

Sensor Calibration

F3111, F3112, F3113, F3115, F3116

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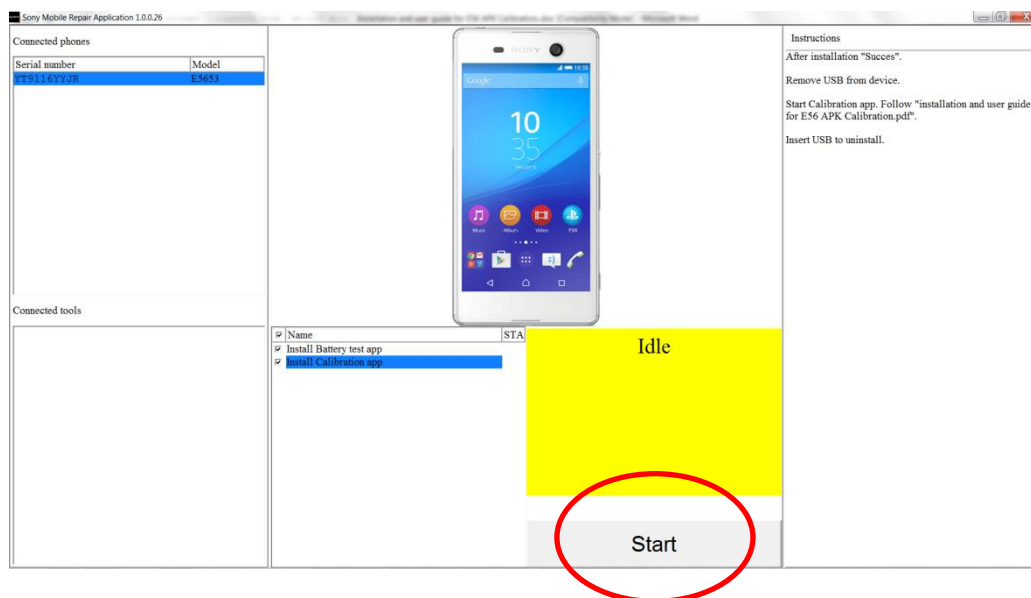
1 Setup

1.1 Install APK

Launch Sony Mobile Repair Application.



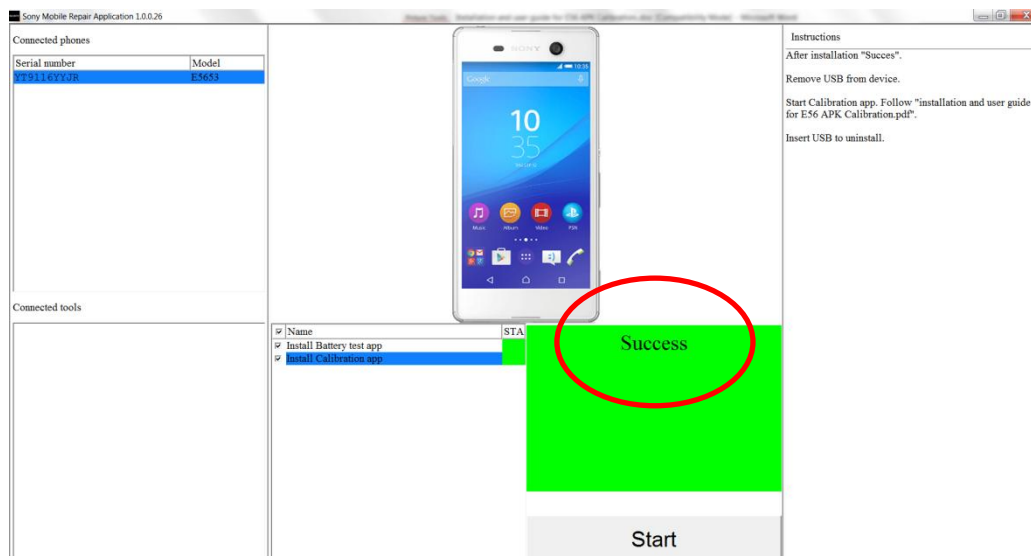
Enable USB debug mode in phone and connect to Sony Mobile Repair Application. Press Start to install Calibration app.



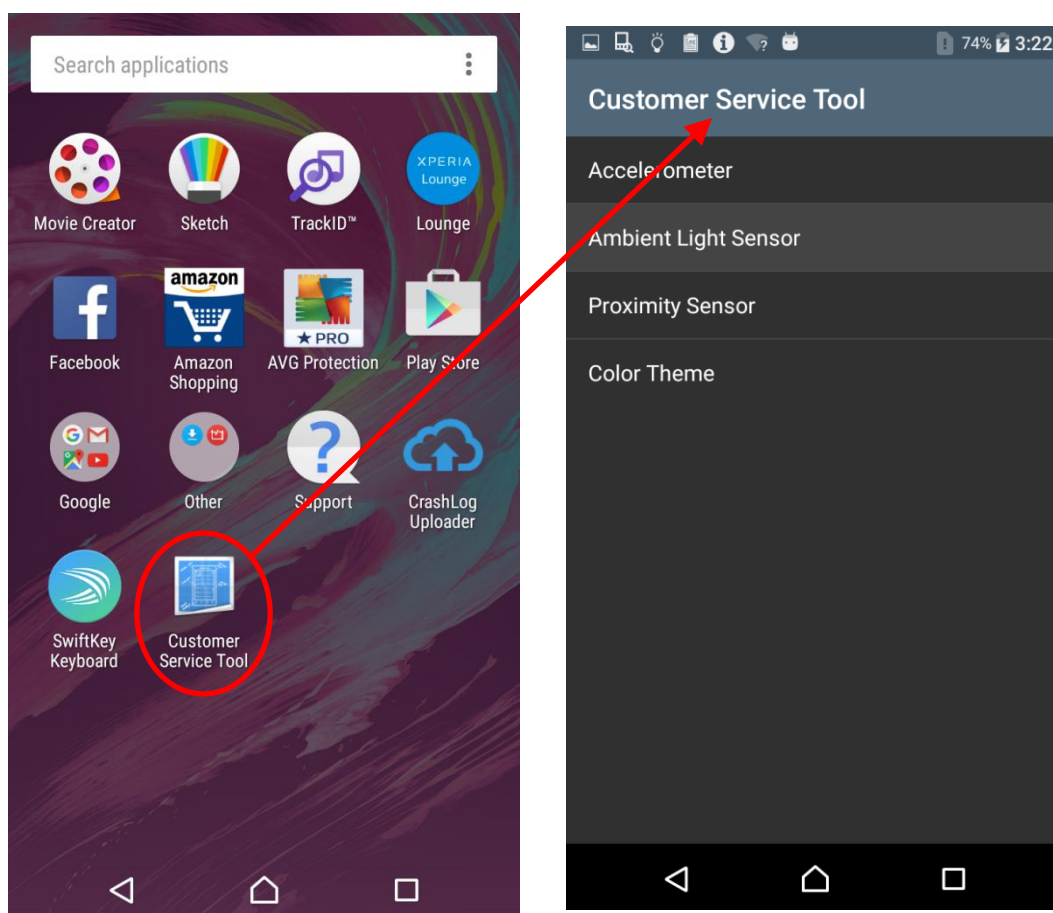
SONY

Test & Calibration (elect)

When Success installation, then remove USB from device.

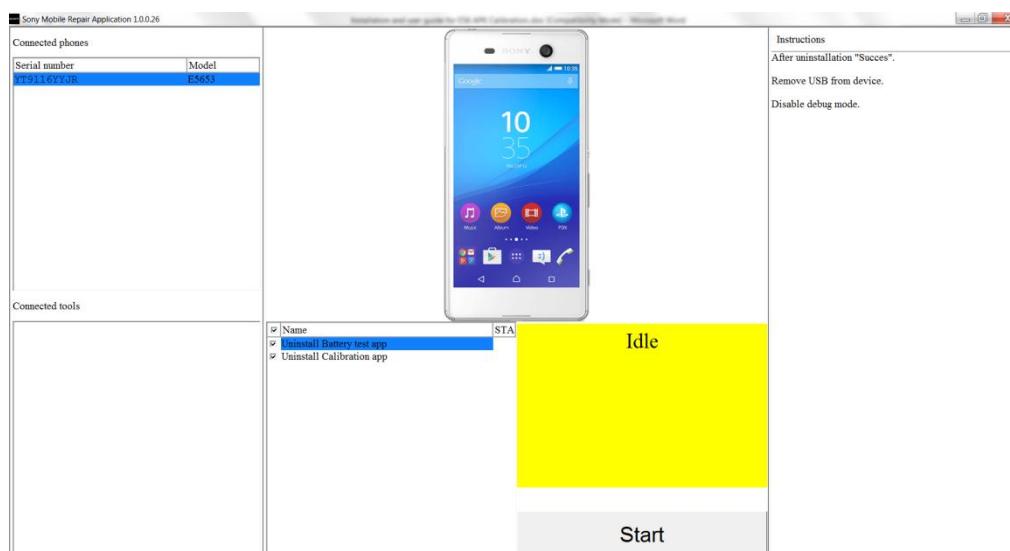


Press Customer Service Tool to enter Customer Service Tool menu.
Refer to chapter 2 for the each calibration procedure.

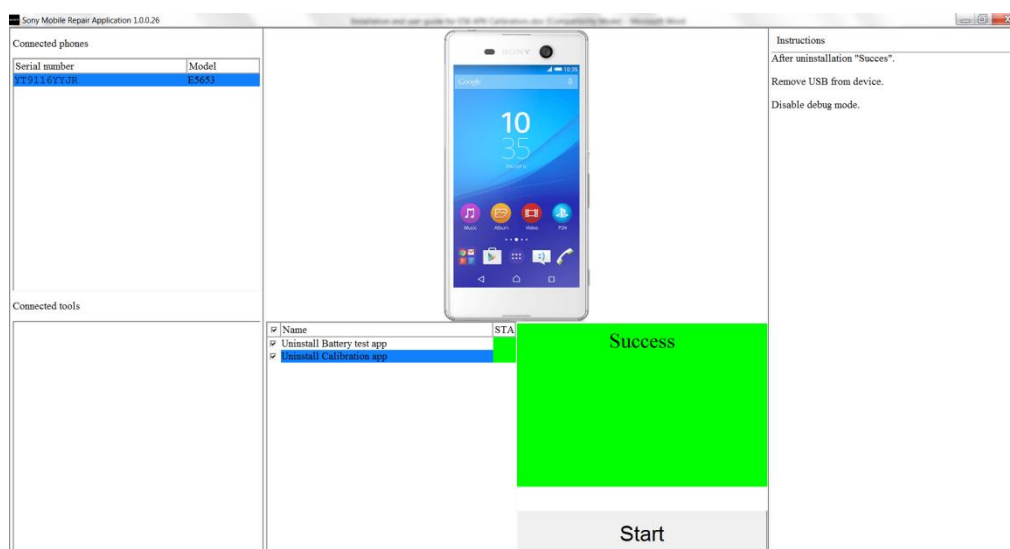


1.2 Uninstall APK.

After successful Calibration the calibration APK will be uninstalled.
If not connect phone to Sony Mobile Repair Application.



Press **Start** to Uninstall Calibration app.
When Success Uninstall, then remove USB from device.



