

# Lenovo TAB4 10 Plus

Lenovo TB-X704Y

Lenovo TB-X704V

## Hardware

## Maintenance

## Manual

**Lenovo**<sup>™</sup>

**Note:**

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 65.

**First Edition (May 2017)**

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## About this manual

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This manual contains service and reference information for the following Lenovo product:

**Lenovo TAB4 10 Plus**

Use this manual to troubleshoot problems.

The manual is divided into the following sections:

- The common sections provide general information, guidelines, and safety information required for servicing computers.
- The product-specific section includes service, reference, and product-specific parts information.

**Important:**

This manual is intended only for trained servicers who are familiar with Lenovo products. Use this manual to troubleshoot problems effectively. Before servicing a Lenovo product, make sure to read all the information under “Safety information” on page 1 and “Important service information” on page 16.

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## **Safety information**

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This chapter presents the following safety information that you need to get familiar with before you service a Lenovo computer:

- “General safety” on page 2
- “Electrical safety” on page 3
- “Safety inspection guide” on page 5
- “Handling devices that are sensitive to electrostatic discharge” on page 6
- “Grounding requirements” on page 6
- “Safety notices: multilingual translations” on page 7
- “Laser compliance statement” on page 14

## General safety

Follow these rules below to ensure general safety:

- Observe a good housekeeping in the area where the machines are put during and after the maintenance.
- When lifting any heavy object:
  1. Make sure that you can stand safely without slipping.
  2. Distribute the weight of the object equally between your feet.
  3. Use a slow lifting force. Never move suddenly or twist when you attempt to lift it.
  4. Lift it by standing or pushing up with your leg muscles; this action could avoid the strain from the muscles in your back. Do not attempt to lift any object that weighs more than 16 kg (35 lb) or that you think is too heavy for you.
- Do not perform any action that causes hazards to the customer, or that makes the machine unsafe.
- Before you start the machine, make sure that other service representatives and the customer are not in a hazardous position.
- Place removed covers and other parts in a safe place, keeping them away from all personnel, while you are servicing the machine.
- Keep your tool case away from walk areas so that other people will not trip it over.
- Do not wear loose clothing that can be trapped in the moving parts of the machine. Make sure that your sleeves are fastened or rolled up above your elbows. If your hair is long, fasten it.
- Insert the ends of your necktie or scarf inside clothing or fasten it with the nonconductive clip, about 8 centimeters (3 inches) from the end.
- Do not wear jewelry, chains, metal-frame eyeglasses, or metal fasteners for your clothing.

**Attention:** Metal objects are good electrical conductors.
- Wear safety glasses when you are hammering, drilling, soldering, cutting wire, attaching springs, using solvents, or working in any other conditions that may be hazardous to your eyes.
- After service, reinstall all safety shields, guards, labels, and ground wires. Replace any safety device that is worn or defective.
- Reinstall all covers correctly before returning the machine to the customer.
- Fan louvers on the machine help to prevent the overheating of internal components. Do not obstruct fan louvers or cover them with labels or stickers.

## Electrical safety

Observe the following rules when working on electrical equipments.

**Important:**

Use only approved tools and test equipments. Some hand tools have handles covered with a soft material that does not insulate you when working with live electrical currents.

Many customers have rubber floor mats near their machines that contain small conductive fibers to decrease electrostatic discharges. Do not use such kind of mat to protect yourself from electrical shock.

- Find the room emergency power-off (EPO) switch, disconnecting the switch or electrical outlet. If an electrical accident occurs, you can then operate the switch or unplug the power cord quickly.
- Do not work alone under hazardous conditions or near the equipment that has hazardous voltages.
- Disconnect all power before:
  - Performing a mechanical inspection
  - Working near power supplies
  - Removing or installing main units
- Before you start to work on the machine, unplug the power cord. If you cannot unplug it, ask the customer to power-off the wall box that supplies power to the machine, and to lock the wall box in the off position.
- If you need to work on a machine that has exposed electrical circuits, observe the following precautions:
  - Ensure that another person, familiar with the power-off controls, is near you.

**Attention:** Another person must be there to switch off the power, if necessary.
  - Use only one hand when working with powered-on electrical equipment; keep the other hand in your pocket or behind your back.

**Attention:** An electrical shock can occur only when there is a complete circuit. By observing the above rule, you may prevent a current from passing through your body.
  - When using testers, set the controls correctly and use the approved probe leads and accessories for that tester.
  - Stand on suitable rubber mats (obtained locally, if necessary) to insulate you from grounds such as metal floor strips and machine frames.

Observe the special safety precautions when you work with very high voltages; instructions for these precautions are in the safety sections of maintenance information. Be extremely careful when you measure the high voltages.

- Regularly inspect and maintain your electrical hand tools for safe operational condition.
- Do not use worn or broken tools and testers.
- Never assume that power has been disconnected from a circuit. First, check it to make sure that it has been powered off.

- Always look carefully for possible hazards in your work area. Examples of these hazards are moist floors, nongrounded power extension cables, power surges, and missing safety grounds.
- Do not touch live electrical circuits with the reflective surface of a plastic dental mirror. The surface is conductive; such touching can cause personal injury and machine damage.
- Do not service the following parts with the power on when they are removed from their normal operating places in a machine:
  - Power supply units
  - Pumps
  - Blowers and fans
  - Motor generatorsand similar units. (This practice ensures correct grounding of the units.)
- If an electrical accident occurs:
  - Caution: do not become a victim yourself.
  - Switch off the power.
  - Send the victim to get medical aid.

## Safety inspection guide

The purpose of this inspection guide is to assist you in identifying potential unsafe conditions. As each machine was designed and built, required safety items were installed to protect users and service personnel from injury. This guide addresses only those items. You should use good judgment to identify potential safety hazards according to the attachment of non-Lenovo features or options not covered by this inspection guide.

If any unsafe conditions are present, you must determine how serious the apparent hazard could be and whether you can continue without first correcting the problem.

Consider these conditions and the safety hazards they present:

- Electrical hazards, especially primary power (primary voltage on the frame can cause serious or fatal electrical shock)
- Explosive hazards, such as a damaged CRT face or a bulging capacitor
- Mechanical hazards, such as loose or missing hardware

To determine whether there are any potential unsafe conditions, use the following checklist at the beginning of every service task. Begin the checks with the power off, and the power cord disconnected.

Checklist:

1. Check exterior covers for damage (loose, broken, or sharp edges).
2. Turn off the computer. Disconnect the power cord.
3. Check the power cord for:
  - a. A third-wire ground connector in good condition. Use a meter to measure third-wire ground continuity for 0.1 ohm or less between the external ground pin and the frame ground.
  - b. The power cord should be the type specified in the parts list.
  - c. Insulation must not be frayed or worn.
4. Check for cracked or bulging batteries.
5. Remove the cover.
6. Check for any obvious non-Lenovo alterations. Use good judgment as to the safety of any non-Lenovo alterations.
7. Check inside the unit for any obvious unsafe conditions, such as metal filings, contamination, water or other liquids, or signs of fire or smoke damage.
8. Check for worn, frayed, or pinched cables.
9. Check that the power-supply cover fasteners (screws or rivets) have not been removed or tampered with.

## Handling devices that are sensitive to electrostatic discharge

Any computer part containing transistors or integrated circuits (ICs) should be considered sensitive to electrostatic discharge (ESD). ESD damage can occur when there is a difference in charge between objects. Protect against ESD damage by equalizing the charge so that the machine, the part, the work mat, and the person handling the part are all at the same charge.

### Notes:

1. Use product-specific ESD procedures when they exceed the requirements noted here.
2. Make sure that the ESD protective devices you use have been certified (ISO 9000) as fully effective.

When handling ESD-sensitive parts:

- Keep the parts in protective packages until they are inserted into the product.
- Avoid contact with other people.
- Wear a grounded wrist strap against your skin to eliminate static on your body.
- Prevent the part from touching your clothing. Most clothing is insulative and retains a charge even when you are wearing a wrist strap.
- Use the black side of a grounded work mat to provide a static-free work surface. The mat is especially useful when handling ESD-sensitive devices.
- Select a grounding system, such as those listed below, to provide protection that meets the specific service requirement.

### Notes:

The use of a grounding system to guard against ESD damage is desirable but not necessary.

- Attach the ESD ground clip to any frame ground, ground braid, or green-wire ground.
- When working on a double-insulated or battery-operated system, use an ESD common ground or reference point. You can use coax or connector-outside shells on these systems.
- Use the round ground prong of the ac plug on ac-operated computers.

## Grounding requirements

Electrical grounding of the computer is required for operator safety and correct system function. Proper grounding of the electrical outlet can be verified by a certified electrician.

## Safety notices: multilingual translations

The safety notices in this section are provided in English, French, German, Hebrew, Italian, Japanese, and Spanish.

### Safety notice 1

Before the computer is powered on after FRU replacement, make sure all screws, springs, and other small parts are in place and are not left loose inside the computer. Verify this by shaking the computer and listening for rattling sounds. Metallic parts or metal flakes can cause electrical shorts.

