

TCL 403 T431D



Prime Black

Mauve Mist

Warning:

- All features, functions, specifications, and other product information provided in this document, including but not limited to the advantages, aesthetics, price, components, performance, availability and capacity of the product are subject to change without notice.
- TCL will not be responsible for any damage to the product, injury or other safety issues caused by the result of repair by an unauthorized service provider, user repair or unprofessional product repair.
- Any damage to the product resulted from an attempt to repair the product by any person or 3rd party other than TCL authorized service provider will not be covered by warranty.

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1 Precautions

- 1) Use only demagnetized tools specifically designed for small electronic repairs, most electronic parts are sensitive to electromagnetic forces.
- 2) Use only high quality screwdrivers when repairing products. Poor quality screwdrivers can easily damage the heads of the screws.
- 3) Always use genuine spare parts. Parts from third party may not function properly or even cause damage.
- 4) The parts below require calibration to ensure proper function after repair, please contact TCL authorized Repair Center.
Sensors (proximity, fingerprint), dual camera, touch screen panel, speaker, motherboard and more.
- 5) The IPXX degree of protection cannot be guaranteed in the event of repair by the user or by an unqualified person.
- 6) If the device suffered from water/liquid damage, you will have the option to have a repair, but this may exceed the value of the device, depending on level of damage.
- 7) If you need detailed diagnosis, please contact TCL authorized Repair Center.
- 8) Do not remove, damage, heat, short circuit, or disassemble the battery. If you need to replace the battery, camera, screen or motherboard, go to a TCL authorized Repair Center for repair.
- 9) Before any repair, backup personal information and important data, and then proceed with the repair.
- 10) Many semiconductors parts inside the device are sensitive to electrostatic discharges that can cause unrecoverable damages on the parts. Setup and stay in an Electrostatic Protected Area (EPA) to avoid electrostatic discharge before opening the device for repair.
- 11) Before repairing the device, you must be absolutely certain that the device is turned off.
- 12) Repair the device in a safe/explosion-proof environment. If the device is damaged, emits smoke or if you smell a burning odor, stop repairing/using the device immediately, use a fire extinguisher or fire-proof box, and contact TCL.
- 13) When removing the back cover, be careful not to damage the product, especially the battery.
Recommended safety equipment: Glasses/Gloves/Mask, etc.
- 14) Before assembly, make sure that there are no screws or foreign objects around the battery.
- 15) Before assembly, make sure that there are no abnormalities before reattaching the back cover.

2 General Product Information

Features/Hardware	Description
Design	Dimensions: 159.2*78.2*9.6mm; Weight: 182g
System	TCL UI 4.0; Android 12
Processor	Chipset: MT6761; CPU: 4 x A53 @ 2.0GHz; GPU: IMG GE8300 @ 660MHz
Memory & Storage	2GB RAM +32GBROM; Support micro SD cards up to 512GB
Display	6" FW, TFT-IPS
Rear Camera	8 MP rear camera: AF, 1/4", 1.12um, F2.0, field of view 76.9°, 1P len.
Front Camera	2MP front camera: FF, 1/5 ", 1.75µm, F2.8, field of view 61.4°, 2P lens
Battery	3000mAh (standard) Li-ion
Connectivity	2G bands: GSM B3/8 3G bands: UMTS B1/8 4G bands: LTE B1/3/7/8/20/28 802.11b/g/n Wi-Fi Wi-Fi Direct Mobile hotspot Bluetooth 5.0, Micro USB Cable Dual SIM+T-Flash card
Sensors	GPS: support BDS/GPS/Galileo, with A-GPS Accelerometer, proximity sensor
Accessories	5V1A Charger, Micro USB Cable, Quick Guide / PSI

3 Maintenance preparation

3.1 Handset with at least 50% battery charges

3.2 Supported Micro SD card and SIM card, 5V1A Charger, Micro USB Cable

3.3 PC with below configurations to do software update by using PC tool.

- CPU: Equal to Pentium 1.6 GHZ or above
- RAM: 4GB or above
- Hard Disk: 10GB or above
- Operation System: Win7/Win8/Win10
- USB port
- Internet connection with minimum internet speed of 8Mb/s

3.4 Backup the user data before repairing. There are two ways below for your reference.

Method 1: You need to add your Google account details first. Go to “Settings”-> “System”-> “Backup” -> Touch “Turn on” in the window which has now opened ->Touch “Back up now.”

* App data, SMS text messages, Device settings, Call history, and Contacts will be backed up.

Method 2: You can back up your data to another phone via the “Switch Phone” app, and then recover data when your phone has been repaired.

Swipe up in the home screen to find the search bar->enter “Switch Phone” ->Transfer the contents by following the instructions.

4 Factory Reset

Factory reset will reset your phone to restore it to its factory settings. This will delete all data including files and downloaded apps. Please backup the user data before doing factory reset.

4.1 Remove Google account before doing factory reset

If Google account is not removed before doing the factory reset, it is not possible to setup the device with another Google account at initial setup after the factory reset and it will require you to login your previous signed-in Google account. It is recommended that you log out of the Google account. Follow the below steps to remove your Google account from the device.

You can go to "Settings"-> "Accounts"->touch your google account-> "REMOVE ACCOUNT"->touch "REMOVE ACCOUNT".

4.2 Factory Reset

You can follow the below steps to perform factory reset when the phone is powered on.

Go to main menu -> "Settings"-> "System"-> "Reset"->"Erase all data (factory reset)"->Touch "Erase all data" in the open window ->"Erase all data".

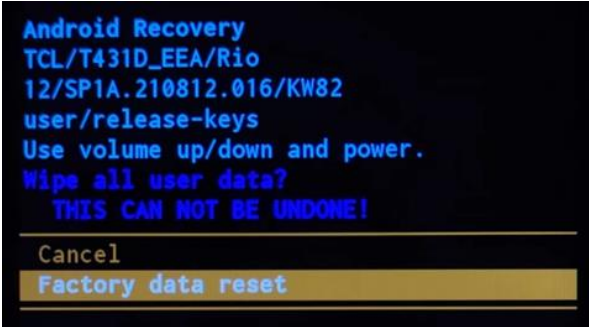
4.3 Recovery mode

How to use: Long press "Power" Key + "Volume up" key in power off mode to enter recovery mode.

