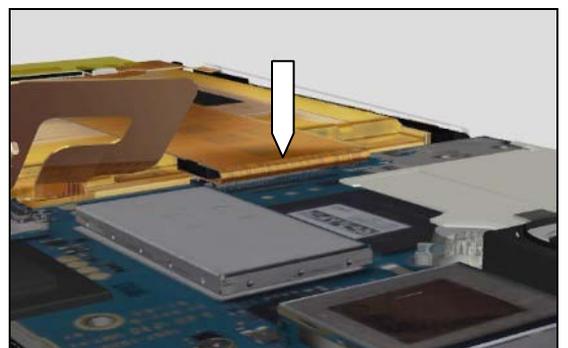


Attach the Cable Coax to the PBA.

**Make sure that the Cable Coax is in place in all snaps!**



Attach the BtB connector from the PBA SideKey FPC to PBA Complete.

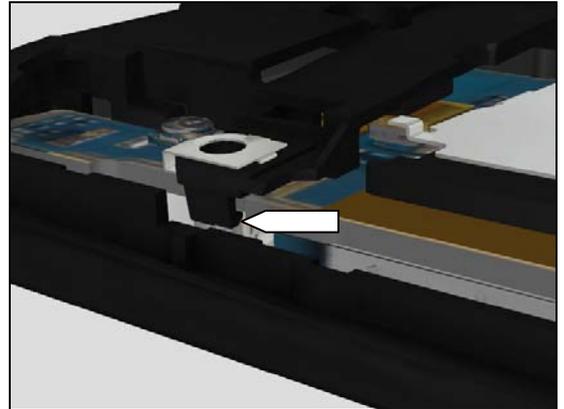


## Re-Assembly

### 5.3 Carrier Upper Frame Assembly

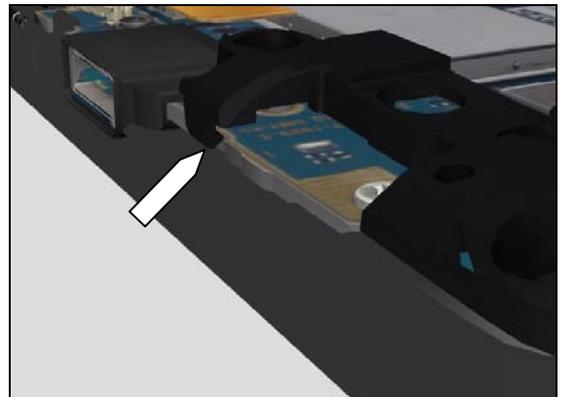
Prepare a Carrier Upper Frame Assembly.  
Start snapping the hook at the metal armoured hole.

**Be careful not to damage the springs on the BPA  
Complete and don't touch the camera!**

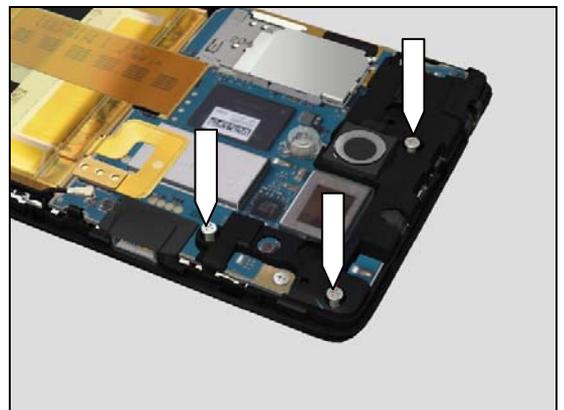


Lower the component and snap the opposite hook.

**Be careful not to damage the springs on the BPA  
Complete and don't touch the camera!**



Secure the position with new M1.4X4.0 screws.  
Use Bits (JCIS No 0 → 14 ± 2 Ncm torque).



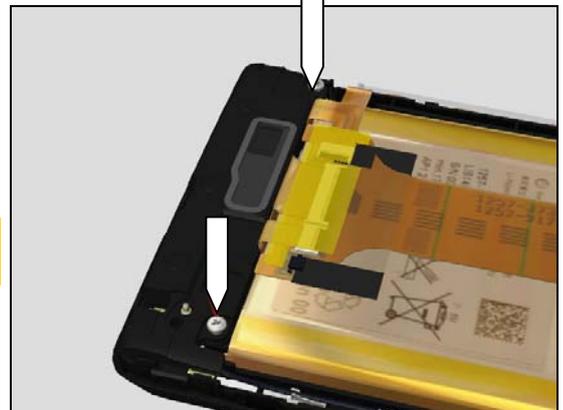
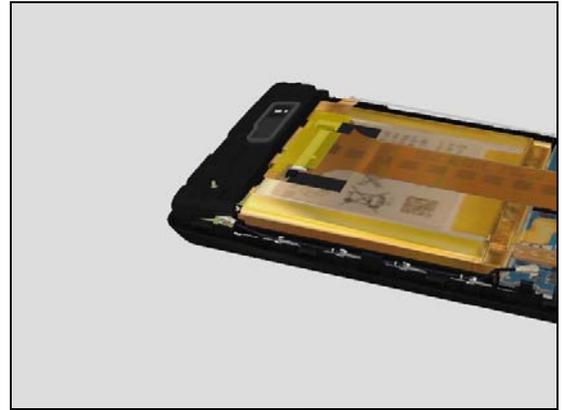
## Re-Assembly

### 5.4 Carrier Lower Frame Assembly

Prepare a Carrier Lower Frame Assembly.  
Start placing the bottom side into the Frame

Secure its position by hand and by new M1.4X3.0 screws.  
Use Bits (JCIS No 0 →  $14 \pm 2$  Ncm torque).

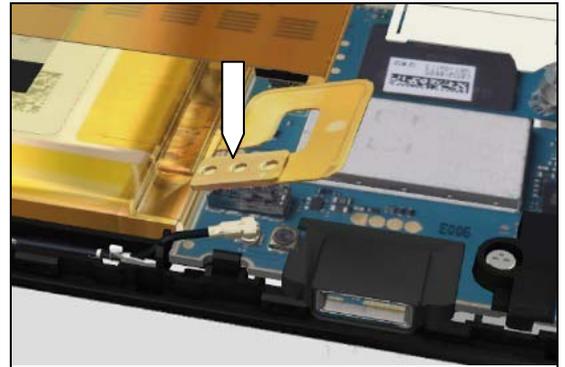
**Be careful not to damage the springs on the BPA Lower FPC!**



## Re-Assembly

### 5.5 Connect Battery

Connect the BtB from the Battery to BtB PBA Complete.



## Re-Assembly

### 5.6 Cover Back Assembly

#### LT30p

Prepare a Cover Back Assembly.

Start snapping the hook at the top of the unit.



Continue along the sides of the unit downwards, press on both sides at the same time.

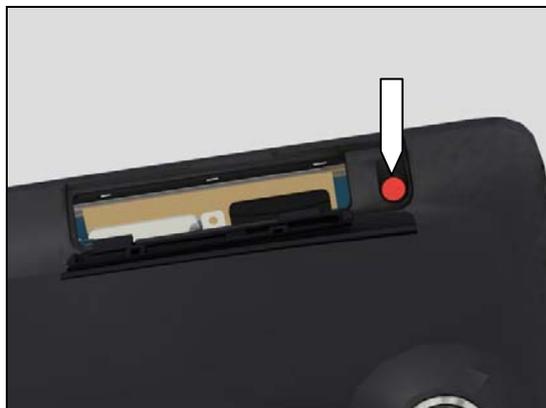


Do the same things until you reach the bottom of the unit.

**Be sure that all the hooks have snapped and that it looks fine at the Audio plug!**



Secure the Cover Back Assembly with a new M1.4X4.0 screw.  
Use Bits (JCIS No 0 → 12 ± 2 Ncm torque).



## Re-Assembly

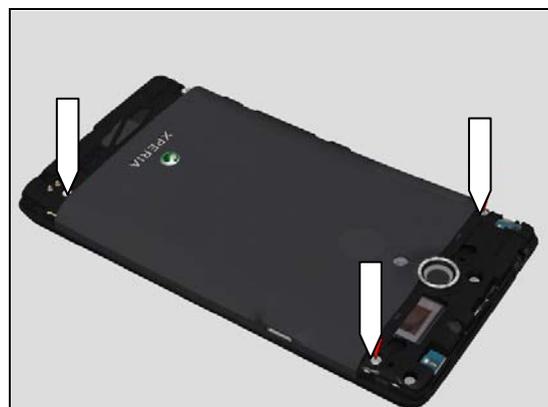
### LT30a & LT30at

Start matching the hole to the micro USB and then snap the other side.



Secure the Cover Back Assembly with 3 new Screw Len:4.0  
Diam:1.4 screws.

Use Bits (JCIS No 0 → 14 ± 2 Ncm torque).



The screw at the Key Multifunc Assembly shall be secured  
with the MComp Screw Bushing and a new Other Len:4.5  
Diam:1.4 screw.

Use Bits (JCIS No 0 → 10 ± 2 Ncm torque).



### Cap Upper Cap Assembly

Start pressing the joint between the Cover Back Assembly and  
the Cap Upper Cap Assembly together and while doing that,  
snap it together to the Front Assembly.

**Be sure that all the hooks have snapped!**



## Re-Assembly

### Cap Lower Cap Assembly

Start pressing the joint between the Cover Back Assembly and the Cap Lower Cap Assembly together and while doing that, snap it together to the Front Assembly.

***Be sure that all the hooks have snapped!***

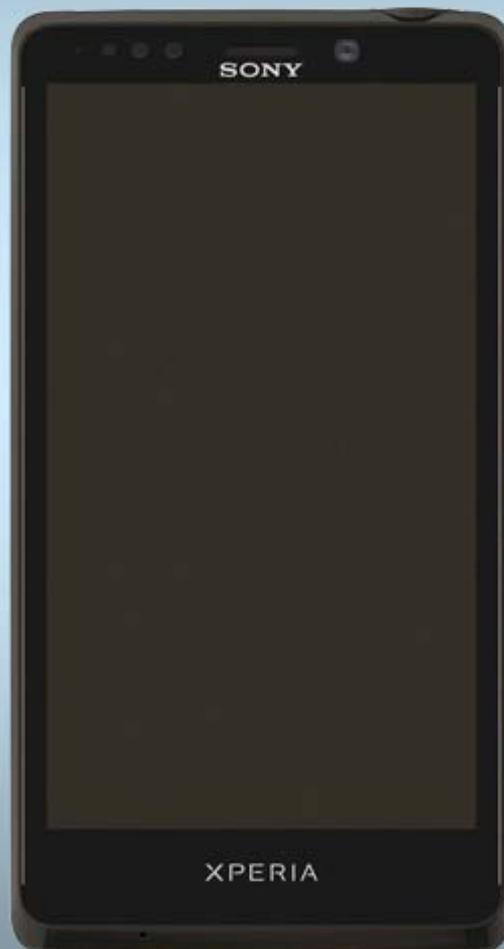


## 6 Revision History

Rev.	Date	Changes / Comments
1	2012-Sep-14	First Release
2	2012-Sep-24	Adapted to other Work Instructions on CSPN
3	2012-Okt-31	LT30a & LT30at added

# Repair Movies

- mechanical -



*Xperia™ T*

*LT30p, LT30a & LT30at*

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1.2	Reassembly .....	4
<b>2</b>	<b>Revision History .....</b>	<b>5</b>

**To view the embedded repair movies in this document, Acrobat Reader version 8 (or later) and Flash Player version 8 (or later) must be installed on your computer.**

**For best picture quality, select “Actual size” or “100%” as zoom level in Acrobat Reader. To magnify while keeping an acceptable picture quality, increase the zoom level to 200%.**

**If the movies appear to be jerky or blurred when viewing on-line, this is probably caused by the connection speed being too slow.**

**In that case, right-click with the mouse on the document name and select Save Target As to download the repair movie document for off-line viewing.**

**For general information about repair movies, refer to  
1220-1333: Generic Repair Manual - mechanical**

## 1 Movies

### 1.1 Disassembly

#### LT30p

The Disassembly is done in the following order:

