

Disassembly Procedure

Rev.	Change History	Change Time	Originator
V1.0	First Release	2019/1/17	Susan_Tsai
V2.0	Add MB ABSORBER/FX505DY RX560 GPU ABSORBER	2019/1/18	Susan_Tsai
V2.1	P11: Add SSD ABSORBER/SSD AL FOIL.	2019/1/17	Stephanie
	P15: Add MB TOP CU FOIL.		
	P22: Add MB TOP ABSORBER/MB TOP SSD ABSORBER.		
	P23: Add MB Thermal KAPTON/MB GPU KAPTON.		
	P26: Add KB TOP CU WASHER.		
V2.2	P12: Add FX505DY WLAN INDICATOR	2019/4/16	Stephanie

Disassembly Procedure

Please follow the information provided in this section to perform the complete disassembly procedure of the Notebook. Be sure to use proper tools described before.



SUS FX505DY series notebook consists of various modules. This chapter describes the procedure for the complete notebook disassembly and assembly (**Assemble document please look up from the last page**). In addition, in between procedures, the detailed disassembly procedure of individual modules will be provided for your service needs.

The disassembly procedure consists of the following steps:

- <u>Service overview</u>
- <u>Appropriate Tools</u>
- Bottom case Module
- Battery Module
- <u>HDD</u>
- SSD
- WLAN Module
- <u>Memory Module</u>
- <u>Thermal and Fan Module</u>
- <u>Main Board</u>
- <u>LED Board</u>
- <u>Topcase Module</u>
- LCD Module
- <u>Gap Step</u>



Service Overview

Please pay special attention to the cautions below to prevent any damages to the notebook and also please be sure to select the appropriate tools described in this section to perform any services desired.

Precautions

Before you perform any service and or repair on the notebook, please follow the steps below first.

- 1. Be sure that the notebook is powered down.
- 2. Disconnect the AC plug from the notebook.
- 3. Remove all rings, watches and any other metal objects from your hands.



- 4. Always wear a ground strap on your hand to protect the notebook from static discharge.
- 5. Please refer to "ANSI ESD S20.20" about ESD protection measure.
- 6. Put disassemble the parts in the functional PE BAG for avoid any damages of the A/B/C/D part.



- 7. Environment temperature is 20-30 $^\circ$ C and humidity is 40% 70%.
- 8. Avoid scratching the surface of the machine, please use anti-static and soft materials to put on desk in repair environment as below photo.



9. Screw Appearance Criteria.



- If the screws have the following damaged appearance, please do not use.
- a. Shape deformed
- b. Paint scratched off
- c. Rusty



d. Damaged head - unable to drive in



e. Damaged unable to securely tighten



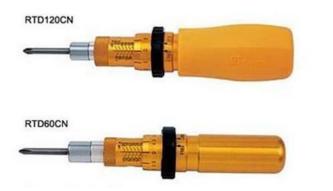
Appropriate Tools

The illustrations below show the appropriate tools that should be used for the notebook's service and repair.

Cross Screwdriver

Please according to different screw specification and choose different screwdriver and head. Below photos are for reference only.

Use a cross screwdriver to fasten/remove screws.







Plastic Blade (PN: 20LT0-00050000)



Tweezers

Use a pair of tweezers to remove/insert flexible cables.



Thickness gauge (PN: 20LT0-0002J000)

Thickness compass specification 0.05mm-1.5mm Use it to measure the gap.



Hand rollers (PN: 20LT0-00082000,order or local buy)

Use the roller to press touch pad mylar.