When to use: When you cannot start your handset or when there is something wrong during switch on or when cannot charge.

Consumer personal data format: It will format consumer data, and the memory and settings of your product will return as released from factory.

Click-through steps:

<p>1) Power off the device, long press “Power” Key + “Volume up” key until the LCD lights on;</p>	<p>2) Press “Volume” key to select “Wipe data/factory reset” and press “Power” key to confirm;</p>
 <pre> Android Recovery TCL/T431D_EEA/Rio 12/SP1A.210812.016/KW82 user/release-keys Use volume up/down and power. Reboot system now Reboot to bootloader Enter fastboot Apply update from ADB Apply update from SD card Wipe data/factory reset Wipe cache partition Mount /system View recovery logs Run graphics test Run locale test Power off </pre>	 <pre> Android Recovery TCL/T431D_EEA/Rio 12/SP1A.210812.016/KW82 user/release-keys Use volume up/down and power. Reboot system now Reboot to bootloader Enter fastboot Apply update from ADB Apply update from SD card Wipe data/factory reset Wipe cache partition Mount /system View recovery logs Run graphics test Run locale test Power off </pre>
<p>3) Select “Factory data reset” and press “Power” key to confirm;</p>	<p>4) Select “Reboot system now” and press “Power” key to confirm.</p>
 <pre> Android Recovery TCL/T431D_EEA/Rio 12/SP1A.210812.016/KW82 user/release-keys Use volume up/down and power. Wipe all user data? THIS CAN NOT BE UNDONE! Cancel Factory data reset </pre>	 <pre> Android Recovery TCL/T431D_EEA/Rio 12/SP1A.210812.016/KW82 user/release-keys Use volume up/down and power. Reboot system now Reboot to bootloader Enter fastboot Apply update from ADB Apply update from SD card Wipe data/factory reset Wipe cache partition Mount /system View recovery logs Run graphics test Run locale test Power off </pre>

5 Software Update

It is suggested to upgrade the handset software to latest version for better performance. Before upgrade, please remember to backup your data and keep your phone fully charged.

5.1 Software update by FOTA

Firmware-Over-The-Air ("FOTA") is a way in which the firmware of a mobile device is updated wirelessly by the device's manufacturer. Firmware runs in the background without any input from the user, to make sure that the device's hardware runs properly. Head to your device's "Settings"-> "System"->"Updates" or "System Update"

5.2 Software update by using Mobile Upgrade tool

- 1) Download the corresponding SW upgrade tool **Mobile_Upgrade_S_Gotu2_v1.3.2** from website:

