

## Test Instruction

- mechanical -



*Xperia L2*  
*H3311, H3321,*  
*H4311 (Dual SIM), H4331 (Dual SIM)*

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**For general information about test procedures, refer to Generic Repair Manual – mechanical**

## 1 Pre-Test Preparation

### 1.1 Hardware

#### 1.1.1 Water indicator inspection

Before starting any tests the Water Intrusion Label has to be checked.

The indicator is located as shown in this picture after the SIM Tray Door is opened.

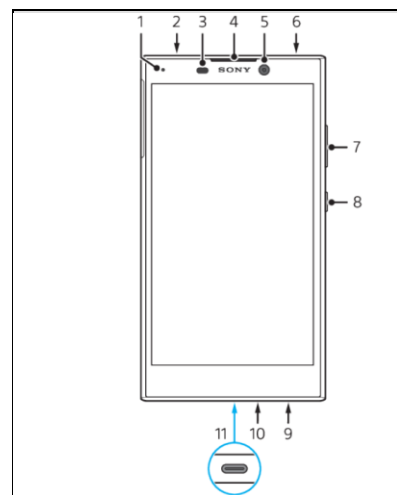


### 1.2 Test Enablers

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

#### Front:

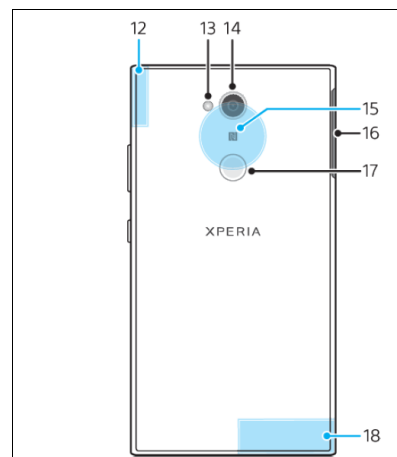
1. Charging/Notification light
2. Headset jack
3. Proximity sensor
4. Ear speaker
5. Front camera
6. Secondary microphone
7. Volume key/Camera zoom key
8. Power key
9. Loudspeaker
10. Main microphone
11. Charger/USB Type-C cable port



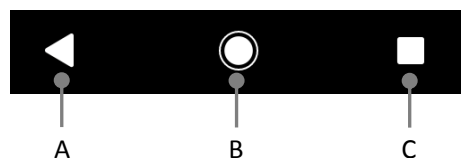
#### Back:

12. Wi-Fi/GPS/Bluetooth antenna area
13. Flash LED
14. Main camera lens
15. NFC™ detection area
16. Nano SIM/Memory card cover
17. Fingerprint sensor
18. Main antenna area

6



- A. Back key
- B. Home key
- C. Task key



## Pre-Test Preparations

### 1.3 Software

#### 1.3.1 Software update

##### 1.3.1.1 Software version verification

Check the software version of the phone for fault verification. The latest improvements are found on the support pages under the support news

<http://www.sonymobile.com/global-en/support/>

- Start up the phone
  - Note: Make sure the phone is in call setup.
- Press the following keypad combination: \*##7378423##\*
- Select 'Service info'
- Select 'Software info'
- Check the software file revisions and, if needed, update as described below:

##### 1.3.1.2 Software version update

**Mandatory first repair action!**

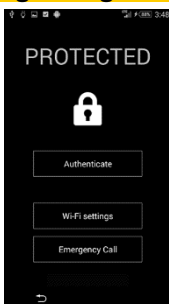
**Use the USB cable to connect with the USB Type-C connector of the phone for this purpose!**

Ensure the phone is powered off and proceed as follows:

- Open the Emma application and log in.
- Press and hold 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.

**NOTE: If a unit is locked by "theft protection", run the online Service in Emma "theft protection unlock" for the model, before the customization script. USB DONGLE is required. (same as for "activation")**

**Service center must verify the customer's proof of purchase (with IMEI) to verify ownership before agreeing to unlock the unit!**



Run Unlock script in Emma, verify fault and then Customization script in Emma.

**Note: For phones with eMMC flash memory (built in "SD card" memory), the only service which erase this eMMC 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")**

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

## 2 Tests

### 2.1 Service Test Mode

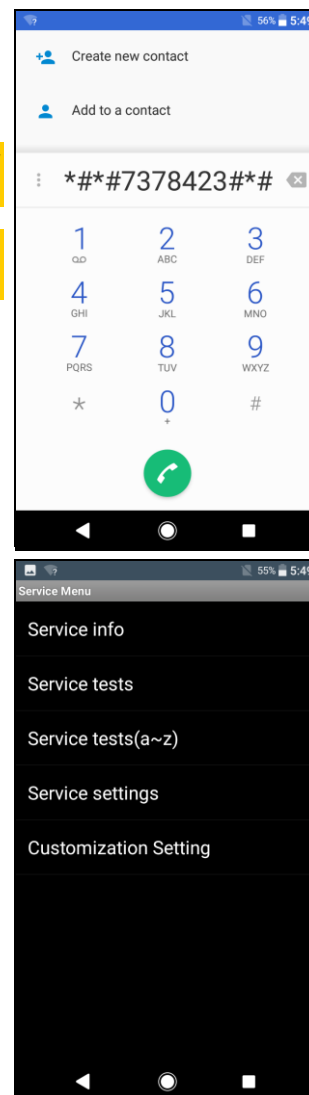
**Note: Make sure the phone is in call setup when pressing these touching keypads to get into the Service menu!**

**Stamina mode needs to be turned off before entering Service Test Mode  
Settings -> Battery -> STAMINA mode**

Start up the phone and enter the service menus:

- Press the following keypad combination: **\*\*\*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



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

## Tests

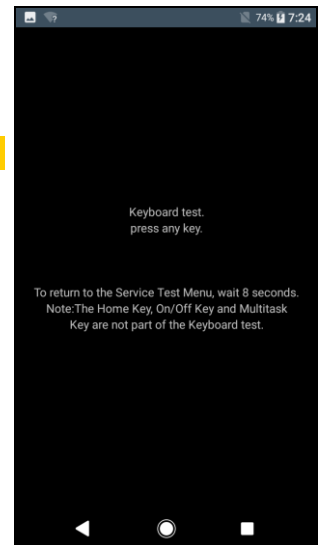
## 2.2 Service Tests

### 2.2.1 Keyboard & Switch

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

Press all keys:

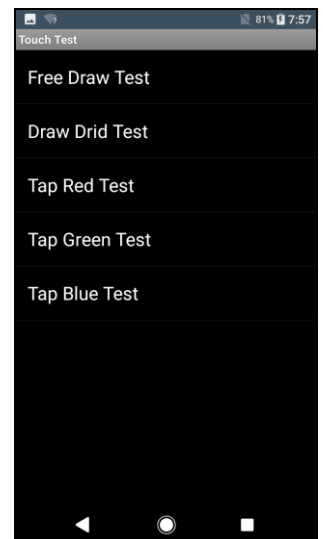
- **Back key**: notification on screen.
- **Home key**: will leave the Service tests menu.
- **Task key**: the recently used applications window will be shown, press Service Menu to return.
- **Power key**: the screen will enter sleep mode, press the Power key one more time to wake up.
- **Volume up key**: notification on screen.
- **Volume down key**: notification on screen.



### 2.2.2 Touch Screen

Move a finger across the touch screen, a line will be drawn as it touches. Check all area of the touch screen as indicated by the two lines.

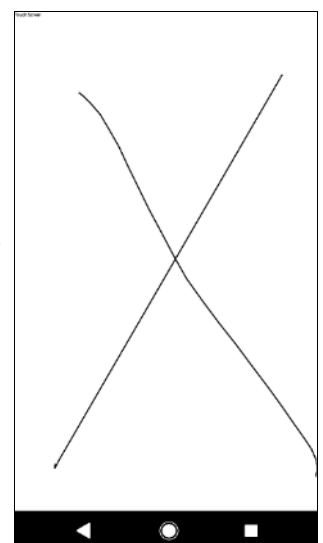
Press the Back key to return to the Service Test Menu.



#### Free Drawing Test

Move fingers at the same time across the touch screen, lines will be drawn as it touches. Support at most five lines at the same time. Check all area of the touch screen as indicated.