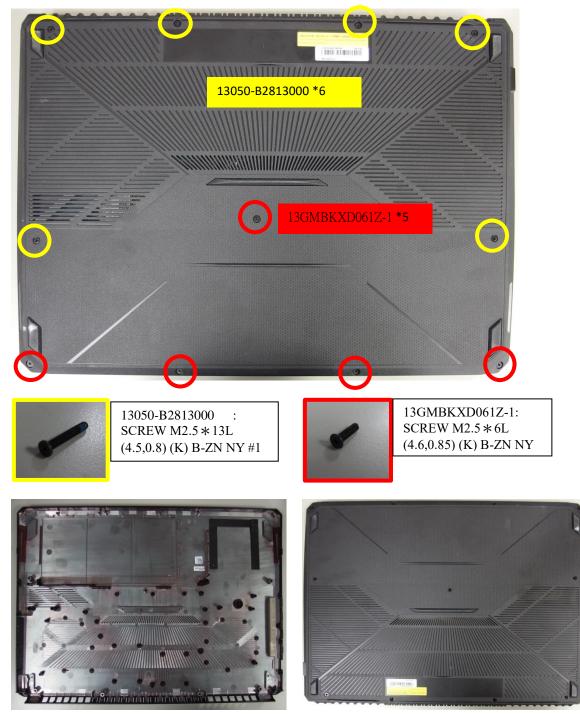




Bottom case Module

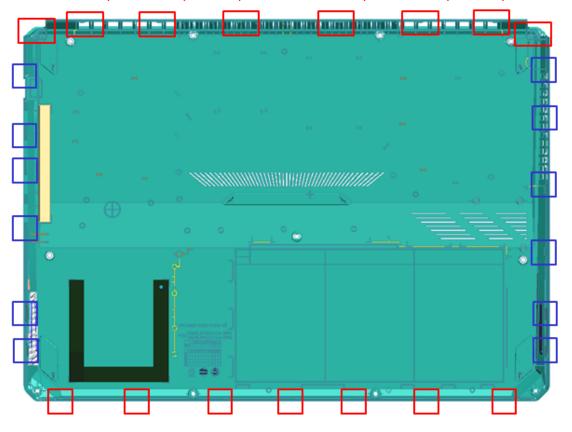
The illustration below shows how to remove the bottom case module.

1. Remove 11 pcs screws on the bottom case. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 3kgf-cm





*Hooks inward (red frame position); hooks outward (blue frame position).





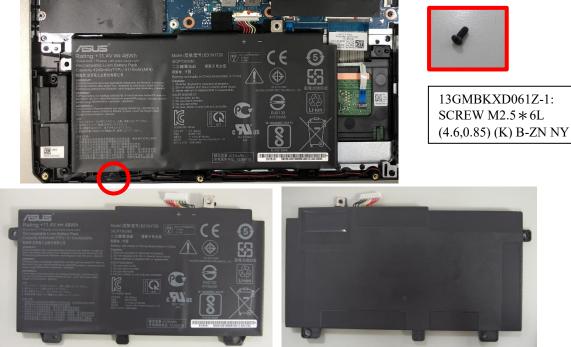
Battery Module

The illustration below shows how to remove the battery module.

1. Disconnect the connector at PCB end.



2. Remove 1 screws on battery module. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 3kgf-cm



Disconnect the battery cable.

Notice: Before disassembly, please be sure to pull out adapter and disconnect the battery more than ten seconds in order to avoid IC damage. BACK



HDD

The illustration shows how to remove the HDD.

 Remove 2 screws on HDD. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 3kgf-cm







13GMBKXD061Z-1: SCREW M2.5 * 6L (4.6,0.85) (K) B-ZN NY #1

2. Disconnect HDD.



3. Remove 3 screws on HDD Bracket. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 3kgf-cm





13GMAKXF030B-1: SCREW M3 * 3L (5.25,0.8) (K) B-NI







SSD

The illustrations below show how to remove the SSD.

1. Remove a screw from SSD.

Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 2.0kgf-cm









13GMBK3C036Z-1: SCREW M2 * 3L (4.6,0.8) (K) B-ZN NY #1



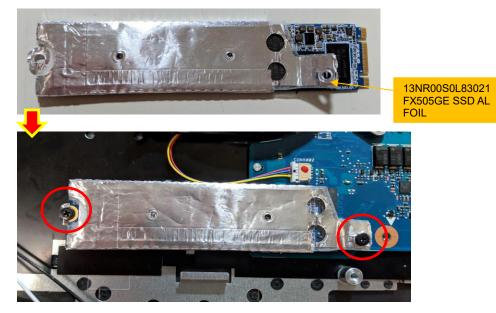




Notice: Add KB BL TAPE.



Notice: Add SSD AL FOIL.





WLAN Module

The illustration below shows how to remove the WLAN module.

