

**Samsung Warranty Policy and Check In Procedure** 

#### Overview

This guide will walk you through step by step on how a technician should inspect, troubleshoot and repair Samsung mobile devices with specific focus on how to accurately identify and maintain a Samsung device's warranty status based on the condition of the device.



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## Physical Condition Overview



#### **Overview**

The first step in warranty eligibility is to verify that the customers device does not have any physical damage that will void their warranty status.

#### Flip and Fold Devices

For foldable devices you will need to take a deeper look at the device to determine if there is any physical damage that will void the device's warranty status. Similar to the Galaxy S devices, we want to ensure the back glass, outer display, camera deco, etc. are all free from damage on the outside of the device. Detailed examples found on slides 7 through 25.

Once you have inspected the outside of a foldable device, please go to slide 12 for a more in-depth analysis on the inner display inspection process.

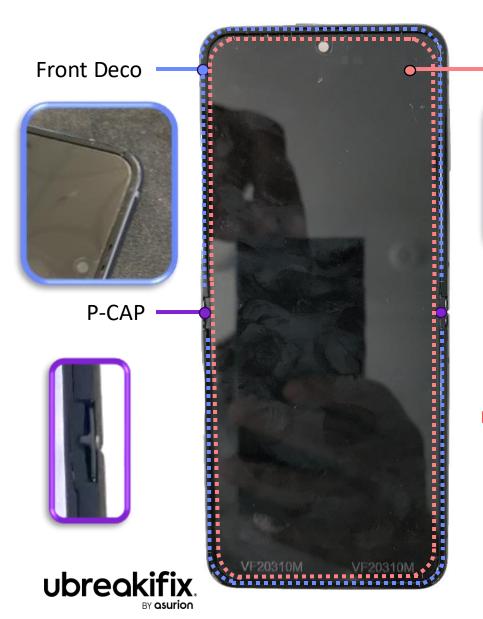
#### **Galaxy S and A Series**

For non-foldable devices, any degree of physical damage will void the warranty. This includes cracked or broken back glass, camera deco, front glass, or the LCD being cracked underneath. Detailed examples found on slides 27 through 33.

For both repair types, techs should also be careful to not damage or break the screen during disassembly to avoid risk of chargebacks.



#### **Damage Inspection Point Glossary**



**Display Panel Assembly** 

Protection Film (Screen Protector)

Assembly Lavers:

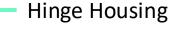
PL (Protect Layer)

**UTG (Ultra-Thin Glass)** 

Display Panel (LCD)

**ALL INSPECTION POINTS REQUIRE** PROPER EXAMINATION TO QUALIFY **FOR IN-WARRANTY SERVICE** 







**Protect Cover** & Frame Housing



## Physical Condition Deco & P-Cap

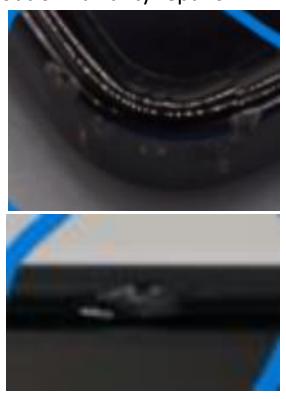


#### **Deco & P-Cap Overview**

<u>IMPORTANT</u> – You must remove the film protector from a flip or fold device to properly inspect the display. Failure to do so will impact your ability to make the proper determination which could result in a charge back.

1. Any damage to the deco and/or p-caps will result in an out of warranty status. All examples below would be

out of warranty repairs



All of the chips present on the example on the left would make the repair OOW





If the deco or p-cap has any chips, cracks, or missing pieces the repair is considered out of warranty and should be charged to the customer