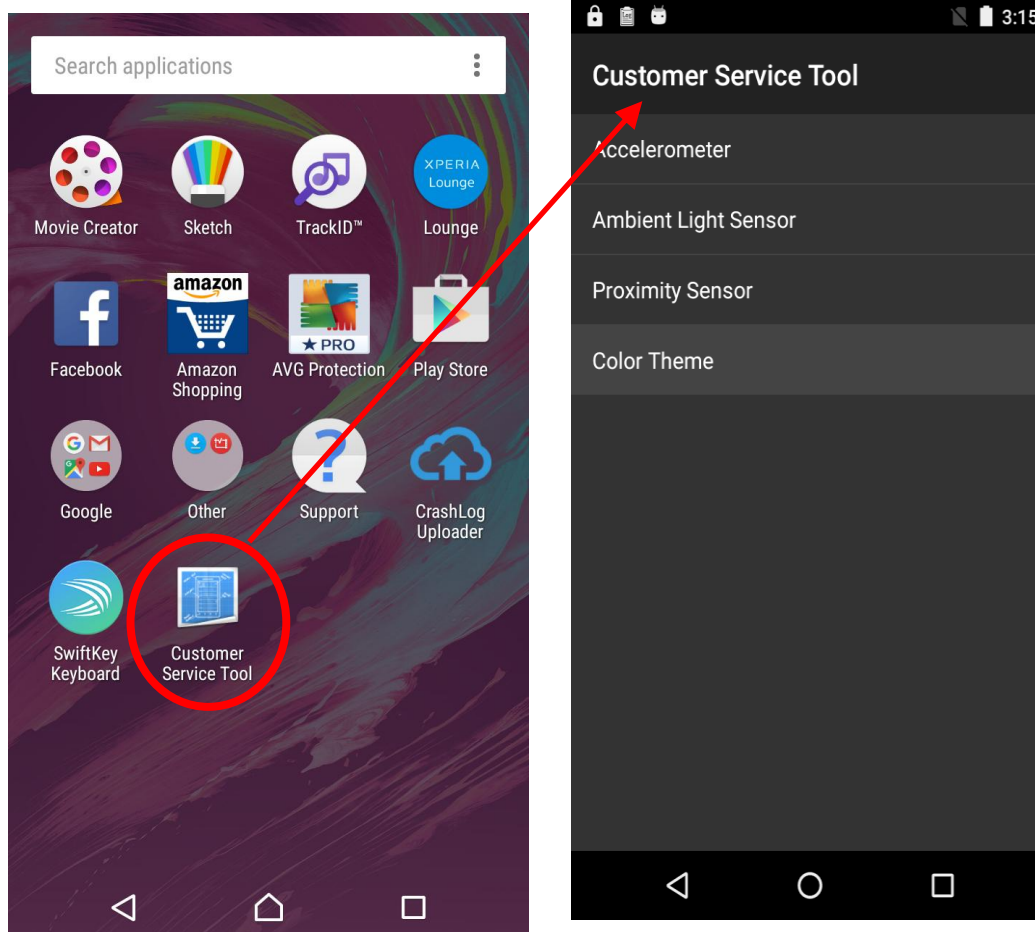
1.3 Disable debug mode.

Remember to disable debug mode in phone.

2 Calibration

2.1 Launch

Enter the Customer Service Tool main menu by click the app icon in Launcher. There would be four items presented for the calibration process of Accelerometer, Ambient Light Sensor, Proximity Sensor and Color Theme.

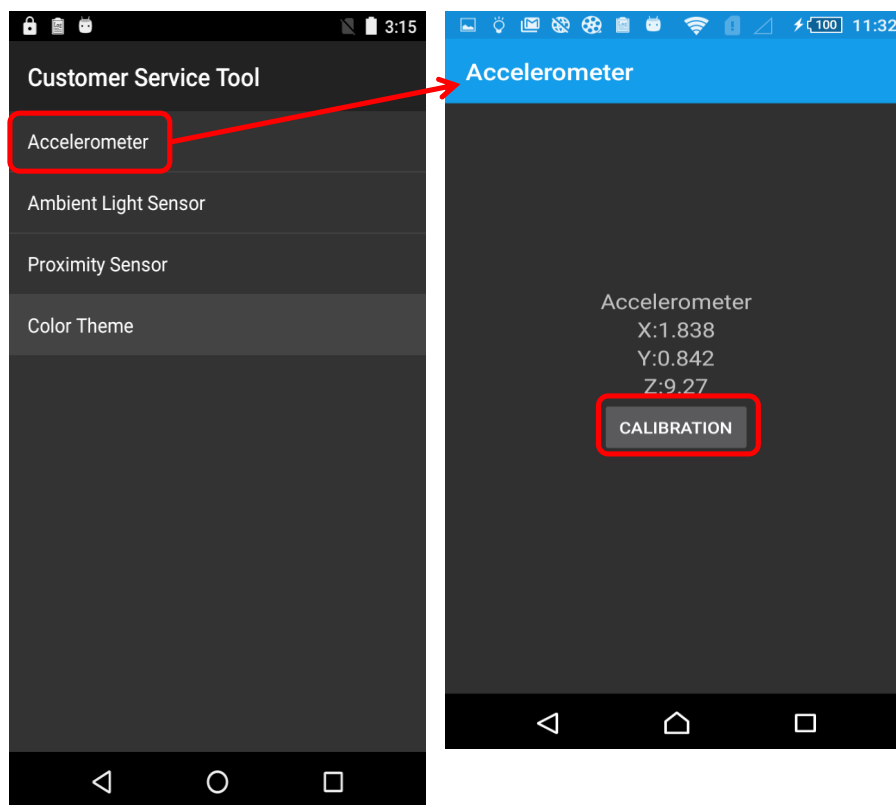


2.2 Accelerometer

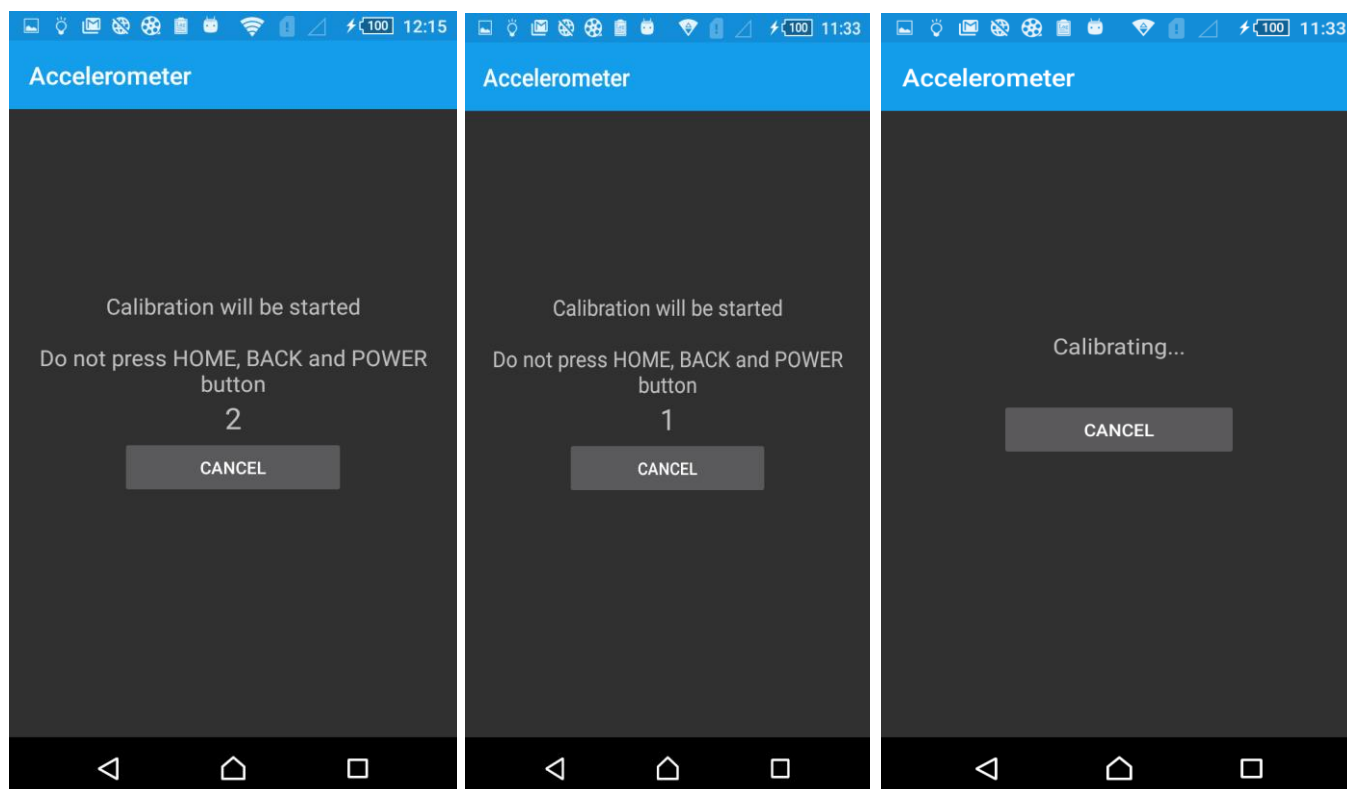
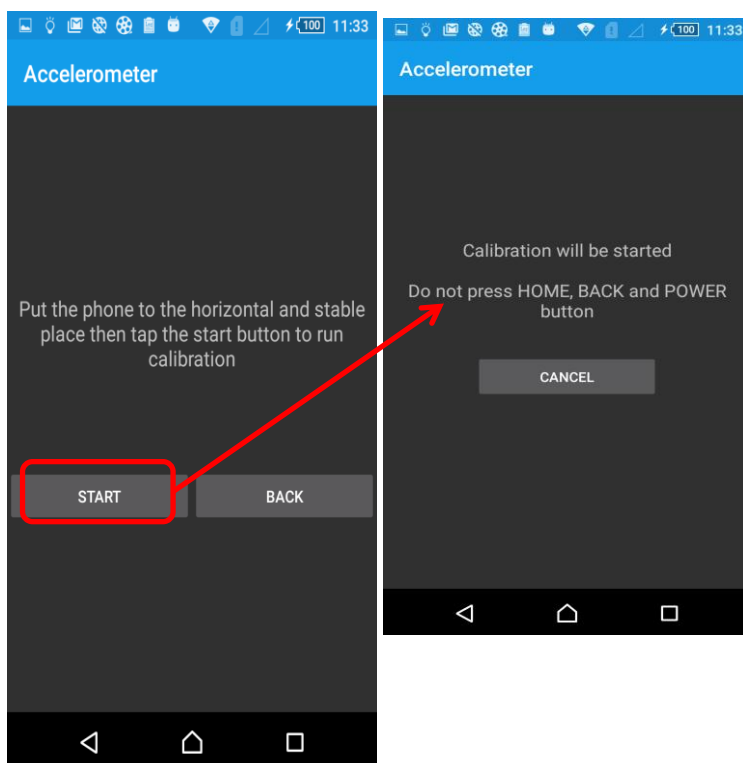
Select "Accelerometer" item in customer service tool main menu to enter the main page of Accelerometer calibration.

Press button "CALIBRATION" to enter the confirmation page.