1. Remove mylar and disconnect antenna.





2. Remove 1pcs screw on WLAN module. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 2.0kgf-cm



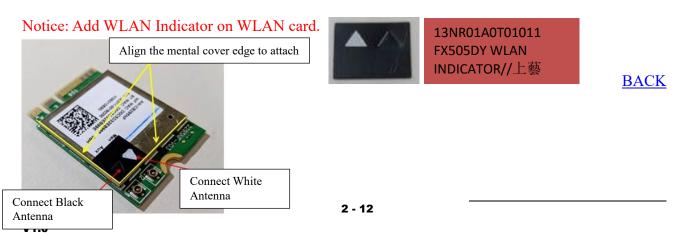
3. Remove WLAN.





13GMBK3C036Z-1: SCREW M2 * 3L (4.6,0.8)

(K) B-ZN NY #1



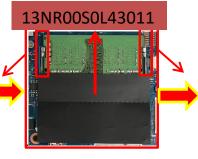


Memory Module

The illustration shows how to remove the Memory.

1. Tear off the Mylar and remove the memory.







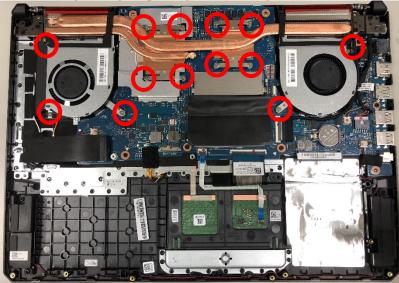




Thermal and Fan Module

The illustration below shows how to remove the Thermal and fan module.

1. Remove 13 screws on the thermal module and take it away. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 2.0kgf-cm





13GMBK3C045W-1: SCREW M2 * 4.5L (4.5,0.8) (K) W-NI NY #1

2. Disconnect fan cables.









Disassembly Procedure

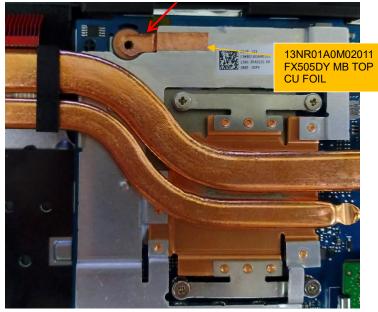








Notice: Add MB TOP CU FOIL.







13NR00S0M10011



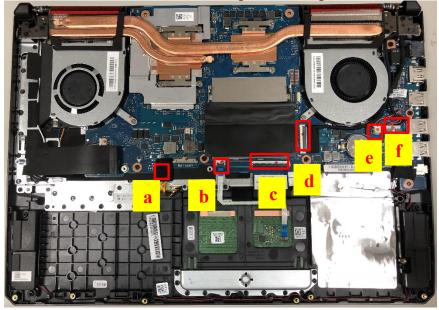
Assemble Notice: After replace new MB, please clean remaining CPU and GPU thermal pad on thermal module and then paste new one. Please use the correct technique of taking fans in order to avoid being out of shape



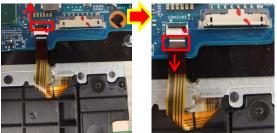
Main Board

The illustrations below show how to remove the main board.

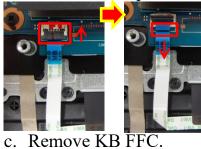
1. Disconnect eDP/FFC/Touchpad FFC/Speaker cable/DC IN cable from MB.



a. Remove KB FFC.



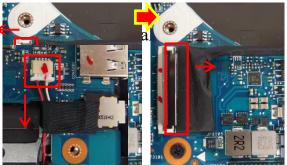
b. Remove touchpad FFC.







d. Disconnect EDP cable.

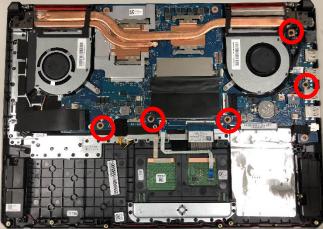


f. Disconnect DC jack cable.