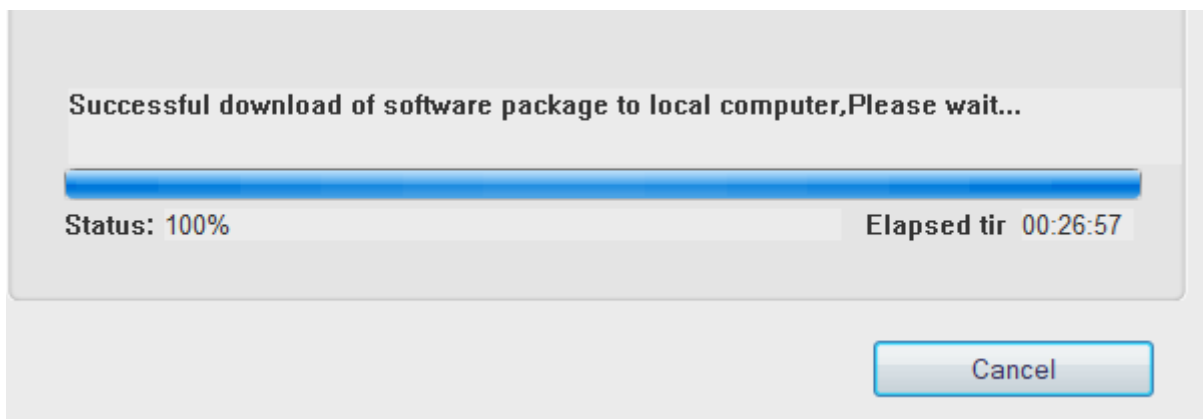
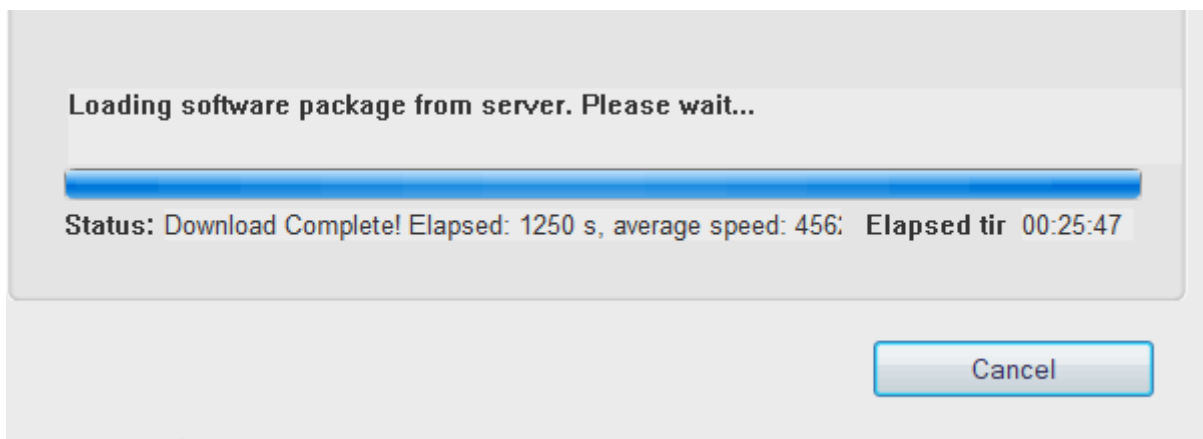
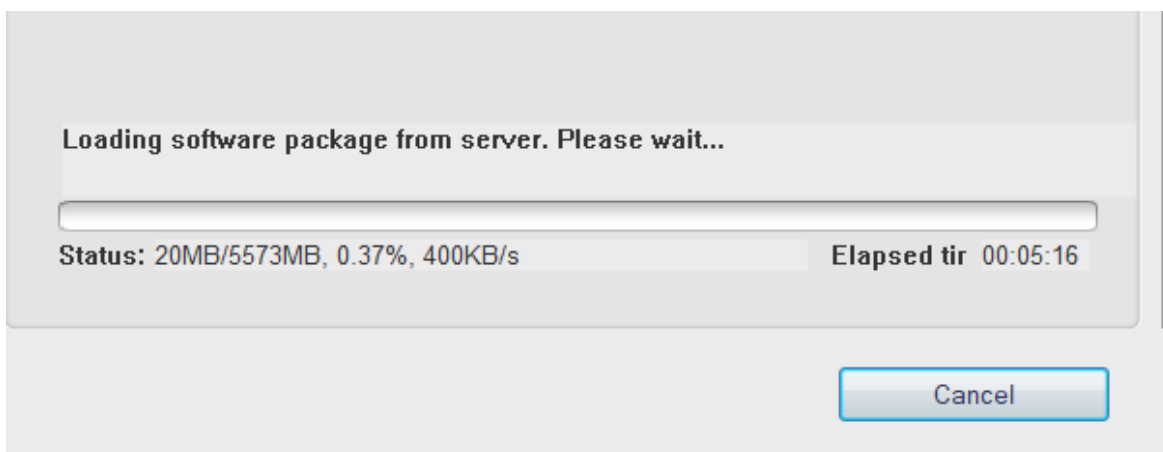
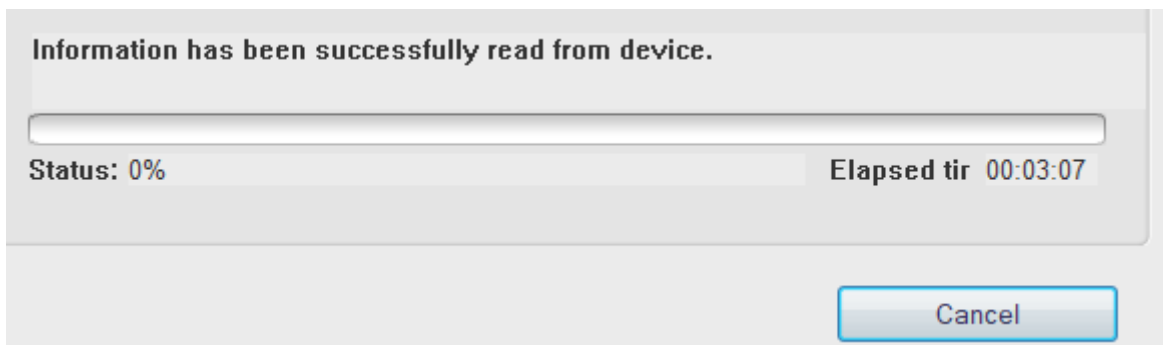
<https://www.tcl.com/global/en/service-support-mobile/tcl-403.html>

SOFTWARE

Mobile_Upgrade_S_Gotu2_v1.3.2



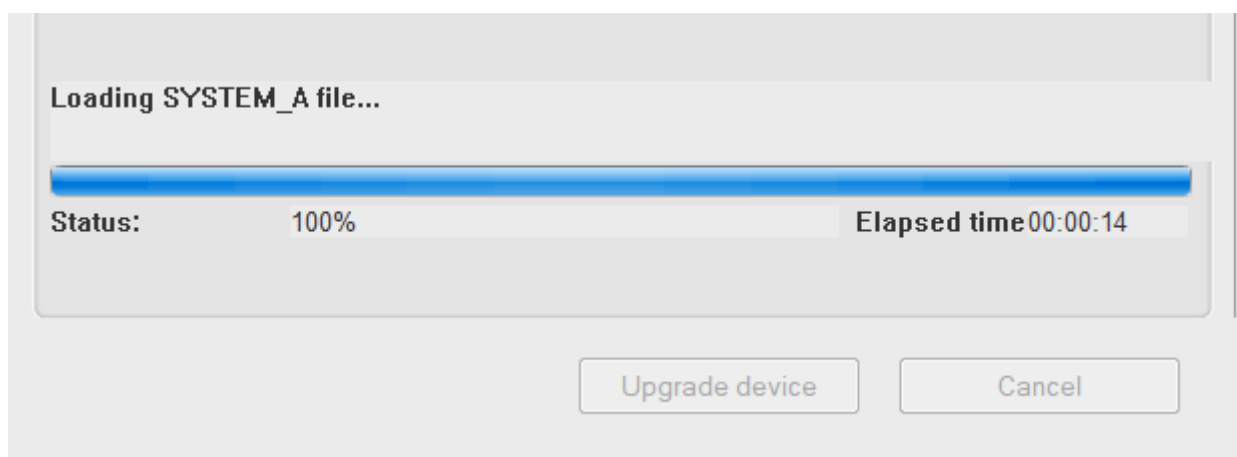
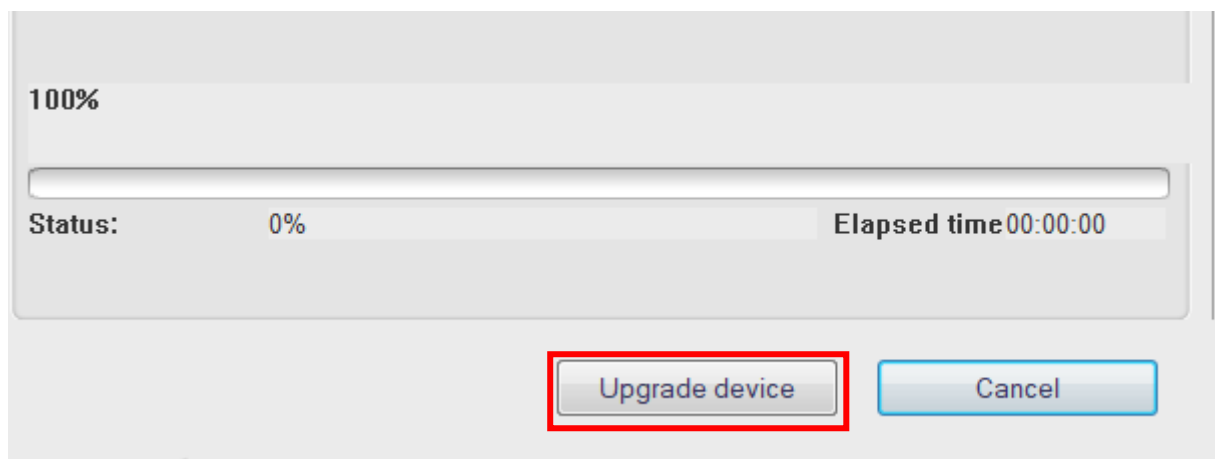
- 2) Open the download Mobile_Upgrade_S_Gotu2_v1.3.2 Setup.exe file and choose the language, install the tool according to the prompt.
- 3) After finish install the tool, click "Finish" and restart your computer.
- 4) Open the tool, choose the language, select the model "T431", click "Start"-> "Next" ->click "Yes"->Power off your phone and connect it to computer via USB cable and waiting for loading software package.