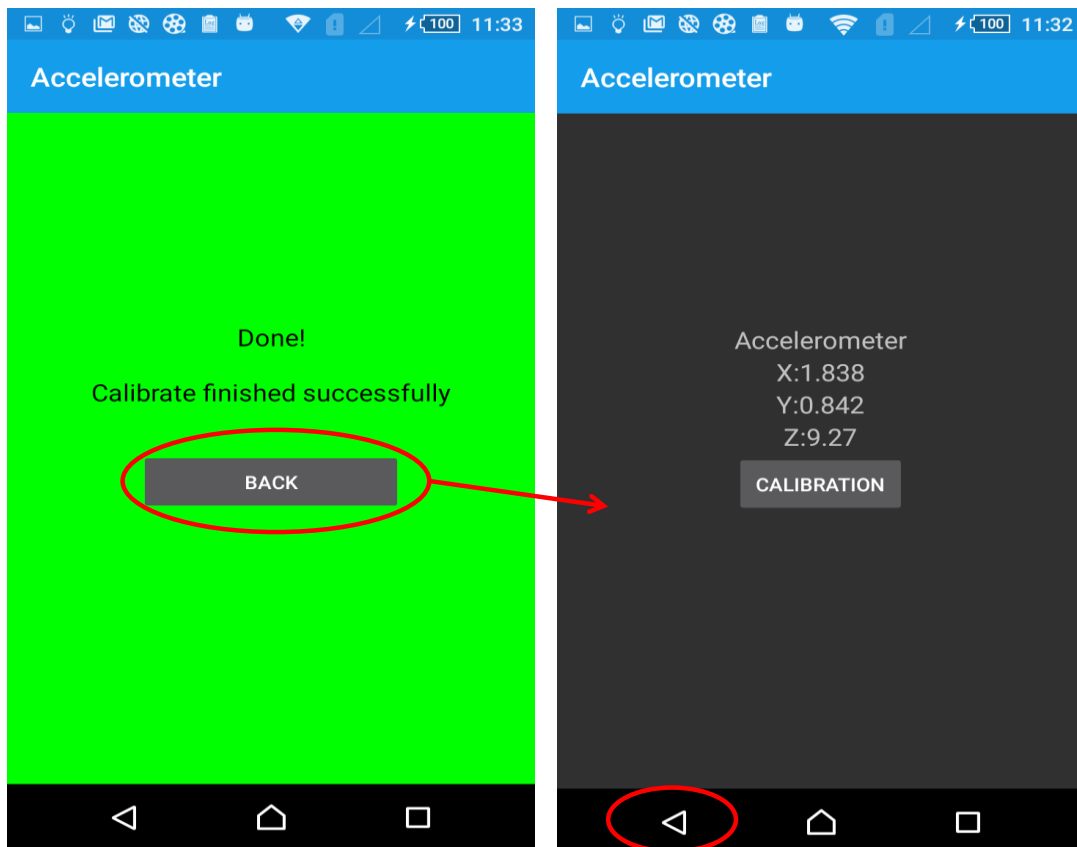
Please place the device on stable and horizontal flat plane (e.g. table).



Press button “START” and the calibration process will start after 3 seconds countdown. Please do not move the device during the calibration procedure.

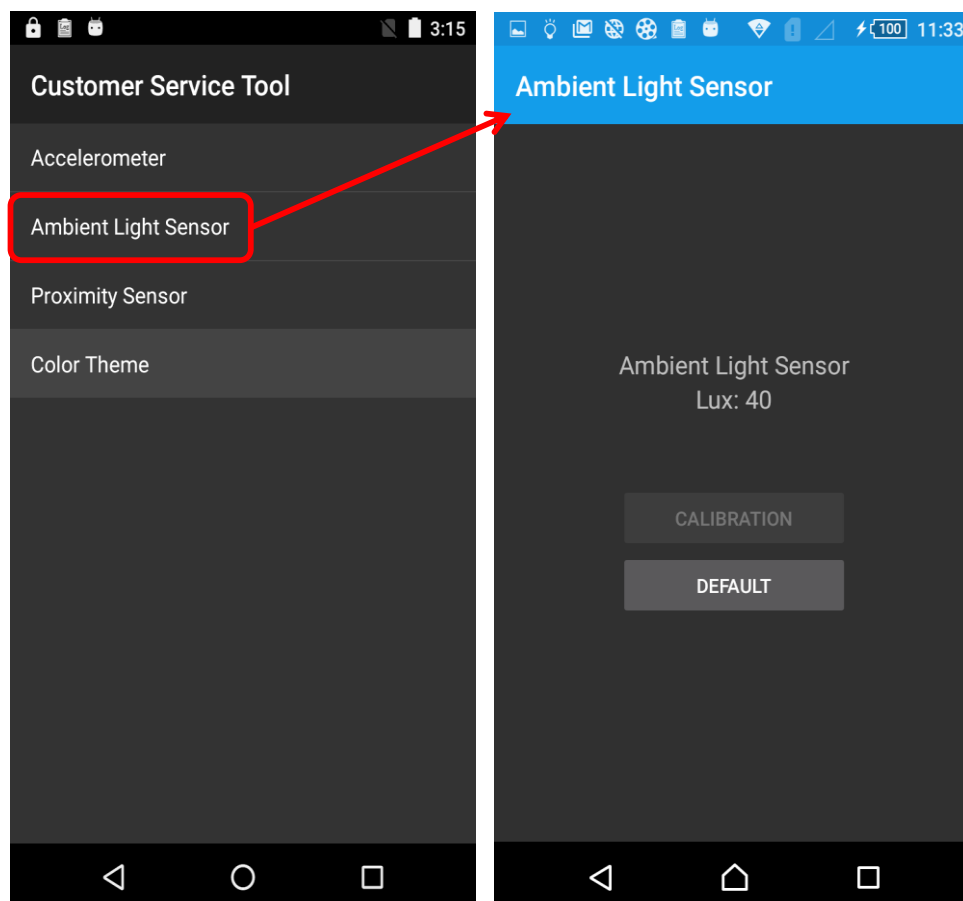


As calibration completed, the result screen will be presented.
Press button "BACK" and back button to return to main screen.



2.3 Ambient Light Sensor

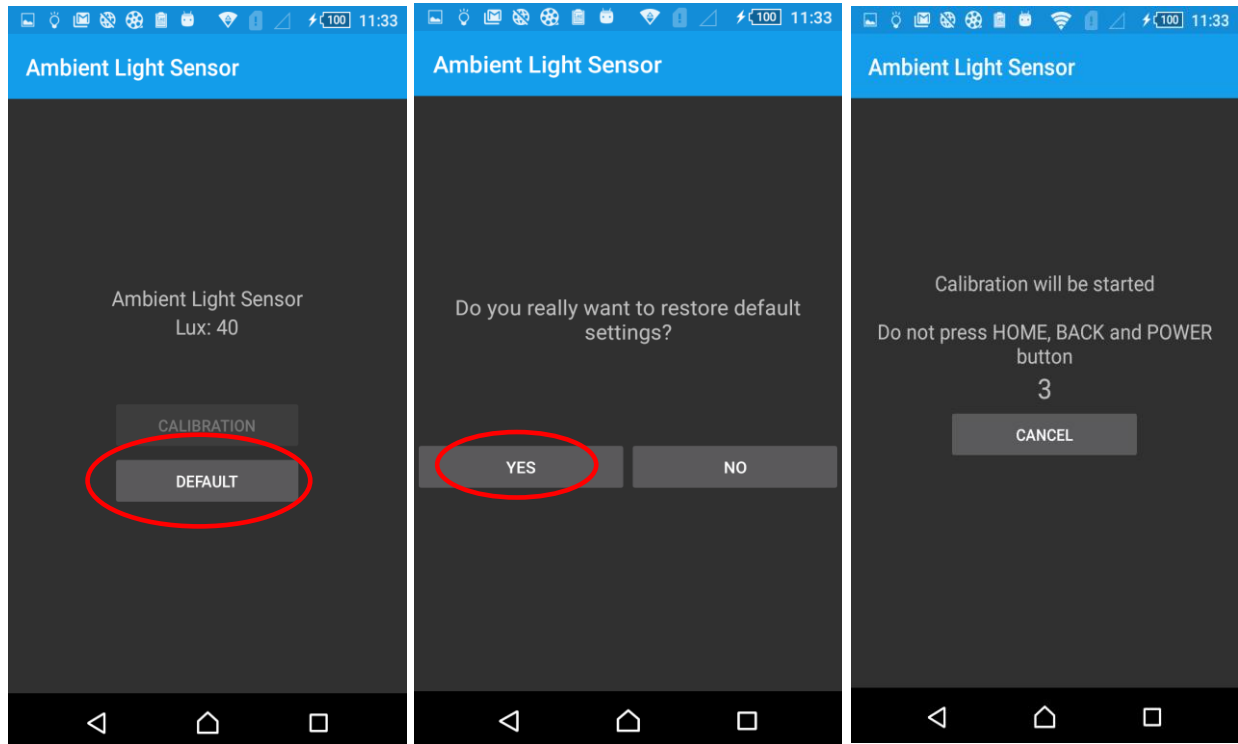
Select “Ambient Light Sensor” item in Customer Service Tool main menu to enter the main page of Light Sensor calibration.



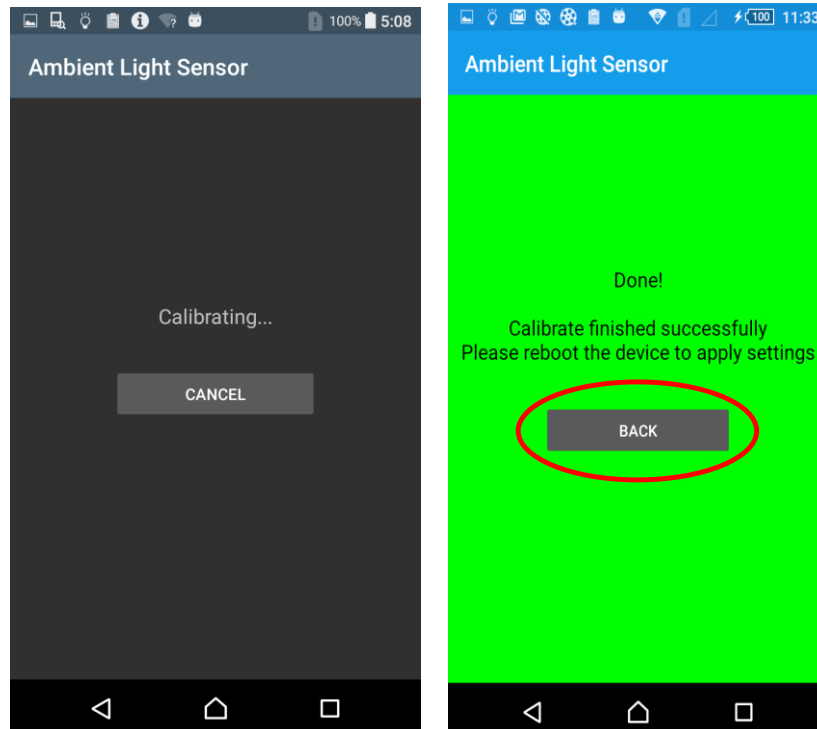
Ambient Light Sensor calibration would require light box instrument which might not be equipped in Service Center, so the calibration option is not applicable; only the option to reset to default calibration value is provided.

Press button "DEFAULT" to enter the confirmation page of calibration reset.

In the confirmation page, press button "YES" and the calibration reset process will be started after 3 seconds countdown.