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



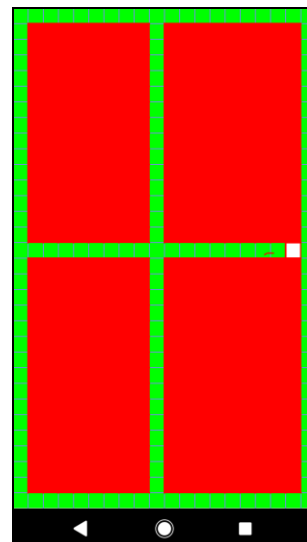
## Tests: Service Tests

### Draw grid test

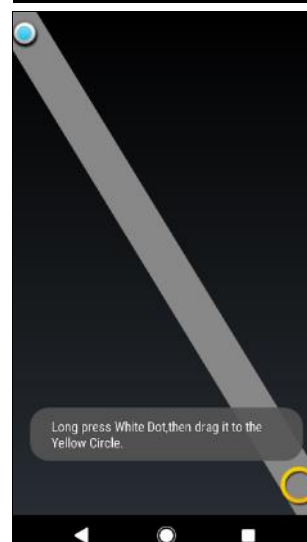
Move a finger across the boxes and they should switch colour.

Check all boxes as indicated, if you can't fill a box yellow it indicate a problem with the lines in TP sensor.

Swipe from bottom of screen to get the Press the Back key to return to the Service Test Menu.

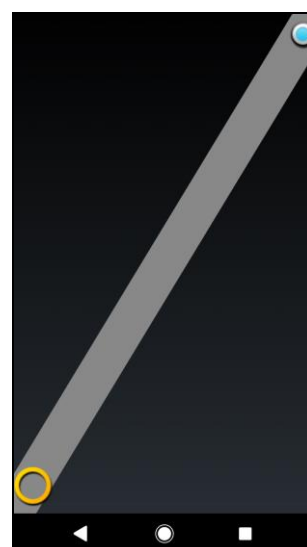


Long press White Dot and drag the Dot to the yellow circle on the lower right corner along the gray channel to accomplish the test and enter into the next step.



Do the same for the opposite side.

It will automatically go back to the Touch Test Menu after finishing the test.





## Tests: Service Tests

Click Tap test Red to start:

The screen is divided into forty modules marked with numbers.

Touch each module with finger, the module will turn from white to red. Touch again, color turns back to white.

Test all the forty modules.

Drag the bottom of screen to exit the full screen mode and show the key bar; press Back Key to return to the "Touch Test" Menu.

1	2	3	4	5
10	9	8	7	6
11	12	13	14	15
20	19	18	17	16
21	22	23	24	25
30	29	28	27	26
31	32	33	34	35
40	39	38	37	36

Click Tap test Green to start:

The screen is divided into forty modules marked with numbers.

Touch each module with finger, the module will turn from white to green. Touch again, color turn back to white.

Test all the forty modules.

Drag the bottom of screen to exit the full screen mode and show the key bar; press Back Key to return to the "Touch Test" Menu.

1	2	3	4	5
10	9	8	7	6
11	12	13	14	15
20	19	18	17	16
21	22	23	24	25
30	29	28	27	26
31	32	33	34	35
40	39	38	37	36

Click Tap test Blue to start:

The screen is divided into forty modules.

Touch each module with finger, the module will turn from white to blue. Touch again, color turn back to white.

Test all forty modules.

Drag the bottom of screen to exit the full screen mode and show the key bar; press Back Key to return to the "Touch Test" Menu and press Back Key again to return to the Service test Menu.

1	2	3	4	5
10	9	8	7	6
11	12	13	14	15
20	19	18	17	16
21	22	23	24	25
30	29	28	27	26
31	32	33	34	35
40	39	38	37	36

## Tests: Service Tests

### 2.2.3 Display

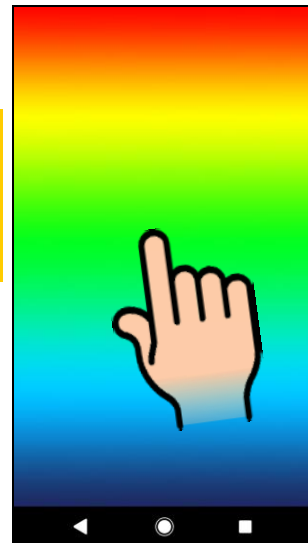
**Minor variations in the display's brightness and color may occur between phones.**

**If any tiny bright dots on the display are found, this indicates defective pixels which 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 Nine test patterns of White, Black, Red, Green, Blue, Rainbow Colors, Cross-Line, TV Pattern on the full screen. Make sure that there are no missing segments and that the colors and contrast are OK.

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

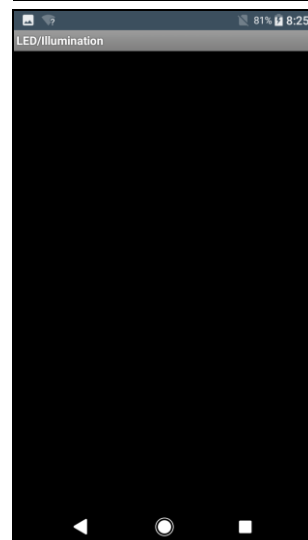


### 2.2.4 LED/Illumination

Check that the:

- Display Backlight illumination goes from low to high strength back to low again.
- Notification LED changes, showing colors in the following sequence: red, blue and green

Press Back Key to return to the Service Test Menu.



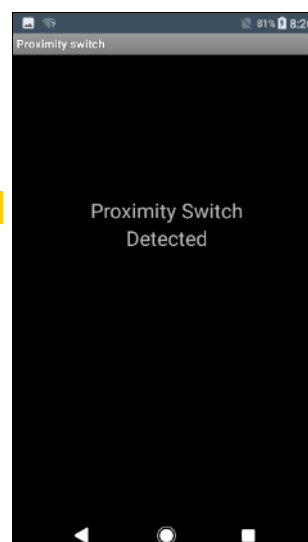
### 2.2.5 Proximity switch

**Make sure the phone is not in 'silent mode' before performing this test.**

When entering into the test, the screen shows 'Proximity Switch Not detected'.

When covering the proximity switch area, the screen will show 'Proximity Switch detected' with a tone emitted.

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



## Tests: Service Tests

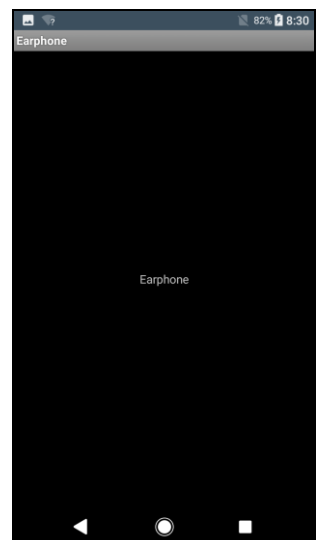
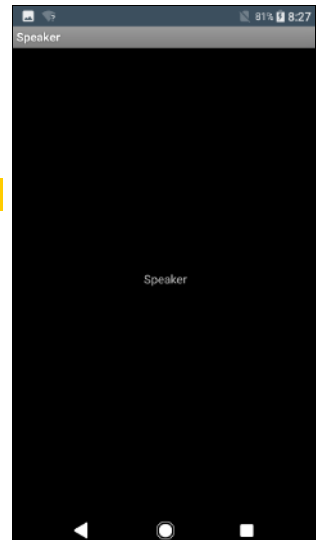
### 2.2.6 Speaker

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

Make sure that the music sound from the speaker port at the lower right side 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.

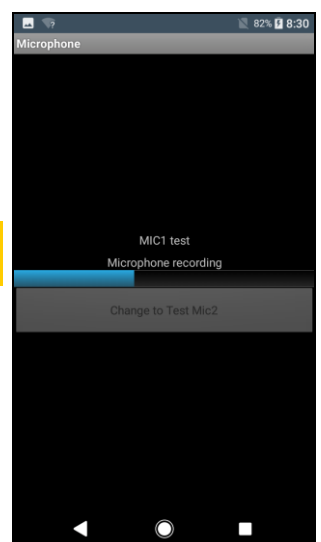


### 2.2.7 Earphone

Make sure that the music sound from the earphone port is emitted loud and clear and the test includes maximum volume.

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

Press Back Key to return to the Service Test Menu.



### 2.2.8 Microphone

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

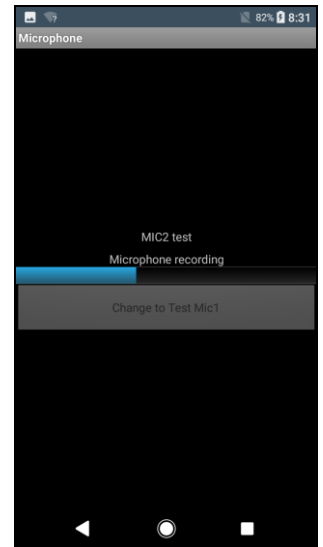
The phone will start to record and after approximately ten seconds the sound will be played back through the speaker.