2. Remove 5 screws on MB. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 2.0kgf-cm





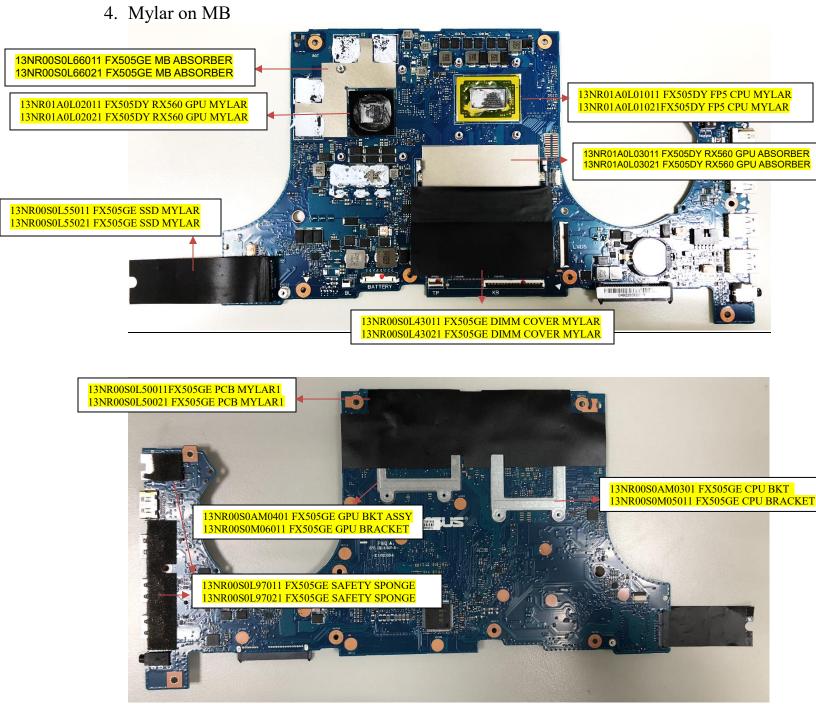
13GMBK3C036Z-1: SCREW M2 * 3L (4.6,0.8) (K) B-ZN NY #1

3. Remove LED FFC from MB.









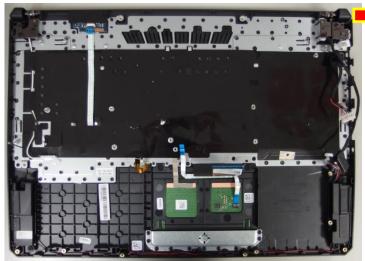


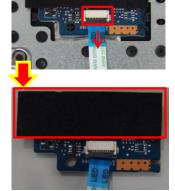


LED Board

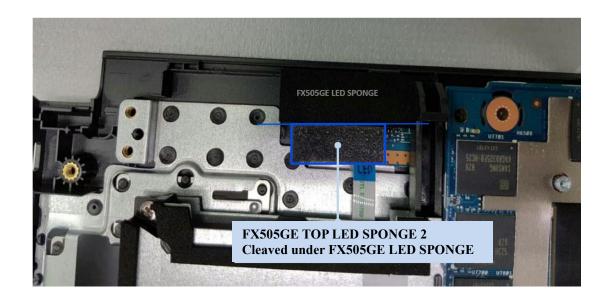
The illustration below shows how to remove the LED board.

1. Disconnect LED FFC and remove LED board & mylar & Sponge.



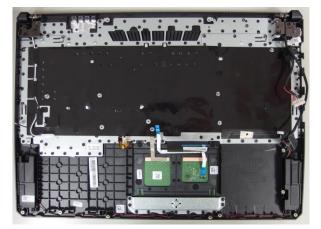


13NR00S0LB9011 FX505GE TOP LED SPONGE 2//SUNYIEH01 13NR00S0LB9021 FX505GE TOP LED SPONGE 2//TIANLIDA01

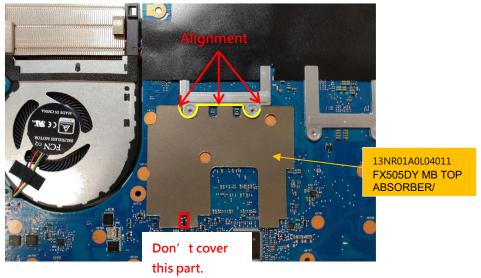




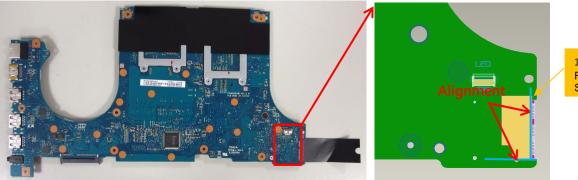




*Notice: Add MB TOP ABSORBER.