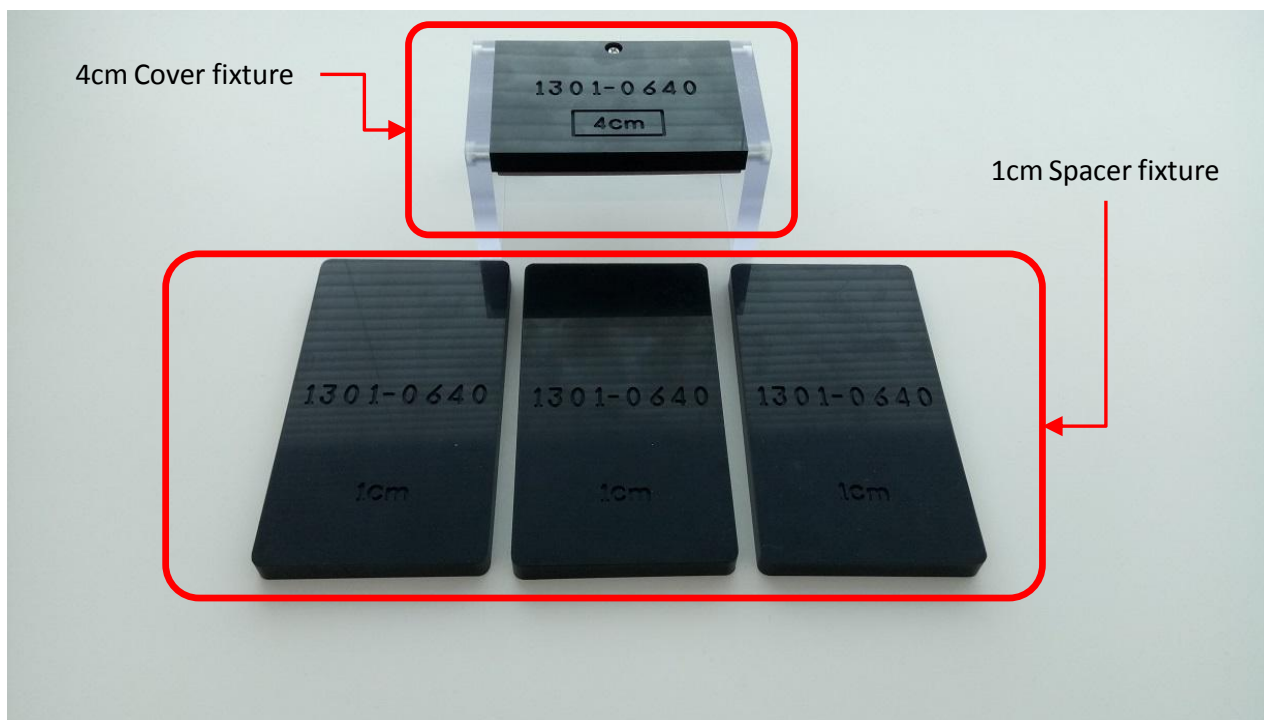
As calibration completed, the result screen will be presented. Press button "BACK" to return to main screen.



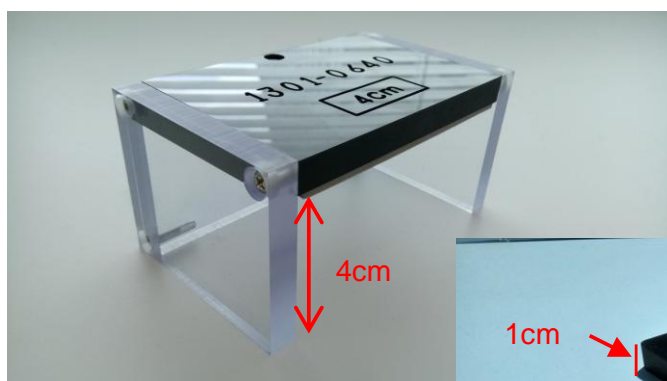
2.4 Proximity Sensor

2.4.1 Proximity Sensor Calibration Fixture

Proximity Sensor Calibration would require proximity sensor calibration fixture which composes of one "4cm Cover" fixture and three "1cm Spacer" fixtures.



Height between Cover fixture ceiling and ground is 4cm. Thickness of Spacer fixture is 1cm.



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Put phone on some spacers and cover them by Cover fixture, and calibrate between phone and Cover fixture's ceiling.

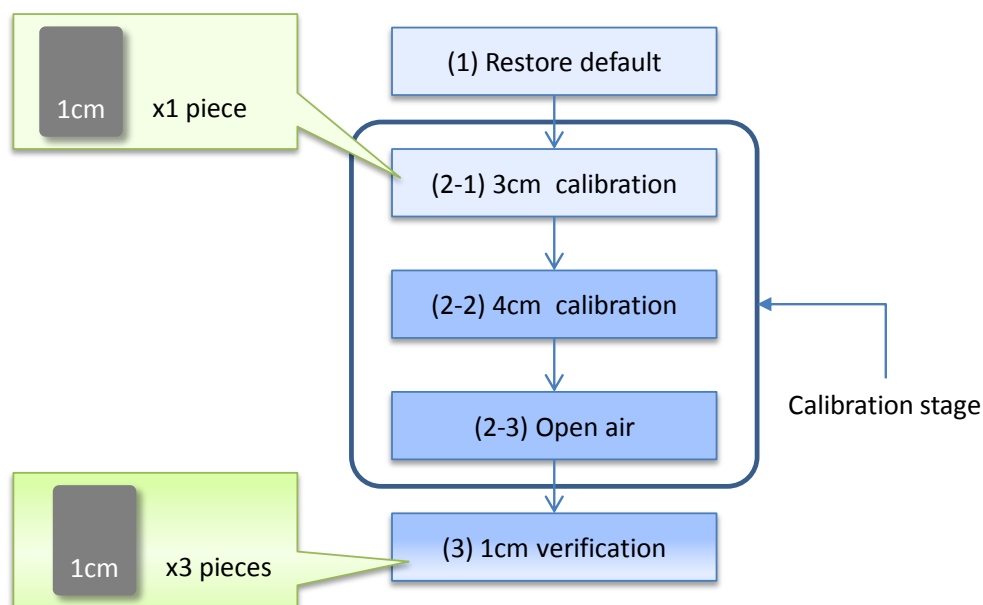


Note: Be careful a direction of Cover fixture. A picture of below left is correct, and right is bad. Cover fixture's surface written a number should be top.

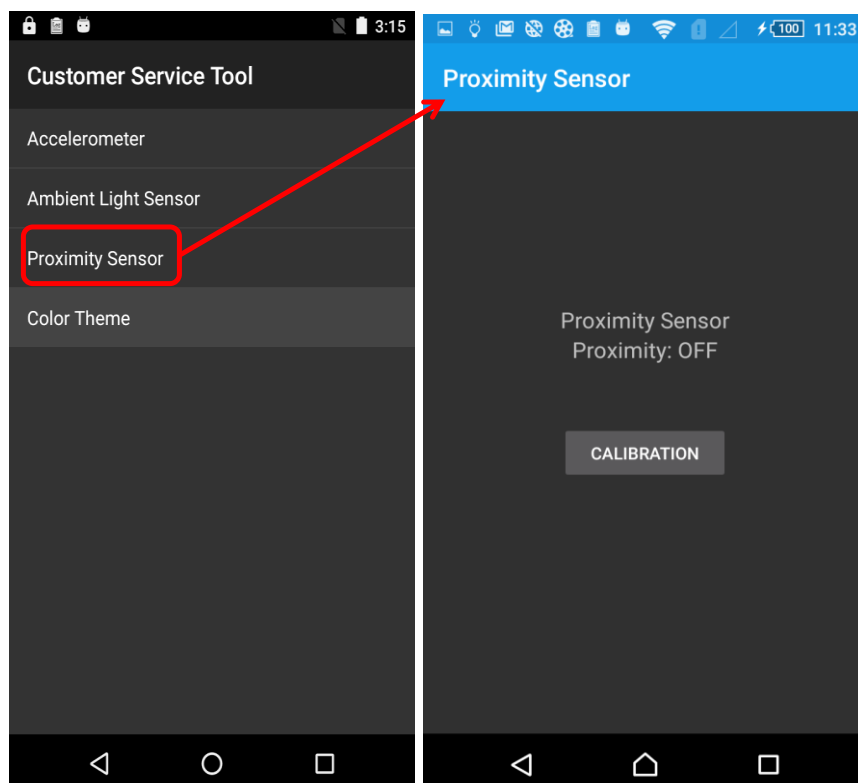


2.4.2 Calibration procedure

The calibration procedure of Proximity Sensor includes 1 stage to restore default settings and 3 stages of calibration and 1 stage to verify.

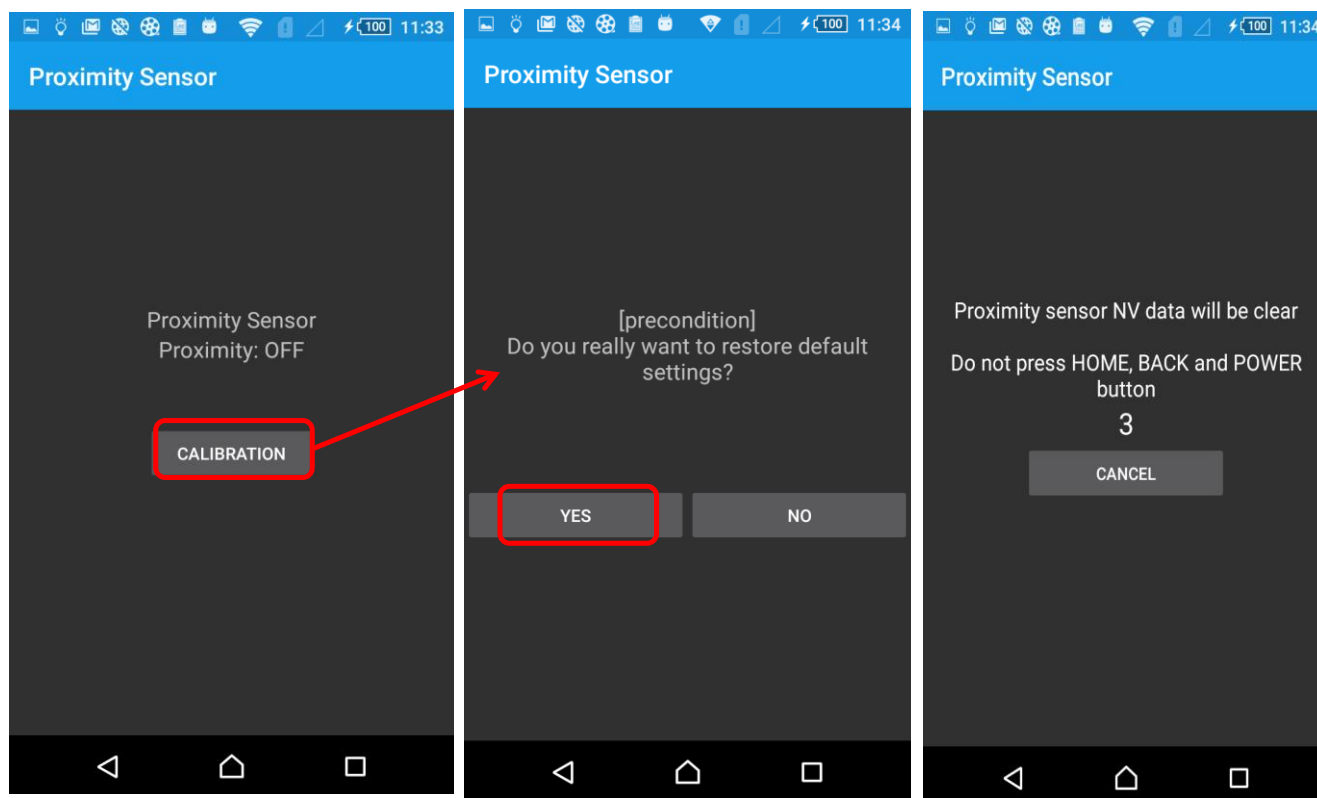


Select “Proximity Sensor” item in calibration main menu to enter the page of Proximity Sensor calibration.