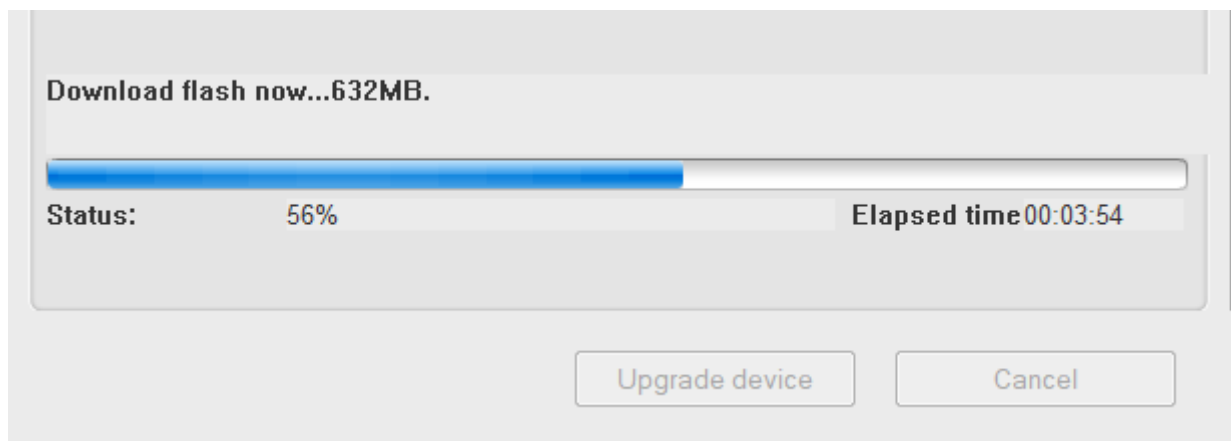


- 5) Click “OK” and disconnect your phone from USB cable when the tool pops up the prompt “Please disconnect your device from the USB cable to proceed”.

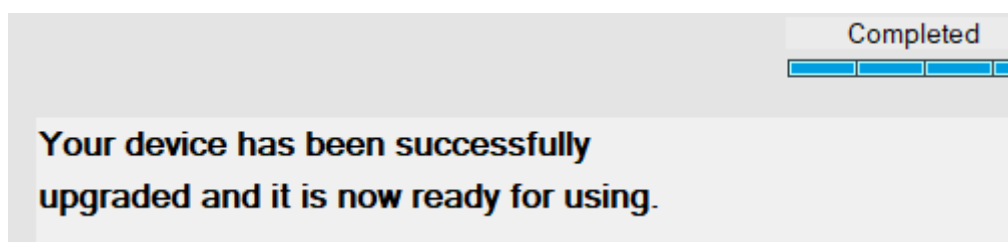
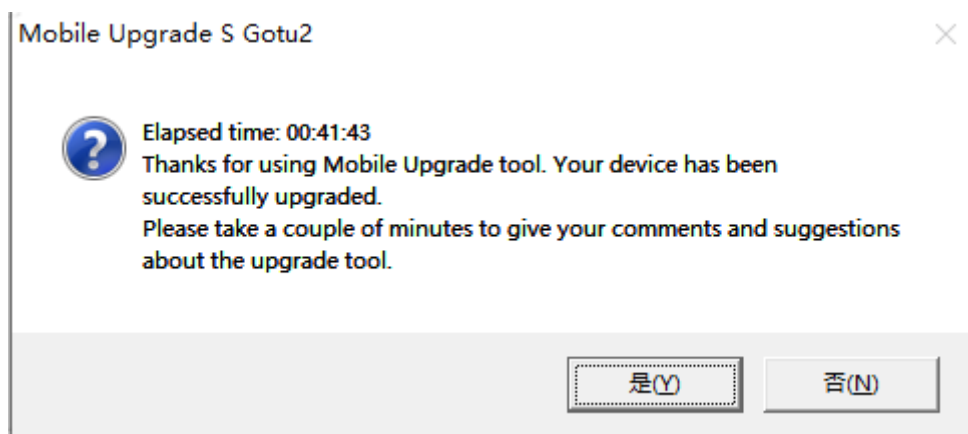


- 6) Click “Upgrade device” and connect your powered off phone to computer, waiting for upgrade.