Avant de remettre l'ordinateur sous tension après remplacement d'une unité en clientèle, vérifiez que tous les ressorts, vis et autres pièces sont bien en place et bien fixées. Pour ce faire, secouez l'unité et assurez-vous qu'aucun bruit suspect ne se produit. Des pièces métalliques ou des copeaux de métal pourraient causer un court-circuit.

Bevor nach einem FRU-Austausch der Computer wieder angeschlossen wird, muß sichergestellt werden, daß keine Schrauben, Federn oder andere Kleinteile fehlen oder im Gehäuse vergessen wurden. Der Computer muß geschüttelt und auf Klappergeräusche geprüft werden. Metallteile oder-splitter können Kurzschlüsse erzeugen.

לפני הפעלת המחשב לאחר החלפת FRU יש לוודא שכל הברגים, הקפיצים, וחלקים קטנים אחרים נמצאים במקומם ואינם חופשיים לזוז בתוך המחשב. כדי לוודא זאת, יש ללטלט את המחשב ולהקשיב לגילוי קולות שקשוק. חלקי או שבבי מתכת עלולים לגרום לקצרים חשמליים.

Prima di accendere l'elaboratore dopo che é stata effettuata la sostituzione di una FRU, accertarsi che tutte le viti, le molle e tutte le altre parti di piccole dimensioni siano nella corretta posizione e non siano sparse all'interno dell'elaboratore. Verificare ciò scuotendo l'elaboratore e prestando attenzione ad eventuali rumori; eventuali parti o pezzetti metallici possono provocare cortocircuiti pericolosi.

FRUの交換後、コンピュータの電源を入れる前に、ねじ、バネ、その他の小さな部品がすべて正しい位置にあり、またコンピュータの内部で緩んでいないことを確認してください。これを確認するには、コンピュータを振って、カチャカチャと音がしないか確かめます。金属部品や金属破片はショートの原因になることがあります。

Antes de encender el sistema despues de sustituir una FRU, compruebe que todos los tornillos, muelles y demás piezas pequeñas se encuentran en su sitio y no se encuentran sueltas dentro del sistema. Compruébelo agitando el sistema y escuchando los posibles ruidos que provocarían. Las piezas metálicas pueden causar cortocircuitos eléctricos.

**Safety notice 2**

**⚠ DANGER**

Some standby batteries contain a small amount of nickel and cadmium. Do not disassemble a standby battery, recharge it, throw it into fire or water, or short-circuit it. Dispose of the battery as required by local ordinances or regulations. Use only the battery in the appropriate parts listing. Use of an incorrect battery can result in ignition or explosion of the battery.

Certains batteries de secours contiennent du nickel et du cadmium. Ne les démontez pas, ne les rechargez pas, ne les exposez ni au feu ni à l'eau. Ne les mettez pas en court-circuit. Pour les mettre au rebut, conformez-vous à la réglementation en vigueur. Lorsque vous remplacez la pile de sauvegarde ou celle de l'horloge temps réel, veillez à n'utiliser que les modèles cités dans la liste de pièces détachées adéquate. Une batterie ou une pile inappropriée risque de prendre feu ou d'exploser.

Die Bereitschaftsbatterie, die sich unter dem Diskettenlaufwerk befindet, kann geringe Mengen Nickel und Cadmium enthalten. Sie darf nicht zerlegt, wiederaufgeladen, kurzgeschlossen, oder Feuer oder Wasser ausgesetzt werden. Bei der Entsorgung die örtlichen Bestimmungen für Sondermüll beachten. Beim Ersetzen der Bereitschafts- oder Systematterie nur Batterien des Typs verwenden, der in der Ersatzteilliste aufgeführt ist. Der Einsatz falscher Batterien kann zu Entzündung oder Explosion führen.

סוללות המתנה מסוימות מכילות כמות קטנה של ניקל וקדמיום. אין למרק סוללת המתנה, לטעון אותה מחדש, להשליך אותה לאש או למים או לקצר אותה. יש לסלק את הסוללה בזהירות על ידי התקנות והחוקים המקומיים. יש להשתמש רק בסוללה המופיעה ברשימת החלקים המתאימה. שימוש בסוללה לא מתאימה עלול לגרום להצתה או התפוצצות של הסוללה.

Alcune batterie di riserva contengono una piccola quantità di nichel e cadmio. Non smontarle, ricaricarle, gettarle nel fuoco o nell'acqua né cortocircuitarle. Smaltirle secondo la normativa in vigore (DPR 915/82, successive disposizioni e disposizioni locali). Quando si sostituisce la batteria dell'RTC (real time clock) o la batteria di supporto, utilizzare soltanto i tipi inseriti nell'appropriato Catalogo parti. L'impiego di una batteria non adatta potrebbe determinare l'incendio o l'esplosione della batteria stessa.

予備バッテリーの中には少量のニッケルとカドミウムが含まれているものがあります。したがって、予備バッテリーの分解、再充電、火または水の中への投棄、またはショートさせることは決して行わないでください。バッテリーを廃棄する場合は地方自治体の条例に従ってください。適切なパーツ・リストにあるバッテリーだけを使用してください。誤ったバッテリーを使用すると、バッテリーが発火したり、爆発したりすることがあります。

Algunas baterías de reserva contienen una pequeña cantidad de níquel y cadmio. No las desmonte, ni recargue, ni las eche al fuego o al agua ni las cortocircuite. Deséchelas tal como dispone la normativa local. Utilice sólo baterías que se encuentren en la lista de piezas. La utilización de una batería no apropiada puede provocar la ignición o explosión de la misma.

**Safety notice 3**

**⚠ DANGER**

The battery pack contains small amounts of nickel. Do not disassemble it, throw it into fire or water, or short-circuit it. Dispose of the battery pack as required by local ordinances or regulations. Use only the battery in the appropriate parts listing when replacing the battery pack. Use of an incorrect battery can result in ignition or explosion of the battery.

La batterie contient du nickel. Ne la démontez pas, ne l'exposez ni au feu ni à l'eau. Ne la mettez pas en court-circuit. Pour la mettre au rebut, conformez-vous à la réglementation en vigueur. Lorsque vous remplacez la batterie, veillez à n'utiliser que les modèles cités dans la liste de pièces détachées adéquate. En effet, une batterie inappropriée risque de prendre feu ou d'exploser.

Akkus enthalten geringe Mengen von Nickel. Sie dürfen nicht zerlegt, wiederaufgeladen, kurzgeschlossen, oder Feuer oder Wasser ausgesetzt werden. Bei der Entsorgung die örtlichen Bestimmungen für Sondermüll beachten. Beim Ersetzen der Batterie nur Batterien des Typs verwenden, der in der Ersatzteilliste aufgeführt ist. Der Einsatz falscher Batterien kann zu Entzündung oder Explosion führen.

מארו הסוללה מכיל כמות קטנה של ניקל וקדמיום. אין לפרק את מארו הסוללה, להשליך אותו לאש או למים או לקצר אותו. יש לשלק את מארו הסוללה הסוללה כנדרש על ידי התקנות והחוקים המקומיים. יש להשתמש רק בסוללה המופיעה ברשימת החלקים המתאימה בזמן החלפת מארו הסוללה. שימוש בסוללה לא מתאימה עלול לגרום להצתה או התפוצצות של הסוללה.

La batteria contiene piccole quantità di nichel. Non smontarla, gettarla nel fuoco o nell'acqua né cortocircuitarla. Smaltirla secondo la normativa in vigore (DPR 915/82, successive disposizioni e disposizioni locali). Quando si sostituisce la batteria, utilizzare soltanto i tipi inseriti nell'appropriato Catalogo parti. L'impiego di una batteria non adatta potrebbe determinare l'incendio o l'esplosione della batteria stessa.

バッテリー・パックには少量のニッケルが含まれています。バッテリー・パックを分解したり、火または水の中に投げ込んだり、ショートさせないでください。バッテリー・パックの廃棄にあたっては、地方自治体の条例または規則に従ってください。バッテリー・パックを交換するときは、適切なパーツ・リストにあるバッテリーだけを使用してください。誤ったバッテリーを使用すると、バッテリーが発火したり、爆発したりすることがあります。

Las baterías contienen pequeñas cantidades de níquel. No las desmonte, ni recargue, ni las eche al fuego o al agua ni las cortocircuite. Deséchelas tal como dispone la normativa local. Utilice sólo baterías que se encuentren en la lista de piezas al sustituir la batería. La utilización de una batería no apropiada puede provocar la ignición o explosión de la misma.

**Safety notice 4**

**⚠ DANGER**

The lithium battery can cause a fire, an explosion, or a severe burn. Do not recharge it, remove its polarized connector, disassemble it, heat it above 100°C (212°F), incinerate it, or expose its cell contents to water. Dispose of the battery as required by local ordinances or regulations. Use only the battery in the appropriate parts listing. Use of an incorrect battery can result in ignition or explosion of the battery.