1. Cover Back Assembly
2. Carrier Lower Frame Assembly
3. Carrier Upper Frame Assembly
4. Main PBA
5. PBA SideKey FPC
6. Front Cover



#### LT30a & LT30at

The Disassembly is done in the following order:

1. Cover Back Assembly
2. Carrier Lower Frame Assembly
3. Carrier Upper Frame Assembly
4. PBA Complete
5. PBA SideKey FPC
6. Front Cover
7. Cap Lower Cap Assembly
8. Cap Upper Cap Assembly



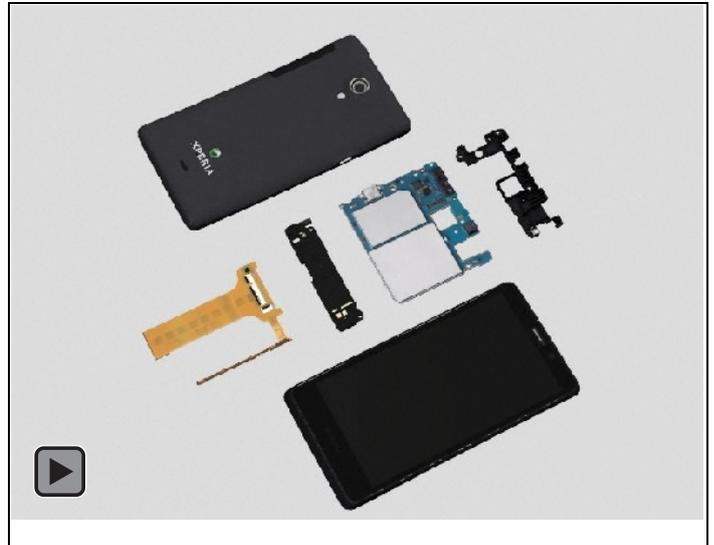
## Movies

### 1.2 Reassembly

#### LT30p

The Reassembly is done in the following order:

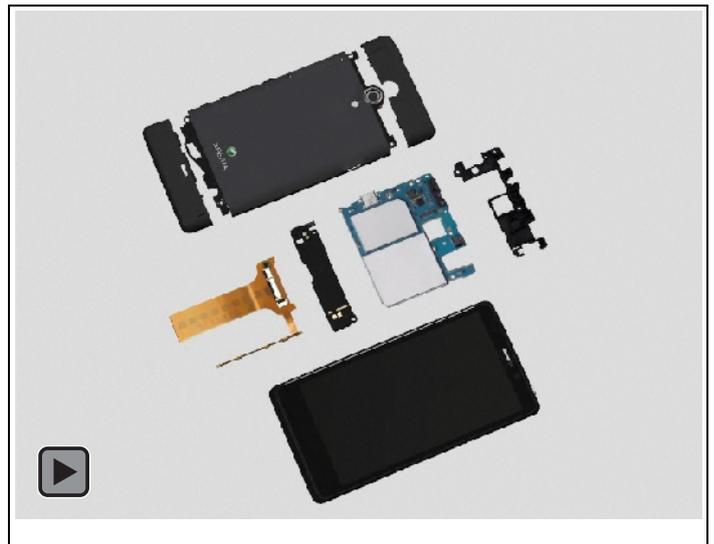
1. Front Cover
2. PBA SideKey FPC
3. Main PBA
4. Carrier Upper Frame Assembly
5. Carrier Lower Frame Assembly
6. Cover Back Assembly



#### LT30a & LT30at

The Reassembly is done to the following modules:

1. Front Cover
2. PBA SideKey FPC
3. PBA Complete
4. Carrier Upper Frame Assembly
5. Carrier Lower Frame Assembly
6. Cover Back Assembly
7. Cap Lower Cap Assembly
8. Cap Upper Cap Assembly



## 2 Revision History

Rev.	Date	Changes / Comments
1	2012-Sep-14	Initial release
2	2012-Oct-31	LT30a & LT30at added

# SONY

make.believe

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## Troubleshooting Guide

- mechanical -



*Xperia™ T*

*LT30p, LT30a & LT30at*

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- You shall always after verifying the problem, start the trouble shooting with **Software Update Content Refresh** in Emma.
- Software release information about improvements are found: [www.sonymobile.com/](http://www.sonymobile.com/)

## 1 Problem Areas

### 1.1 Power

#### 1.1.1 Will not power on or will switch off randomly

**Check:**

Check whether the phone vibrates by pressing the Power key.

**Action:**

1. If activation of the Vibrator is detected, refer to section 1.4 'Display'.
2. If NO activation of the Vibrator is detected, check that the battery is charging when connected to a charger.

Follow Test Instruction (Charging via USB), Diagnostic Battery / Charging status.

**Connect:**

A Dummy Battery to the phone and measure the current while you continue the trouble shooting under Power.

**Check:**

Measure the current consumption when the phone is in off mode.

**Action:**

If more than 1 mA – replace Main PBA.

**Check:**

Inspect the Key Multifunc Assembly

**Action:**

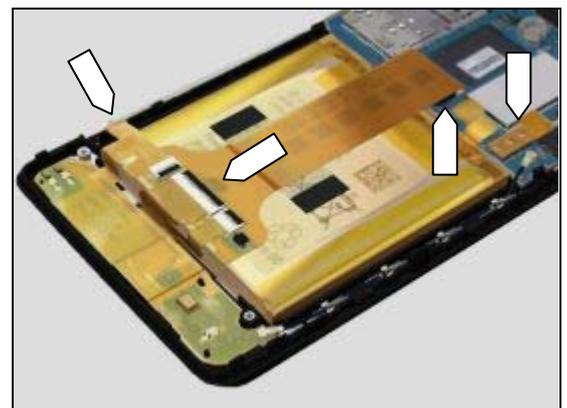
1. If dirty – clean it.
2. If the Key Multifunc Assembly is damaged – replace it.

**Check:**

Inspect the ZIF connectors, BtB connector and key switches on the PBA SideKey FPC, the BtB connector on the Battery and the two BtB connectors on the Main PBA.

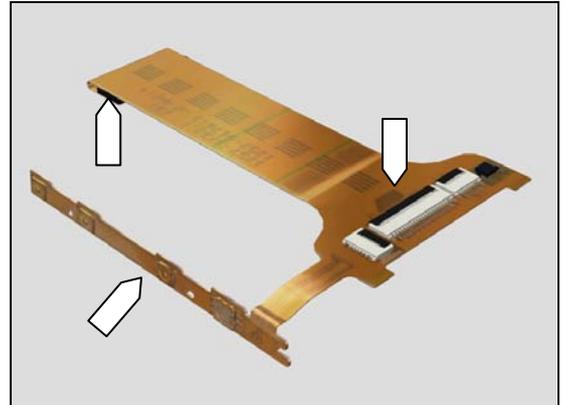
**Action:**

1. If not properly connected – disconnect and reconnect connectors.
2. If dirty or oxidized – clean connectors.

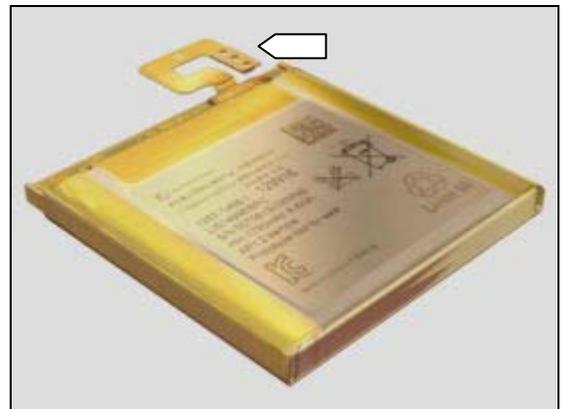


## Problem Areas: Power

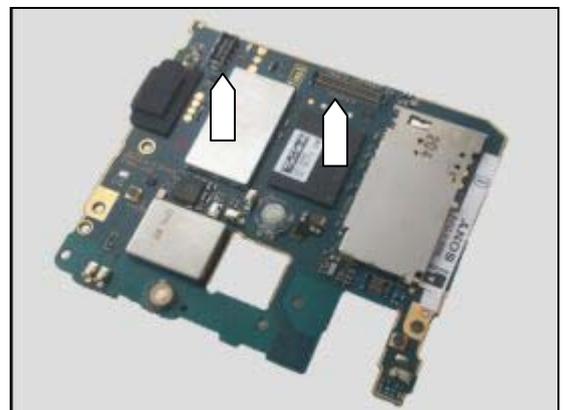
3. If the key switches, the ZIF connectors, BtB connector or the PBA SideKey FPC is damaged – replace the PBA SideKey FPC.



4. If BtB contact on Battery or Battery is damaged – replace Battery.



5. Replace Main PBA.



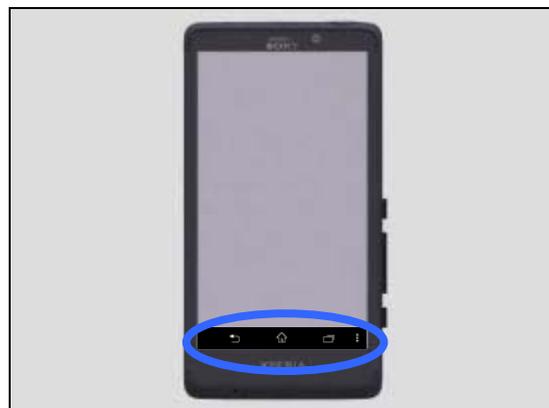
## Problem Areas: Keys

### 1.2 Keys

#### 1.2.1 Back, Home, Menu and Multitask Keys

**Action:**

1. Refer to the section 1.3 'Touch Screen'.



#### 1.2.2 Camera, Volume and Camera Key

**Check:**

Inspect the external area of the Keys.

**Action:**

If dirty – clean it.



**Check:**

Inspect the Key Multifunc Assembly

**Action:**

1. If dirty – clean them.
2. If the keys are damaged – replace them.

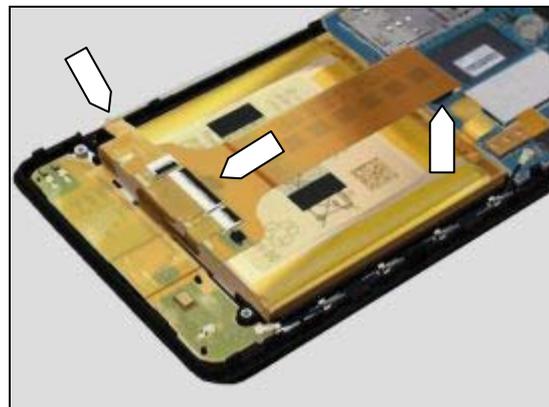


**Check:**

Inspect the ZIF connectors, BtB connector and key switches on the PBA SideKey FPC and the BtB connectors on the Main PBA.

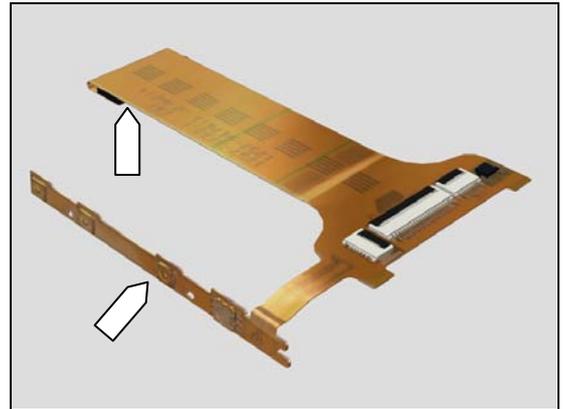
**Action:**

1. If not properly connected – disconnect and reconnect connectors.
2. If dirty or oxidized – clean connectors.

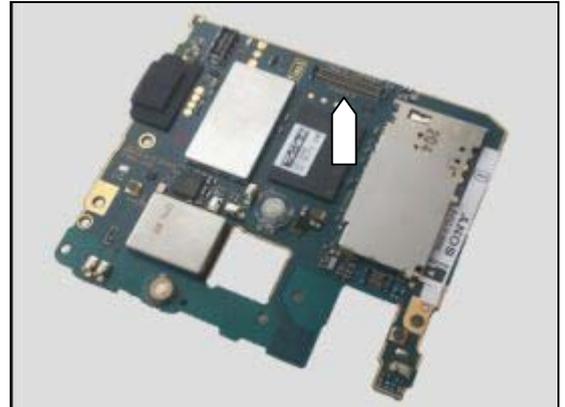


## Problem Areas: Keys

3. If the key switches, the BtB connector or the PBA SideKey FPC is damaged – replace the PBA SideKey FPC.



4. Replace Main PBA.



## Problem Areas

### 1.3 Touch Screen

#### 1.3.1 Touch Screen malfunction

**Check:**

Inspect the touch screen.