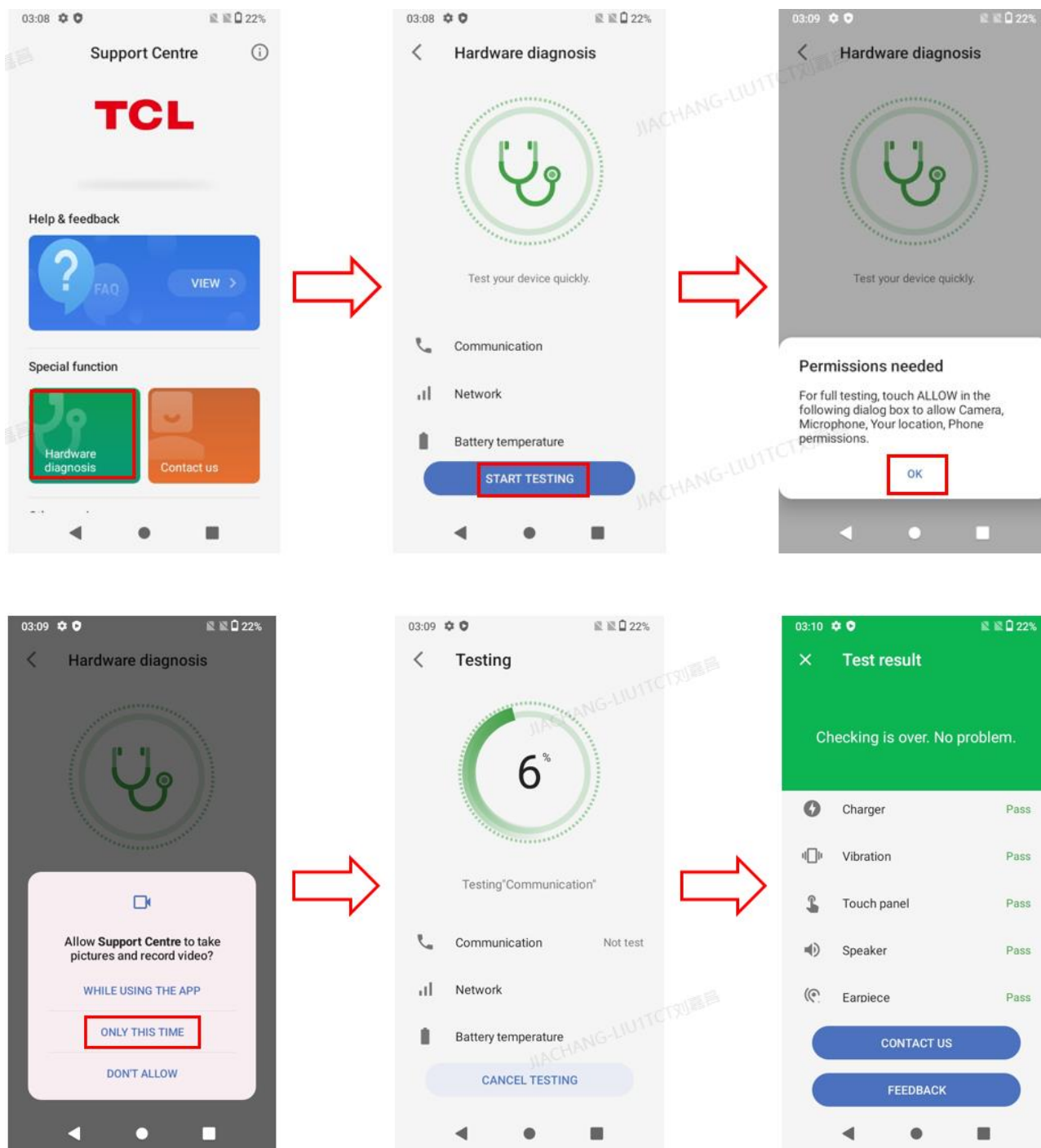
7) Upgrade successfully.



6 Function Test with Support Centre

- 1) Check that the Nano SD card are inserted correctly.
- 2) Power on the product to launch the auto test.
- 3) If the product displays "input NCK code", this means the software is Network locked or SIM locked, and can only be used with dedicated SIM card hence use the relevant SIM card or enter the phone NCK code if available.
- 4) Open the "Support Centre" app->Click "AGREE" -> "Hardware diagnosis"->"START TESTING" ->Authorize the permissions required for diagnostics->Follow the instructions to test.

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7 Troubleshooting

7.1 What should I do if my device reboots by itself?

- a) If the issue appears occasionally, it may be caused by anomalies in a file. It is recommended that you continue to use the device normally.
- b) Check if the issue occurs during charging. If yes, we recommend trying the official charger and data cable.
- c) If the issue occurs while using a third-party app, make sure the app is compatible with your device and Android version. Try uninstalling the third-party app.
- d) If the issue occurs while using the built-in app, try to reset or update your device.

7.2 What should I do if my device system lags or freezes?

- a) Try to restart your device.
- b) Charge your device until the battery level is at least 20%.
- c) Too many apps running in the background or the system cache not being cleared may cause a system lag. Touch the Menu key at the bottom corner of screen to view recently used applications. Touch "Clear all" to close the tasks.
- d) Uninstall unused apps from time to time to ensure that your device has sufficient storage space.
- e) If the issue occurs in third-party apps, please uninstall the third party apps responsible.
- f) If you are playing a game, watching online video or listening to online music, your device may lag or freeze because of a poor network connection. Enable Airplane mode for a few minutes, then disable it and check your network connection again. Alternatively, move to a location with a better network connection
- g) Try to reset or update your device.

7.3 What should I do if my device cannot charge or charges slowly?

- a) Check if there is any visible damage to the charger USB, the charger itself or the charging port of your device. If yes, back up your data and take your device and proof of purchase to our repair center to get more professional technical assistance.
- b) Charge the device with a TCL official charger for at least 30 minutes, then try again.

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- c) Verify whether there are any third-party power management software apps downloaded. If so, please uninstall these.
- d) Please don't use the device for a long time while it is charging.
- e) Try to reset or update your device.