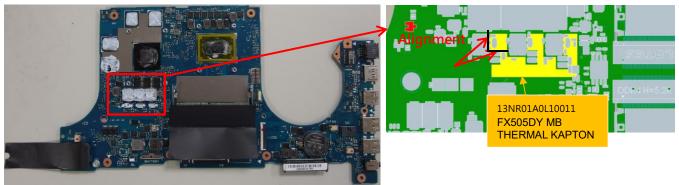
Notice: Add MB TOP SSD ABSORBER.



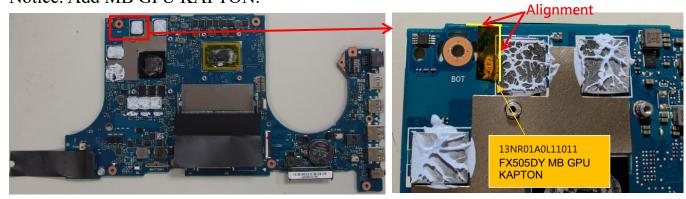
13NR01A0L09011 FX505DY MB TOP SSD ABSORBER



Notice: Add MB Thermal KAPTON.



Notice: Add MB GPU KAPTON.

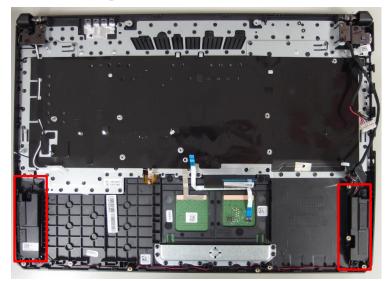


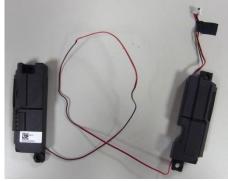


Top case Module

The illustration below shows how to remove the Top case module.

1. Remove speaker.

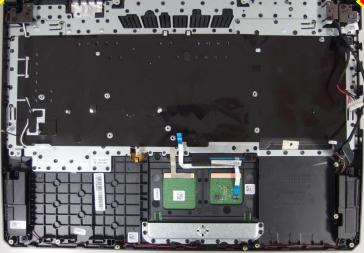




2. Remove 4 screws on Hinge. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 3.0kgf-cm









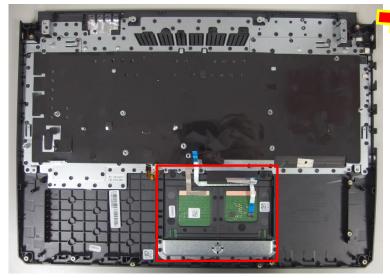
13GMBKXD061Z-1: SCREW M2.5 * 6L (4.6,0.85) (K) B-ZN NY #1





3. Remove 2 screws.

Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 2.0kgf-cm







13050-72802040: SCREW M2 * 2.5L(7.0,0.5)(K) B-ZN #1 NY

4. Remove Touchpad.



5. Remove touchpad FFC.









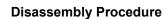
Notice: Add KB TOP CU WASHER.

ULTRANSIS



WASHER align KB







LCD Module

The illustration below shows how to remove the LCD module.

1. Remove the mylar on the both corners of bezel.



2. Remove 2 screws underneath. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 3.0kgf-cm





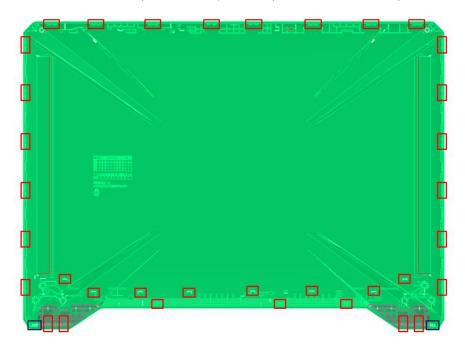
13050-B2504100: SCREW M2.5 * 4.5L (4.5,0.5) (K) W-NI NY #1



3. Separate the bezel and LCD with Plastic Blade.



*Hooks inward (red frame position); hooks outward (blue frame position).