Step 1: Speak to the microphone during the 'MIC 1 test Microphone recording' phase.

## Tests: Service Tests

Step 2: Check the quality by listening to the recording from the speaker during the 'Playing recorded sound' phase at maximum volume.

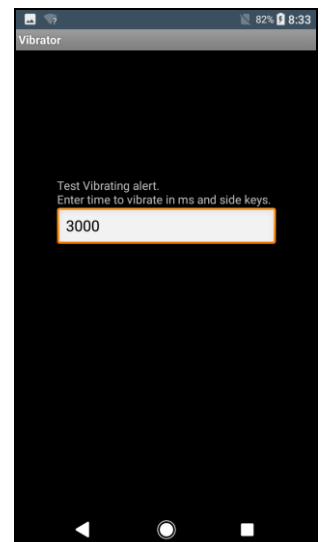
Press Back Key to return to the Service Test Menu.



### 2.2.9 Vibrator

Press the Menu key or side keys to start the vibrator test.  
It is possible to modify the duration of this test.

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



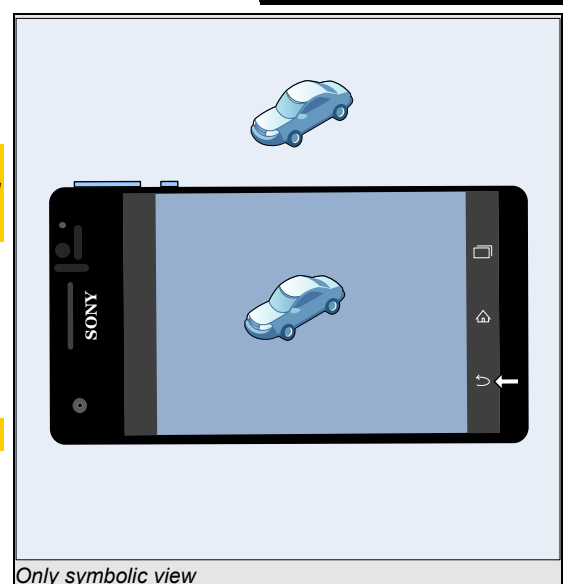
### 2.2.10 Camera

**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 at the back of the phone) at an object and check the quality of the image shown in the display.  
Touch the screen to take picture and preview the photo's auto focus quality.

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

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



## Tests: Service Tests

### 2.2.11 Front 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.

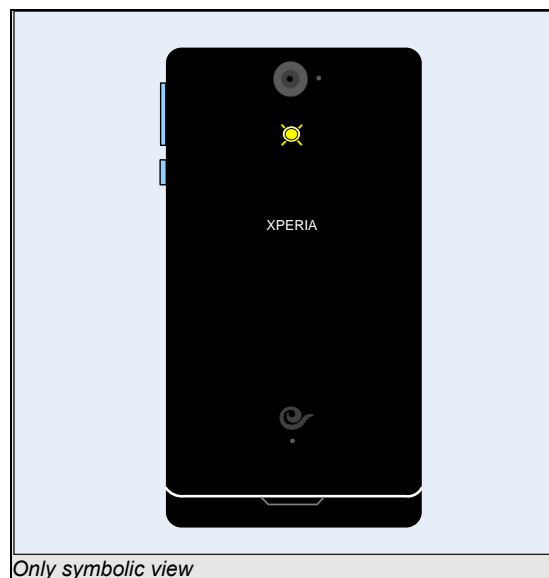
Press the Back key to return to the Service Test Menu



### 2.2.12 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.



### 2.2.13 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: Tap the slider to enable Bluetooth;

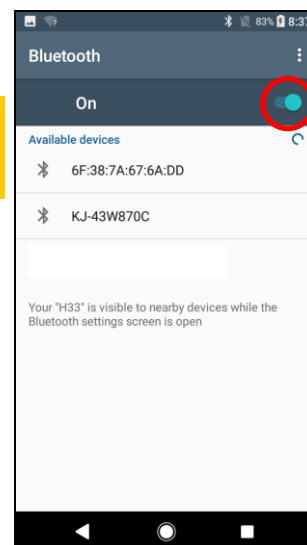
Step 2: Searching;

Step 3: "Available devices" will be shown;

Step 4: Select the Target Bluetooth Device;

Step 5: Check the Pairing PIN code on both Target Bluetooth Device and unit, press Pair on both, when succeeded, Target Bluetooth Device will be shown in "Paired devices".

Press Back key to return to Service Test Menu.



## Tests: Service Tests

### 2.2.14 WLAN

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

The WLAN test will be done in following sequences:

Tap the slider to enable WLAN;

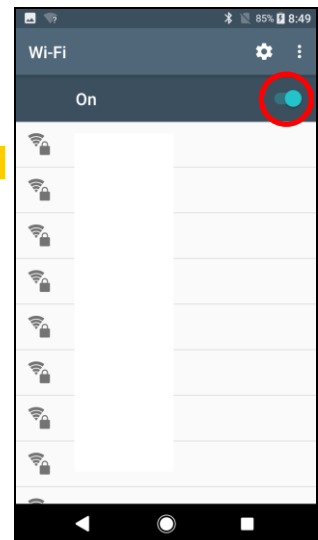
Step 2: Searching;

Step 3: Access Point List will be shown;

Step 4: Select the Target WLAN network, and type the password to get connected;

Step 5: Enter a web address (e.g. Google.com); and confirm the connection;

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



### 2.2.15 GPS

**Make sure turn on GPS first (Menu->Settings->Location service)!**

Verify that the GPS function properly:

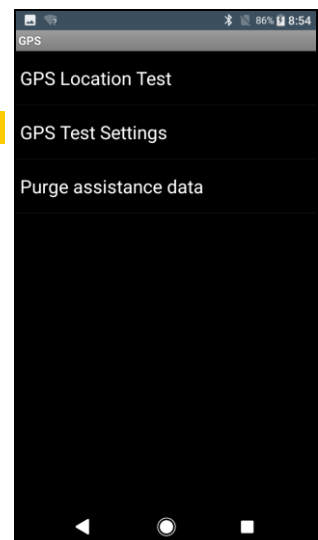
Step 1: Go to *GPS Location test to turn on GPS first*;

Step 2: Go to *GPS Location test again to search for available satellites and in 'Position Getting' status in 5 minutes*;

Step 3: The GPS Data (Longitude, Latitude, Altitude, Acquired Time, Satellites Used, Pseudorandom Noise (PRN) code and Signal to Noise Ratio (SNR)) could be shown if GPS test works successfully.

If the positioning time is over 5 minutes and does not get location info, the test is failed.

Press Back Key to return to the Service Test Menu.

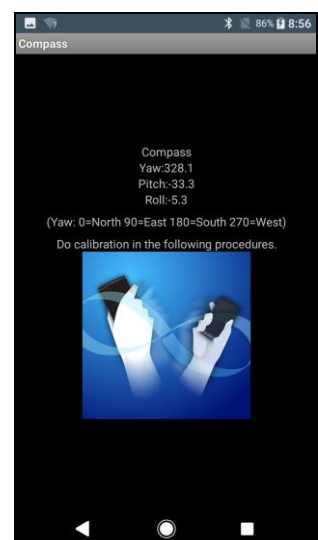


### 2.2.16 Compass

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

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

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

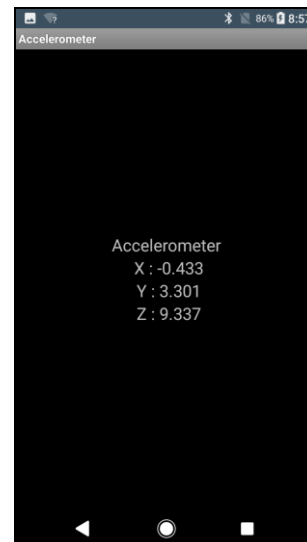


## Tests: Service Tests

### 2.2.17 Accelerometer

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

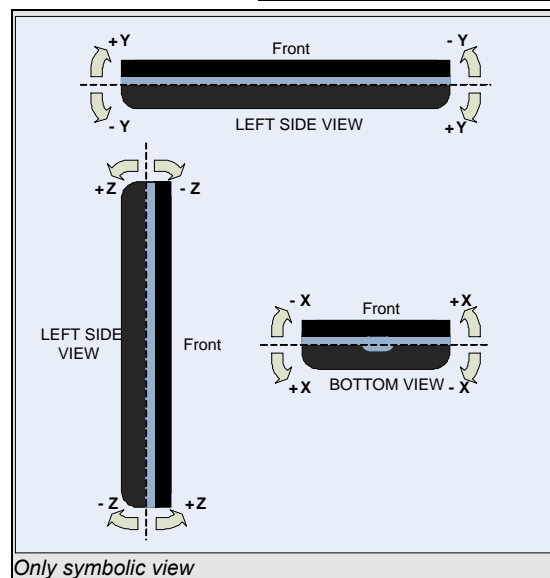
Press the Back key to return to the Service Test Menu.