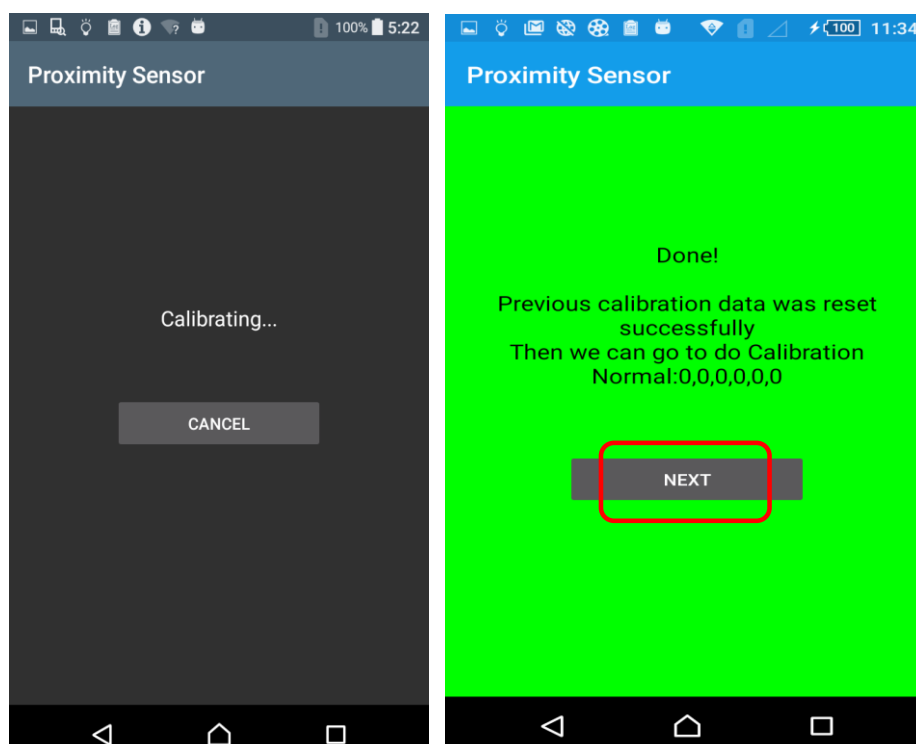


(1) Restore default settings

Press button "CALIBRATION" to enter the confirmation page of the precondition to restore default settings. Press button "YES" and the restore process will start after 3 seconds countdown.



As the procedure completed, the result screen will be presented. Press button "NEXT" to do calibration.

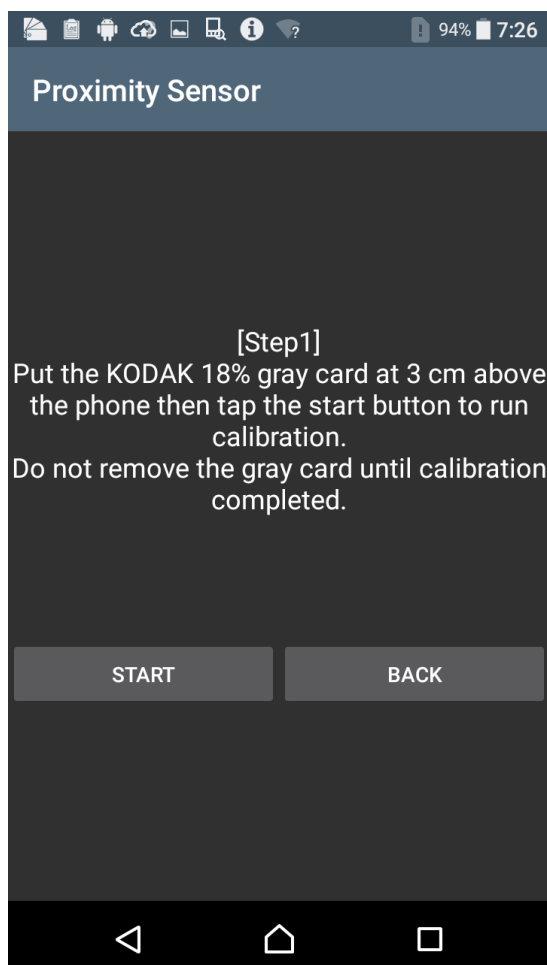


(2) Calibration stage

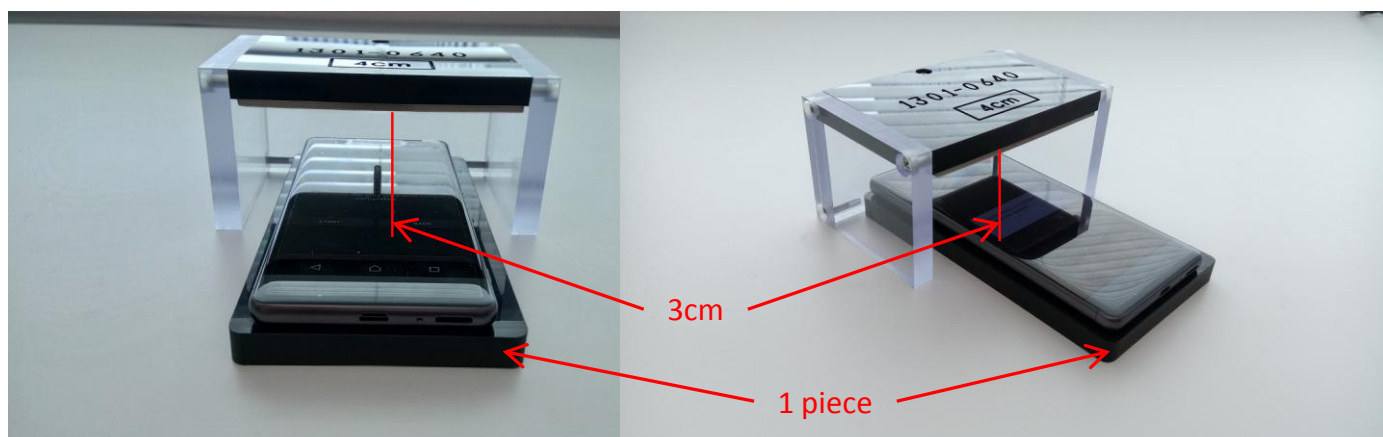
Rev 1

(2-1) 3cm calibration

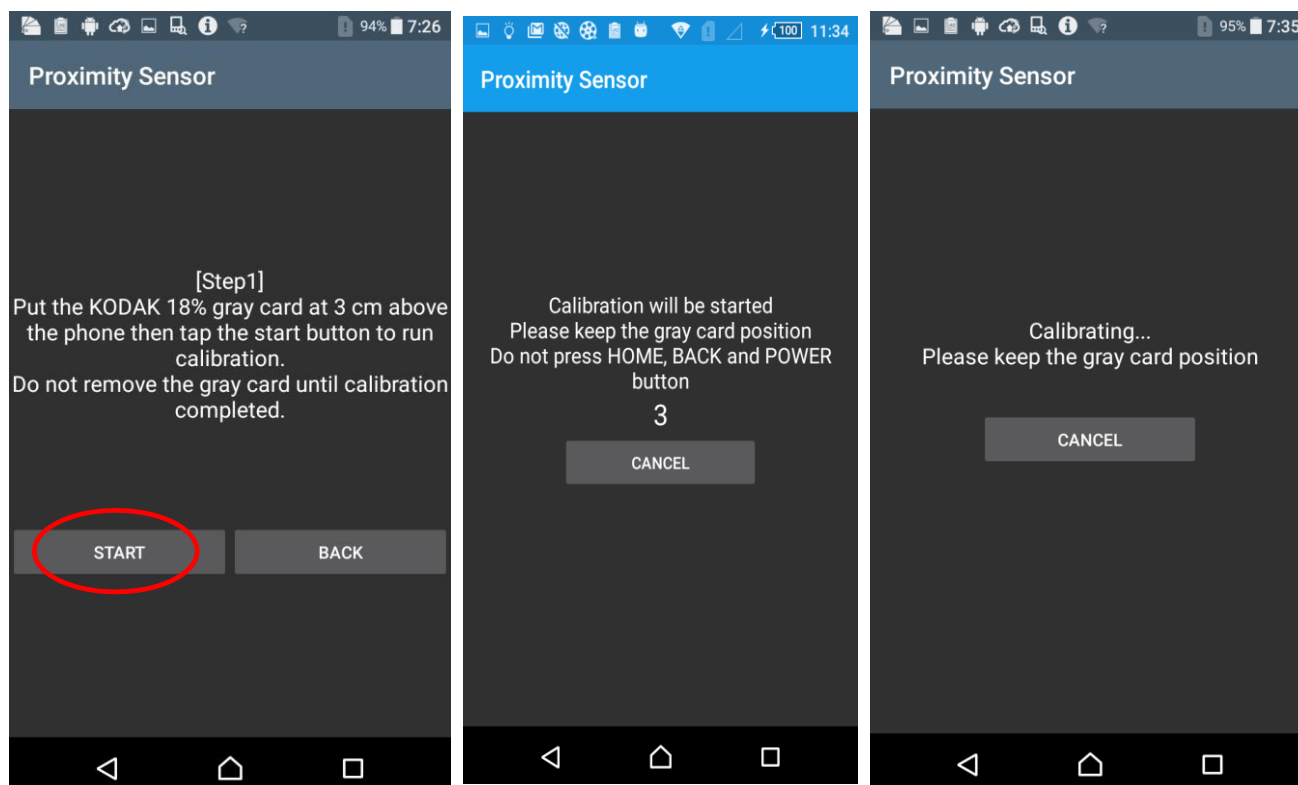
After press button "NEXT" , it will enter the confirmation page of the first stage calibration.



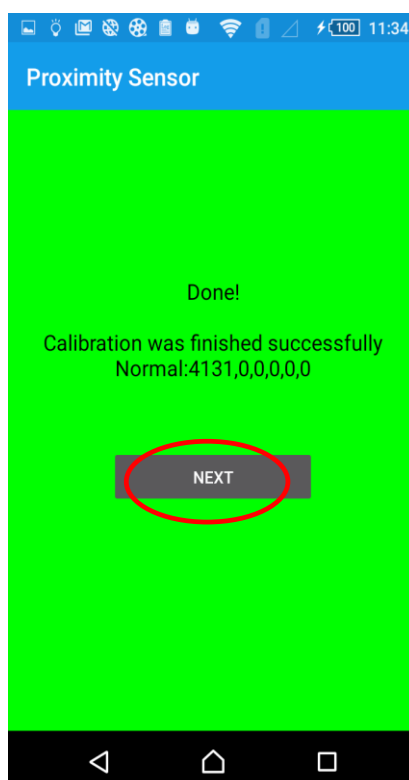
Please put phone on 1 piece of Spacer and cover them by Cover fixture to keep the distance of 3 cm above the phone.