Disassembly Procedure

4. Remove 6 screws and disconnect the EDP cable from LCD panel. Assembly Notice: Follow the reverse numbers to lock screws. Screw tightening torque (Kg F-cm): 2.0kgf-cm; 3.0kgf-cm





13GMBK3C036Z-1: SCREW M2 *3L (4.6,0.8) (K) B-ZN NY #1



13050-B2803100: SCREW M2.5* 3.5L (4.5,0.5) (K) B-ZN NY #1



13NR00S0LC1011 FX505GE LCD PANEL MYLAR UP//SUNYIEH01 13NR00S0LC1021 FX505GE LCD PANEL MYLAR UP//TIANLIDA01





* This Sponge will be shipped from the Hinge factory in the future. After the old material is consumed, it does not need to be posted in the factory.

Before		Sponge attached pos	Sponge attached position		
Alexand After					
Manuel I					
With sponge Part Number	Description	Cuppling	Quantity		
13NR00S0AM0701	Description FX505GE HINGE LASSY	Supplier A&J	Quantity		
13NR00S0M02011	FX505GE HINGE L	安捷(A&J)	1		
13NR00S0LC2011	FX505GE HINGE SPONGE	上N(SUNYIEH)	1		
13NR00S0LC2021	FX505GE HINGE SPONGE	天立諱(TIANLIDA)	1		
13NR00S0AM0702	FX505GE HINGE LASSY	SZS	1		
13NR00S0M02021	FX505GE HINGE L	新日興(SZS)	1		
13NR00S0LC2011	FX505GE HINGE SPONGE	上M(SUNYIEH)	1		
13NR00S0LC2021	FX505GE HINGE SPONGE	天立津(TIANLIDA)	1		
13NR00S0AM0801	FX505GE HINGE R ASSY	A&J	1		
13NR00S0M03011	FX505GE HINGE R	安捷(A&J)	1		
13NR00S0LC2011	FX505GE HINGE SPONGE	LMS(SUNYIEH)	1		
13NR00S0LC2021	FX505GE HINGE SPONGE	天立達(TIANLIDA)	1		
13NR00S0AM0802	FX505GE HINGE R ASSY	SZS	1		
13NR00S0M03021	FX505GE HINGE R	新日興(SZS)	1		
13NR00S0LC2011	FX505GE HINGE SPONGE	上藝(SUNYIEH)	1		
13NR00S0LC2021	FX505GE HINGE SPONGE	天立建(TIANLIDA)	1		

5. Remove 2 LCD panel adhesives on the LCD cover. Notice: Slowly pull the adhesive up about 30 degrees.





Notice: How to remove the LCD adhesive. Please refer to the below information.

Notice: You can download the video from the link below to learn how to remove the adhesive. (Video name: GL504GS LCD Disassemble)

http://sip.asus.com/document/DisplayDocument.aspx?folder_type=PUB&doc_id=210889

Notice :please slowly pull the adhesive up about 30 degree.





6. Disconnect EDP cable on LCD panel.



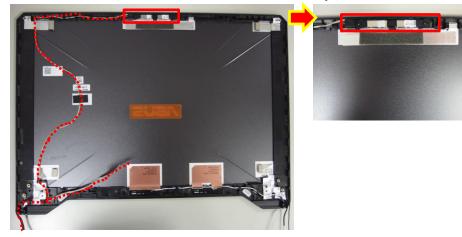




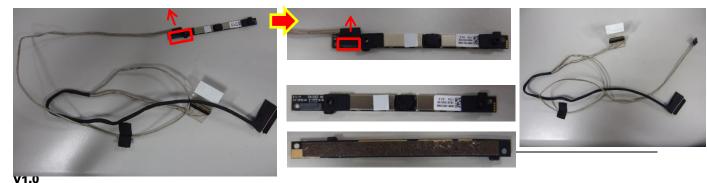
Disassembly Procedure



7. Remove camera with tweezers carefully.



8. Remove the EDP cable.





9. Remove Antenna with tweezers carefully.



Notice: If you need to replace hinges (hinge covers), please make sure hinge (hinge cover) R and hinge (hinge cover) L are the same vendor