**Action:**

If dirty – clean it.

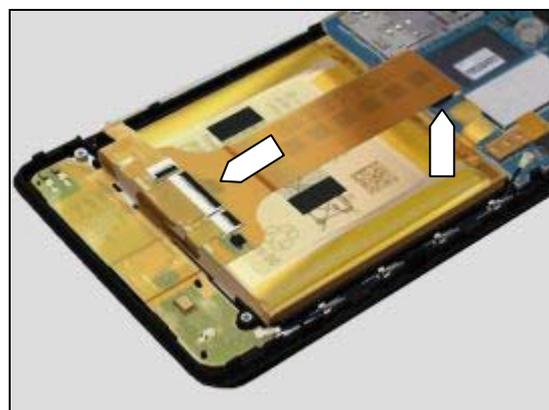


**Check:**

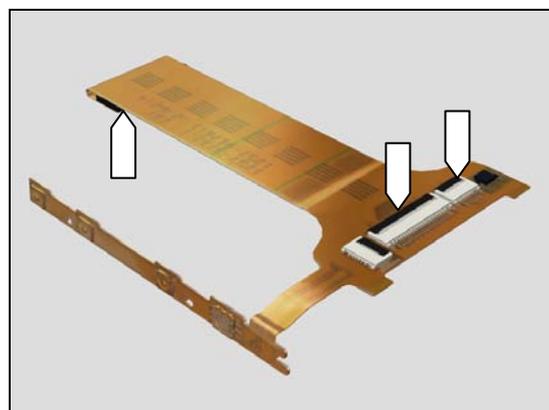
Inspect the ZIF connectors, BtB connector and key switches on the PBA SideKey FPC and the BtB connectors on the Main PBA.

**Action:**

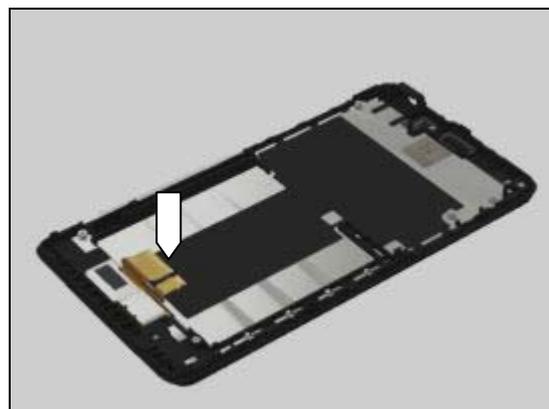
1. If not properly connected – disconnect and reconnect connectors.
2. If dirty or oxidized – clean connectors.



3. If BtB connector or ZIF connectors on PBA SideKey FPC is damaged – replace the PBA SideKey FPC

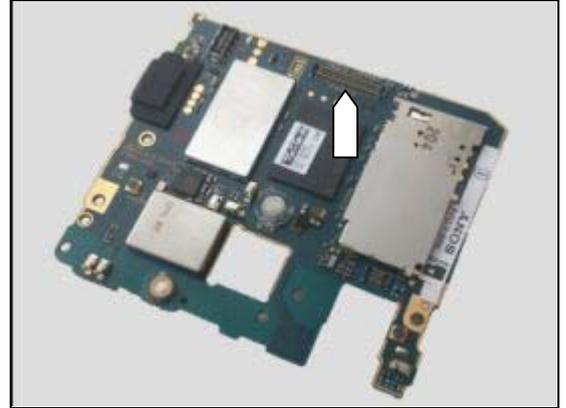


4. If the touch screen or the FPC / ZIF connector on the Front Cover is damaged – replace the Front Cover.



## Problem Areas: Touch Screen

5. Replace Main PBA.



## Problem Areas

### 1.4 Display

#### 1.4.1 Graphics & Illumination

**Check:**

Check whether the phone vibrates after the Power key has been pressed.

**Action:**

1. If the phone does not vibrate, refer to section 1.1 'Power'.
2. If the phone vibrates, perform force shut down (Press Power key + Volume Up for 10sec) and try start the phone again with Power key.

3. Do a Software Update Content Refresh (Secure that the battery is charged!, see Test Instruction (Charging via USB)) (If flash still fail after charging battery try again with Dummy Battery).

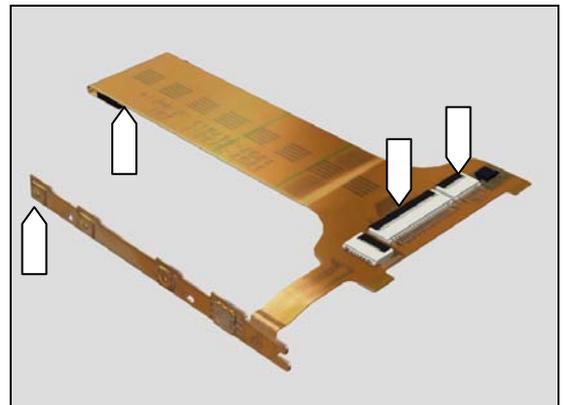
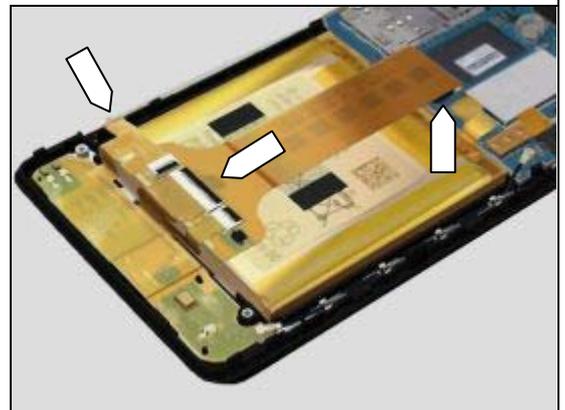
**Check:**

Inspect the ZIF connectors, BtB connector and key switches on the PBA SideKey FPC and the BtB connectors on the Main PBA.

**Action:**

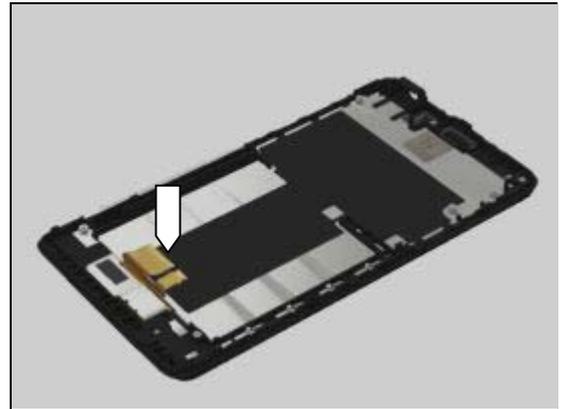
1. If not properly connected – disconnect and reconnect connectors.
2. If dirty or oxidized – clean connectors.

3. If BtB connector or ZIF connectors on PBA SideKey FPC is damaged – replace the PBA SideKey FPC

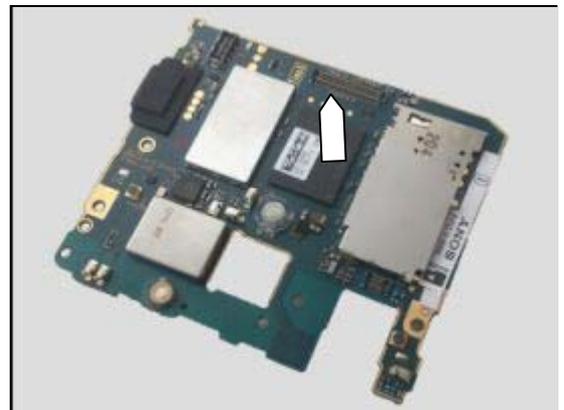


## Problem Areas: Display

4. If the Display or the FPC / ZIF connector on the Front Cover is damaged – replace the Front Cover.



5. Replace Main PBA.



## Problem Areas:

### 1.5 LED/Illumination

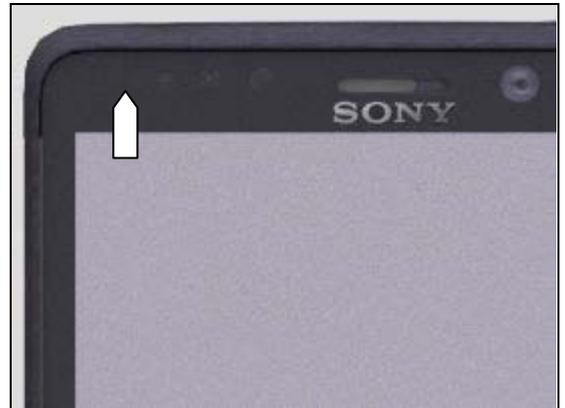
#### 1.5.1 LED

**Check:**

Inspect the external window area of the RGB LED on the Front Cover.

**Action:**

1. If dirty – clean it.
2. If the external window area is damaged – replace the Front Cover.

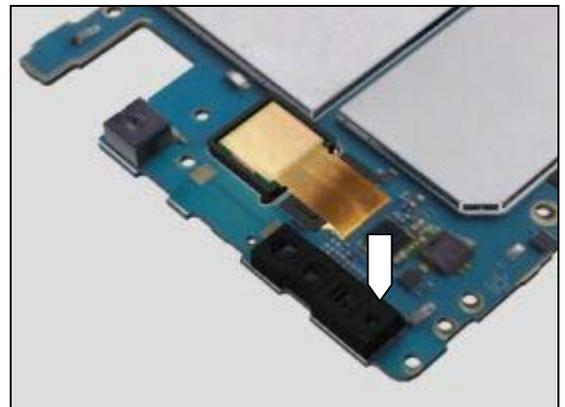


**Check:**

Inspect the RGB LED in the Gasket Proxy Grommet PBA Assembly on the Main PBA.

**Action:**

1. If Gasket Proxy Grommet PBA Assembly dirty or clogged – clean it.
2. If Gasket Proxy Grommet PBA Assembly is damaged – replace it
3. Replace Main PBA.



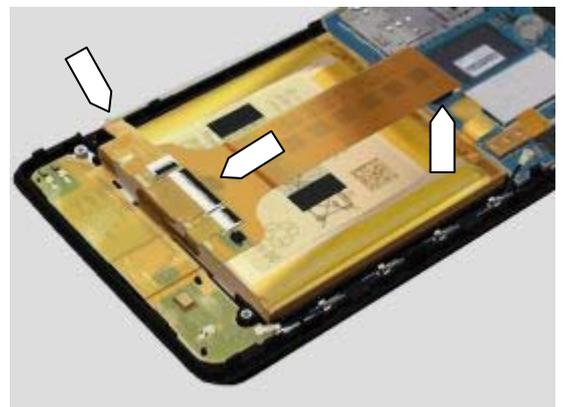
#### 1.5.2 Illumination

**Check:**

Inspect the ZIF connectors, BtB connector and key switches on the PBA SideKey FPC and the BtB connectors on the Main PBA.

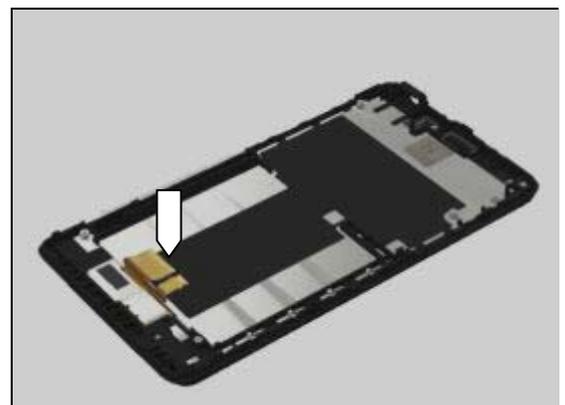
**Action:**

1. If not properly connected – disconnect and reconnect connectors.
2. If dirty or oxidized – clean connectors.
3. If PBA SideKey FPC is damaged – replace it.