Press button "START" and the calibration process will start after 3 seconds countdown. Please keep the gray card position and height during the calibration procedure.

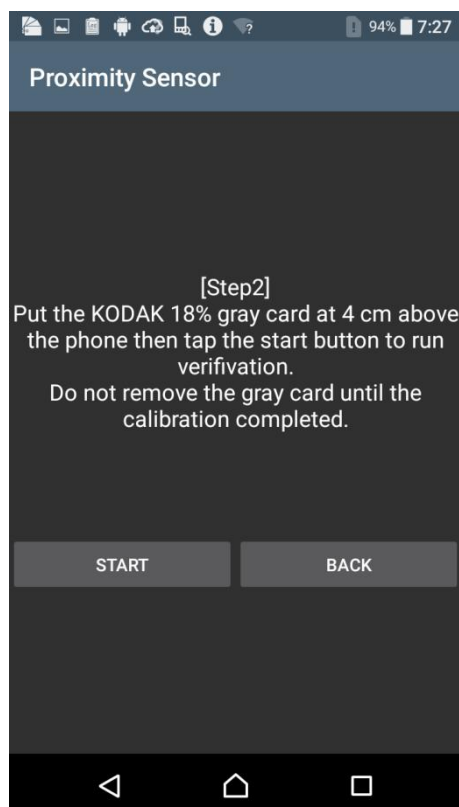


As calibration completed, the result screen will be presented. Press button "NEXT" to continue the next calibration stage.

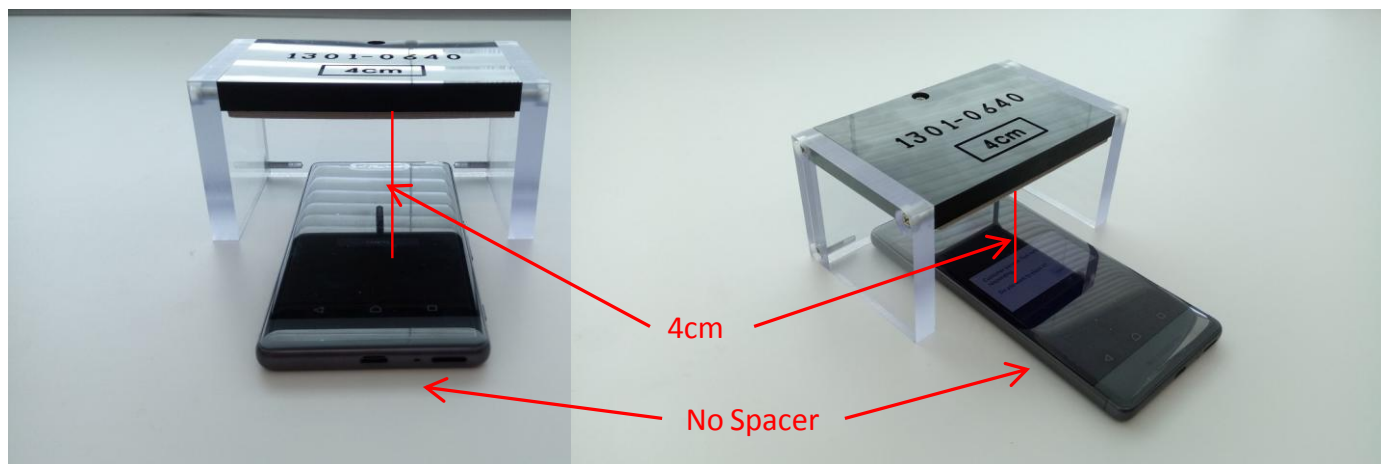


(2-2) 4cm calibration

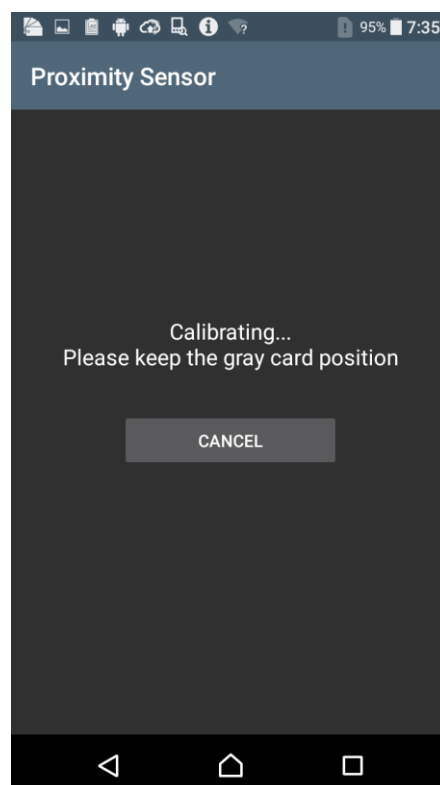
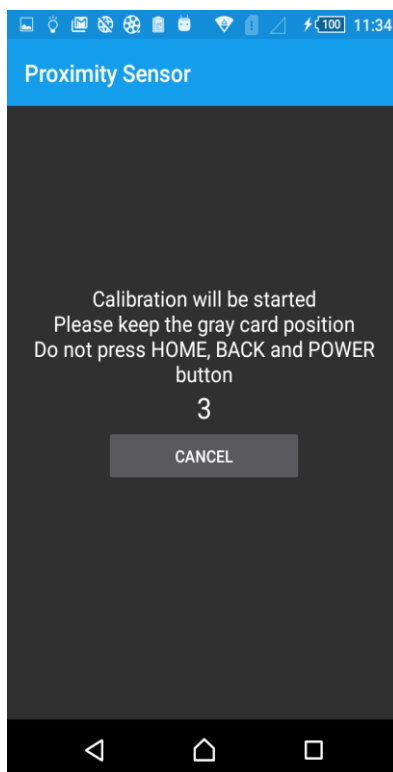
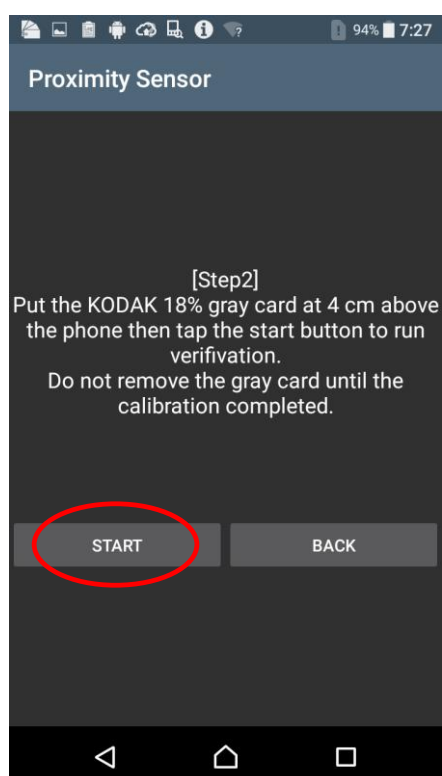
After press button "NEXT" it will enter the confirmation page of the Second stage calibration.



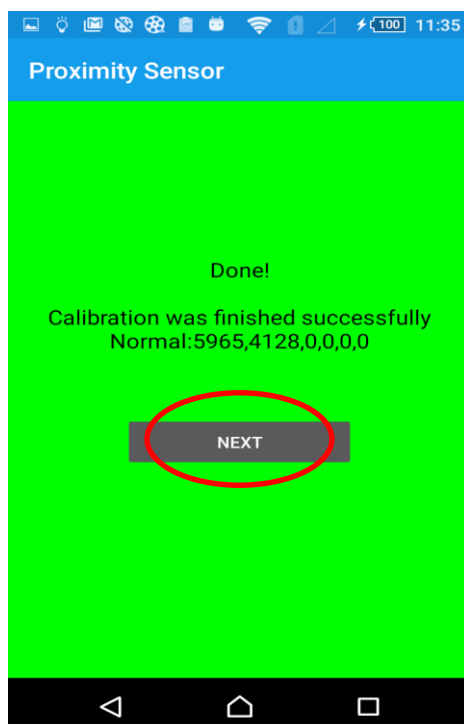
Please put phone on table directly and cover them by Cover fixture to keep the distance of 4 cm above the phone.



Press button "START" and the calibration process will start after 3 seconds countdown. Please keep the gray card position and height during the calibration procedure.

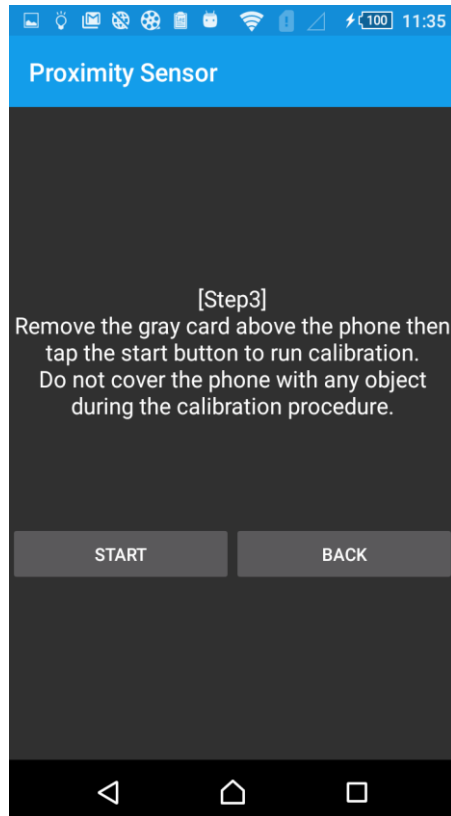


As calibration completed, the result screen will be presented. Press button “NEXT” to continue the next calibration stage.



(2-3) Open air

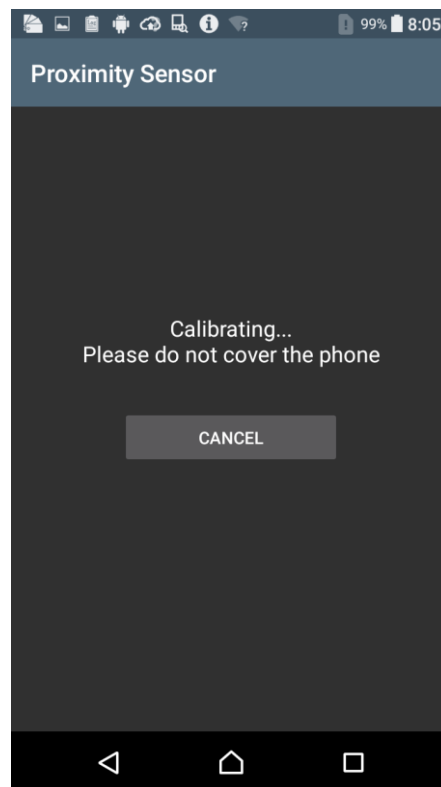
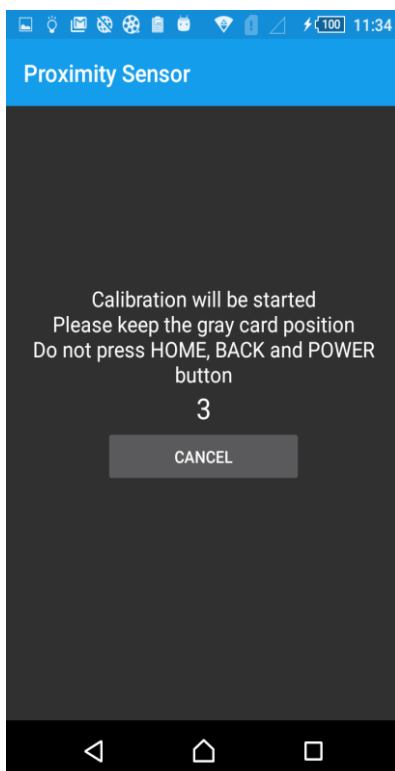
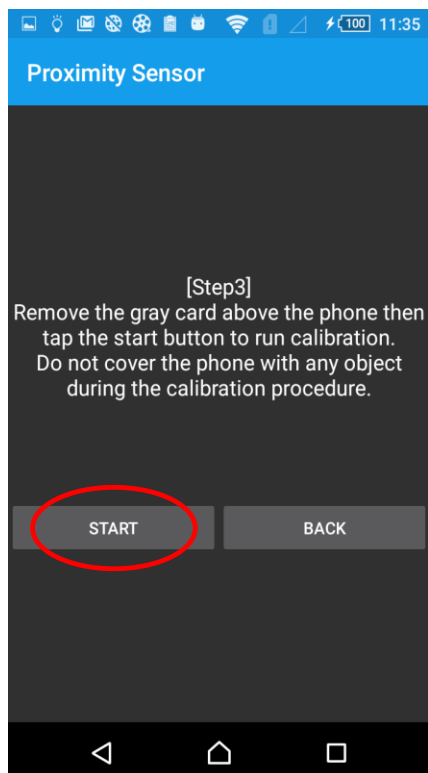
After press button "NEXT" it will enter the confirmation page of the Third stage calibration.