By tilting the phone in various directions, the X: Y: Z values will change in size and polarity depending on the 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.

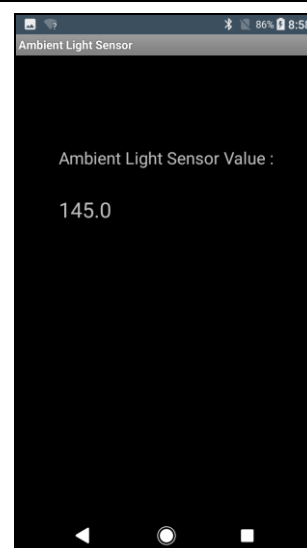
Press the Back key to return to the Service Test Menu.



### 2.2.18 Ambient Light Sensor

The Ambient light sensor test states a value. The value should increase when the Light sensor area gets more light and decrease when the Light sensor area gets less light.

Press Back Key to return to the Service Test Menu.



## Tests: Service Tests

### 2.2.19 Real time clock

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

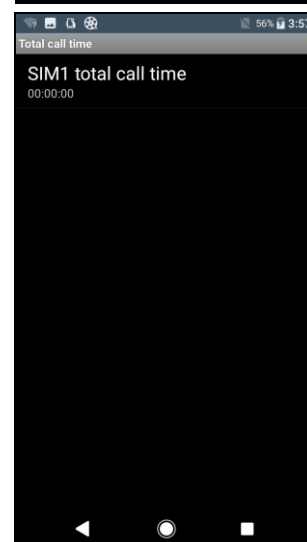
Press the Back key to return to the Service Test Menu.



### 2.2.20 Total call time (H3311, H3321)

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

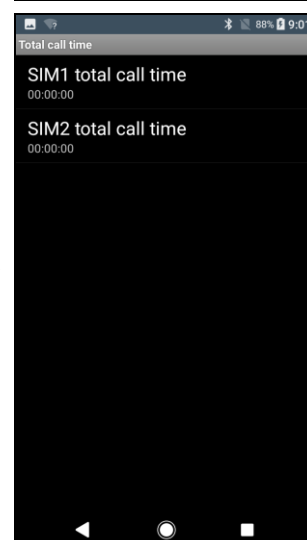
Press the Back key to return to the Service Test Menu.



### 2.2.21 Total call time (H4311, H4331)

The total call time of SIM Card 1 and SIM Card 2 are displayed in the format HH:MM:SS (hours: minutes: seconds).

Press the Back key to return to the Service Test Menu





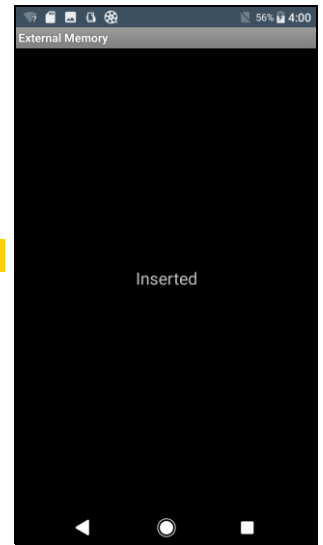
## Tests: Service Tests

### 2.2.22 External Memory

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

The phone should detect that the memory card is inserted.

Press Back Key to return to the Service Test Menu.



### 2.2.23 Security

The DRM keys are shown in the display.

There may be different content shown based on different market software versions.

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



### 2.2.24 FM Radio

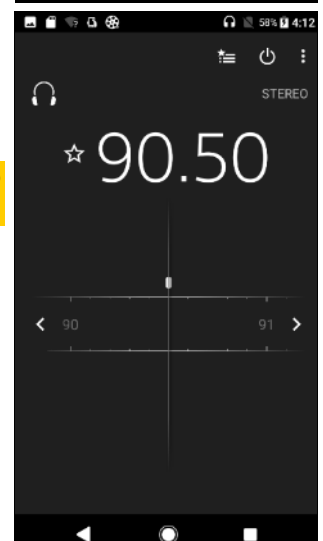
**The 2.3.4 "Audio Jack Test" must have been successfully carried out before doing this test!**

Verify that the phone can detect a radio station:

Connect a headset and then set your local radio station in MHz

Verify that the reception and sound quality is normal.

Press Back Key to return to the Service Test Menu.



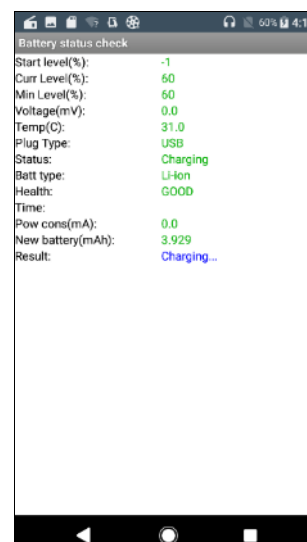
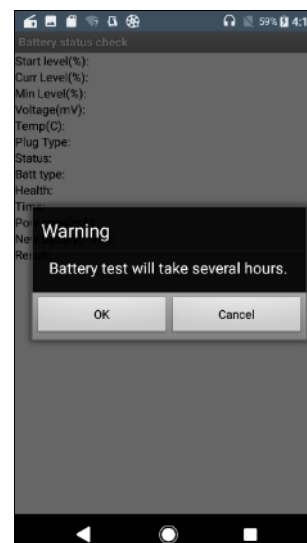
## Tests: Service Tests

### 2.2.25 Battery Status Check

Warning "Battery test will take several hours." will be shown in the display.

Press OK to test.  
Result will be shown

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



### 2.2.26 Battery Health Check

The Battery Health Status is shown in the display.

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

## Tests: Service Tests

### 2.2.27 Verify certificates

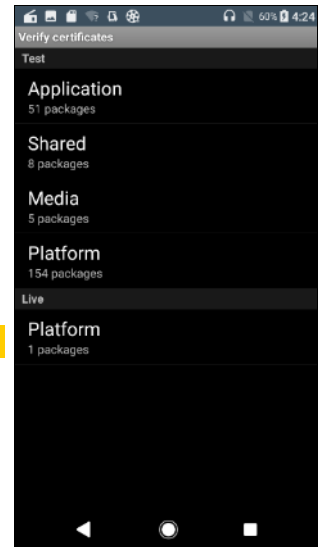
When entering the test, five information categories will be shown:

Test: Media, Application, Shared, Platform

Live: Application.

**Do not use this test!**

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



### 2.2.28 SIM Card (H3311, H3321)

**Nano SIM card should be inserted in the phone before the start of this test!**

The phone should detect that the Nano SIM card is inserted and shows “Available”.

Press Back Key to return to the Service Test Menu.



### 2.2.29 SIM Card (H4311, H4331)

**Two Nano SIM card should be inserted in the phone before the start of this test!**

The phone should detect that the Nano SIM card is inserted and shows “Available”.

Press Back Key to return to the Service Test Menu.



## Tests: Service Tests

### 2.2.30 USB

Insert Type C USB Cable into Type C USB connector, it will shows “Connected”.

Press Back Key to return to the Service Test Menu.



### 2.2.31 Firmware Version

When entering the test, four types of information will be shown: Touch Panel Firmware, LCM Hardware, Build Number, and SW Version.

Press Back Key to return to the Service Test Menu.



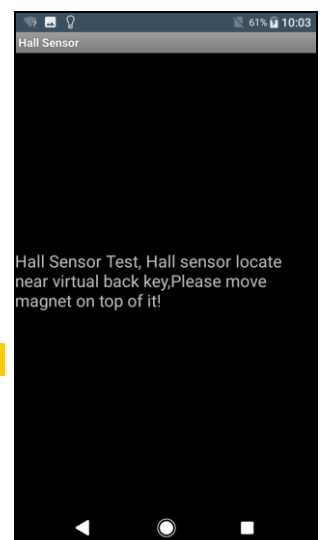
### 2.2.32 Hall Sensor

Use a magnet to test the Hall Sensor

Put the magnet on top of the Display and close to the volume down key area, The Display should go black and light again.