4. If the Display or the FPC / ZIF connector on the Front Cover is damaged – replace the Front Cover.

5. Replace Main PBA



## Problem Areas

### 1.6 Speaker

#### 1.6.1 Loudspeaker

**Check:**

Inspect the loudspeaker's external port on the Cover Back Assy.

**Action:**

1. If the loudspeaker's external port is clogged – clean it.
2. If the loudspeaker's external port is damaged – replace the Cover Back Assy (LT30p) / Cap Lower Cap Assembly (LT30a & LT30at).

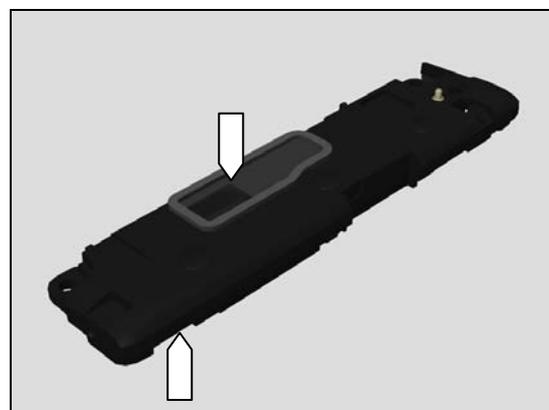


**Check:**

Inspect the loudspeaker's mesh and the contacts on the Carrier Lower Frame Assy.

**Action:**

1. If dirty – clean them.
2. If the Carrier Lower Frame Assy is damaged – replace the Carrier Lower Frame Assy.

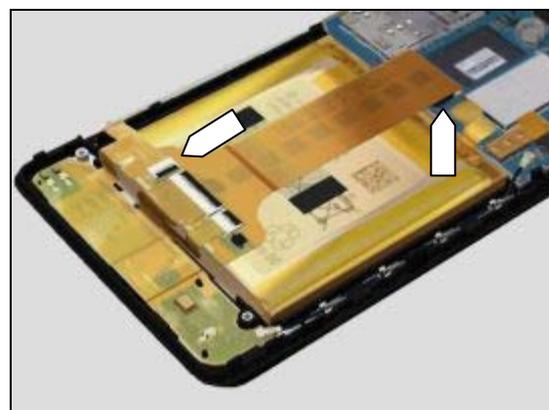


**Check:**

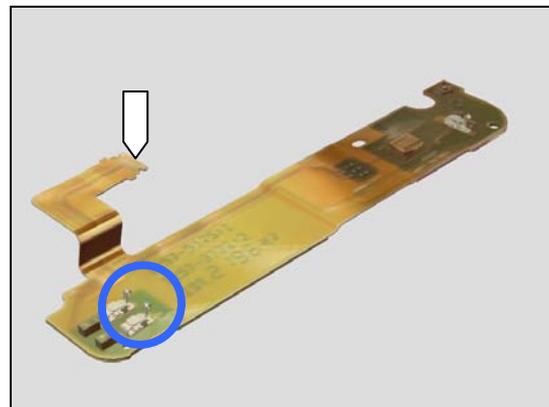
Inspect the ZIF connector, BtB connector on the PBA SideKey FPC and the BtB connector on the Main PBA.

**Action:**

1. If not properly connected – disconnect and reconnect connectors.
2. If dirty or oxidized – clean connectors.

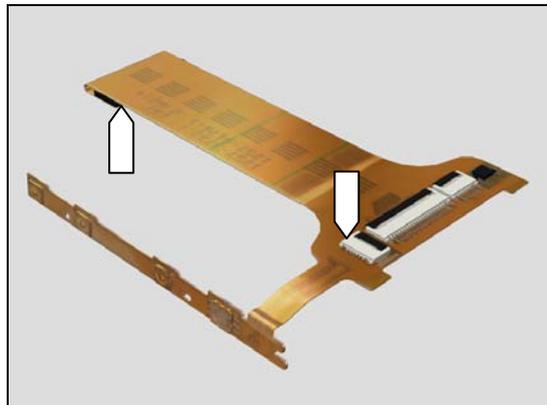


3. If the springs or ZIF connector are damaged – replace the PBA Lower FPC.



## Problem Areas: Speaker

4. If BtB connector or ZIF connector on PBA SideKey FPC is damaged – replace the PBA SideKey FPC



5. Replace Main PBA.



## Problem Areas

### 1.7 Earphone

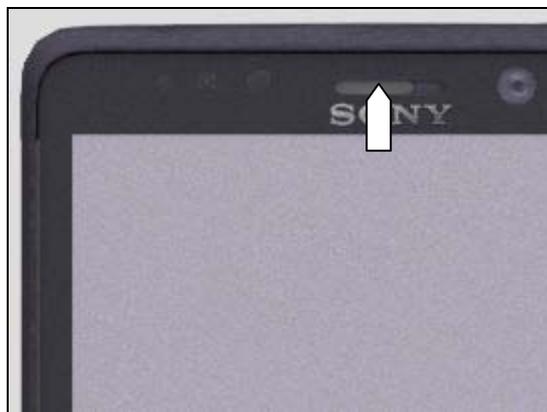
#### 1.7.1 Earspeaker

**Check:**

Inspect the Earspeaker's external port on the Front Cover.

**Action:**

1. If clogged – clean it.
2. If the port is damaged – replace the Front Cover.

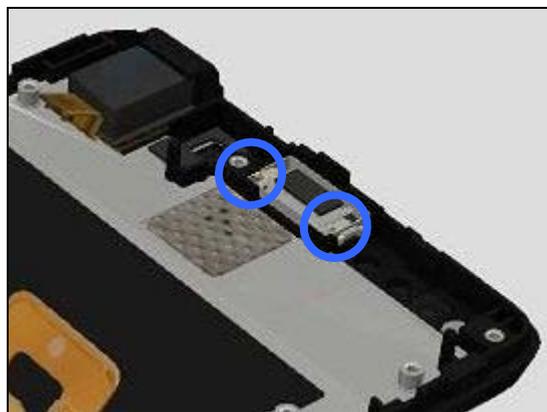


**Check:**

Inspect the Earspeaker's pins

**Action:**

1. If dirty – clean them.
2. If the pins are damaged – replace the Earspeaker.

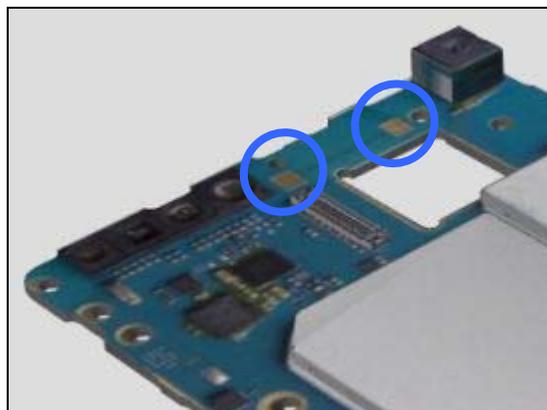


**Check:**

Inspect the Earspeaker's connector pads on the Main PBA.

**Action:**

1. If the pads are dirty/oxidized – clean them.
2. Replace Main PBA.



## Problem Areas

### 1.8 Microphone

#### 1.8.1 Microphone

**Check:**

Inspect the Microphone's external port on the Front Cover.

**Action:**

1. If clogged – clean the port.
2. If the port is damaged – replace the Front Cover.

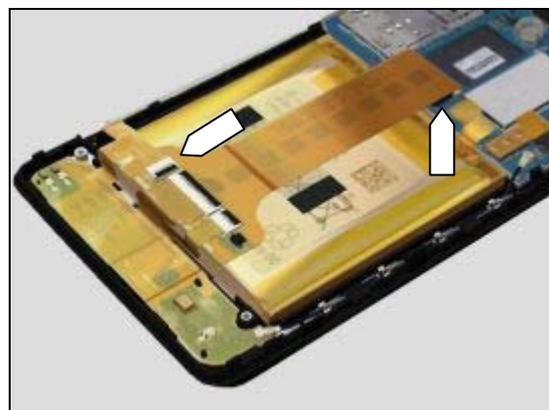


**Check:**

Inspect the ZIF connector, BtB connector on the PBA SideKey FPC and the BtB connectors on the Main PBA.

**Action:**

1. If not properly connected – disconnect and reconnect connectors.
2. If dirty or oxidized – clean connectors.

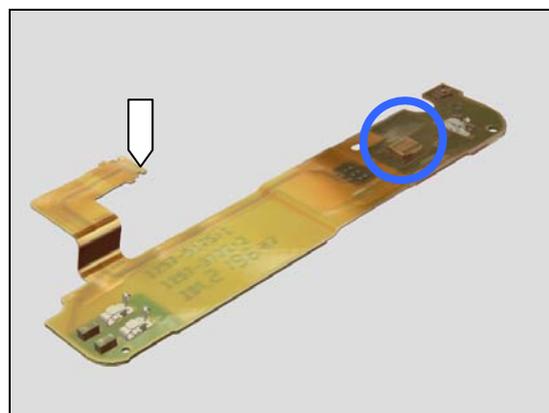


**Check:**

Inspect the Microphone and ZIF connector on the PBA Lower FPC.

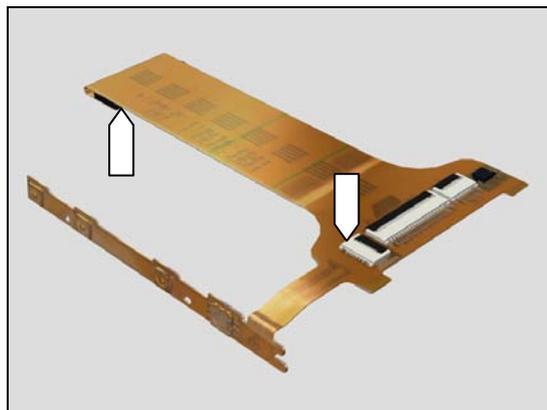
**Action:**

1. If dirty – clean them.
2. If Microphone or ZIF connector is damaged – replace the PBA Lower FPC.

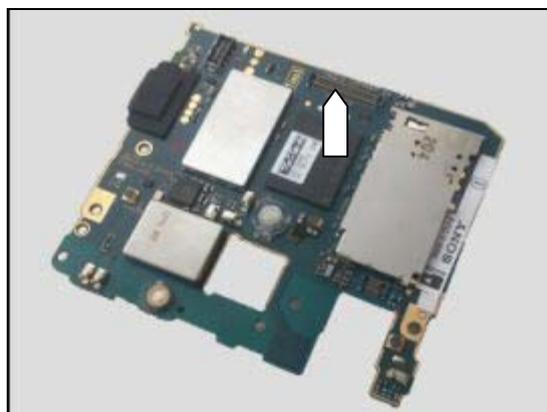


## Problem Areas: Microphone

3. If BtB connector or ZIF connector on PBA SideKey FPC is damaged – replace the PBA SideKey FPC



3. Replace the PBA Complete



## Problem Areas:

### 1.8.2 Secondary Microphone

**Check:**

Inspect the secondary microphone's external port on the Cover Back Assembly.

**Action:**

1. If clogged – clean the port.
2. If the port is damaged – replace the Cover Back Assembly (LT30p) / Cap Upper Cap Assembly (LT30a & LT30at).

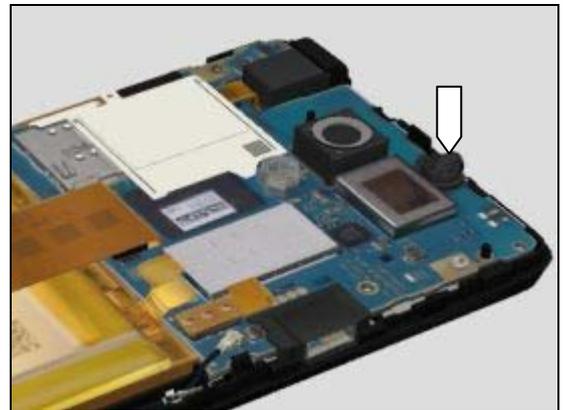


**Check:**

Inspect the Gasket Mic 2 Grommet Assembly

**Action:**

1. If Gasket Mic 2 Grommet Assembly is clogged – clean it.
2. If Gasket Mic 2 Grommet Assembly is damaged – replace it.



**Check:**

Inspect the secondary microphone on the PBA.