La pile de sauvegarde contient du lithium. Elle présente des risques d'incendie, d'explosion ou de brûlures graves. Ne la rechargez pas, ne retirez pas son connecteur polarisé et ne la démontez pas. Ne l'exposez pas à une température supérieure à 100°C, ne la faites pas brûler et n'en exposez pas le contenu à l'eau. Mettez la pile au rebut conformément à la réglementation en vigueur. Une pile inappropriée risque de prendre feu ou d'exploser.

Die Systematterie ist eine Lithiumatterie. Sie kann sich entzünden, explodieren oder schwere Verbrennungen hervorrufen. Batterien dieses Typs dürfen nicht aufgeladen, zerlegt, über 100 C erhitzt oder verbrannt werden. Auch darf ihr Inhalt nicht mit Wasser in Verbindung gebracht oder der zur richtigen Polung angebrachte Verbindungsstecker entfernt werden. Bei der Entsorgung die örtlichen Bestimmungen für Sondermüll beachten. Beim Ersetzen der Batterie nur Batterien des Typs verwenden, der in der Ersatzteilliste aufgeführt ist. Der Einsatz falscher Batterien kann zu Entzündung oder Explosion führen.

סוללת הליתיום עלולה לגרום לשריפה, להתפוצצות או לכוויות קשות. אין לטעון אותה מחדש, לטלק את המחבר המקוטב שלה, לפרק אותה או לחמם אותה לטמפרטורה העולה על 100 מעלות צלזיוס. אין לשרוף את הסוללה ואין לחשוף את תוכן התא לתא. יש לטלק את הסוללה כנדרש בתקנות ובחוקים המקומיים. יש להשתמש רק בסוללה המופיעה ברשימת החלקים המתאימים. שימוש בסוללה אחרת עלול לגרום לסכנת שריפה או התפוצצות.

La batteria di supporto e una batteria al litio e puo incendiarsi, esplodere o procurare gravi ustioni. Evitare di ricaricarla, smontarne il connettore polarizzato, smontarla, riscaldarla ad una temperatura superiore ai 100 gradi centigradi, incendarla o gettarla in acqua. Smaltirla secondo la normativa in vigore (DPR 915/82, successive disposizioni e disposizioni locali). L'impiego di una batteria non adatta potrebbe determinare l'incendio o l'esplosione della batteria stessa.

リチウム・バッテリーは、火災、爆発、または重症のやけどを引き起こすことがあります。バックアップ・バッテリーの充電、その極性コネクタの取り外し、バッテリー本体の分解、100°C (212°F) 以上への加熱、焼却、電池の中身を水に浸すことはしないでください。バッテリーを廃棄する場合は地方自治体の条例に従ってください。適切なパーツ・リストにあるバッテリーだけを使用してください。誤ったバッテリーを使用すると、バッテリーが発火したり、爆発したりすることがあります。

La batería de respaldo es una batería de litio y puede provocar incendios, explosiones o quemaduras graves. No la recargue, ni quite el conector polarizado, ni la desmonte, ni caliente por encima de los 100°C (212°F), ni la incinere ni exponga el contenido de sus celdas al agua. Deséchela tal como dispone la normativa local.

**Safety notice 5**

If the LCD breaks and the fluid from inside the LCD gets into your eyes or on your hands, immediately wash the affected areas with water for at least for 15 minutes. Seek medical care if any symptoms caused by the fluid are present after washing.

Si le panneau d'affichage à cristaux liquides se brise et que vous recevez dans les yeux ou sur les mains une partie du fluide, rincez-les abondamment pendant au moins quinze minutes. Consultez un médecin si des symptômes persistent après le lavage.

Die Leuchtstoffröhre im LCD-Bildschirm enthält Quecksilber. Bei der Entsorgung die örtlichen Bestimmungen für Sondermüll beachten. Der LCD-Bildschirm besteht aus Glas und kann zerbrechen, wenn er unsachgemäß behandelt wird oder der Computer auf den Boden fällt. Wenn der Bildschirm beschädigt ist und die darin befindliche Flüssigkeit in Kontakt mit Haut und Augen gerät, sollten die betroffenen Stellen mindestens 15 Minuten mit Wasser abgespült und bei Beschwerden anschließend ein Arzt aufgesucht werden.

אם מסך הניבש הנוזלי (LCD) נשבר והנוזל מתוך המסך בא במגע עם עיניים או ידיים, שטפו את האזורים הנוגעים מיד במים במשך 15 דקות לפחות. מנו לקבלת עזרה רפואית אם תסמינים הנובעים מהמגע עם הנוזל נמשכים לאחר השטיפה.

Nel caso che caso l'LCD si dovesse rompere ed il liquido in esso contenuto entrasse in contatto con gli occhi o le mani, lavare immediatamente le parti interessate con acqua corrente per almeno 15 minuti; poi consultare un medico se i sintomi dovessero permanere.

LCD が破損し、LCD 中の液体が目に入ったり、手に触れたりした場合は、液体が触れた部分を少なくとも 15 分間洗い流してください。洗い流した後に、液体によって何らかの症状が現れた場合は、医師の治療を受けてください。

Si la LCD se rompe y el fluido de su interior entra en contacto con sus ojos o sus manos, lave inmediatamente las áreas afectadas con agua durante 15 minutos como mínimo. Obtenga atención medica si se presenta algún

**Safety notice 6**

**⚠ DANGER**

To avoid shock, do not remove the plastic cover that protects the lower part of the inverter card.

Afin d'éviter tout risque de choc électrique, ne retirez pas le cache en plastique protégeant la partie inférieure de la carte d'alimentation.

Aus Sicherheitsgründen die Kunststoffabdeckung, die den unteren Teil der Spannungswandlerplatine umgibt, nicht entfernen.

כדי למנוע התחשמלות, אין להסיר את מכסה הפלסטיק המגן על חלקו התחתון של הכרטיס ההפוך.

Per evitare scosse elettriche, non rimuovere la copertura in plastica che avvolge la parte inferiore della scheda invertitore.

感電を防ぐため、インバーター・カードの下部を保護しているプラスチック・カバーを外さないでください。

Para evitar descargas, no quite la cubierta de plástico que rodea la parte baja de la tarjeta invertida.

**Safety notice 7**

**⚠ DANGER**

Though the main batteries have low voltage, a shorted or grounded battery can produce enough current to burn personnel or combustible materials.

Bien que le voltage des batteries principales soit peu élevé, le court-circuit ou la mise à la masse d'une batterie peut produire suffisamment de courant pour brûler des matériaux combustibles ou causer des brûlures corporelles graves.

Obwohl Hauptbatterien eine niedrige Spannung haben, können sie doch bei Kurzschluß oder Erdung genug Strom abgeben, um brennbare Materialien zu entzünden oder Verletzungen bei Personen hervorzurufen.

אף שהסוללות הראשיות הן בעלות מתח נמוך, סוללה מקוצרות או מוארקת עלולה להפיק זרם מספיק לגרימת כוויות או להצתת חומרים דליקים.

Sebbene le batterie di alimentazione siano a basso voltaggio, una batteria in corto circuito o a massa può fornire corrente sufficiente da bruciare materiali combustibili o provocare ustioni ai tecnici di manutenzione.

メイン・バッテリーの電圧は低くても、ショートしたり、接地したバッテリーが、作業者にやけどを負わせたり、可燃物を燃やすだけの電流を発生させる場合があります。

Aunque las baterías principales tienen un voltaje bajo, una batería cortocircuitada o con contacto a tierra puede producir la corriente suficiente como para quemar material combustible o provocar quemaduras en el personal.

**Safety notice 8**

**⚠ DANGER**

Before removing any FRU, turn off the computer, unplug all power cords from electrical outlets, remove the battery pack, and then disconnect any interconnecting cables.

Avant de retirer une unité remplaçable en clientèle, mettez le système hors tension, débranchez tous les cordons d'alimentation des socles de prise de courant, retirez la batterie et déconnectez tous les cordons d'interface.

Die Stromzufuhr muß abgeschaltet, alle Stromkabel aus der Steckdose gezogen, der Akku entfernt und alle Verbindungskabel abgenommen sein, bevor eine FRU entfernt wird.

לפני סילוק FRU כלשהו, יש לכבות את המחשב, לנתק את כל כבלי החשמל משקעי החשמל, להוציא את סוללת הסוללה, ואז לנתק כבלי חיבור אחרים אם יש כאלה.

Prima di rimuovere qualsiasi FRU, spegnere il sistema, scollegare dalle prese elettriche tutti i cavi di alimentazione, rimuovere la batteria e poi scollegare i cavi di interconnessione.

FRUを取り外す前に、ThinkPadの電源を切って、すべての電源コードをコンセントから外してください。次に、バッテリー・パックを外し、相互接続ケーブルを外してください。

Antes de quitar una FRU, apague el sistema, desenchufe todos los cables de las tomas de corriente eléctrica, quite la batería y, a continuación, desconecte cualquier cable de conexión entre dispositivos.

## Laser compliance statement

Some models of Lenovo computer are equipped from the factory with an optical storage device such as a CD-ROM drive or a DVD-ROM drive. Such devices are also sold separately as options. If one of these drives is installed, it is certified in the U.S. to conform to the requirements of the Department of Health and Human Services 21 Code of Federal Regulations (DHHS 21 CFR) Subchapter J for Class 1 laser products. Elsewhere, the drive is certified to conform to the requirements of the International Electrotechnical Commission (IEC) 825 and CENELEC EN 60 825 for Class 1 laser products.