**Refer to Test Enablers for the Hall sensor area location.**

Press Back Key to return to the Service Test Menu.



## Tests: Service Tests

### 2.2.33 NFC Card Mode

**A NFC SIM card 4FF should be inserted in the phone before the start of this test!**

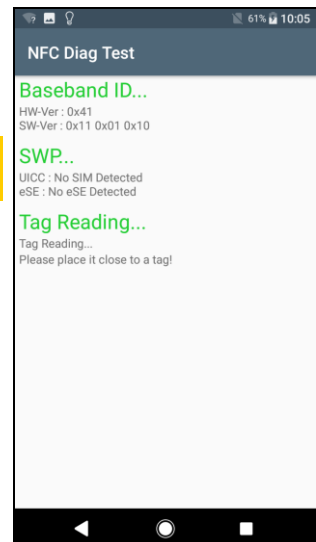
The NFC test will be done in following sequences:

Step 1: Select 'NFC' Card Mode;

Step 2: After 'Tag Reading...Enabled' can be seen on the display, bring a NFC Tag close to NFC icon in the middle of the Back Cover.

Step 3: When Tag is identified, a sound will be made and an OK message will be displayed.

Press Back Key two times to return to Service Test

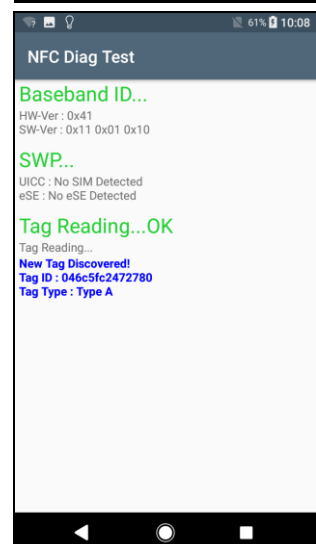


### 2.2.34 NFC Reader Mode

When entering the test, it shows "Please detect card to NFC".

Bring a NFC Tag close to NFC icon in the middle of the Battery Cover Assy.

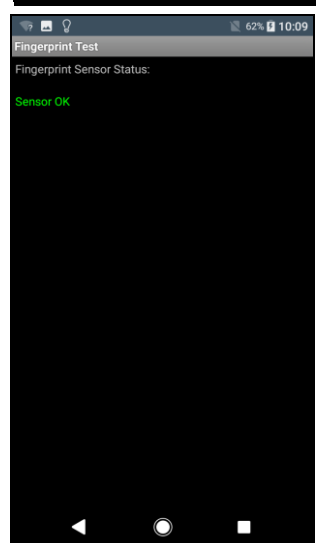
**When Tag is identified, a sound will be made and an "NFC Card Reader Test Pass" message will be displayed.**



### 2.2.35 Fingerprint Sensor

During the actual test the text 'Sensor' is displayed, then followed by a message stating whether the test was OK or not.

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



## Tests: Service Tests

### 2.3 Android Settings Tests

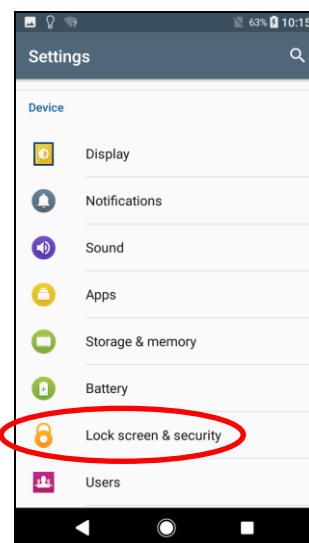
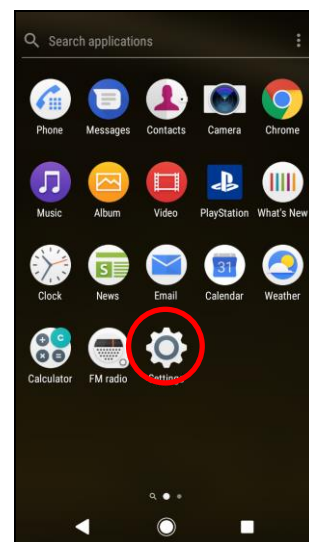
#### 2.3.1 Fingerprint Sensor function test

Step 1: Go to Fingerprint Manager.

Tap "Apps".

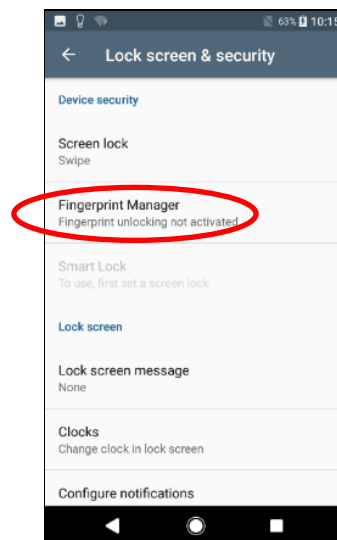
Tap "Settings".

Tap "Lock screen & security".



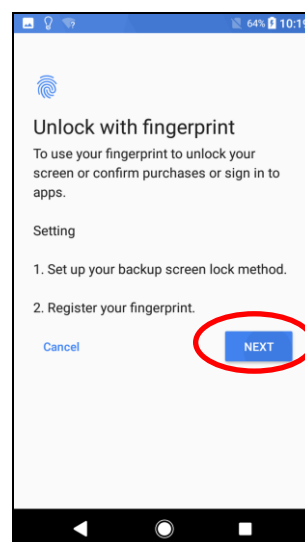
## Tests: Service Tests

Tap "Fingerprint Manager".

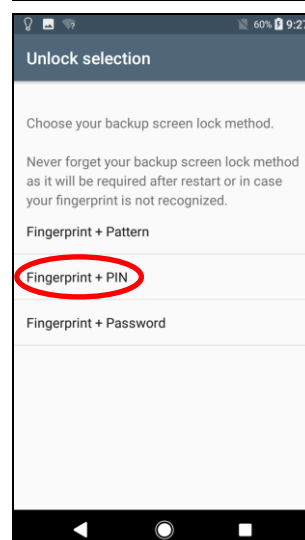


### Step 2: Set PIN code

Tap "NEXT".

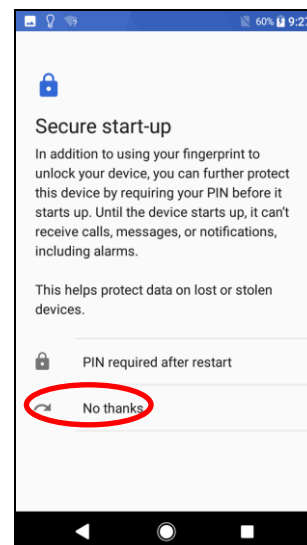


Tap "Fingerprint + PIN".

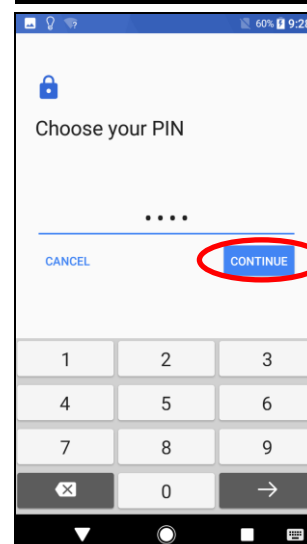


## Tests: Service Tests

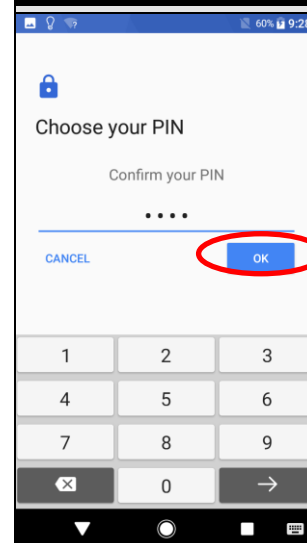
Tap “No thanks”.



Enter 0000 as PIN to avoid mistake.  
Tap “CONTINUE”.



Enter 0000 one more time, and tap “OK”..





## Tests: Service Tests

Tap "DONE".