7.4 What should I do if my device's battery drains under normal use?

- a) Check if the device is in a high or low temperature environment. If yes, we advise you to use it only under normal operating conditions.
- b) Deactivate Bluetooth, Wi-Fi, or GPS when not in use.
- c) The battery drains quickly when playing games and watching videos. This is normal when running large games for a long time or watching videos.
- d) Too many apps running in the background or the system cache not being cleared may cause battery draining. Touch the Menu key in the bottom corner of the screen to view recently used applications. Touch "Clear all" to close the apps.
- e) Try to reset or update your device.

7.5 What should I do if my device auto powers off?

- a) Power off your device and charge the device with a TCL official charger for at least 30 minutes, then try to power on again.
- b) If the issue occurs while using a third-party app, make sure the app is compatible with your device and Android version. Try uninstalling the third-party app.
- c) Try to reset or update your device.

7.6 What can I do if my device heats up?

A warning or sensation of heat in the device is the normal consequence of the CPU handling excessive data, which makes the battery warm. It is not harmful to the battery or device even if the device feels hot.

Use the following actions to make your device return to its normal temperature:

- a) It is suggested not to expose your phone in sunshine for a long period of time;

- b) Close large power consumption applications, such as music, chatting applications, GPS application, 3D gaming, video streaming etc.
- c) Reduce the brightness of the screen to lower the temperature.
- d) Avoid using your device while charging.
- e) Avoid using a protective case that does not dissipate heat. Remove your protective case if your device heats up.

7.7 What should I do if my device cannot power on?

- a) Charge the device with a TCL official charger for at least 30 minutes, and then try to power on again.
- b) Press and hold the power key for 10 to 15 seconds until the device vibrates, to perform a forced re-boot.
- c) Try to reset or update your device.

If the previously described options do not help, you can contact our hotline or repair center to get more professional technical assistance. Find the hotline or repair center information from the TCL website or APP “Support center”.

8 Contact of TCL hotline and service centers

If you are looking for official professional repair, please visit [HOTLINE & SERVICE CENTERS \(tcl.com\)](https://tcl.com) and search for the contact in your country/region.

9 Disassembly and reassembly



9.1 Disassembly tools

You may use the following tools during the disassembly and reassembly procedure:			
			
Plastic Plectrum	Anti ESD Tweezers	Plastic Spudger	Screws driver



9.2 Disassembly Process

Note: The complete disassembly guide is described as below for your reference, you can selectively (except disassembly and assembly method which needs to be followed carefully) do some of those steps according to the spare part which you need to replace.

➤ Follow is the complete disassembly process of TCL 403.




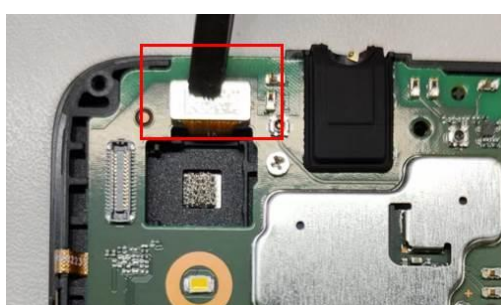
Step 1. Power off the device and remove Furnished Battery Cover, SIM Card, SD Card.		
<p>Step 1.1</p> <p>Power off the device and cover electrostatic protective film on the screen.</p>		

			
Step 1.2 Remove <u>Furnished</u> battery Cover using Plastic Plectrum.			


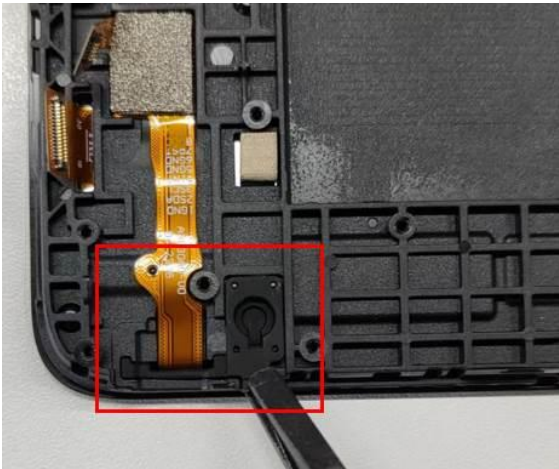

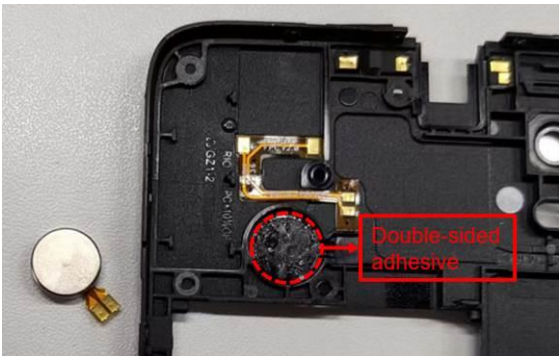
<p>Step 1.3</p> <p>Remove SIM Card and SD Card.</p>		
<p>Step 2. Remove Battery, 21 Screws and Furnished Frame.</p>		
<p>Step 2.1</p> <p>Remove the <u>LI-ION Battery</u>.</p>		<p>Warning:</p> <p>Improper operation on battery will cause high risk for fire or burning. Thus please follow up the battery disassembly guidance strictly. Strictly avoid using sharp tool to pry up battery. Fire extinguisher is needed for emergency.</p>
<p>Step 2.2</p> <p>Remove <u>21 Screws</u> on Furnished frame 2 SIM using Screws driver.</p>		 <p>Screw Torque: 0.7±0.05kgf.cm</p>

<p>Step 2.3</p> <p>Remove the <u>Furnished</u> frame 2 SIM using Plastic Plectrum.</p>		 <p>Note: Avoid damaging these components marked.</p>
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Step 3. Disconnect the connector and Remove Main Camera, screw.