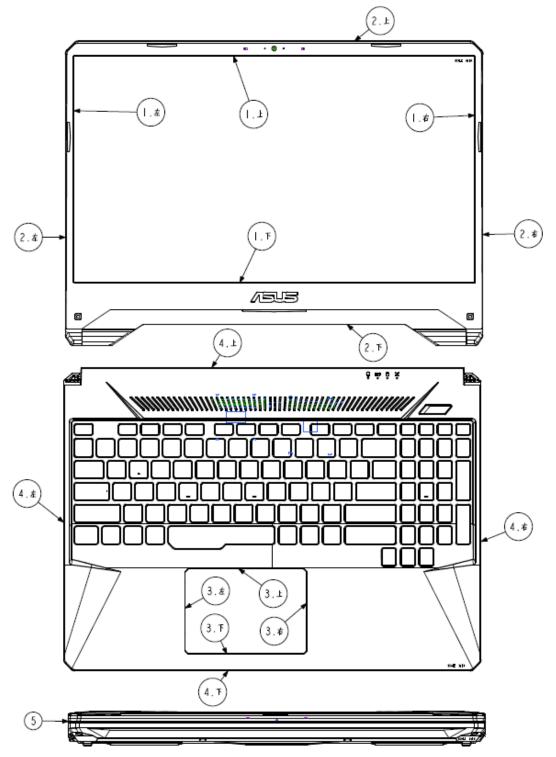
Notice: How to remove the LCD adhesive. Please refer to the below information.

 \bigcirc Public Folder \Rightarrow GTSD \Rightarrow GTSD Internal training material \Rightarrow NB \Rightarrow GL504GS

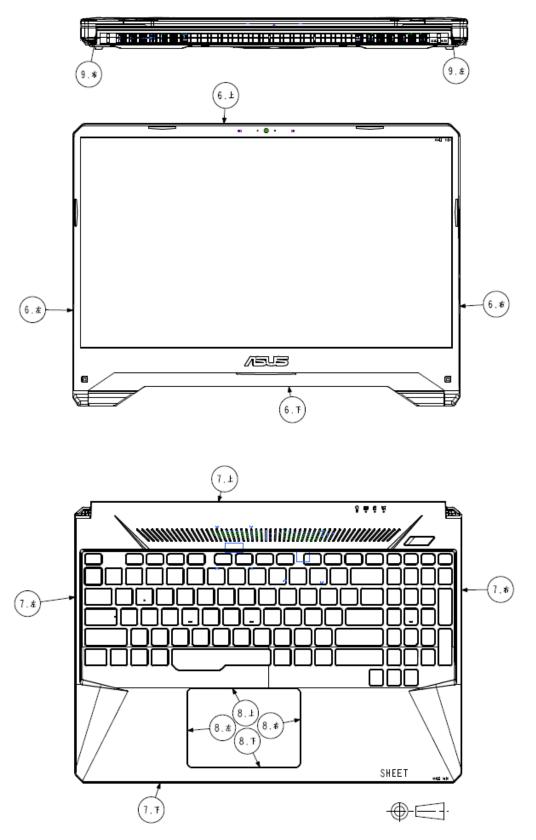




Gap Step







2 - 35



Disassembly Procedure

ITEM	PART I	PART 2	GAP (mm.)	Tolerance (mm)	REMARK
(上下左右)	LCD Bezel	LCD Panel	0.1	0 ~ 0.8	≤0.9mm
2 (上下左右)	LCD Cover	LCD Bezel	0.2	-0.2 ~ +0.3	≤0.5mm
3 (上下左右)	TP Mylar	Top case	0.15	0.05 ~ 0.3	
4 (上下左右)	Top Case	Bottom Case	0.2	-0.2 ~ +0.2	≤0.4mm
5	LCD Bezel	Top case	0.5		≤l.5mm
6 (上下左右)	LCD Bezel	LCD Bezel	-0.I	-0.1 ~ +0.3	B凸出A爲負
7 (上下左右)	Top Case	Bottom Case	0	-0.3 ~ -0.3	
8 (上下左右)	TP Mylar	Top Case	-0.2	0 ~ -0.5	In discussion
9 (左右) (閉合()度)	HINGE CAP	TOP CASE	0.8	0.4 ~ 1.2	In discussion