If a CD-ROM drive, a DVD-ROM drive, or another laser device is installed, note the following:

### CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.

O uso de controles, ajustes ou desempenho de procedimentos diferentes daqueles aqui especificados pode resultar em perigosa exposição à radiação.

凡未在这里指明的任何控制用法、调整、行为，都会导致严重后果。

Pour éviter tout risque d'exposition au rayon laser, respectez les consignes de réglage et d'utilisation des commandes, ainsi que les procédures décrites.

Werden Steuer- und Einstellelemente anders als hier festgesetzt verwendet, kann gefährliche Laserstrahlung auftreten.

Az itt előírt eljárásokról, beállításokról és vezérlésekről eltérni a lézersugárzás veszélye miatt kockázatos!

L'utilizzo di controlli, regolazioni o l'esecuzione di procedure diverse da quelle specificate possono provocare l'esposizione a.

Использование элементов настройки и выполнение процедур иных, чем указано здесь, может привести к опасному радиационному облучению.

Použitie kontrol, úprav alebo iných vykonaní od iných výrobcov, ako je v tomto špecifikované, mohlo by mať za následok nebezpečenstvo vystavenia sa vyžiarovaniu.

本書で指定された内容以外のお客様による整備、調整、または手順を行った場合、レーザー光の放射の危険があります。

El uso de controles o ajustes o la ejecución de procedimientos distintos de los aquí especificados puede provocar la exposición a radiaciones peligrosas.

Opening the CD-ROM drive, the DVD-ROM drive, or any other optical storage device could result in exposure to hazardous laser radiation. There are no serviceable parts inside those drives. **Do not open.**

A CD-ROM drive, a DVD-ROM drive, or any other storage device installed may contain an embedded Class 3A or Class 3B laser diode. Note the following:

 **DANGER**

Emits visible and invisible laser radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam.

Radiação por raio laser ao abrir. Não olhe fixo no feixe de luz, não olhe diretamente por meio de instrumentos óticos e evite exposição direta com o feixe de luz.

开启时会有激光发射时，请勿直视激光光束，请勿直接查看视觉仪器，并且避免直接接触在激光光束之中。

Rayonnement laser si carter ouvert. Évitez de fixer le faisceau, de le regarder directement avec des instruments optiques, ou de vous exposer au rayon.

Laserstrahlung bei geöffnetem Gerät. Nicht direkt oder über optische Instrumente in den Laserstrahl sehen und den Strahlungsbereich meiden.

Kinyitáskor lézersugár! Ne nézzen bele se szabad szemmel, se optikai eszközökkel. Kerülje a sugárnyalábbal való érintkezést!

Aprenndo l'unità vengono emesse radiazioni laser. Non fissare il fascio, non guardarlo direttamente con strumenti ottici e evitare l'esposizione diretta al fascio.

Открывая, берегитесь лазерного излучения. Не смотрите на луч, не разглядывайте его с помощью оптических инструментов, а также избегайте прямого воздействия лазерного луча.

Keď je laserová jednotka otvorená. Vyhňte sa priamemu pohľadu a nehláďte priamo s optickými nástrojmi do lúča a vyhňte sa priamemu vystaveniu lúčov.

開けるとレーザー光が放射されます。光線を見つめたり、光学機械を使って直接見たりしないでください。

Radiación láser al abrir. No mire fijamente ni examine con instrumental óptico el haz de luz. Evite la exposición directa al haz.

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## **Important service information**

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This chapter presents the following important service information:

- “Strategy for replacing FRUs” on page 16
  - “Important notice for replacing a main board” on page 17
- “Important information about replacing RoHS compliant FRUs” on page 18

**Important:**

BIOS and device driver fixes are customer-installable. The BIOS and device drivers are posted on the customer support site:  
<http://support.lenovo.com/>.

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## **Strategy for replacing FRUs**

**Before replacing parts:**

Make sure that all software fixes, drivers, and BIOS downloads are installed before replacing any FRUs listed in this manual.

After a main board is replaced, ensure that the latest BIOS is loaded to the main board before completing the service action.

To download software fixes, drivers, and BIOS, follow the steps below:

1. Go to <http://support.lenovo.com/>.
2. Enter a serial number or select a product or use Lenovo smart downloading.
3. Select the BIOS/Driver/Applications and download.
4. Follow the directions on the screen and install the necessary software.

Use the following strategy to prevent unnecessary expense for replacing and servicing FRUs:

- If you are instructed to replace an FRU, but the replacement does not solve the problem, reinstall the original FRU before you continue.
- Some computers have both a processor board and a main board. If you are instructed to replace either of them, and replacing one of them does not solve the problem, reinstall that board, and then replace the other one.
- If an adapter or a device consists of more than one FRU, any of the FRUs may be the cause of the error. Before replacing the adapter or device, remove the FRUs one by one to see if the symptoms change. Replace only the FRU that changed the symptoms.

**Attention:** The setup configuration on the computer you are servicing may have been customized. Running Automatic Configuration may alter the settings. Note the current configuration settings (using the View Configuration option); then, when service has been completed, verify that those settings remain in effect.

### **Important notice for replacing a main board**

Some components mounted on a main board are very sensitive. Improper handling can cause damage to those components, and may cause a system malfunction.

**Attention:** When handling a main board:

- Do not drop the main board or apply any excessive force to it.
- Avoid rough handling of any kind.
- Avoid bending the main board and hard pushing to prevent cracking at each BGA (Ball Grid Array) chipset.

**Important information about replacing RoHS compliant FRUs**

**RoHS, The Restriction of Hazardous Substances in Electrical and Electronic Equipment Directive (2002/95/EC) is a European Union legal requirement affecting the global electronics industry. RoHS requirements must be implemented on Lenovo products placed on the market after June 2006. Products on the market before June 2006 are not required to have RoHS compliant parts. If the original FRU parts are non-compliant, replacement parts can also be non-compliant. In all cases if the original FRU parts are RoHS compliant, the replacement part must also be RoHS compliant.**

**Note:** RoHS and non-RoHS FRU part numbers with the same fit and function are identified with unique FRU part numbers.

Lenovo plans to transit to RoHS compliance well before the implementation date and expects its suppliers to be ready to support Lenovo’s requirements and schedule in the EU. Products sold in 2005 and 2006 will contain some RoHS compliant FRUs. The following statement pertains to these products and any product Lenovo produces containing RoHS compliant FRUs.

RoHS compliant FRUs have unique FRU part numbers. Before or after the RoHS implementation date, failed RoHS compliant parts must always be replaced with RoHS compliant ones, so only the FRUs identified as compliant in the system HMM or direct substitutions for those FRUs may be used.

Products marketed before June 2006		Products marketed after June 2006	
Current or original part	Replacement FRU	Current or original part	Replacement FRU
Non-RoHS	Can be Non-RoHS	Must be RoHS	Must be RoHS
Non-RoHS	Can be RoHS		
Non-RoHS	Can sub to RoHS		
RoHS	Must be RoHS		

**Note:** A direct substitution is a part with a different FRU part number that is automatically shipped by the distribution center at the time of the order.

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## General checkout

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This chapter presents the following information:

- “What to do first” on page 20
- “Power system checkout” on page 21

Before you go to the checkout, make sure to read the following important notes:

**Important notes:**

- **Only certified trained personnel can service the computer.**
- **Before replacing any FRU, read the entire page on removing and replacing FRUs.**
- **When you replace FRUs, use new nylon-coated screws.**
- **Be extremely careful during such write operations as copying, saving, or formatting.** Drives in the computer that you are servicing sequence might have been altered. If you select an incorrect drive, data or programs might be overwritten.
- **Replace an FRU only with another FRU of the correct model.** When you replace an FRU, make sure that the machine model and the FRU part number are correct by referring to the FRU parts list.
- **An FRU should not be replaced just because of a single, unreproducible failure.** Single failures can occur for a variety of reasons that have nothing to do with a hardware defect, such as cosmic radiation, electrostatic discharge, or software errors. Consider replacing an FRU only when a problem recurs. If you suspect that an FRU is defective, clear the error logs and run the test again. If the error does not recur, do not replace the FRU.
- **Be careful not to replace a nondefective FRU.**

## What to do first

When you do return an FRU, you must include the following information in the parts exchange form or parts return form that you attach to it:

1. Name and phone number of servicer
2. Date of service
3. Date on which the machine failed
4. Date of purchase
5. Procedure index and page number in which the failing FRU was detected
6. Failing FRU name and part number
7. Machine type, model number, and serial number
8. Customer's name and address

**Note for warranty:** During the warranty period, the customer may be responsible for repair costs if the computer damage was caused by misuse, accident, modification, unsuitable physical or operating environment, or improper maintenance by the customer.

The following is a list of some common items that are not covered under warranty and some symptoms that might indicate that the system was subjected to stress beyond normal use.