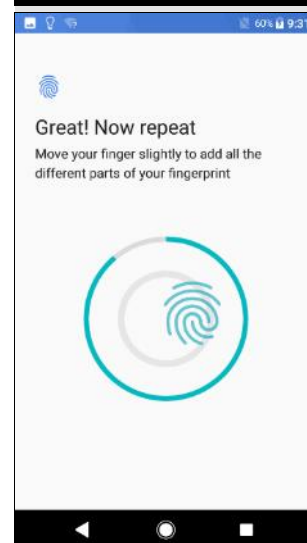
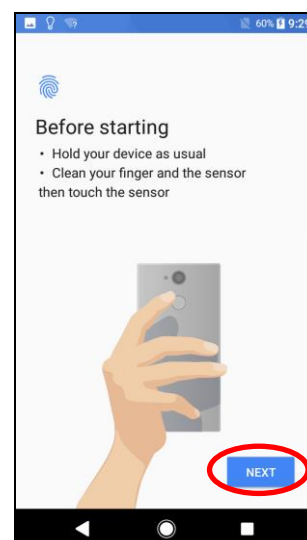
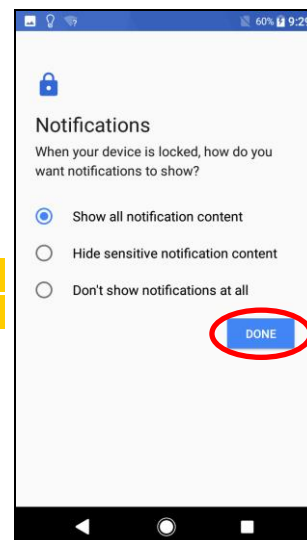
After finish test, PIN code must be reset.

Make sure to follow **Step 4: Reset PIN**.

### Step 3: Fingerprint function test

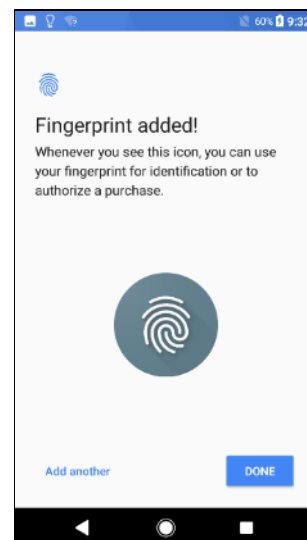
Tap "NEXT".

Touch the sensor lightly with your finger and lift it after you feel a vibration.  
Move your finger slight to add all the different parts of your fingerprint.

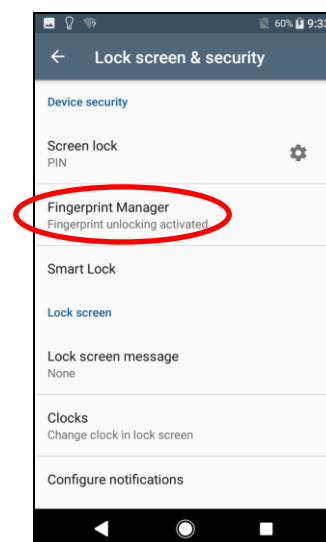


## Tests: Service Tests

Tap "DONE".



Check if Fingerprint unlocking is activated.

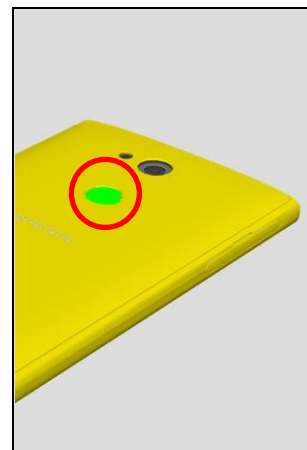


Lock the phone and press power key.  
Check if fingerprint icon is shown.



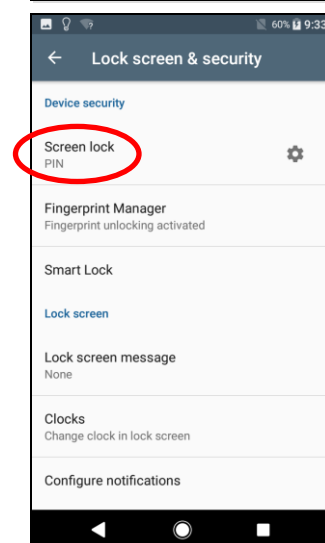
## Tests: Service Tests

Touch your fingerprint on the sensor to unlock.  
If unlock, fingerprint security function is working.

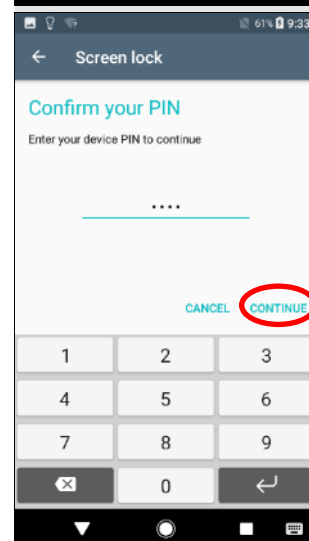


### Step 4: Reset PIN

Perform the factory data reset or the following instructions.  
Go to Apps --> Settings --> Lock screen & security.  
Tap "Screen lock".

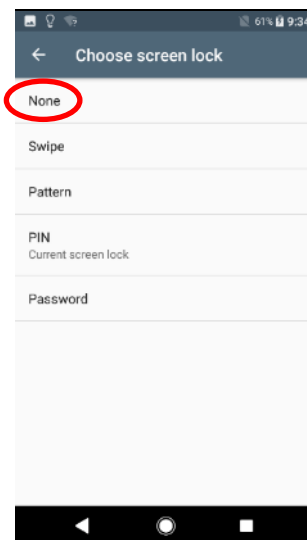


Enter 0000, and tap "CONTINUE".

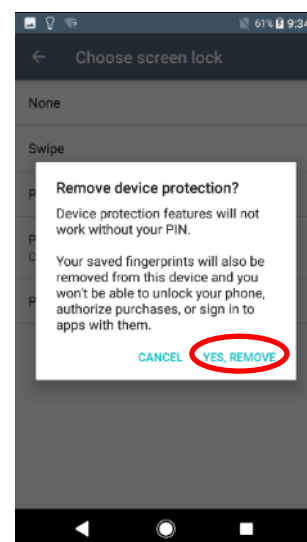


## Tests: Service Tests

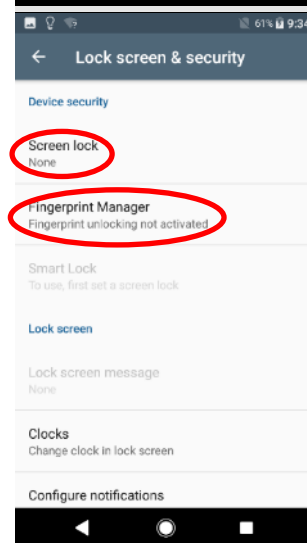
Tap “None”.



Tap “YES, REMOVE”.



Make sure that “Screen lock” is “None”, and “Fingerprint Manager” is “Fingerprint unlocking not activated”.



## Tests: Service Tests Utilities

### 2.4 Service Tests Utilities

#### 2.4.1 Logging Test Result

##### 2.4.1.1 Enter the test result

Test result can be logged by manually.

Press and hold the test item on the Service tests menu.

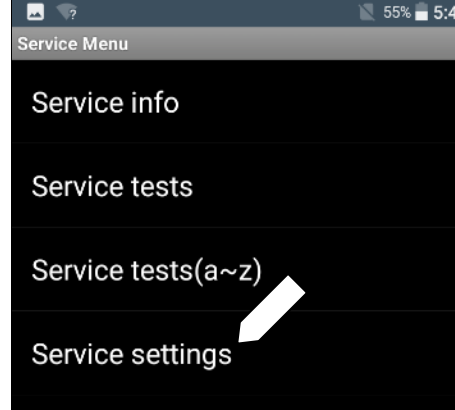
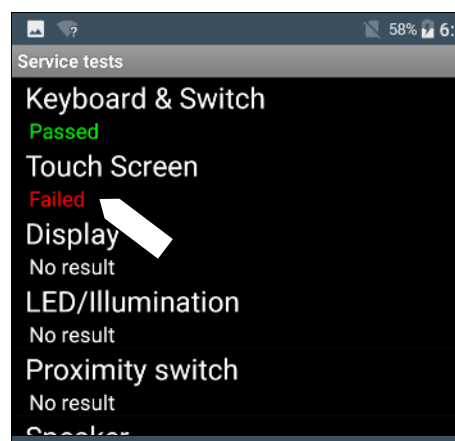
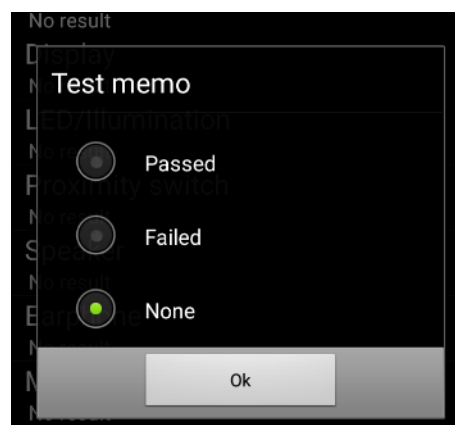
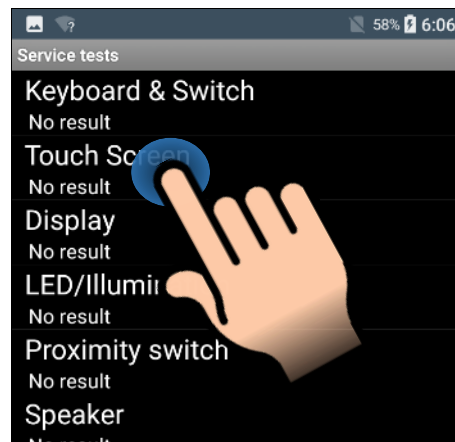
Test result entry menu will be shown.