<p>Step 3.1</p> <p>Disconnect the LCD, TP FPC Connectors.</p>		
<p>Step 3.1</p> <p>Remove <u>Main Camera</u>, <u>screw</u> and disconnect the Front Camera</p>		

<p>connector.</p>	<div data-bbox="405 228 863 591" data-label="Image"></div> <div data-bbox="445 620 823 654" data-label="Text"><p>Screw Torque: 0.7±0.05kgf.cm</p></div>	<div data-bbox="940 259 1493 611" data-label="Image"></div> <div data-bbox="1394 324 1469 371" data-label="Text"><p>8M camera</p></div>
<p>Step 4. Remove Main PCBA and some components.</p>		
<p>Step 4.1</p> <p>Remove the <u>Main PCBA</u> using plastic flake.</p>	<div data-bbox="464 761 820 1341" data-label="Image"></div>	<div data-bbox="963 761 1445 1341" data-label="Image"></div>
<p>Step 4.2</p> <p>Remove the <u>Front Camera</u>, <u>Speaker</u>.</p>	<div data-bbox="373 1415 895 1771" data-label="Image"></div>	<div data-bbox="987 1395 1422 1789" data-label="Image"></div>

<p>Step 4.3</p> <p>Remove the <u>Side Key</u> <u>Furnished</u> <u>FPC, MIC</u> <u>Rubber.</u></p>		
<p>Step 4.4</p> <p>Remove the <u>Coin Vibrator.</u></p>		

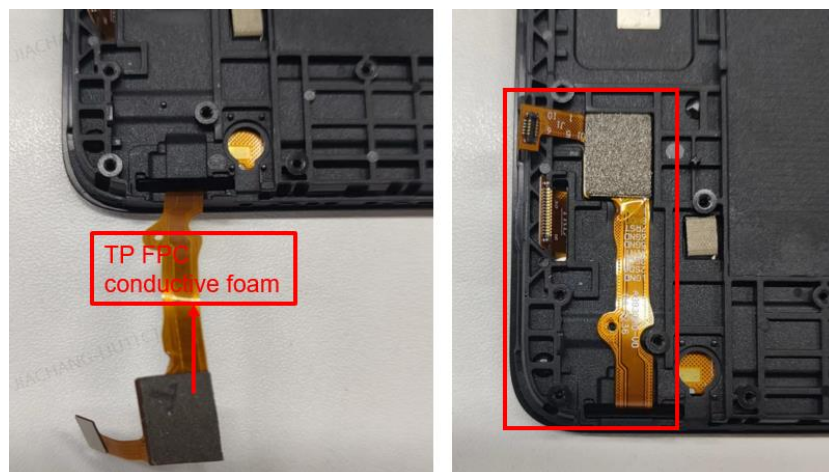
9.3 Reassembly process and tools

Reassembly process is reverse order of the disassembly process. But there are some precaution as follow:

- 1) Double-side sponge tape, battery packing pet, all types of adhesive on battery cover must be replaced with new ones once it is disassembled.

Conductive cloth, high temperature adhesive, double-side adhesive tape, or other adhesive are selectively replaced, depend on breakage, stickiness conditions

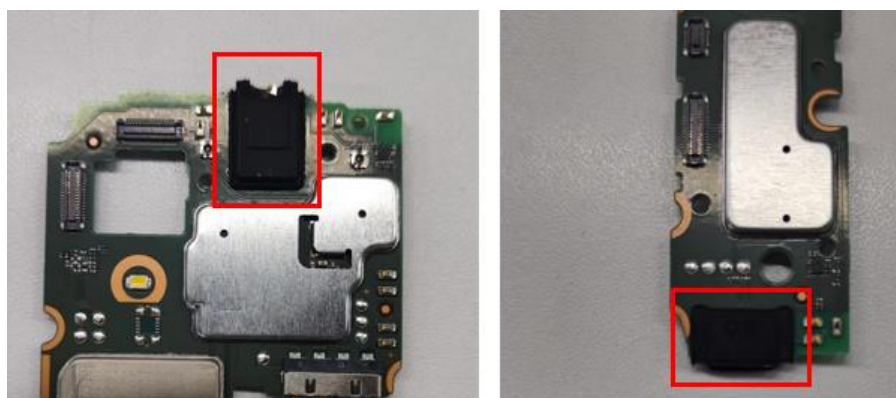
- 2) TP FPC conductive foam secured TP FPC to Furnished Front Casing.



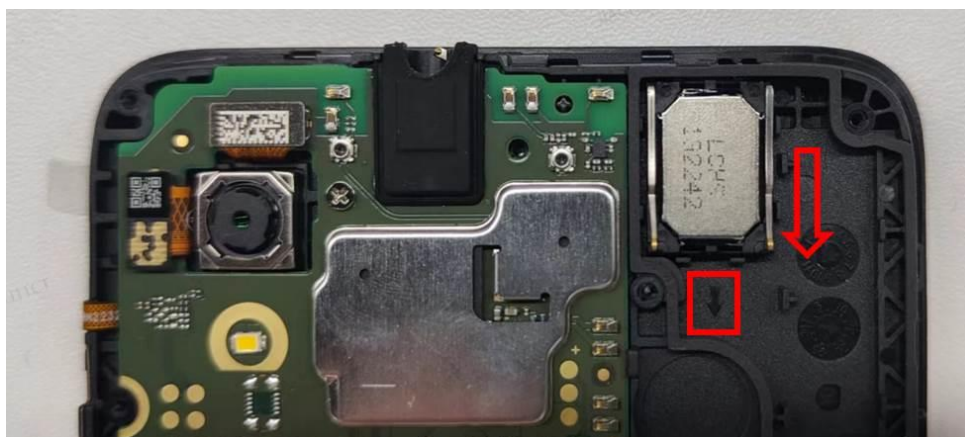
- 3) Before assembling Main PCBA on the Furnished Front Casing, make sure Side key Furnished FPC, Front Camera, MIC Rubber are well assembled on the Furnished Front Casing.