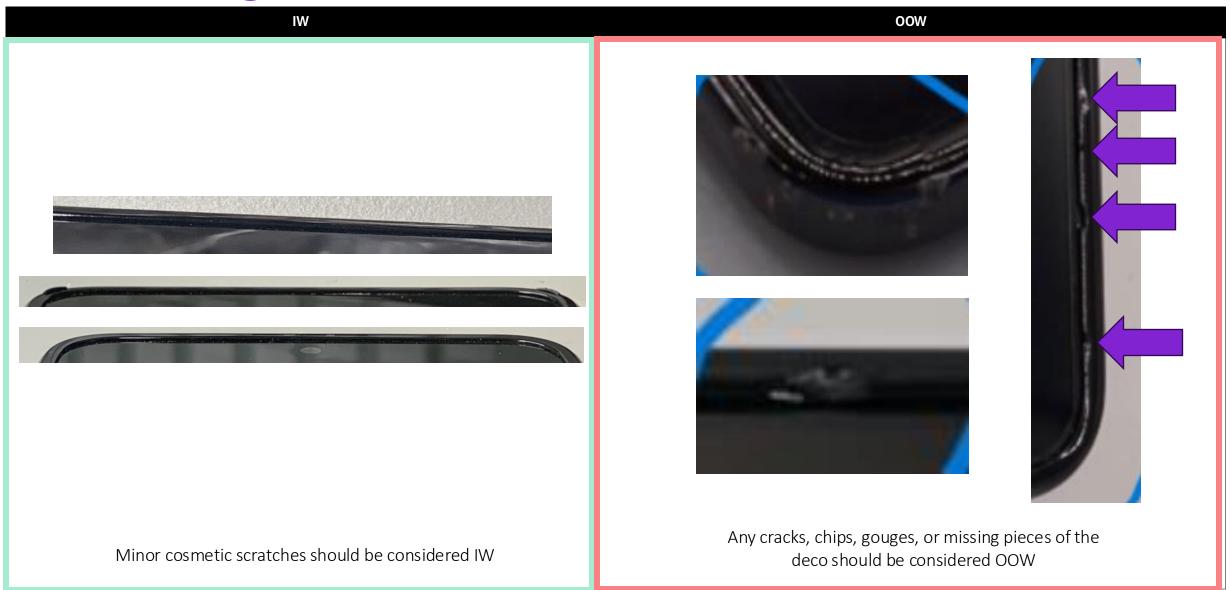


### **Deco Damage**



ubreakitix.

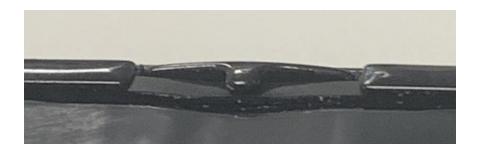
### **Deco Damage Continued**





### P-Cap Damage

IN WARRANTY OUT OF WARRANTY







Damage present on P-Cap (misalignment of ribbon)



P-Cap protruding out more than usual



# Physical Condition Inner Display Cracks



#### **Inner Display Cracks Overview**

Once you have verified that there is no damage to the deco or p-cap we will need to inspect the display itself.

Protection Film (Screen Protector)

PL (Protect Layer)

UTG (Ultra-Thin Glass)

Display Panel (LCD)

This image portrays how the different layers of a foldable display are laid out and why it is so important to remove the screen protector first.

Once removed, you will then be able to fully inspect the PL (protective layer) and have a better look at any potential UTG (ultra thin glass) or LCD cracks underneath.

The next few slides will help you understand the different variations of screen issues on the UTG (Ultra Thin Glass).