Before checking problems with the computer, determine whether the damage is covered under the warranty by referring to the following list:

### **The following are not covered under warranty:**

- LCD panel cracked from the application of excessive force or from being dropped
- Scratched (cosmetic) parts
- Distortion, deformation, or discoloration of the cosmetic parts
- Plastic parts, latches, pins, or connectors that have been cracked or broken by excessive force
- Damage caused by liquid spilled into the system
- Damage caused by the improper insertion of a PC Card or the installation of an incompatible card
- Improper disk insertion or use of an optical drive
- Diskette drive damage caused by pressure on the diskette drive cover, foreign material in the drive, or the insertion of a diskette with multiple labels
- Damaged or bent diskette eject button
- Fuses blown by attachment of a nonsupported device
- Forgotten computer password (making the computer unusable)
- Sticky keys caused by spilling a liquid onto the keyboard
- Use of an incorrect AC adapter on laptop products

### **The following symptoms might indicate damage caused by nonwarranted activities:**

- Missing parts might be a symptom of unauthorized service or modification.
- If the spindle of a hard disk drive becomes noisy, it may have been subjected to excessive force, or dropped.

## Power system checkout

To verify a symptom, follow the steps below:

1. Turn off the computer.
2. Remove the battery pack.
3. Connect the AC adapter.
4. Make sure that power is supplied when you turn on the computer.
5. Turn off the computer.
6. Disconnect the AC adapter and install the charged battery pack.
7. Make sure that the battery pack supplies power when you turn on the computer.

If you suspect a power problem, see the appropriate one of the following power supply checkouts:

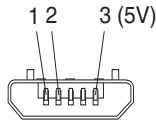
- “Checking the Tab AC Charger” on page 21
- “Checking the internal battery status” on page 21

### Checking the Tab AC Charger

When you use the IdeaTab AC Charger to charge the tablet but no power is charged, see the instructions in this topic to check the IdeaTab AC Charger.

To check the IdeaTab AC Charger, do the following:

1. Disconnect the micro-USB cable from the tablet.
2. Measure the output voltage across the connector marked B of the micro-USB cable. Refer to the following figure:



Pin	Voltage (V dc)
1	Ground
2	0
3	+5

**Note:** The output voltage across pin 3 of the micro-B connector might be different from the one you are servicing.

3. If the voltage is not correct, replace the micro-USB cable.
4. If the voltage is acceptable, replace the main board.

### Checking the internal battery status

To check the battery status of the tablet, do either of the following:

- **Approximate information about the battery status**

Get the approximate status of the battery at any time by checking the battery status icon on the system bar in the upper-right corner of the screen. The shorter the green bar is, the less the battery power remains.

- **Accurate information about the battery status**

To get the accurate information about the battery status of the tablet, do the following:

1. Open the Android Settings screen.

To open the Android Settings screen, do either of the following:

- From the main Home screen, touch the Android **Settings** icon on Lenovo Launch Zone. The Android Settings screen is displayed.
- Touch the application icon from the action bar and then touch **Settings**. The Android Settings screen is displayed.

2. Touch **About Tablet** on the Android Settings screen.

3. Touch **Status** to view the accurate percentage of the remaining battery power. You also can touch **Battery use** to check what applications are consuming battery power.

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## **Related service information**

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This chapter presents the following information:

- “Security” on page 23
- “Power management” on page 23

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### **Security**

Security settings include: SCREEN SECURITY, SIM CARD LOCK (3G version only), PASSWORDS, DEVICE ADMINISTRATION and CREDENTIAL STORAGE.

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### **Power management**

**Note:** Power management modes are not supported for APM operating system.

To reduce power consumption, the computer has three power management modes: screen blank, sleep (standby), and hibernation.

#### **Activating/Deactivating the Display**

With the display deactivated, press the Power button on the tablet to activate the display. The display will then illuminate, indicating that it has been activated.

If you do not need to use your tablet temporarily, you can press the Power button to deactivate the display. Your tablet will then enter standby mode to save power.

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## **Lenovo TAB4 10 Plus**

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This chapter presents the following product-specific service references and product-specific parts information:

- “FRU replacement notices” on page 25
- “Removing and replacing an FRU” on page 26
- “Locations” on page 57
- “Parts list” on page 58

## FRU replacement notices

This section presents notices related to removing and replacing parts. Read this section carefully before replacing any FRU.

### Screw notices

Loose screws can cause a reliability problem. In the Lenovo computer, this problem is addressed with special nylon-coated screws that have the following characteristics:

- They maintain tight connections.
- They do not easily come loose, even with shock or vibration.
- They are harder to tighten.
- Each one should be used only once.

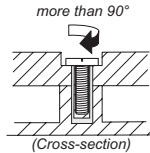
Do the following when you service this machine:

- Keep the screw kit in your tool bag.
- Carefully remove screws for reuse when replacing FRUs.
- Use a torque screwdriver if you have one.

Tighten screws as follows:

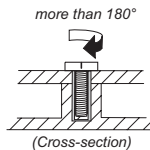
- **Plastic to plastic**

Turn an additional 90° after the screw head touches the surface of the plastic part:



- **Logic card to plastic**

Turn an additional 180° after the screw head touches the surface of the logic card:



- **Torque driver**

If you have a torque screwdriver, refer to the “Torque” column for each step.

- Make sure that you use the correct screws. If you have a torque screwdriver, tighten all screws firmly to the torque shown in the table. **Never use a screw that you removed. Use a new one. Make sure that all screws are tightened firmly.**
- Ensure torque screwdrivers are calibrated correctly following country specifications.

## Removing and replacing an FRU

This section presents exploded figures with the instructions to indicate how to remove and replace the FRU. Make sure to observe the following general rules:

1. Do not attempt to service any computer unless you have been trained and certified. An untrained person runs the risk of damaging parts.
2. Before replacing any FRU, review “FRU replacement notices” on page 25.
3. Begin by removing any FRUs that have to be removed before the failing FRU. Any of such FRUs are listed at the top of the page. Remove them in the order in which they are listed.
4. Follow the correct sequence in the steps to remove the FRU, as given in the figures by the numbers in square callouts.
5. When turning a screw to replace an FRU, turn it in the direction as given by the arrow in the figure.
6. When removing the FRU, move it in the direction as given by the arrow in the figure.
7. To put the new FRU in place, reverse the removal procedures and follow any of the notes that pertain to replacement. For information about connecting and arranging internal cables, see “Locations” on page 57.
8. When replacing an FRU, use the correct screw as shown in the procedures.

** DANGER**

Before removing any FRU, turn off the computer, unplug all power cords from electrical outlets, remove the battery pack, and then disconnect any of the interconnecting cables.

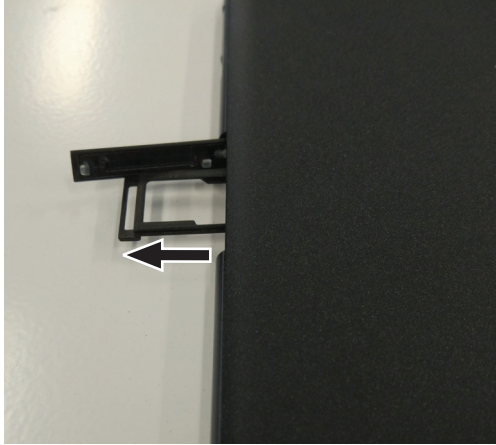
**Attention:** After replacing an FRU, do not turn on the computer until you have made sure that all screws, springs, and other small parts are in place and none are loose inside the computer. Verify this by shaking the computer gently and listening for rattling sounds. Metallic parts or metal flakes can cause electrical short circuits.

**Attention:** The main board is sensitive to, and can be damaged by, electrostatic discharge. Before touching it, establish personal grounding by touching a ground point with one hand or using an electrostatic discharge (ESD) strap (P/N 6405959) to remove potential shock reasons.

## 1010 Back Cover

Figure 1. Removal steps of back cover

Open the SIM card slot cover and take out the SIM card tray.



Using a tool to disassemble the tablet, pry open the rear cover in the direction of the arrows, starting from the lower right corner.



*Figure 1. Removal steps of back cover (continued)*



## 1020 Battery

**⚠ DANGER**

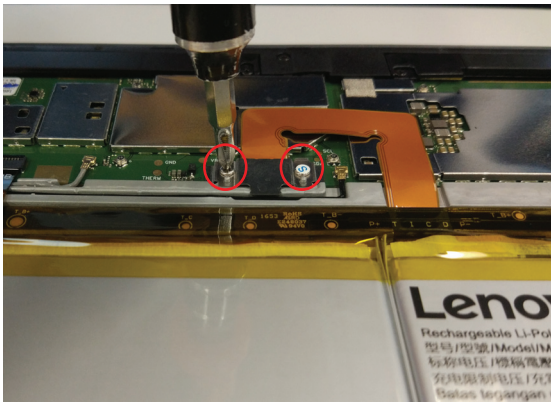
Only use the battery specified in the parts list for your computer. Any other battery could ignite or explode.

For access, remove this FRU:

- “1010 Back Cover” on page 27

Figure 2. Removal steps of battery

Remove the two screws on the steel sheet of the battery connector with a screwdriver.