**Action:**

1. If dirty – clean it.
2. Replace Main PBA.



## Problem Areas

### 1.9 Vibrator

#### 1.9.1 Vibrator not generating alerts

Replace the Main PBA.



## Problem Areas

### 1.10 Camera

#### 1.10.1 Camera defects

**Check:**

Inspect the external area of camera window.

**Action:**

1. If dirty – clean it.

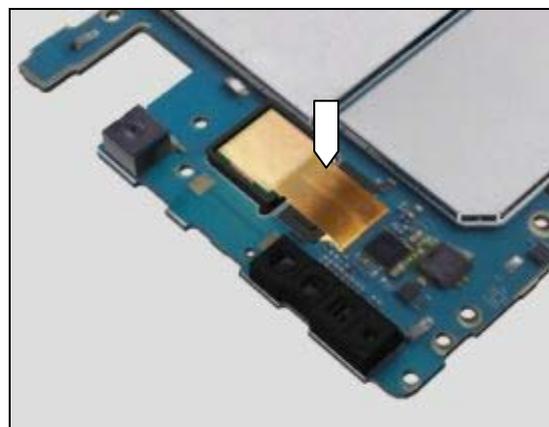


**Check:**

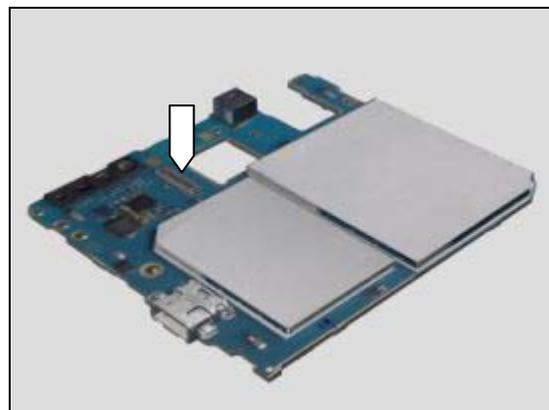
Inspect the Camera 13.1 MPixel CMOS's BtB connector and the camera's BtB connector on the Main PBA.

**Action:**

1. If BtB connector not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean both of the BtB connectors.
3. If Gasket Camera Grommet Assembly is damaged – replace it.
4. If the BtB connector damaged or camera window scratched or damaged – replace the Camera.



4. Replace Main PBA.



## Problem Areas

### 1.10.2 Secondary Camera

**Check:**

Inspect the external area of the Secondary camera window.

**Action:**

1. If dirty – clean it.
2. If scratched or damaged – replace the Front Cover

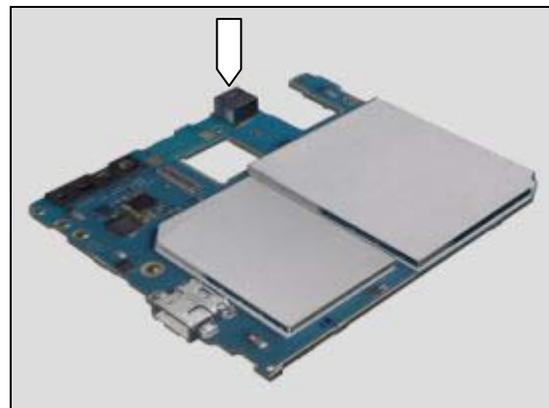


**Check:**

Inspect the Secondary camera on the PBA.

**Action:**

1. If dirty – clean it.
2. Replace Main PBA.



## Problem Areas

### 1.11 Flash LED

#### 1.11.1 Flash LED not flashing

**Check:**

Inspect the external area of the flash LED window.

**Action:**

1. If the flash LED window is dirty – clean it.
2. If the flash LED window scratched or damaged – replace the Cover Back Assembly.

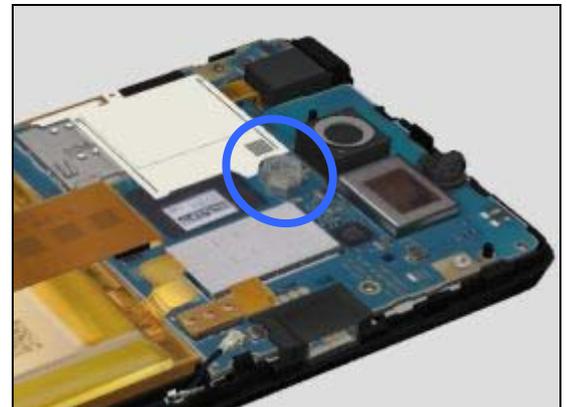


**Check:**

Inspect the flash LED on the Main PBA.

**Action:**

1. If dirty – clean it.
2. Replace Main PBA.



## Problem Areas

### 1.12 Bluetooth.

#### 1.12.1 Bluetooth connection failure

**Check:**

Inspect the WLAN, Bluetooth and GPS antenna and it's connection on the Cover Back Assembly.

**Action:**

1. If dirty – clean it.
2. If the antenna is damaged – replace the Cover Back Assembly (LT30p) / Cap Upper Cap Assembly (LT30a & LT30at).



**Check:**

Inspect the WLAN, Bluetooth and GPS antenna contact pins on the Main PBA.

**Action:**

1. If dirty or oxidized – clean the pads and pins.
2. Replace Main PBA.



## Problem Areas

### 1.13 WLAN

#### 1.13.1 WLAN connection failure

**Check:**

Inspect the WLAN, Bluetooth and GPS antenna and it's connection on the Cover Back Assembly.

**Action:**

1. If dirty – clean it.
2. If the antenna is damaged – replace the Cover Back Assembly (LT30p) / Cap Upper Cap Assembly (LT30a & LT30at).



**Check:**

Inspect the WLAN, Bluetooth and GPS antenna contact pins on the Main PBA.

**Action:**

1. If dirty or oxidized – clean the pads and pins.
2. Replace Main PBA.



## Problem Areas

### 1.14 NFC

#### 1.14.1 NFC malfunctions

**Check:**

Inspect the NFC antenna contact pads on the Ant NFC and the contact pins on the Main PBA.

**Action:**

1. If dirty or oxidized – clean the pads and pins.
2. If the Antenna FPC or its pads are damaged – replace the Ant NFC.

3. Replace Main PBA.



## Problem Areas

### 1.15 GPS

#### 1.15.1 GPS malfunctions

**Check:**

Inspect the WLAN, Bluetooth and GPS antenna and it's connection on the Cover Back Assembly.

**Action:**

1. If dirty – clean it.
2. If the antenna is damaged – replace the Cover Back Assembly (LT30p) / Cap Upper Cap Assembly (LT30a & LT30at).



**Check:**

Inspect the WLAN, Bluetooth and GPS antenna contact pins on the Main PBA.

**Action:**

1. If dirty or oxidized – clean the pads and pins.
2. Replace Main PBA.



## Problem Areas

### 1.16 Compass

#### 1.16.1 Compass fails

Action:

Replace Main PBA.



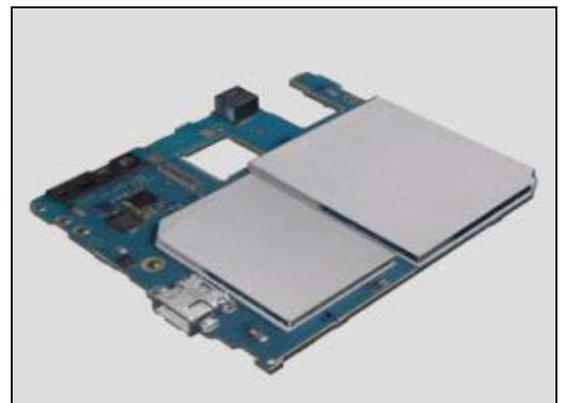
## Problem Areas

### 1.17 Accelerometer

#### 1.17.1 Accelerometer test fails

Action:

Replace Main PBA.



## Problem Areas

### 1.18 Gyroscope

#### 1.18.1 Gyroscope test fails

Action:

Replace Main PBA.



## Problem Areas

### 1.19 Ambient Light Sensor

#### 1.19.1 Light Sensor malfunctions

**Check:**

Inspect the external window area of light sensor on the Front Cover.

**Action:**

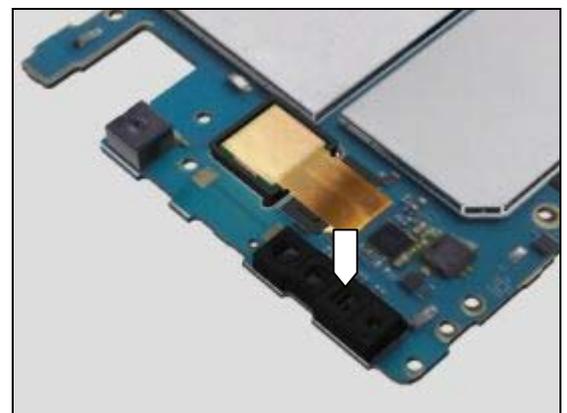
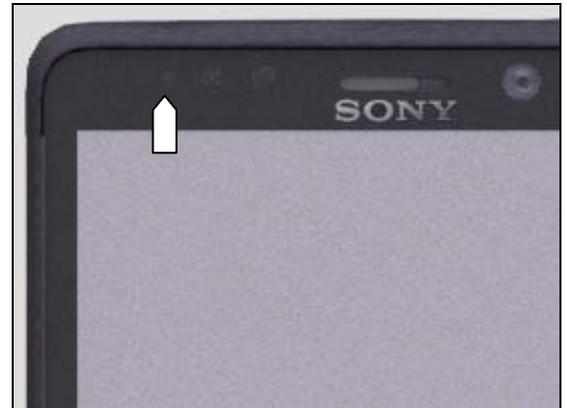
1. If clogged – clean it.
2. If scratched or damaged – replace the Front Cover.

**Check:**

Inspect the Gasket Proxy Grommet PBA Assembly.

**Action:**

1. If damaged – replace it.
2. If dirty – clean it.
3. Replace Main PBA



## Problem Areas

### 1.20 Proximity Switch

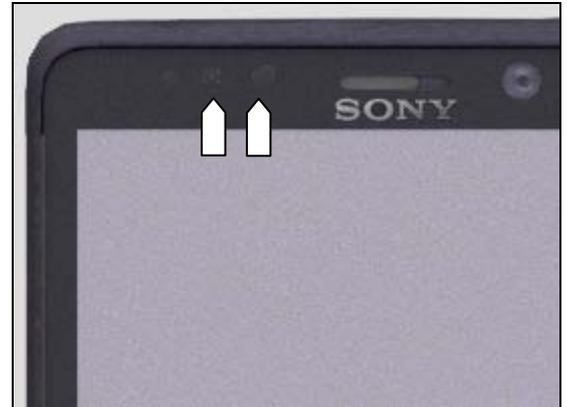
#### 1.20.1 Proximity switch malfunctions

**Check:**

Inspect the proximity switch window area and the proximity sensor window area on the Front Cover.

**Action:**

1. If dirty – clean it.
2. If scratched or damaged – replace the Front Cover.

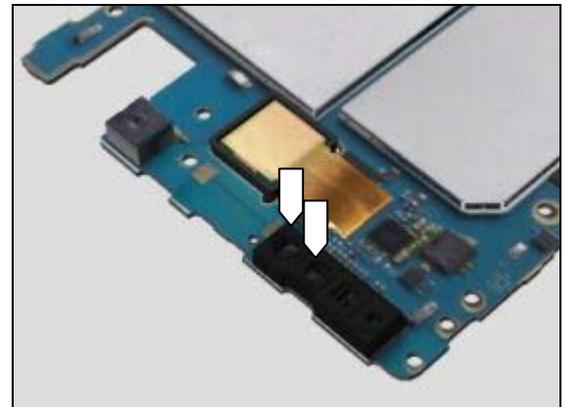


**Check:**

Inspect the Gasket Proxy Grommet PBA Assembly.