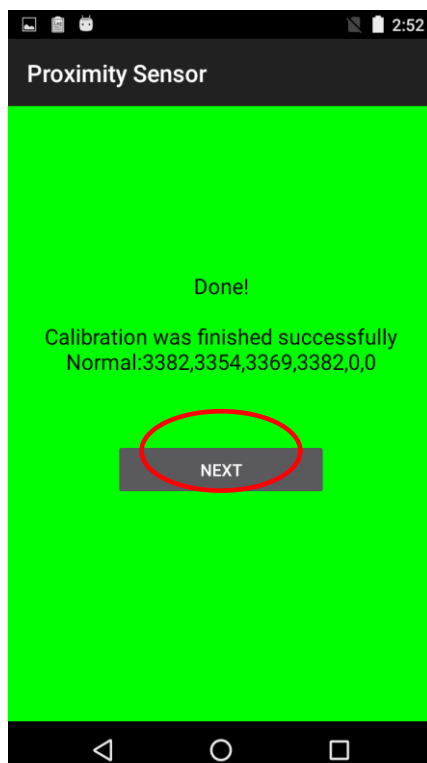
Please remove the Cover fixture above the device.



Press button “START” and the calibration process will start after 3 seconds countdown. Please keep the gray card position and height during the calibration procedure.

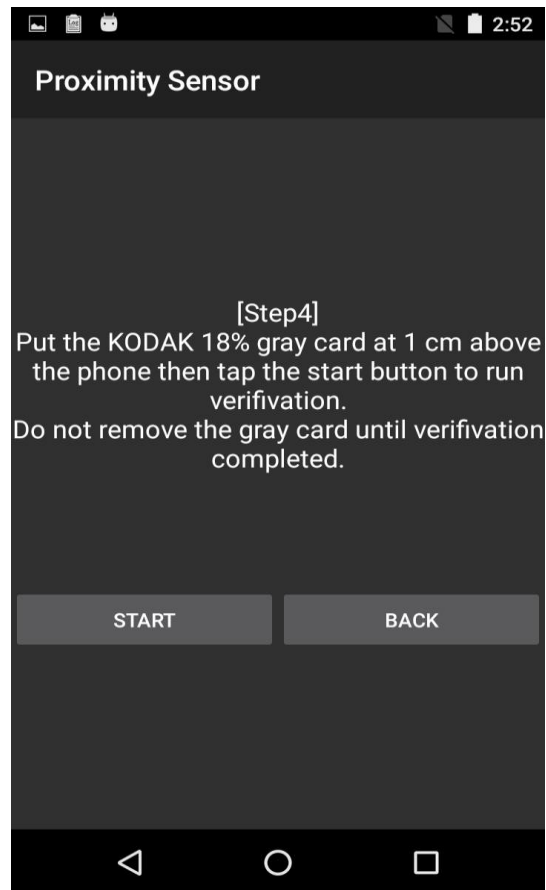


As calibration completed, the result screen will be presented. Press button “NEXT” to continue the next calibration stage.

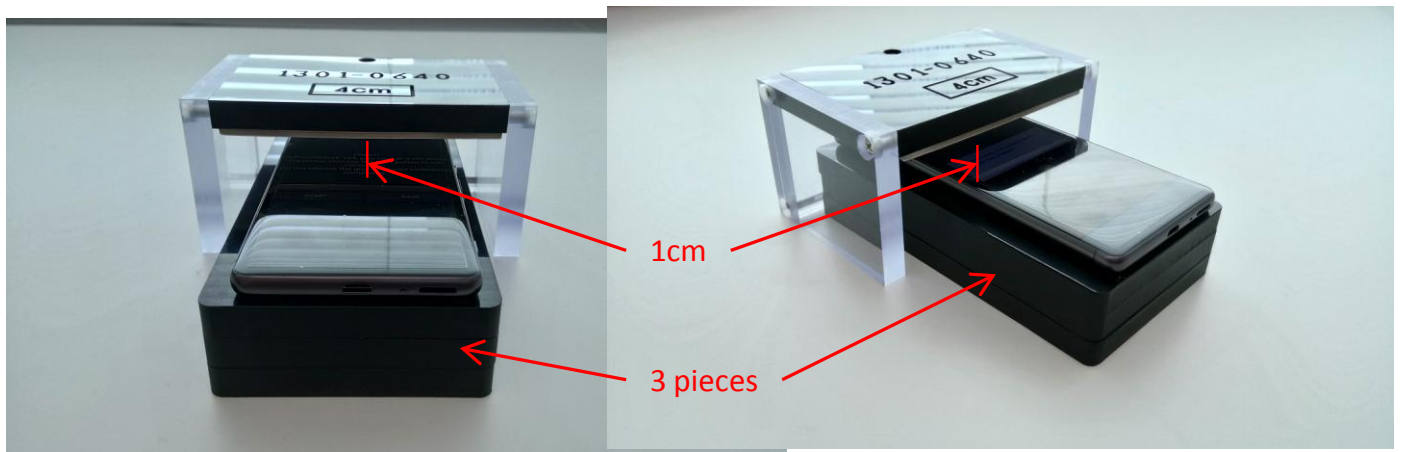


(3) 1cm verification

After Press button "NEXT" to enter the confirmation page of verification.



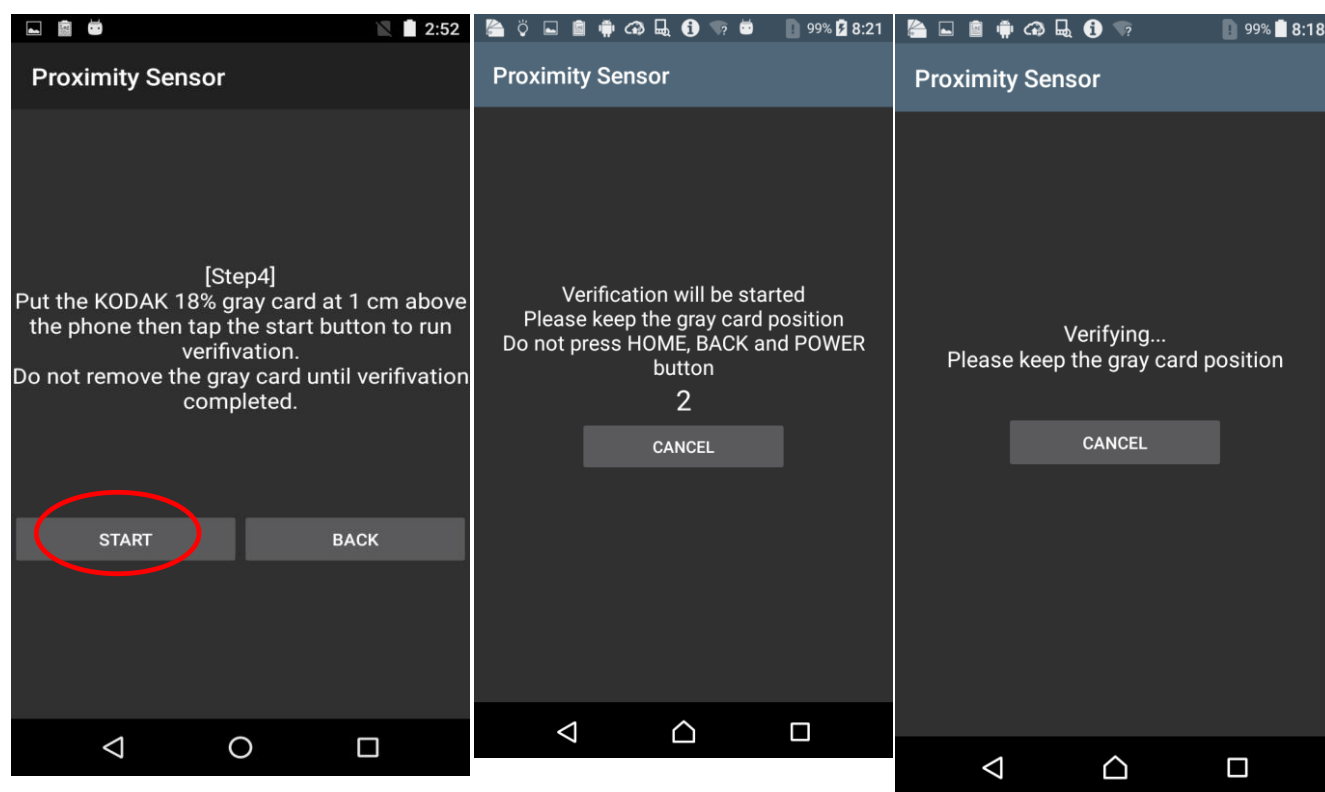
Please put phone on 3 pieces of spacers and cover them by Cover fixture to keep the distance of 1 cm above the phone.



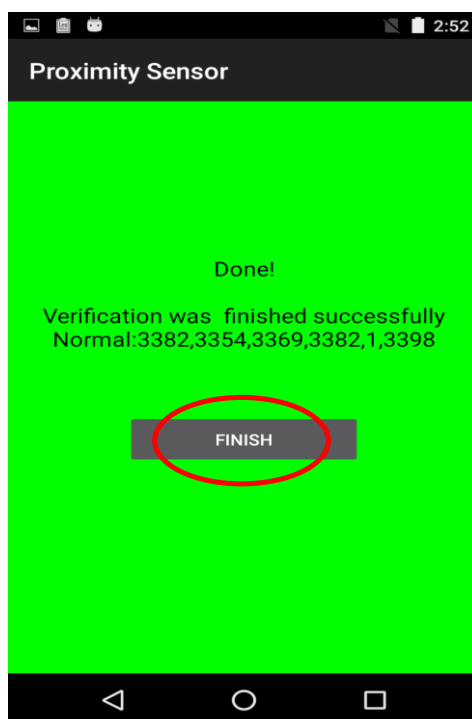
SONY

Test & Calibration (elect)

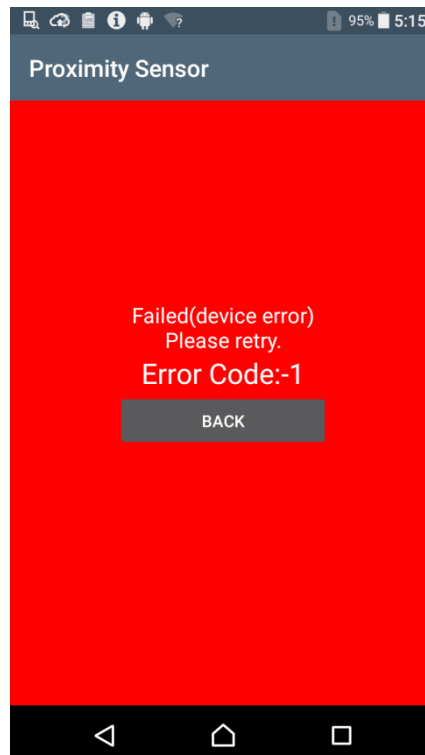
Press button “START” and the calibration process will start after 3 seconds countdown. Please keep the gray card position and height during the calibration procedure.