Step	Screw (quantity)	Color	Torque
1	M1.4*2.0 (2)	Silver	0.7N

Remove the steel sheet of the battery connector with tweezers and separate the battery connector.

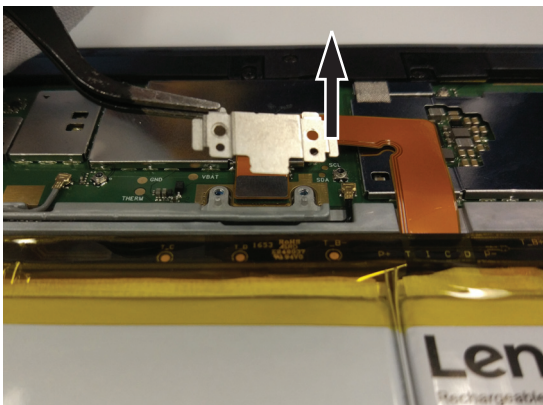
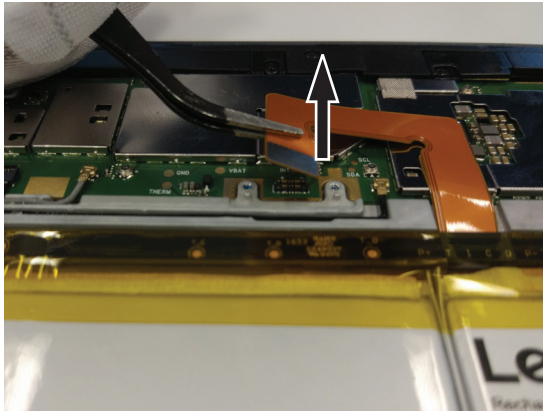


Figure 2. Removal steps of battery (continued)



In turn, disconnect the sub board FPC and the fingerprint FPC from the main board. Separate it from the battery.

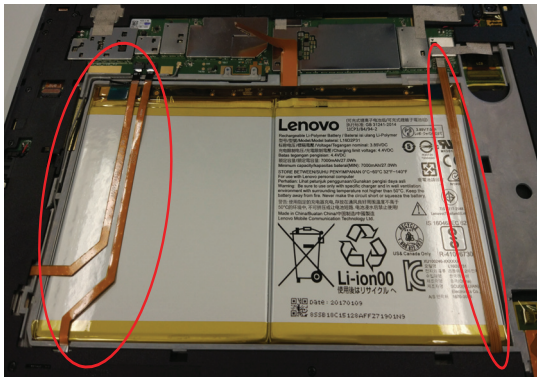


Figure 2. Removal steps of battery (continued)

Peel off and pull out the tear tape along the direction of the battery. Take out the battery.



### 1030 Mid Frame

For access, remove this FRU:

- “1010 Back Cover” on page 27
- “1020 Battery” on page 29

*Figure 3. Removal steps of mid frame*

Remove the sixteen screws securing the mid frame.



Step	Screw (quantity)	Color	Torque
1	M1.4*3.5 (16)	Black	0.7N

Using a tool to disassemble the tablet, pry open the mid frame in the direction of the arrows, starting from the upper left corner.



*Figure 3. Removal steps of mid frame (continued)*



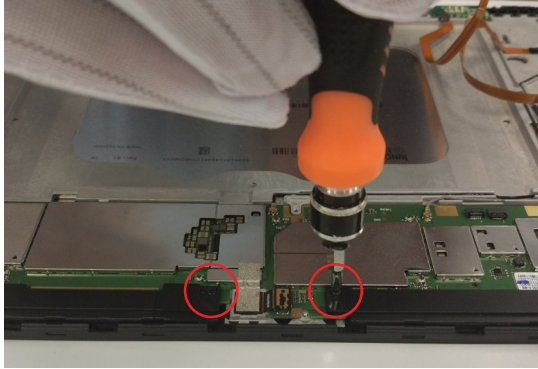
## 1040 Speaker

For access, remove this FRU:

- “1010 Back Cover” on page 27
- “1020 Battery” on page 29
- “1030 Mid Frame” on page 32

*Figure 4. Removal steps of speaker*

Remove the two screws on the speaker box.



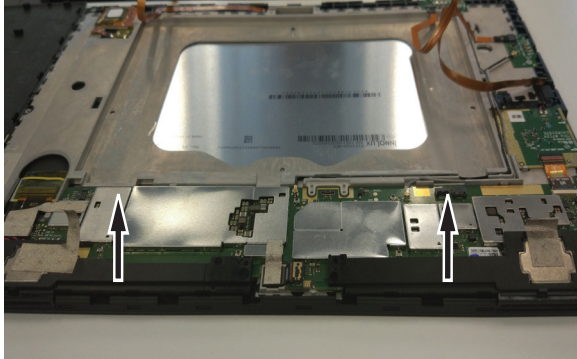
Step	Screw (quantity)	Color	Torque
1	M1.4*3.5 (2)	Black	0.7N

Peel off the conductive cloth on the speaker box.



*Figure 4. Removal steps of speaker (continued)*

Remove the speaker box in the direction of the arrows.



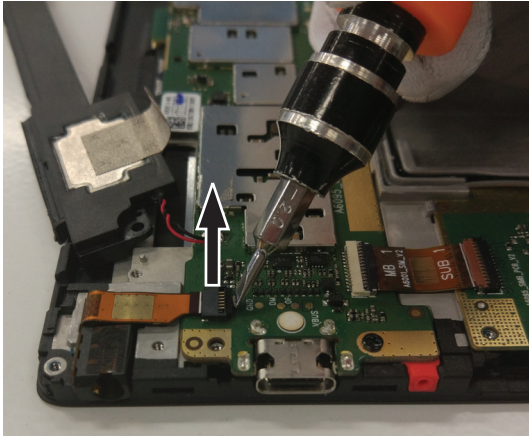
## 1050 Earphone

For access, remove these FRUs in order:

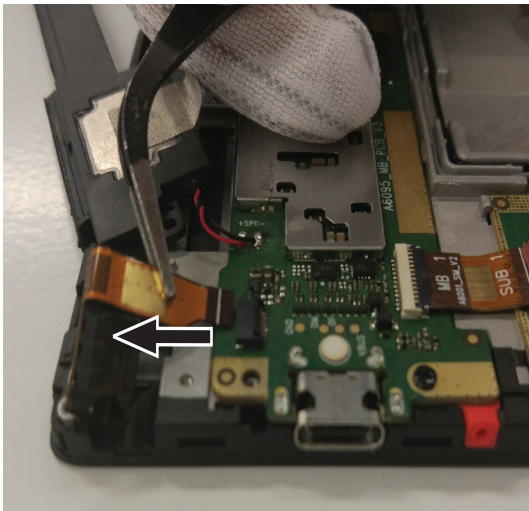
- “1010 Back Cover” on page 27
- “1020 Battery” on page 29
- “1030 Mid Frame” on page 32

*Figure 5. Removal steps of earphone*

Open the earphone FPC connector.



Pull out the earphone FPC from the connector with tweezers.



*Figure 5. Removal steps of earphone (continued)*



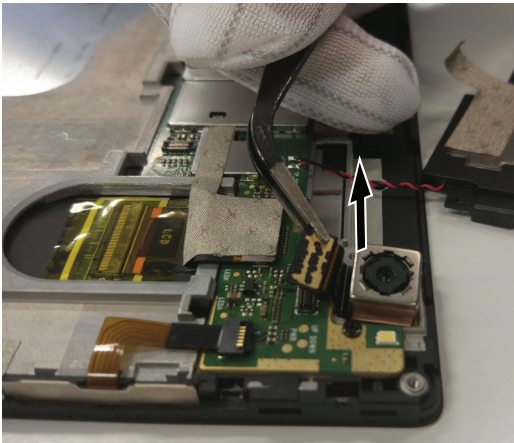
## 1060 Rear Camera

For access, remove these FRUs in order:

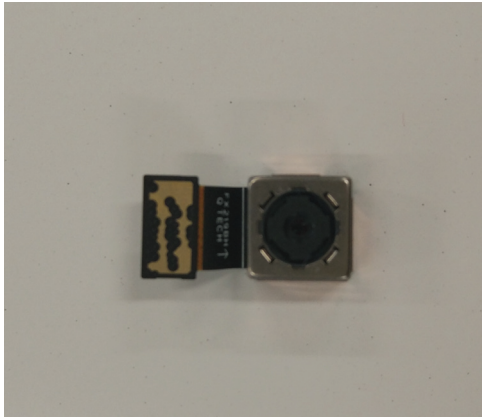
- “1010 Back Cover” on page 27
- “1020 Battery” on page 29
- “1030 Mid Frame” on page 32

*Figure 6. Removal steps of rear camera*

Peel off the Mylar on the rear camera connector and remove the rear camera in the direction of the arrow.