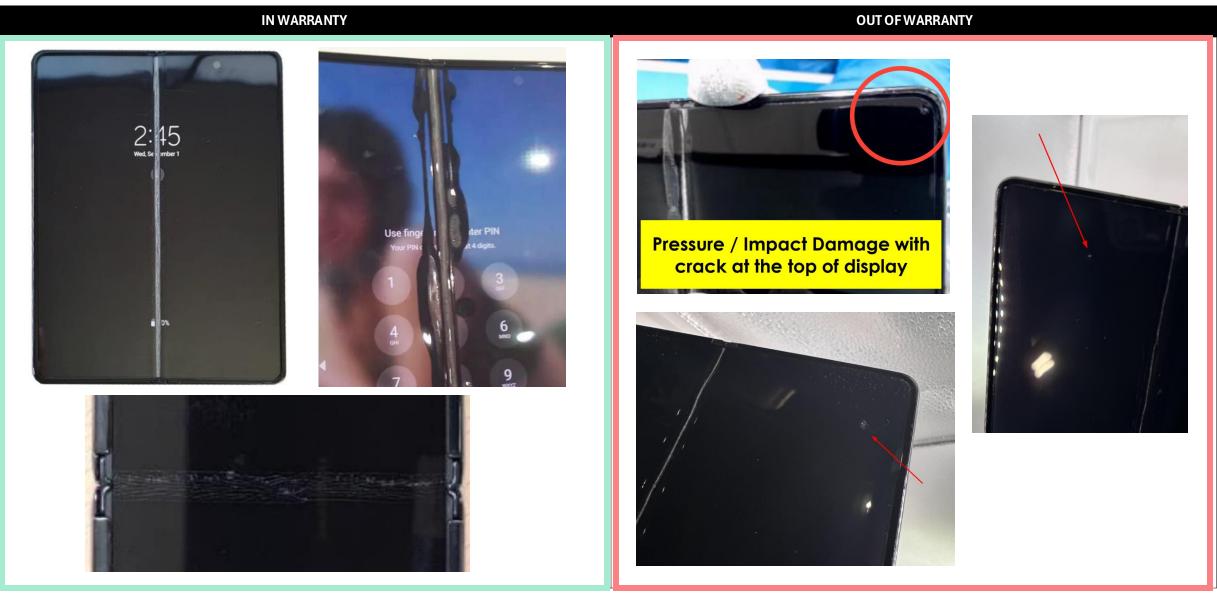
#### **Ultra-Thin Glass (UTG) Crack**

Identifying IW vs. OOW

**IN WARRANTY OUT OF WARRANTY** Symptom Torn surfaces are rough to UTG cracks in the touch; the folding stabs are not area appear **UTG Crack Only** symmetrical as multiple inconsistent lines. Examine the deco, P CAP and If the folding area has any of these or other types of hinge carefully for damage, check for physical drop damage stabs/scratches/presses Black/Gray Spot, White Line **UTG Crack** No tear on the screen or radial cracks (a crack that spreads Use a light source to check in multiple directions from a single impact or pressure point) for radial cracks even if the Not feels rough when touched. No Radial cracks damage is away from the Damage away from the crack UTG symptom. These are OOW cases even if the crack ubreakifix.

is not near the symptom

### **Ultra-Thin Glass (UTG) Crack (Continued)**





#### **Identifying Types of Cracks**

There may be times that a device looks like it has a UTG crack, but it is a different layer of the display that is damaged.

Use this section as a tool to assist in troubleshooting the type of repair needed.

A device that has a crack in the Protective Film (PF) may look like it has a crack in the UTG. To determine which it is, follow these steps:

- Remove the Protective Film
- Remove any remaining adhesive
- 3. If the UTG is normal, recommend replacing the Protective Film

#### Assembly Layers:

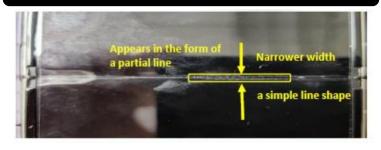
Protection Film (Screen Protector)

PL (Protect Layer)

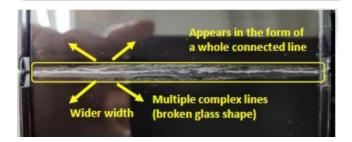
**UTG (Ultra-Thin Glass)** 

Display Panel (LCD)

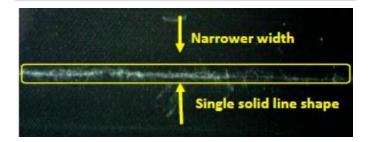
#### **Protection Film Crack -> Replace Film Only**



UTG Crack -> Follow In-Warranty
Troubleshooting on slides 7 and 8



Display Panel (LCD) -> Out of Warranty





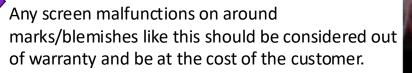
# **Physical Condition**Inner Display Screen Defects



#### **Inner Display LCD Defects Overview**

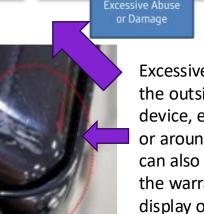
When determining if screen defects such as dead pixels, black spots, white lines, etc. are covered under warranty there are a few things we need to inspect. As you will see throughout the next few slides, identifying marks in the PL (protective layer) will be key in determining if the identified blemishes were a direct result on the screen malfunction.