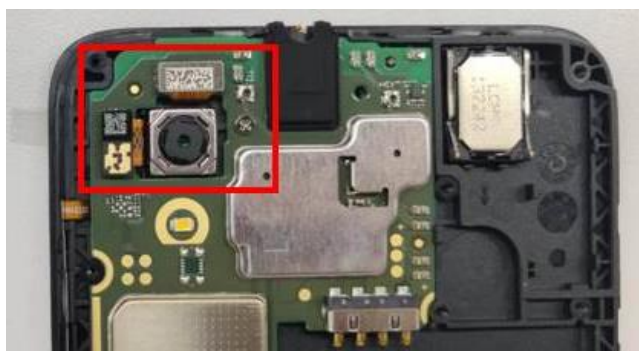
- 4) Assemble the Audiojack rubber, USB Rubber onto the Main PCBA as shown.



- 5) Pay attention to the direction of Speaker.



6) The T431D is equipped with a 8M main camera.



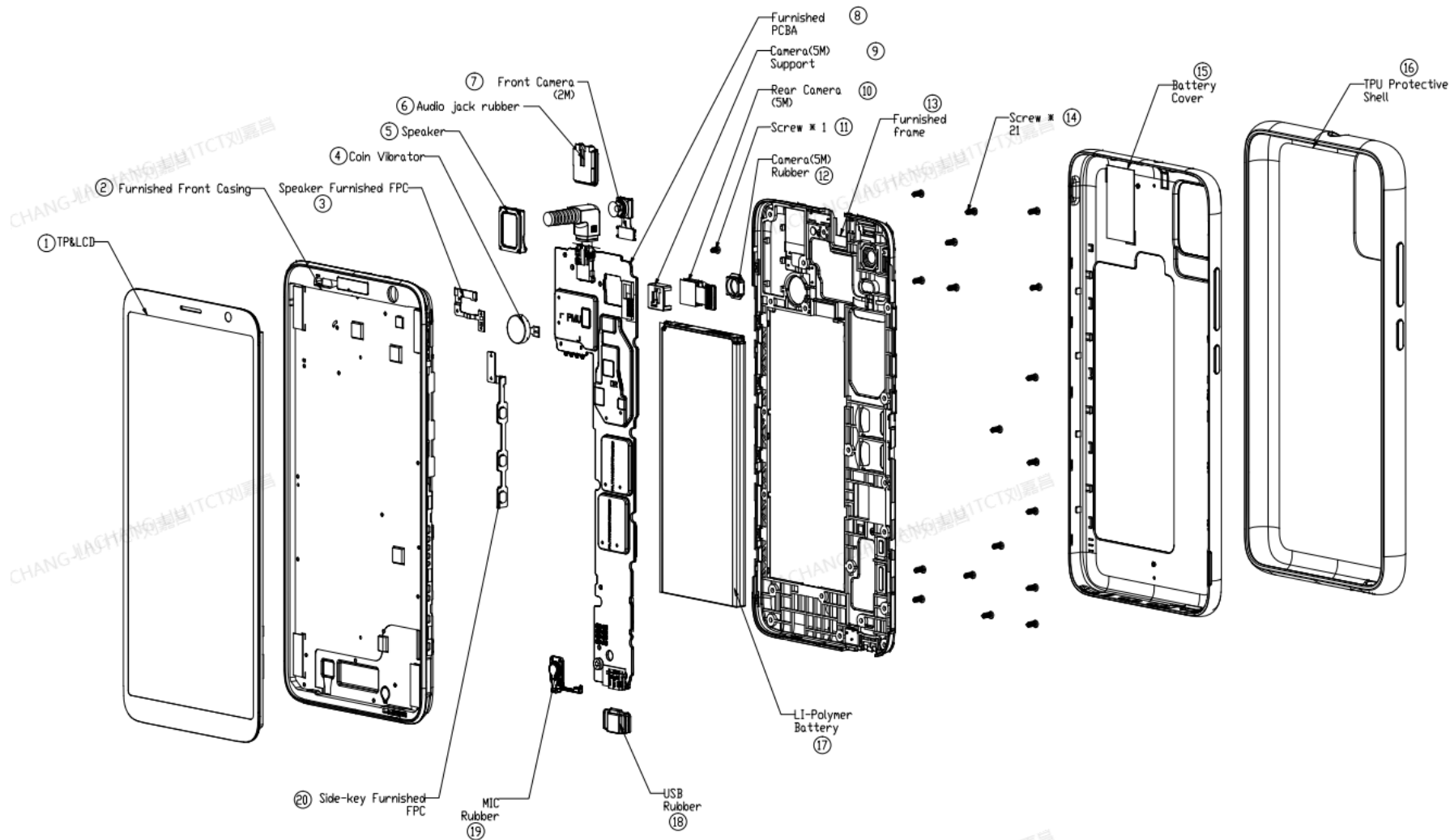
7) Don't forget the screw (Screw Torque: $0.7 \pm 0.05\text{kgf.cm}$) in the Main PCBA.



8) Connect the TP FPC and LCD FPC connectors after assembling Main PCBA.



10 Explode View



11 Split View



3	Speaker	35	PCBA conductive foam	47	BTB Connector(Socket)
4	Front Camera	36	PCBA conductive foam-B	48	Nano SIM Card Connector
5	Main Camera	37	Shielding conductive foam	49	Battery Connector
6	Camera lens	38	Screw	50	RF Switch
21	LCD adhesive tape	39	Screw	51	Audio Jack
22	SPK cavity adhesive tape	40	Audio jack rubber	52	USB Connector
23	Speaker volume foam	41	USB Rubber	53	Memory Card Connector
24	Cam lens adhesive tape	42	MIC Rubber	54	Antenna Spring
25	VIB adhesive tape	43	8M Back cam foam	55	MIC
31	Coin Vibrator	44	2M front cam support foam	56	Speaker Furnished FPC
33	Furnished frame 2 SIM	45	Side Key Furnished FPC	57	Humidity sticker
34	TP FPC conductive foam	46	BTB Connector(Socket)	58	TP,LCD,Front casing Assy

-END OF DOCUMENT-