Select and tap the test result “Passed”, “Failed”, or “None” to register.

Selected result will be registered, and indicated on the test menu.

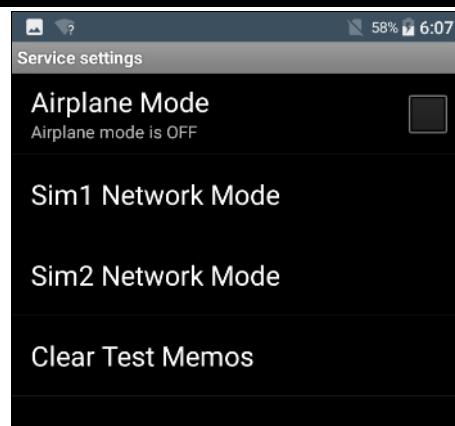
##### 2.4.1.2 Delete Test Log

Tap “Service Settings”.



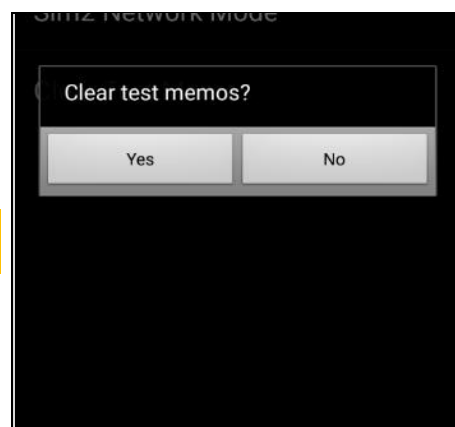
## Tests: Service Tests Utilities

Tap "Clear Test Memos".



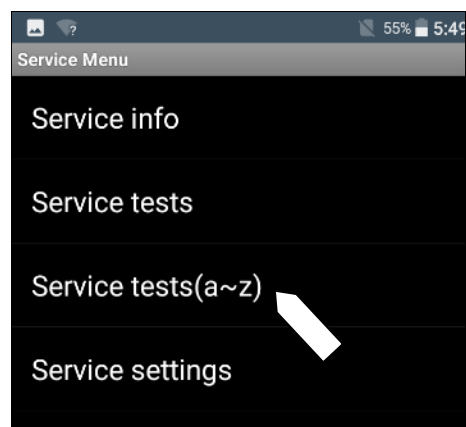
Tap "Yes" to delete the test log.

**Note: Make sure to delete the test log before return the repaired device to the customer.**

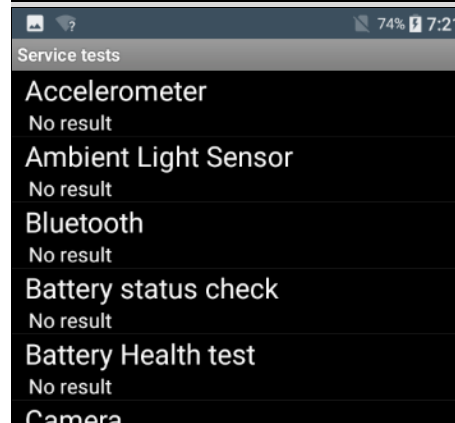


### 2.4.2 Sorting Test Items

Tap "Service tests (a~z)".



Test items will be sorted in alphabetical order.



## Tests: Manual Tests

### 2.5 Manual Tests

#### 2.5.1 SIM test (H3311, H3321)

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: The operator's name is displayed at the top left corner of the locked screen.

If not detected, the message 'No SIM card-Emergency call only' will be displayed instead.

If operator is not detected, the message 'No service' will be displayed instead.

Press Back key to return to Standby Menu.



#### 2.5.2 SIM test (H4311, H4331)

Verify the phone can detect a SIM card 1 and a SIM card 2.

Step 1: Insert a SIM card 1 and a SIM card 2, and start the phone;

If the SIM card 1 and SIM card 2 is detected by the phone, the start-up procedure will continue.

Step 2: The SIM card 1 and SIM card 2 operator name will be displayed at the top left corner of the locked screen by turns.

If SIM card is not detected, the message 'No SIM card-Emergency call only' will be displayed instead.

If operator is not detected, the message 'No service' will be displayed instead.

Press Back key to return to Standby Menu.

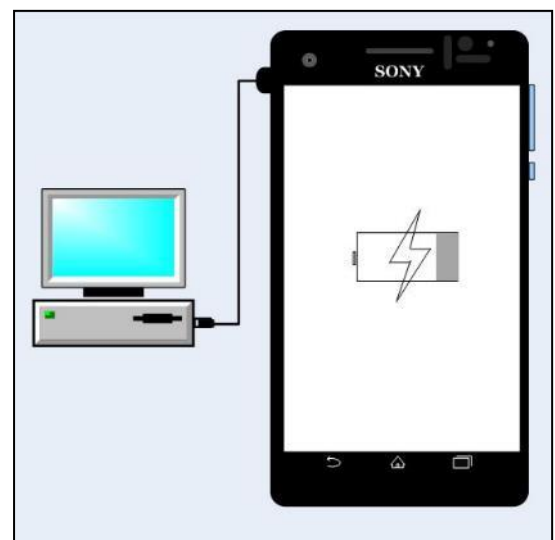


#### 2.5.3 Data Communication test

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

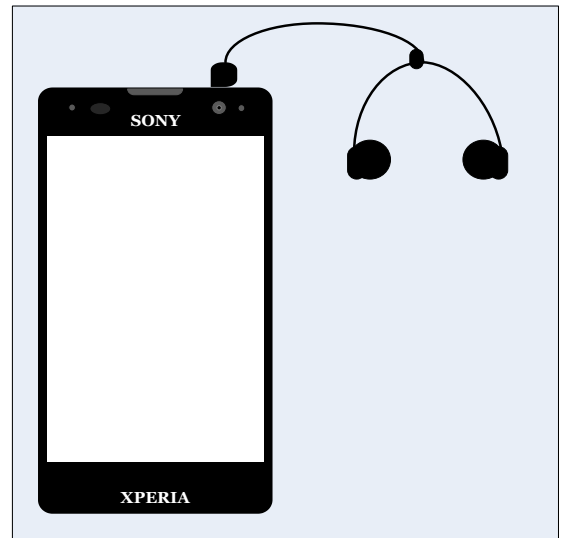
## Tests: Manual Tests

### 2.5.4 Audio Jack test

Connect a Sony CTIA headset.

Repeat the test of “2.2.6 Speaker”, “2.2.7 Earphone” and “2.2.8 Microphone”.

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



Only symbolic view

### 2.5.5 Charging (Charger or Computer)

#### 2.5.5.1 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 Xperia Companion 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 can take up to 10 min before LED starts.

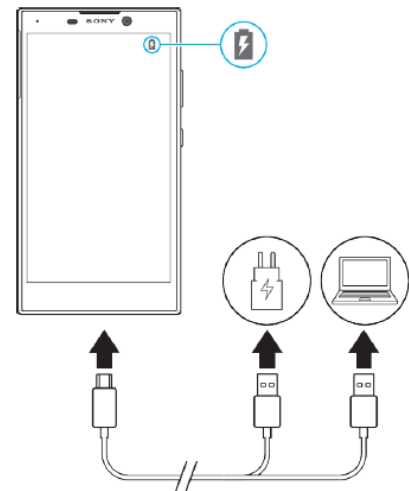
Remove the USB cable from the connector and verify that the Notification LED (see 1.2 Test Enablers) and Battery icon no longer indicates charging.