If the screen is blank or you are unable to separate any blemishes from the malfunction you will need consider the repair out of warranty.





Excessive damage to the outside of the device, especially on or around the hinge can also directly void the warranty of the display on the other side.



#### **White Line**

Identifying IW vs. OOW

Symptom IN WARRANTY OUT OF WARRANTY

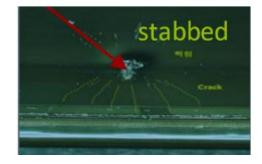


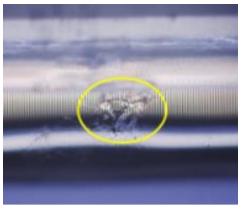


The white line symptom at the folded area should be handled as Out-Of-Warranty when there is a stab, scratch, or press

Examine the P CAP, Deco, and Hinge area for physical damage









At fold

### White Line (Continued)





### **Black Spot**

Identifying IW vs. OOW

Symptom **IN WARRANTY OUT OF WARRANTY** 1. Inspect the hinge area for damage 2. Visual inspection on or near the P CAP area for damage At fold A small black spot may grow over time and can even cause the LCD to go completely blank Black Spot due to physical damage (on/near the hinge area, P CAP, Deco or at the spot of the symptom) should be handled as Out of Warranty



### **Bright Dots**

Identifying IW vs. OOW

Symptom **IN WARRANTY OUT OF WARRANTY** Single bright dot If there is any direct damage trace (Stabbed/Scratched/Pressed) on the Bright dots of the screen, it should be handled as Out of Warranty Multiple bright dots [cave in]



#### **Black Screen**

Identifying OOW (screen lifting)

**OUT OF WARRANTY** Symptom In some cases, the Display assembly will begin to lift or peel from the frame (deco and p-cap). This is strictly an out of warranty case and should be charged to the customer. Causes: • IC Crack due to strong pressure of the surface Device power turns on, but • Corrosion of display parts due to water damage there is no working display (only vibration or sound work) • Screen scratched, display damage due to drop



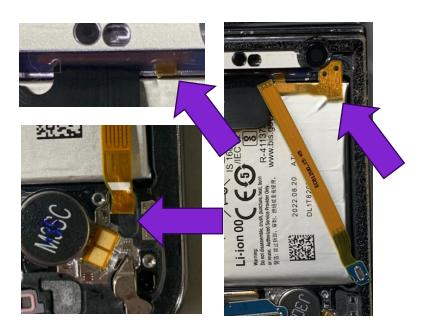
## Physical Condition Chargeback Avoidance



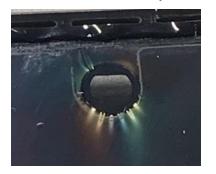
#### Flip and Fold Chargeback Common Occurrences

Once you have properly deemed a Samsung device In-Warranty we need to ensure we are using proper repair techniques. If you DIP (Damaged in Process) an In-Warranty core your location will be subject to a chargeback. Below you will see some common occurrences that resulted in chargebacks.

1. Torn or missing flex cables



2. LCD burn/damage during camera on ear speaker removal







Punctured camera window





#### Flip & Fold Display Warranty Determination Flowchart

Whenever a Galaxy Z series foldable device is presented for repair, it is important to complete the appropriate troubleshooting on the device **BEFORE** beginning the repair. Completing the needed troubleshooting in the correct way will help to ensure that there is no unnecessary part consumption, and that the repair is properly identified as In-Warranty or Out-of-Warranty.

#### Please utilize this warranty process below for any potential foldable display repairs:

1. Inspect the device carefully looking for physical damage. Make sure each of these areas below are examined

- Hinge housing
- Front Deco
- Protect Cover
- Front P-CAP
- Back Glass
- Outer LCD

2. Inspect the display symptom(s) reported by the customer

- Ask customer when the symptom started to occur
- 2. Remove Screen Protector
- 3. Run GD Tool Incoming Quality Control if possible

3. Determine the classification of the symptom type below

- <u>Ultra-Thin Crack</u>
- Black Spot
- Bright Dots
- White Line
- Black Screen

#### 4. Warranty Judgement

- If no damage at all: IW
- If damage on or near defect area:
   OOW

#### 5. Repair

Ensure you are performing the repair properly and avoiding scenarios below as they are subject to chargeback

- Burn the LCD
- Torn Flex's
- Breaking the UB Display
- Damaging other components



# **Physical Condition**Display Determination



### **Galaxy A and S Series Display Cracks**

For non-foldable devices, any degree of physical damage will void the warranty. This includes, but is not limited to, cracked or broken back glass, camera deco, front glass, or the LCD being cracked underneath. Below are some examples of what would be considered OW:



Even if the damage seems obvious, always be sure to thoroughly check the rest of the phone for any additional damage. In this case, the frame is chipped near the impact point.