**Action:**

1. If damaged – replace it.
2. If dirty – clean it.
3. Replace Main PBA



## Problem Areas

### 1.21 Real Time Clock

#### 1.21.1 Real Time Clock test fails

**Action:**

Replace Main PBA.



## Problem Areas

### 1.22 Total call time

#### 1.22.1 Total call time fails

Not a test, consumer usage information for the unit.

## Problem Areas

### 1.23 Storage

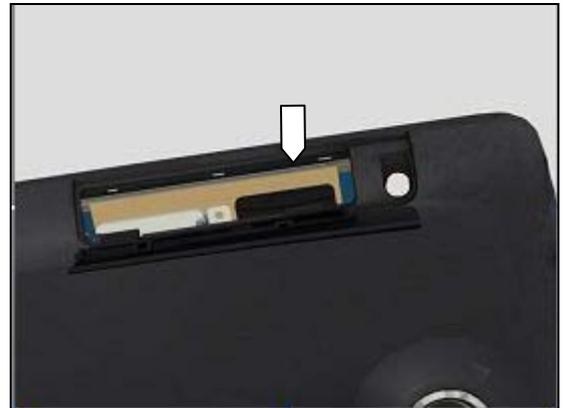
#### 1.23.1 Storage not detected

**Check:**

Inspect the external port of the memory card holder and check if a different verified memory card can be properly inserted.

**Action:**

If dirty or clogged – clean the external port.

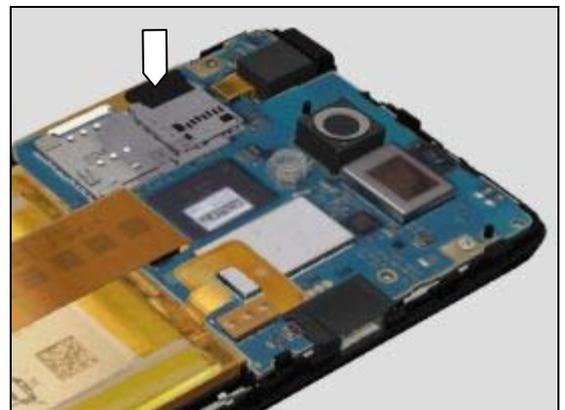


**Check:**

Inspect the memory card holder on the Main PBA.

**Action:**

1. If dirty or clogged – clean the holder.
2. Replace Main PBA.



## Problem Areas

### 1.24 Security

#### 1.24.1 Security fails

**Action:**

Replace Main PBA.



## Problem Areas

### 1.25 FM Radio

#### 1.25.1 No/Poor FM Radio reception

**Check:**

Inspect the external port of the Audio Jack.

**Action:**

If dirty, clogged or oxidized – clean it.



**Check:**

Inspect the BtB on the PBA AVP FPC and on the Main PBA Complete.

**Action:**

1. If not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean the BtB.
3. If the BtB are damaged on PBA AVP FPC – replace it.



4. Replace Main PBA



## Problem Areas

### 1.26 TV-Out Test

#### 1.26.1 TV-Out test fails

**Check:**

Inspect the USB connector.

**Action:**

1. If dirty, clogged or oxidized – clean the connector.
2. Replace Main PBA.



## Problem Areas

### 1.27 Audio Jack

#### 1.27.1 Sound or microphone problem with accessory connected to Audio Jack

**Check:**

Inspect the external port of the Audio Jack.

**Action:**

If dirty, clogged or oxidized – clean the connector.



**Check:**

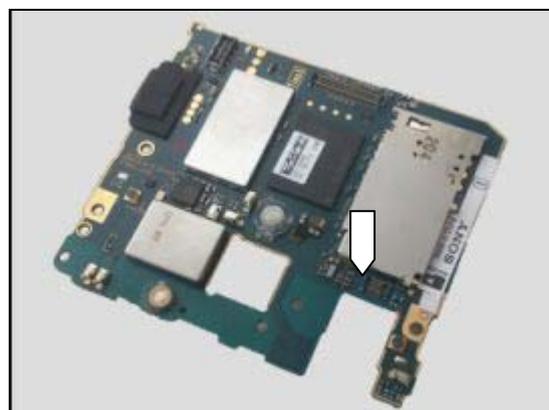
Inspect the BtB on the PBA AVP FPC and on the Main PBA Complete.

**Action:**

1. If not properly connected – disconnect and reconnect.
2. If dirty or oxidized – clean the BtB.
3. If the PBA AVP FPC or its BtB is damaged – replace it.



4. Replace Main PBA.



## Problem Areas

### 1.28 SIM

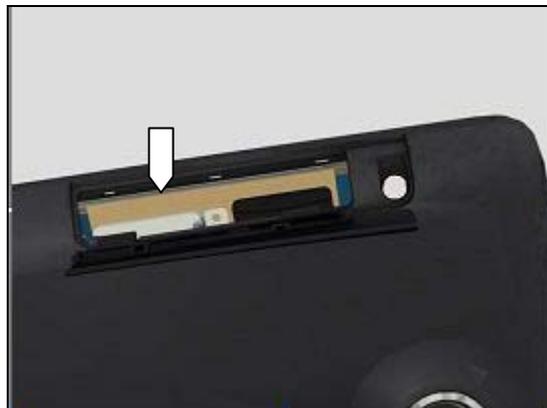
#### 1.28.1 SIM not detected

**Check:**

Inspect the external port of the SIM card holder and check if a test SIM card can be properly inserted.

**Action:**

If dirty or clogged – clean the external port.

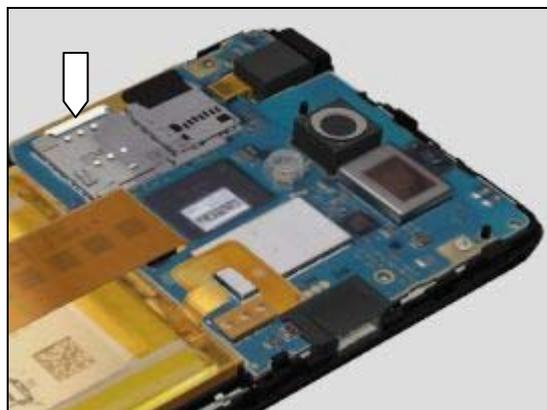


**Check:**

Inspect the SIM card holder on the Main PBA.

**Action:**

1. If dirty or clogged – clean the holder.
2. Replace Main PBA.



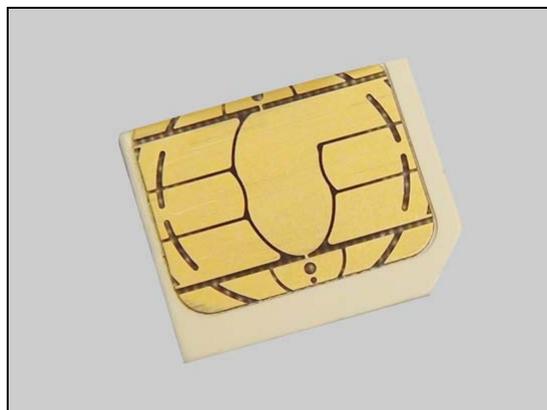
#### 1.28.2 Incorrect SIM indicated

**Check:**

Check whether the phone is locked to a particular operator and whether the correct operator SIM is being used.

**Action:**

1. Use a proper operator SIM or test SIM.
2. Customize in Emma to the correct SI according label.
3. Replace Main PBA.



## Problem Areas

### 1.29 Charging

#### 1.29.1 Battery will not charge

**Check:**

Inspect the USB connector.

**Action:**

1. If dirty, clogged or oxidized – clean the connector.



**Check:**

Inspect the Battery's BtB connector and Main PBA's battery BtB connector.

**Action:**

1. If not properly connected – disconnect and reconnect connectors.
2. If dirty or oxidized – clean connectors
3. If the Battery BtB contact on Battery is damaged – replace Battery.
4. Replace the Main PBA.



## Problem Areas

### 1.30 Data Communication

#### 1.30.1 Data transfer via System Connector fails

**Check:**

Inspect the USB connector.

**Action:**

1. If dirty, clogged or oxidized – clean the connector.
2. Replace Main PBA.



## Problem Areas

### 1.31 Network & Signal

#### 1.31.1 No/Poor signal

**Check:**

Inspect the pogopin connector on the Carrier Lower Frame Assembly.

**Action:**

1. If dirty – clean it.
2. If the pogopin connector is damaged – replace the Carrier Lower Frame Assembly.



**Check:**

Inspect the 2 antennas and their connectors on the Cover Back Assembly and the corresponding antenna connectors on the Main PBA.

**Action:**

1. If dirty – clean connectors.
2. If the pad is damaged – replace Cover Back Assembly(LT30p) / Cap Upper Cap Assembly & Cap Lower Cap Assembly (LT30a & LT30at).

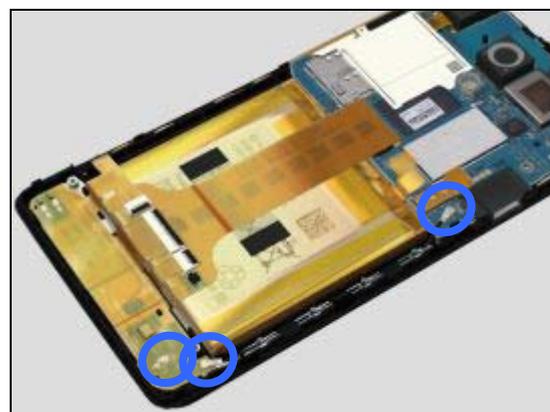


**Check:**

Inspect the coax connectors on Cable Coax, the Main PBA and the PBA Lower FPC.

**Action:**

1. If not properly connected – disconnect and reconnect it.
2. If Cable Coax damaged - Replace Cable Coax
3. If the connector or the pins of the PBA Lower FPC is damaged – replace the PBA Lower FPC.
4. Replace Main PBA.



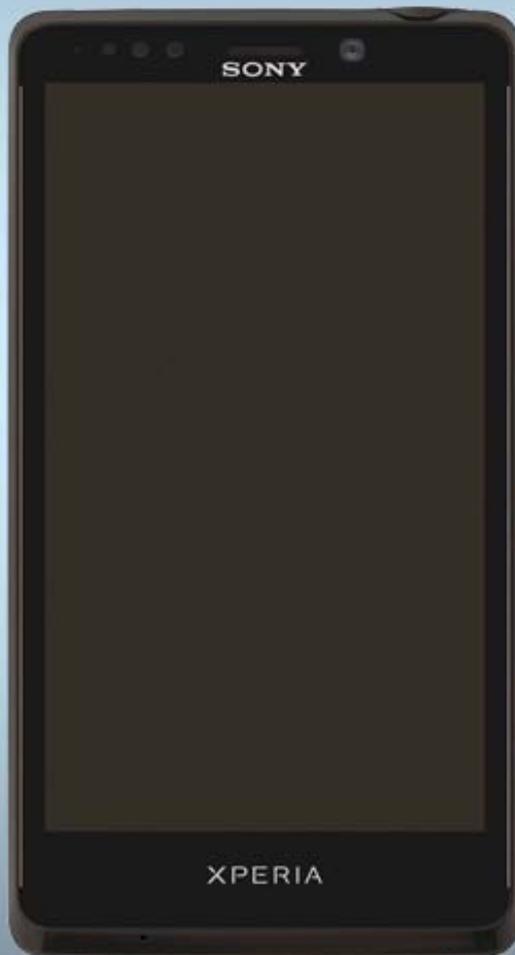
## 2 Revision History

Rev.	Date	Changes / Comments
1	2012-Sep-14	Initial release
2	2012-Oct-31	LT30a & LT30at added

# SONY

make.believe

## Part List - mechanical -



*Xperia™ T*

*LT30p, LT30a & LT30at*

## CONTENTS

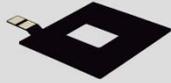
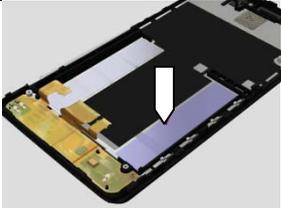
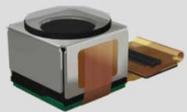
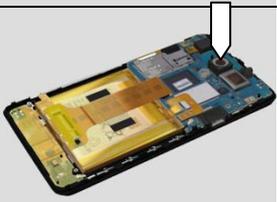
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<b>2</b>	<b>Revision History .....</b>	<b>9</b>