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

Red: Battery level is less than 10%;

Orange: Battery level is between 15% and 90%;

Green: Battery level is greater than 90%.



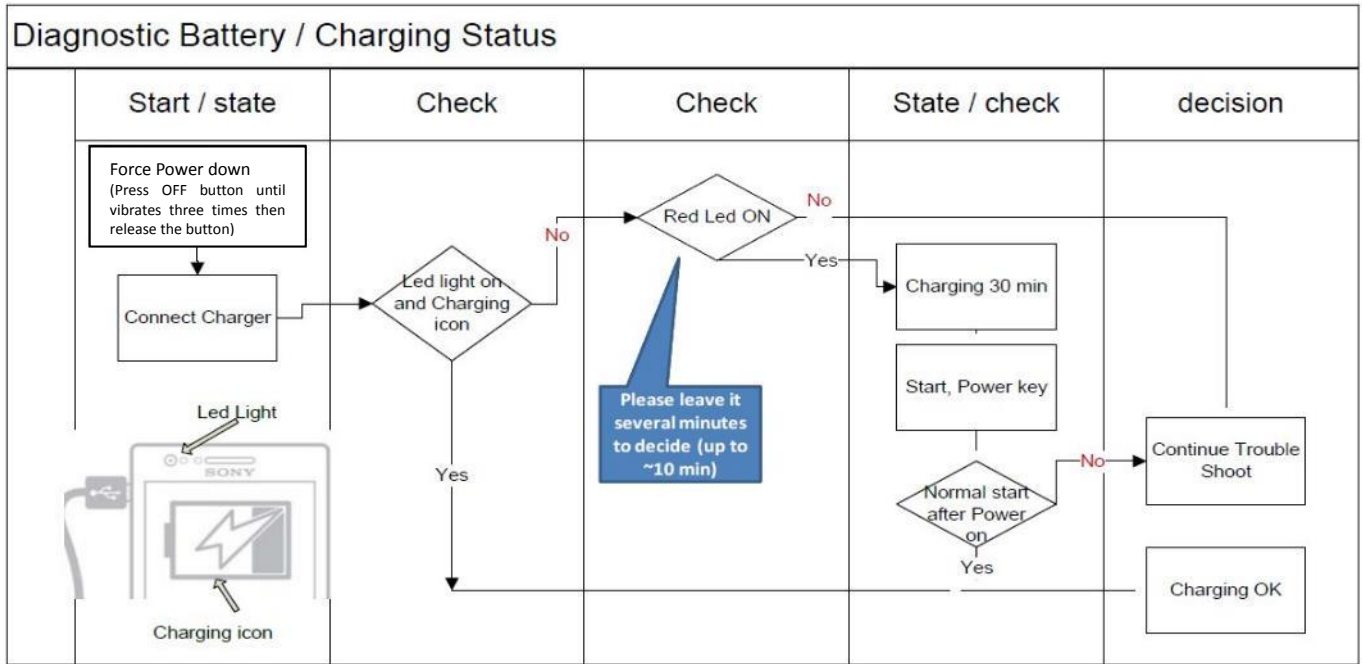
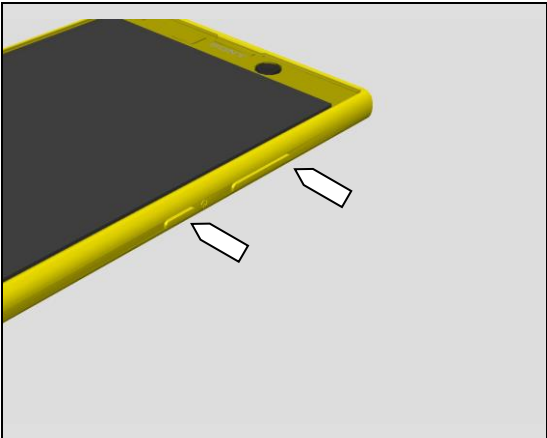


Tests: Manual Tests

2.5.5.2 Diagnostic battery / Charging Status check

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

**Force Power Down**  
**Press and hold down the power key and the volume up key at the same time for 10 seconds.**  
**The unit vibrates once.**  
**Continue to keep pressing the keys.**  
**After a few more seconds, the unit vibrates three times and turns off.**



The picture in above flow chart is only symbolic view.

## Tests: Manual Test

### 2.5.6 Network Test

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

***There are different versions of the test depending on whether a LTE, UMTS network is available or not!***

***If a LTE or UMTS network is available, the network test has to be done separately for GSM, UMTS or LTE!***

#### 2.5.6.1 Procedure (GSM & UMTS & CDMA)

Step 1: Set up a call from a landline phone (PSTN).

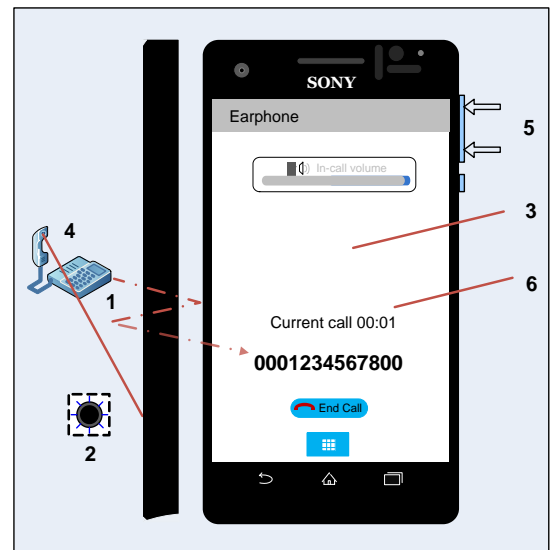
Step 2: Check that there is a ring signal.

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

## Tests: Manual Test

### 2.5.7 On-the-air call to mobile (H3311, H3321)

#### **GSM**

Settings ⇒ More ⇒ Mobile Networks ⇒ Network mode ⇒ GSM only

Ensure that the Network Status icon show signal strength and show no symbol or E at the top of the display.  
To verify the radio functions (GSM) of the phone, follow the '2.5.6.1 Procedure (GSM & UMTS & CDMA)'.

#### **UMTS**

Settings ⇒ More ⇒ Mobile Networks ⇒ Network mode ⇒ WCDMA only

Ensure that the Network Status icon show signal strength and show 3G or H+ (HSPA) at the top of the display.  
To verify the radio functions (UMTS) of the phone, follow the '2.5.6.1 Procedure (GSM & UMTS & CDMA)'.

#### **LTE (if available)**

Settings ⇒ More ⇒ Mobile Networks ⇒ Network mode ⇒ LTE (preferred)/WCDMA/GSM

Ensure that the Network Status icon show signal strength and show LTE at the top of the display.

To verify the radio functions (LTE) of the phone, download data package by for ex. accessing the web.

Network Type can be checked in ⇒ Settings⇒ about phone⇒status⇒ Mobile Network Type

### 2.5.8 On-the-air call to mobile (H4311, H4331)

#### **SIM 1 or SIM 2**

##### **GSM**

Settings ⇒ More ⇒ Mobile Networks ⇒ SIM 1 or SIM 2 ⇒ Preferred network type ⇒ GSM only

Ensure that the Network Status icon show signal strength and show no symbol or E at the top of the display.

To verify the radio functions (GSM) of the phone, follow the '2.5.6.1 Procedure (GSM & UMTS & CDMA)'.

##### **UMTS**

Settings ⇒ More ⇒ Mobile Networks ⇒ SIM 1 or SIM 2 ⇒ Preferred network type ⇒ WCDMA(3G) only

Ensure that the Network Status icon show signal strength and show 3G or H+ (HSPA) at the top of the display.

To verify the radio functions (UMTS) of the phone, follow the '2.5.6.1 Procedure (GSM & UMTS & CDMA)'.

##### **LTE (if available)**

Settings ⇒ More ⇒ Mobile Networks ⇒ SIM 1 or SIM 2 ⇒ Preferred network type ⇒ LTE(4G) (preferred)/WCDMA(3G)/GSM

Ensure that the Network Status icon show signal strength and show LTE at the top of the display.

To verify the radio functions (LTE) of the phone, download data package by for ex. Accessing the web.

Network Type can be checked in ⇒ settings⇒ about phone⇒status⇒ SIM status⇒ Mobile Network Type

**If one of the SIM is selected to be LTE (preferred)/WCDMA/GSM or WCDMA only, the other SIM only support GSM.**

## 3 Revision History

Rev.	Date	Changes / Comments
1	2018-Jan-12	Initial release