*Figure 6. Removal steps of rear camera (continued)*



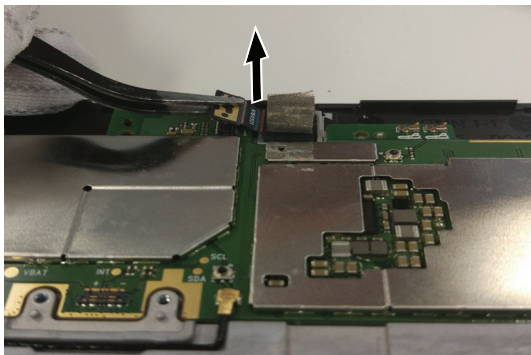
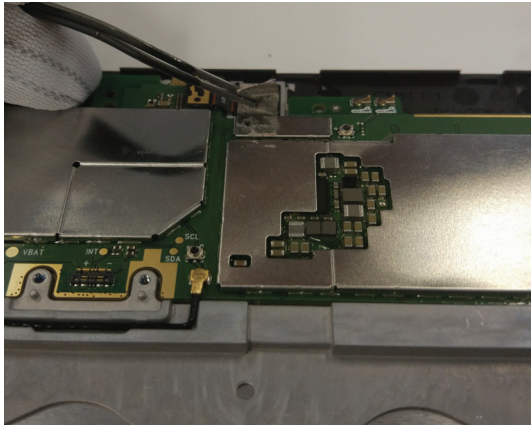
## 1070 Front Camera

For access, remove these FRUs in order:

- “1010 Back Cover” on page 27
- “1020 Battery” on page 29
- “1030 Mid Frame” on page 32

*Figure 7. Removal steps of front camera*

Peel off the conductive cloth on the front camera and remove the front camera in the direction of the arrow.



*Figure 7. Removal steps of front camera (continued)*



## 1080 Sidekey

For access, remove these FRUs in order:

- “1010 Back Cover” on page 27
- “1020 Battery” on page 29
- “1030 Mid Frame” on page 32

*Figure 8. Removal steps of sidekey*

Open the sidekey FPC connector and pull out the FPC in the direction of the arrow.

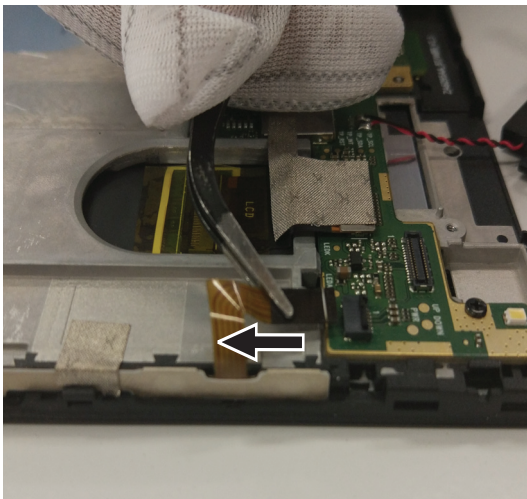
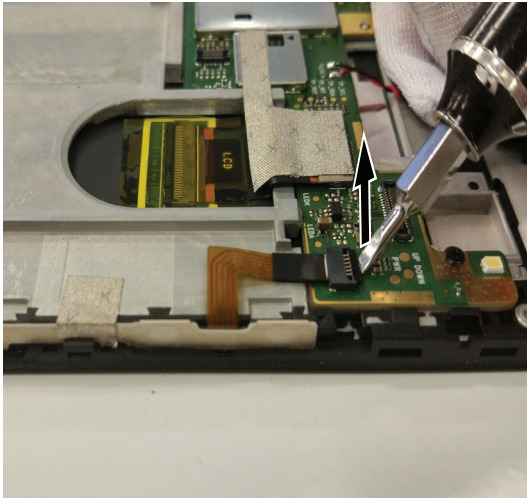
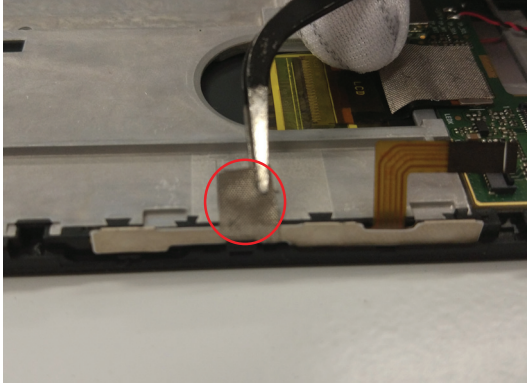
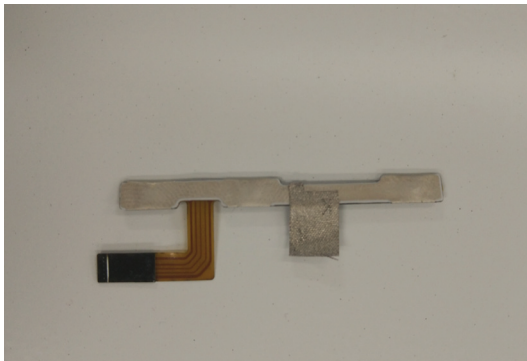
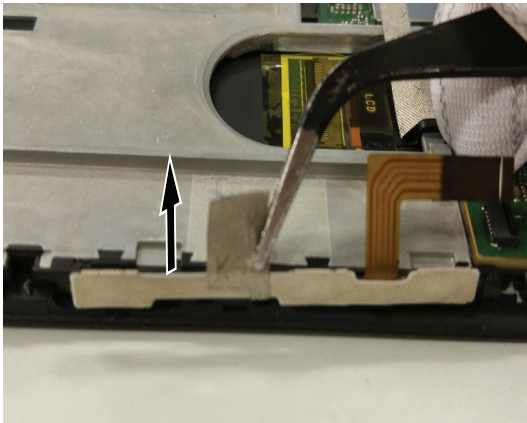


Figure 8. Removal steps of sidekey (continued)

Tear off the conductive cloth from the sidekey FPC.



Remove the sidekey in the direction of the arrow.



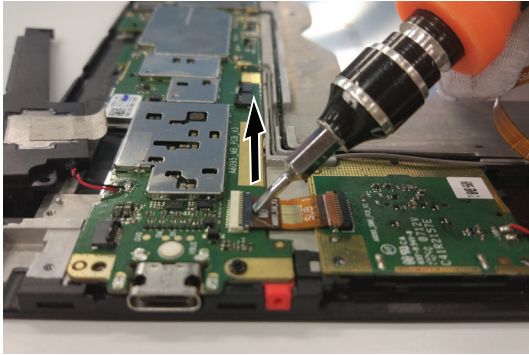
## 1090 SIM Sub Board

For access, remove these FRUs in order:

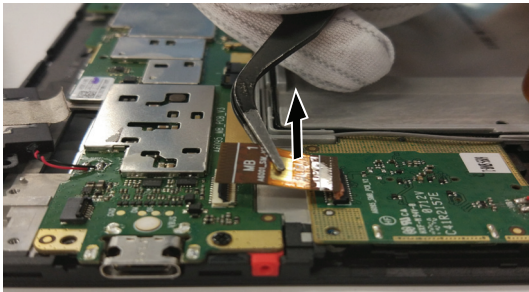
- “1010 Back Cover” on page 27
- “1020 Battery” on page 29
- “1030 Mid Frame” on page 32

*Figure 9. Removal steps of SIM sub board*

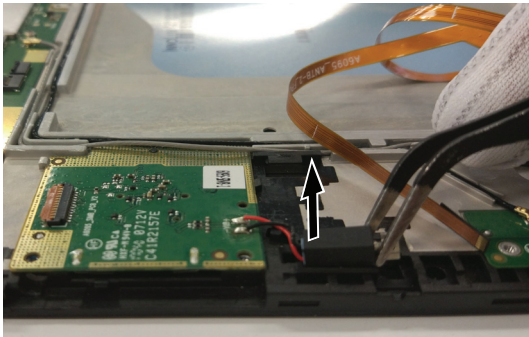
Disconnect the connectors at both ends of the SIM sub board FPC.



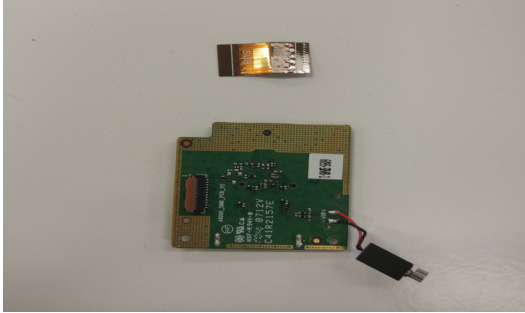
Remove SIM sub board FPC.



Use tweezers to remove the motor from the groove.



*Figure 9. Removal steps of SIM sub board (continued)*



## 1100 Antenna Sub Board

For access, remove these FRUs in order:

- “1010 Back Cover” on page 27
- “1020 Battery” on page 29
- “1030 Mid Frame” on page 32

*Figure 10. Removal steps of antenna sub board*

Disconnect the antenna sub board connector and pull out the FPC.