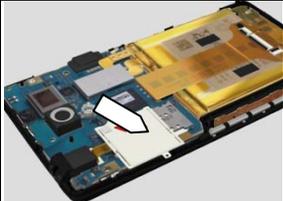
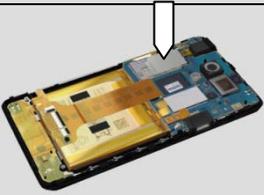
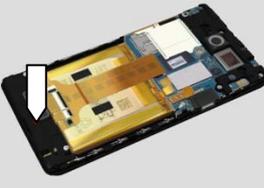
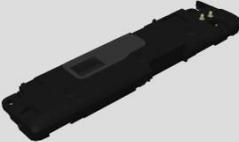
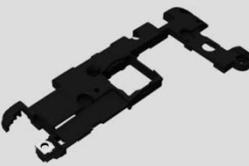
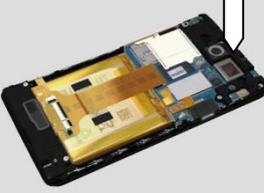
## 1 Part List

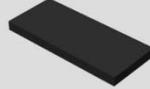
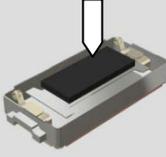
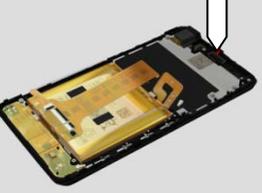
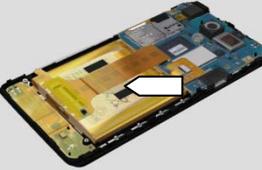
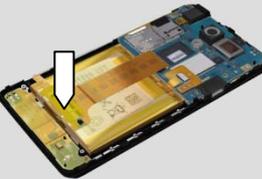
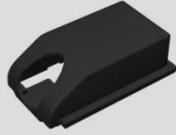
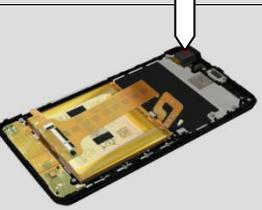
The following parts are available for order in 'E-star'.

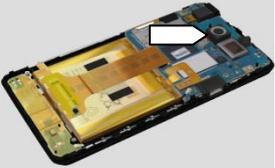
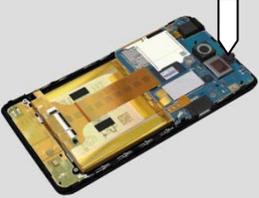
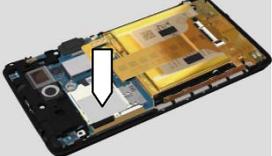
The 'E-star' name of a part may often be complex and even confusing, so the name of certain parts mentioned in the Working Instructions, Repair Movies and Troubleshooting Guide are often referred to by a simple descriptive name for better understanding.

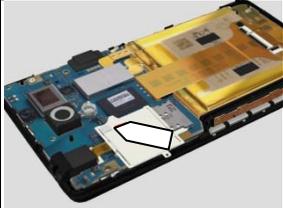
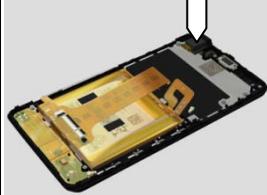
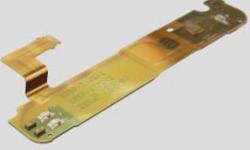
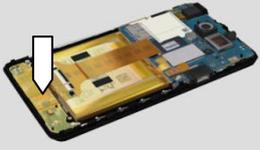
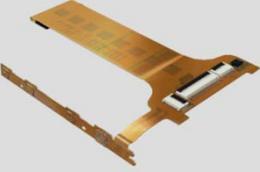
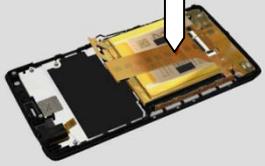
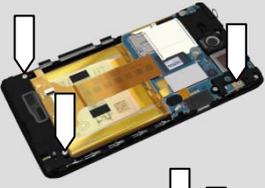
Both names (designations) will in that case be included in this Part List, where the name being used in the documents mentioned above is underlined, e.g. Battery Cover.

Designation	Part No.	Part	Location
<p><b>Ant NFC</b> Ant NFC RoW</p>	1262-2467		
<p>Ant NFC</p>	1257-1441		
<p><b>Battery</b> Battery 1780.0 mAh</p>	1257-1456		
<p>Battery adhesive</p>	1257-1414		
<p>Cable Coax</p>	1261-3708		
<p>Camera 13.1 MPixel CMOS</p>	1256-1336		
<p><b>Cap SIM Door Assembly</b> Cover SIM/SD door Assembly Black Cover SIM/SD door Assembly White Cover SIM/SD door Assembly Silver</p>	1262-2456 1269-4201 1269-4200		

Designation	Part No.	Part	Location
<b>Cover SIM/SD door Assembly</b> Cover SIM/SD door Assembly Black AT&T	1266-9620		
Carrier Label Tray	1265-7640		
Carrier Label tray holder assembly	1261-4439		
<b>Carrier Lower Frame Assembly</b> Carrier Lower Frame Assembly RoW	1263-1074		
Carrier Lower Frame Assembly	1257-1270		
Carrier Upper Frame Assembly	1257-1269		
<b>Cover Back Assembly</b> Cover Back Assembly Black Cover Back Assembly White Cover Back Assembly Silver	1262-1533 1264-1530 1263-3514	 	 

Designation	Part No.	Part	Location
Cushion Earspeaker	1256-9171		
Cushion Flash lens	1268-9674		
Earspeaker	1244-5343		
Ear Speaker Gasket	1257-9813		
Foil Side key FPC tape	1261-4426		
Foil Side key FPC ZIF tape	1261-8087		
<b>Front Cover</b> Front Cover Assy RoW Front Cover Assy AT&T Front Cover Assy	1269-7424 1269-7425 1269-8151		
Gasket Audio Jack Grommet	1257-1294		

Designation	Part No.	Part	Location
Gasket Camera Grommet	1264-1099		
Gasket Mic 2 Grommet Assembly	1261-8356		
Gasket Proxy Grommet PBA Assembly	1261-8672		
Gasket USB Grommet	1257-1293		
<b>Key Multifunc Assembly</b> Key Multifunc Assembly Black Key Multifunc Assembly White & Silver	1262-2451 1266-1530		
Key Multifunc Assembly	1257-1444		
(Back) Core Unit	1265-7639		
Label Core Unit RoW Label Core Unit Label Core Unit AT&T	1265-7632 1267-0730 1261-8205		

Designation	Part No.	Part	Location
Liquid Indicator	1001-0084		
<b>MComp Screw Bushing</b> MComp Screw Bushing AT&T	1264-6437		
PBA AVP FPC	1257-3729		
<b>PBA Lower FPC</b> PBA Lower FPC PBA Lower FPC version5 AT&T	1257-3732 1268-0516		
PBA SideKey FPC	1257-3733		
Screw Len:3.0 Diam:1.4	1265-8176		
Screw Len:4.0 Diam:1.4	1265-8195		

Designation	Part No.	Part	Location
Screw Len:4.5 Diam:1.4	1264-9684		
Window Camera Flash Inner Lens	1261-4423		

## 2 Revision History

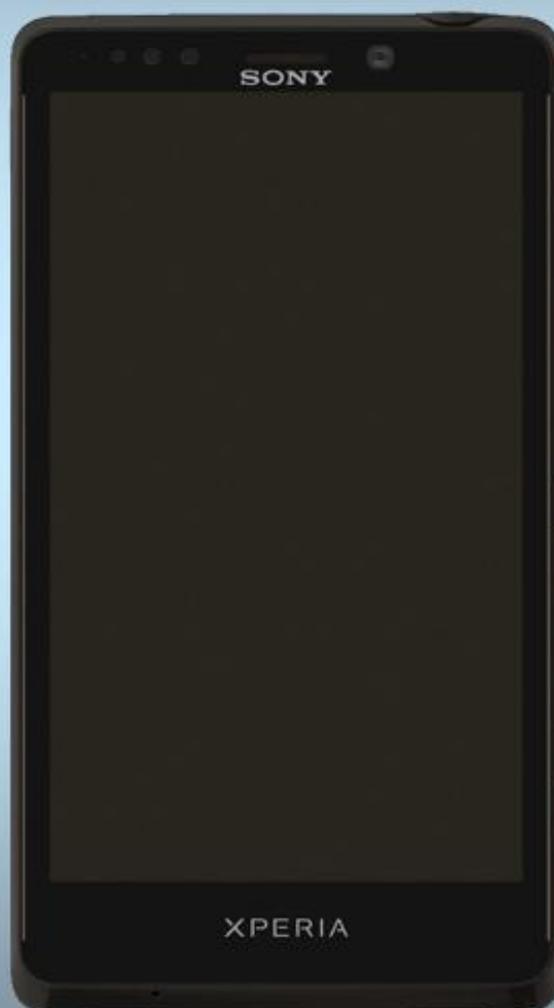
Rev.	Date	Changes / Comments
1	2012-Sept-14	Initial release
2	2012-Okt-31	Parts for LT30a & LT30at added

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## Go/No Go Test - electrical -



Xperia™ T

LT30p

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***This product is ONLY implemented in SERPII.***

## 1 Go/No Go Testing

This Go/No Go testing has to be carried out in two ways, with an:

- Antenna Coupler.
- Cable in shield box.

**For more information on Antenna Coupler and Cable in shield box testing, refer to 1220-1336: Generic Repair Manual – electrical, section ‘Setup Go/NoGo Test’!**

**For part no’s on the equipment below, refer to the ‘Tools Catalogue/Matrix’!**

### 1.1 Antenna Coupler

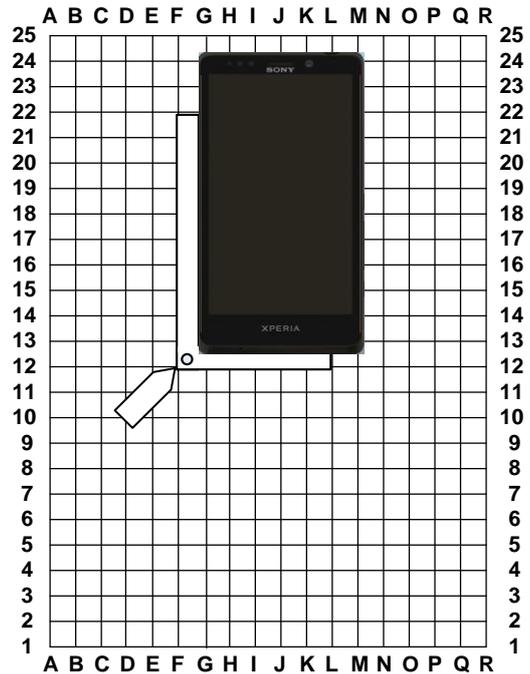
The following equipment has to be used:

- Rohde & Schwartz RF Shield Package
  - Rohde & Schwartz RF Shield Box CMU-Z11
  - Rohde & Schwartz RF Coupler
  - Grid Positioning Holder
- RF Test Cable Flexible 1M
- RF Adapter for RF Shield Box
- Micro USIM Card, instrument specific

**GSM-850/900/1800/1900**

**WCDMA-850/900/1700/1900/2100**

Put the grid positioning holder with its reference point in position **F12** and place the phone as shown in the adjacent picture.



## Go/NoGo Testing

### 1.2 Direct Line

The following equipment has to be used:

- RF Test Cable Flexible 1M
- RF Probe
- Micro USIM Card, instrument specific.

Connect the RF Probe as shown in the adjacent picture.