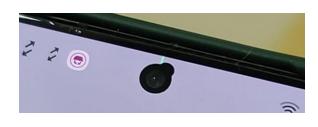


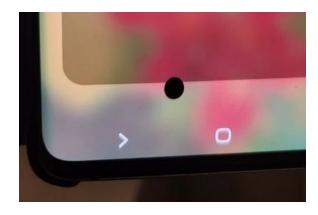


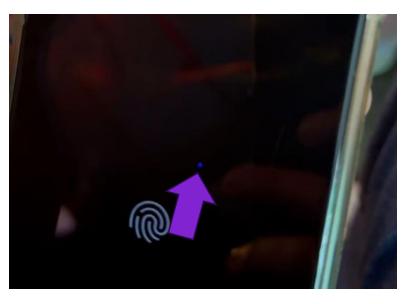
### **Galaxy A and S Series Display Defects**

Any display defects that show no signs of physical damage that could be causing the issue should be classified as IW.









White Lines

**Black Spots** 

Dead Pixels



# Physical Condition Cracked Backglass



### Galaxy A and S Series Cracked Backglass

If the backglass of the device is cracked, the repair would be OOW.

Remember that not all cracked backglasses will be easily noticeable.
Conducting a thorough inspection of the backglass will help you make a well-informed assessment.





When repairing a device with a severely damaged backglass, be aware that components underneath, like the Main and/or Sub PBA and rear cameras, may also be affected and should be inspected thoroughly.



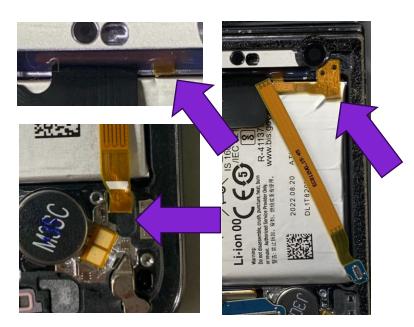
## Physical Condition Chargeback Avoidance



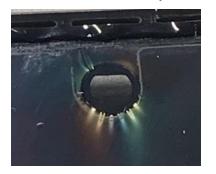
#### **Galaxy A & S Series Chargeback Common Occurrences**

Once you have properly deemed a Samsung device In-Warranty we need to ensure we are using proper repair techniques. If you DIP (Damaged in Process) an In-Warranty core your location will be subject to a chargeback. Below you will see some of the more common occurrences we have noticed.

1. Torn or missing flex cables



2. LCD burn/damage during camera or ear speaker removal







Punctured camera window





#### A & S Series Display Warranty Determination Flowchart

Whenever an A and/or S Series device is presented for repair, it is important to complete the appropriate troubleshooting on the device **BEFORE** beginning the repair. Completing the needed troubleshooting in the correct way will help to ensure that there is no unnecessary part consumption, and that the repair is properly identified as In-Warranty or Out-of-Warranty.

#### Please utilize this warranty process below for any potential A & S display repairs:

1. Inspect the device carefully looking for physical damage. Make sure each of these areas below are examined

- LCD
- Backglass
- Frame
- Front camera
- Back camera deco

2. Inspect the display symptom(s) reported by the customer

- Ask customer
   when the symptom
   started to occur
- 2. Run GD Tool Incoming Quality Control if possible

3. Determine the classification of the symptom type below

- Black Spot
- Bright Dots
- White Line
- Black Screen

4. Warranty Judgement

- If no damage at all: IW
- If damage is present: OOW

5. Repair

Ensure you are performing the repair properly and avoiding scenarios below as they are subject to chargeback

- Burn the LCD
- Torn Flex's
- Breaking the UB Display
- Damaging other components



## THANK YOU!