As calibration completed, the result screen will be presented. Press button “FINISH” to return to main screen.



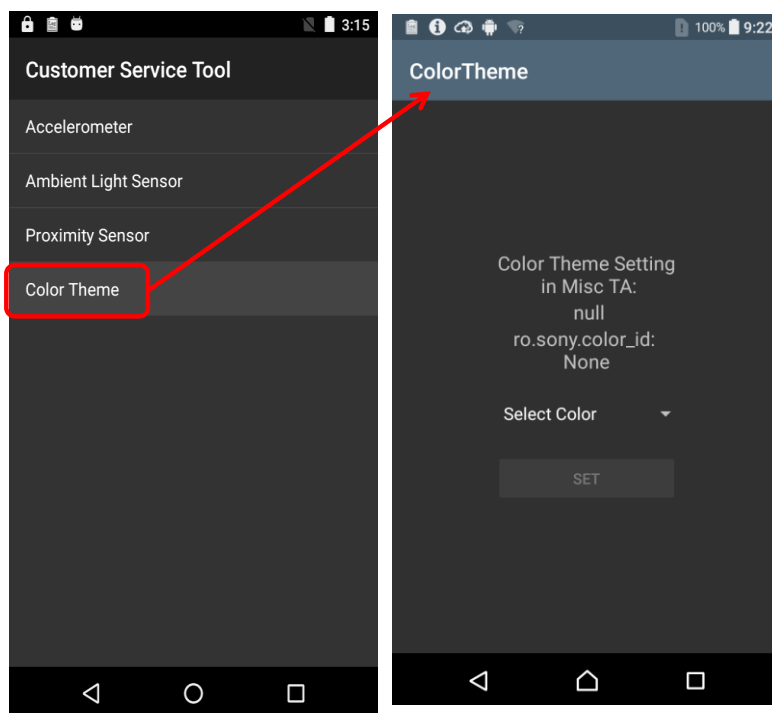
When taking wrong procedure, the error screen will be presented. Press button “BACK” to return main screen and retry the calibration again.



2.5 Color Theme

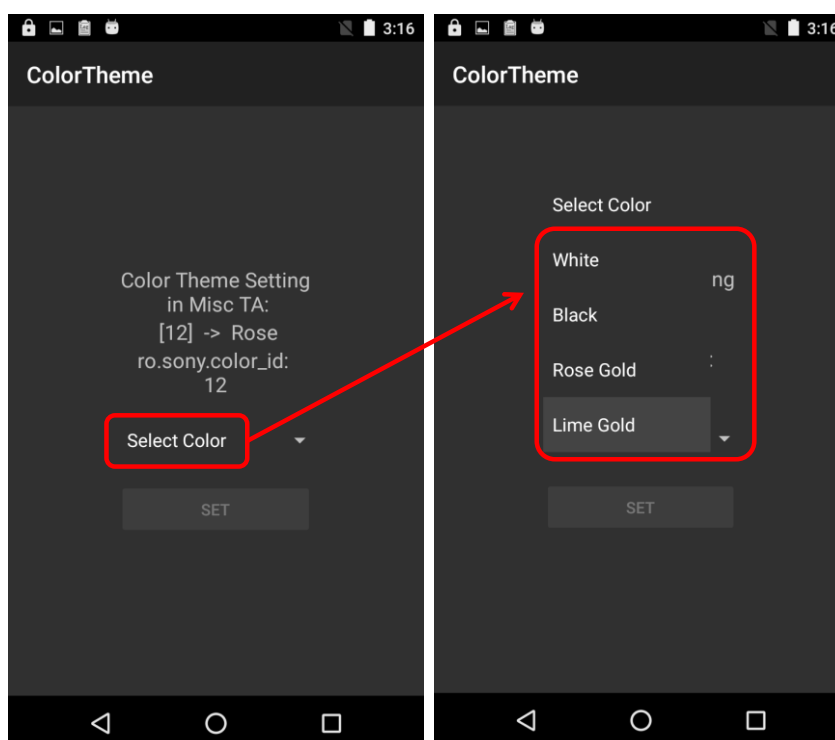
The chapter shows the steps of the default Color Theme modification.

(1) Select “Color Theme” item in Customer Service tool main menu to enter the page of Color Theme.

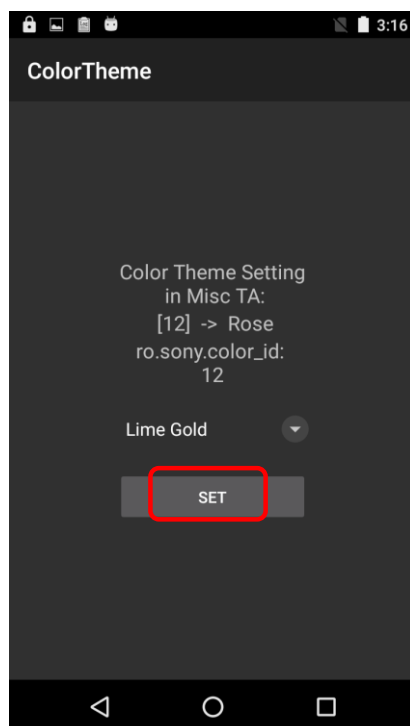


(2) In this page, we can get the Color theme setting in MiscTA and the value of property ro.sony.color_id.

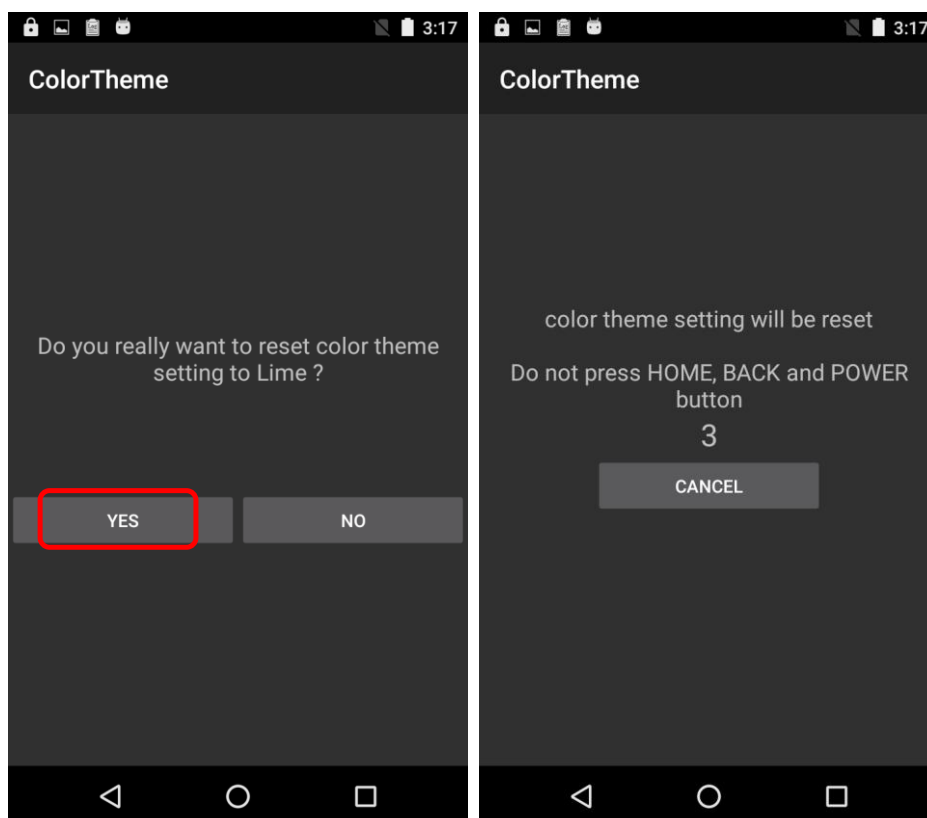
(3) There are several color could be chose in the “Select Color” spin menu.



(4) after choose the color, the “SET” button will be enable, we could touch this button to execute the produce.

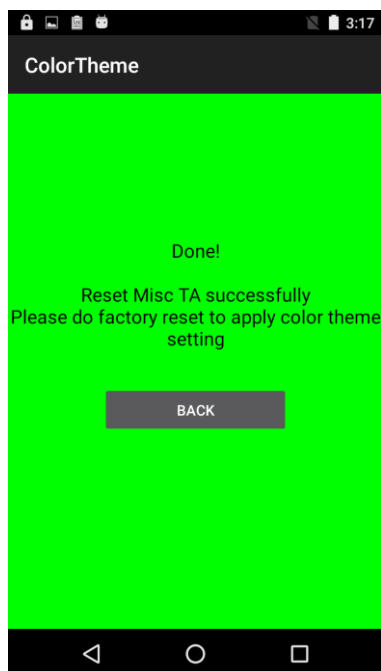


(5) Press button "YES" to enter the confirmation page and the Color Theme setting reset process will be started after 3 seconds countdown

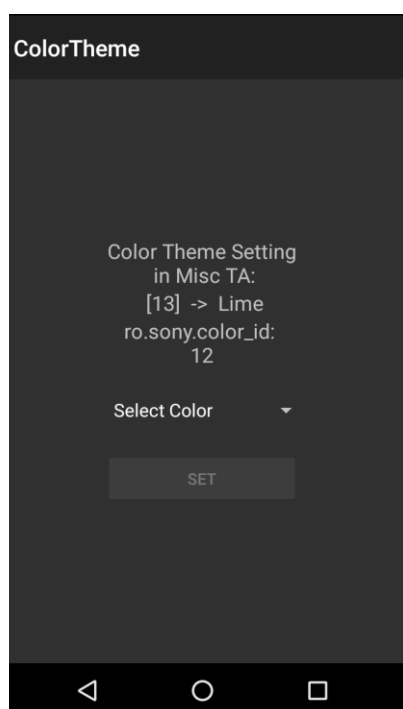


(6) After the procedure completed, the result screen will be presented. Press button “BACK” to return to main screen.

Note: Please remember to do factory reset after change the Color Theme, the SONY color theme mechanism will be running in the first time initialization.



(7) We can enter the “color theme” menu again to check the data in MiscTA be reset to the correct one or not. If the Setting in MiscTA do not match to the property “ro.sony.color_id”, please remember to do factory reset.



3 Revision History

Rev.	Date	Changes / Comments
1	2015-May-19	Initial release