**To get access to the RF connector on the PBA, refer to 1261-8566: LT30 Mechanical Working Instructions, Chapter 3.1!**



## Go/NoGo Testing

***Follow the directions stated in 'Go/NoGo Test Script Parameters' to be found in 1220-1336: Generic Repair Manual – electrical, together with the 'Attenuation Factors' below!***

This phone is available in one version, LT30p, including the following bands:

**LT30p:**

GSM-850/900/1800/1900

WCDMA-850/900 /1700 /1900 /2100

## Go/NoGo Testing

### 1.3 Attenuation Factors

*The attenuation values listed below in 1.3.1 and 1.3.2 is valid only when the equipment listed on the previous pages is being used!*

#### 1.3.1 Loss Values – Antenna Coupler

Band	Channel	Attenuation LT30p	
		Rx	Tx
GSM 850	Low	7.00	12.84
	Mid	6.00	9.66
	High	9.00	7.74
GSM 900	Low	6.50	7.19
	Mid	6.50	7.81
	High	6.50	8.74
GSM 1800	Low	16.50	17.05
	Mid	15.00	13.55
	High	15.00	12.94
GSM 1900	Low	15.00	15.47
	Mid	16.00	18.54
	High	16.00	16.13
WCDMA 850	Low	7.50	9.22
	Mid	8.00	8.01
	High	8.50	7.96
WCDMA 900	Low	11.00	6.48
	Mid	10.50	6.86
	High	10.00	6.33
WCDMA 1700	Low	14.50	16.06
	Mid	13.50	14.23
	High	14.00	13.16
WCDMA 1900	Low	15.00	16.26
	Mid	17.00	16.80
	High	16.50	17.45
WCDMA 2100	Low	15.00	16.02
	Mid	14.50	17.06
	High	15.00	18.70

## Go/NoGo Testing: Attenuation Factors

### 1.3.2 Loss Values – Direct Line

Band	Channel	Attenuation	
		Rx	Tx
GSM 850	All	1.0	1.0
GSM 900	All	1.0	1.0
GSM 1800	All	2.3	2.3
GSM 1900	All	2.3	2.3
WCDMA 850	All	2.5	2.5
WCDMA 900	All	2.5	2.5
WCDMA 1700	All	1.3	1.3
WCDMA 1900	All	1.3	1.3
WCDMA 2100	All	1.3	1.3

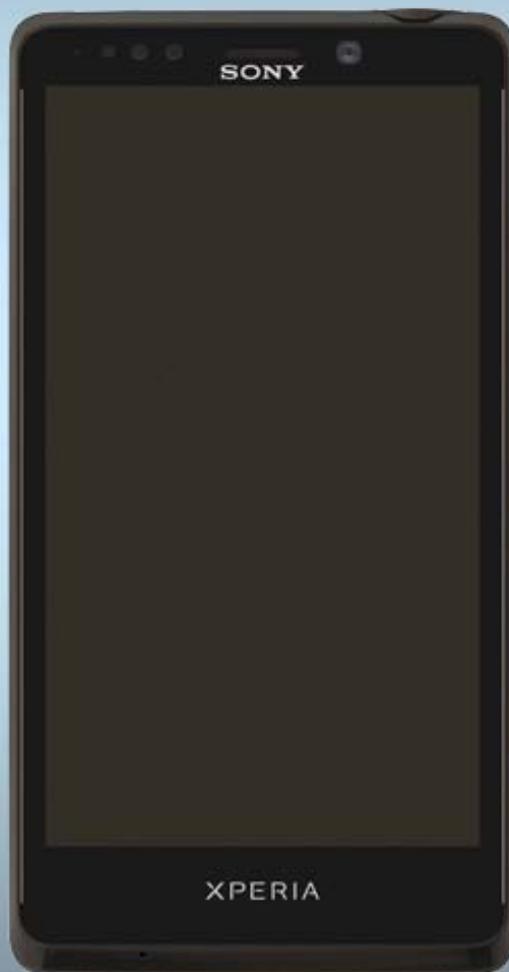
## 2 Revision History

Rev.	Date	Changes / Comments
1	2012-Sep-13	Initial release

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## Customization - build swap -



*Xperia™ T*  
*LT30p, LT30a & LT30at*

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**For general information about Customization and Swap, refer to  
1221-5655: Generic Repair Manual – build swap**

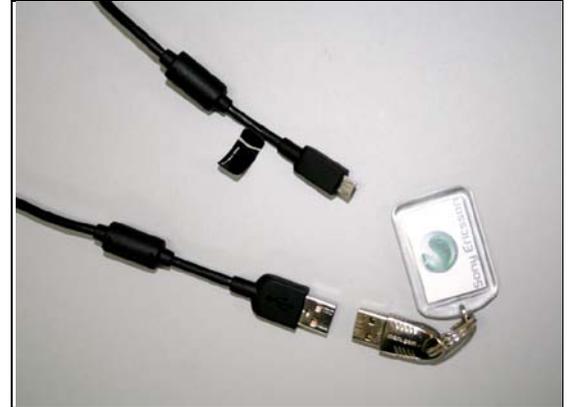
## 1 Emma Login & Script Execution

In order to change a phone from Customer A to Customer B you must run a 'Customization Script' followed by an 'Activation Script'.

Start by launching the Emma application.

Connect the Micro USB to USB cable to one of the computer's USB ports but do not connect the cable to the phone.

The USB Activation Dongle has to be inserted into one of the computer's USB ports to be able to log in.



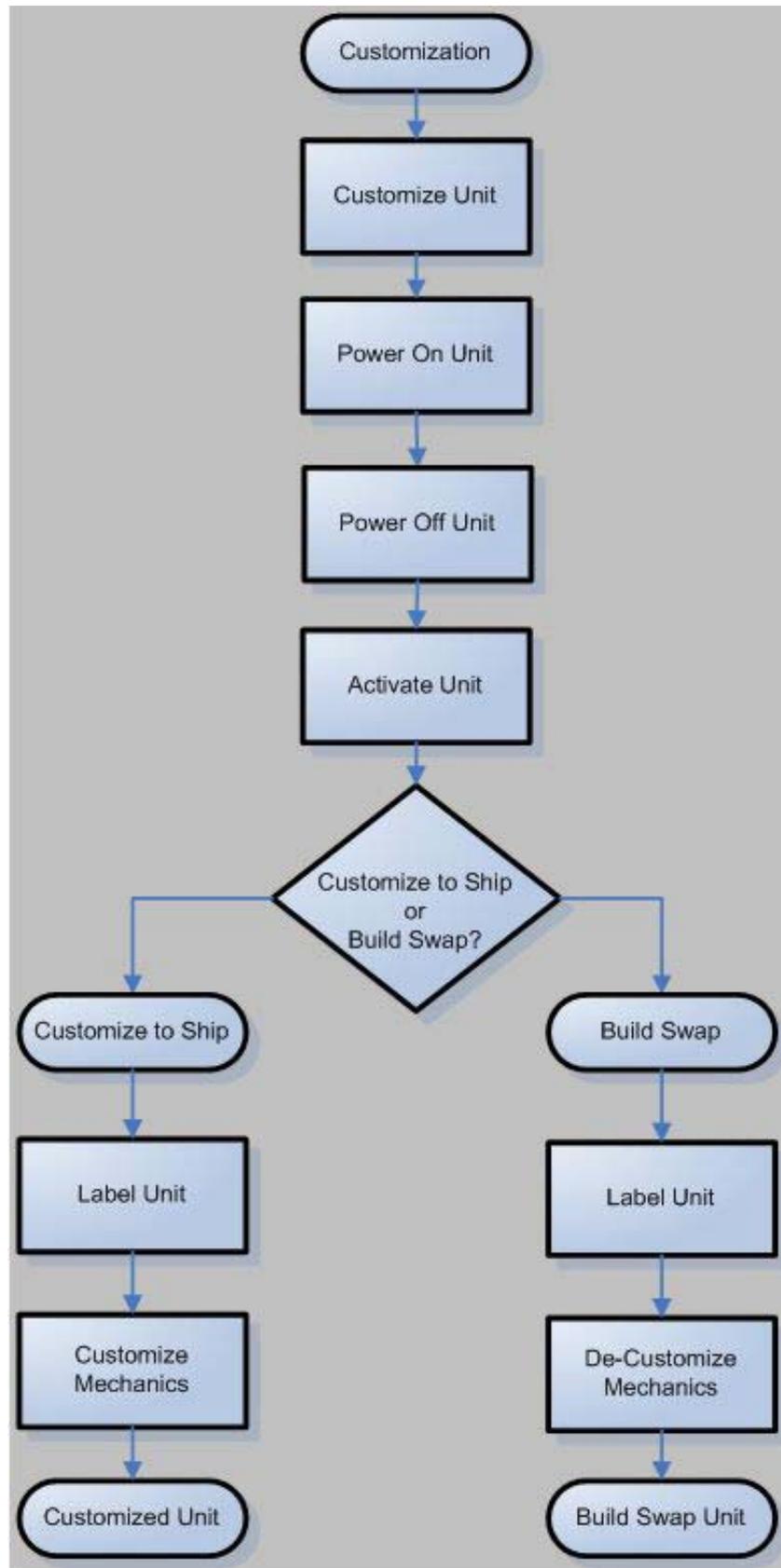
To execute a 'Customization' or 'Activation' you need to be properly logged on to the Emma application by using your User ID and Password.

To execute a 'Customization Script' or 'Activation Script' (or any other function):

- check that the phone is powered off
- press and keep the "Volume Down" key down on the phone
- connect the phone to the USB Cable
- release the "Volume Down" key

When executing an 'Activation Script' you will be prompted for the PIN of your USB Activation Dongle.

## 2 Customization Workflow



## Customization Workflow

The primary reason for the customization process is to create a customized unit.

A customized unit is a unit that is ready to ship as a final swap unit.

The second reason for customization is to create “build swap” units and this can be done by selecting the ‘Service Exchange Unit’ customization script for the particular model.

The instruction steps below refer to the flowchart on previous page.

## 2.1 Customize Unit

After following the steps in section 1, ‘Emma Login & Script Execution’, you can customize a phone as follows:

- look for the Customize script for the desired Sales Item
- if that script is not available locally, select ‘Server search’ for a complete list of available scripts.

**When creating a ‘build swap’ unit, select “LT30p Service Exchange Unit” or “LT30a Service Exchange Unit” as the customization scripts!**

- choose the desired script
- the application will download all necessary software to run the script and then flash that software to the phone
- after successful update, disconnect the phone from the USB Cable

**In Swap flow, when change a phone from Customer A to Customer B, always use the service Customization script.**

**NOTE:** For phones with eMMC flash memory or internal user memory (like built in “SD card” memory), the only service which erase all user data in the memory is Service’s “Refurbish” and “Customize”.

See also *emma User Guide*

info. [http://emma.extranet.sonyericsson.com/documents/emma\\_user\\_guide.pdf](http://emma.extranet.sonyericsson.com/documents/emma_user_guide.pdf) (see “Service Types” and “Aspects of large files”)

## Customization Workflow

### 2.2 Power on unit

Press the **Key Power** to power on the unit, place unit on the flat desk and wait until system boot up has been completed.

**Please DO NOT move the unit during starting up until "Select Language" menu is shown on the display!**

## Customization Workflow

### 2.3 Customize to Ship or Build Swap

Is the unit a customized unit to be shipped?

Yes – proceed to 2.3.1 Customize to Ship

No – go to 2.3.2 Build Swap

#### 2.3.1 Customize to Ship

##### 2.3.1.1 Label Unit

Print two Core Unit labels by using 'Labe Print Solution'.

Place one label on the phone as described in *1261-8566: Working Instructions – mechanical*.

Place the second label on the Exchange Unit Box.

##### 2.3.1.2 Customize Mechanics

If necessary, apply the proper custom mechanical parts (co-branding, keyboard, etc.) for the variant being created in accordance with the *Cross Reference List* by following the instructions of *1261-8566: Working Instructions – mechanical*

#### 2.3.2 Build Swap

##### 2.3.2.1 Label Unit

Using a red marker, label the unit with the correct Exchange Unit number.

Refer to the *Cross Reference List* for the appropriate variant, which should be based on the non-customizable mechanics of the unit.

##### 2.3.2.2 De-Customize Unit

Remove any co-branding as described in *1261-8566: Working Instructions – mechanical*

## 3 Revision History

Rev	Date	Changes / Comments
1	2012-Sep-14	Initial release
2	2012-Oct-31	LT30a and LT30at added