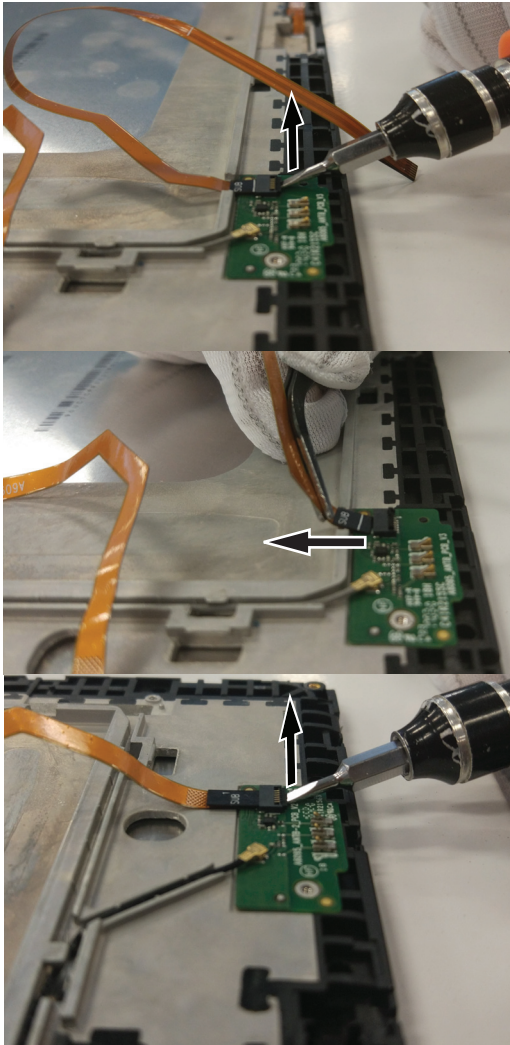
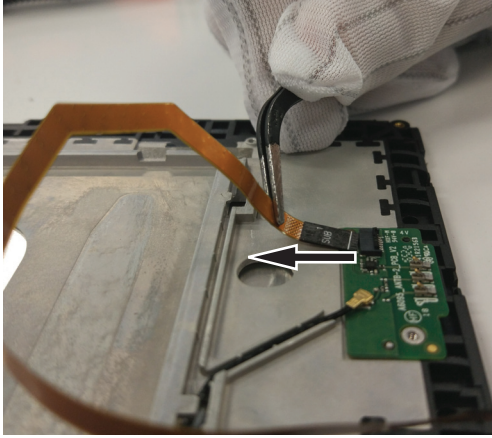


Figure 10. Removal steps of antenna sub board (continued)



Disconnect the ends of the RF cable and remove the RF cable from the routing groove.

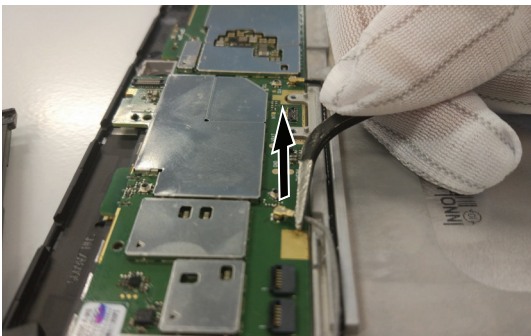
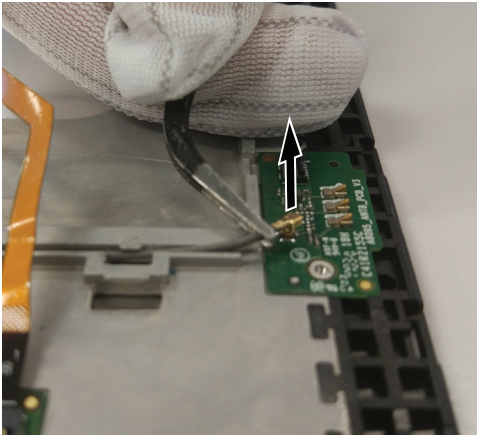
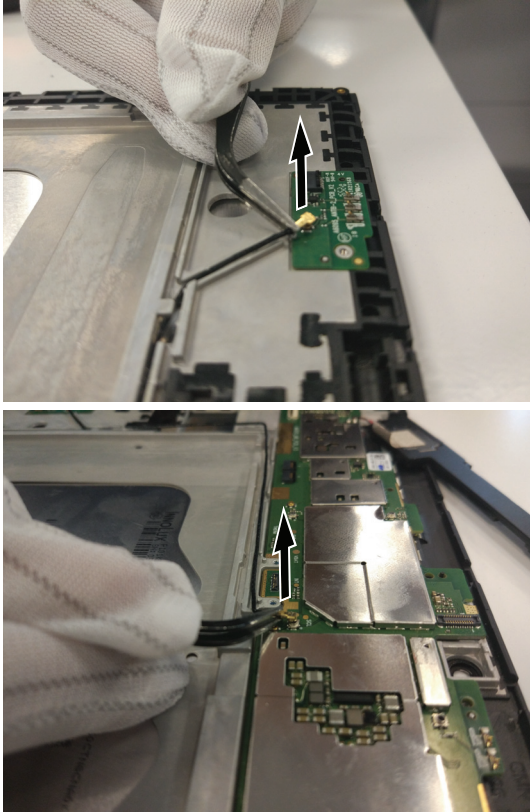


Figure 10. Removal steps of antenna sub board (continued)



Remove the two antenna sub boards.

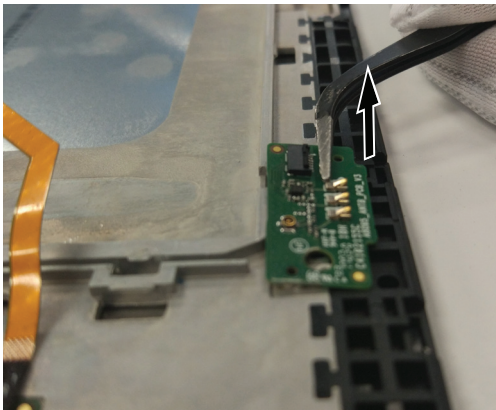
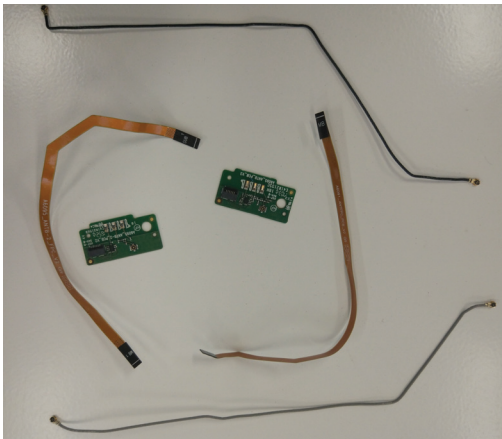
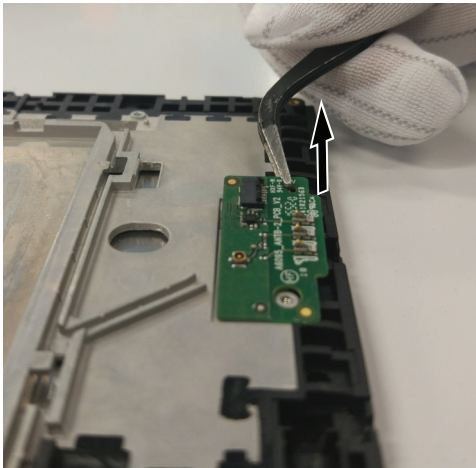


Figure 10. Removal steps of antenna sub board (continued)



## 1110 Main Board

### **Important notices for handling the main board:**

When handling the main board, bear the following in mind.

- Be careful not to drop the main board on a bench top that has a hard surface, such as metal, wood, or composite.
- Avoid rough handling of any kind.
- Throughout the process, make sure not to drop or stack the main board.
- If you put the main board down, make sure to put it only on a padded surface such as an ESD mat or conductive corrugated material.

For access, remove these FRUs in order:

- “1010 Back Cover” on page 27
- “1020 Battery” on page 29
- “1030 Mid Frame” on page 32
- “1040 Speaker” on page 34
- “1050 Earphone” on page 36
- “1060 Rear Camera” on page 38
- “1070 Front Camera” on page 40
- “1080 Sidekey” on page 42
- “1090 SIM Sub Board” on page 44
- “1100 Antenna Sub Board” on page 46

*Figure 11. Removal steps of main board*

Peel off the conductive cloth and Mylar on the LCD FPC connector.

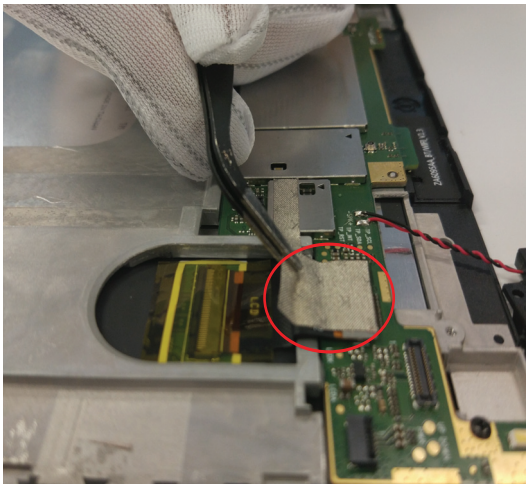
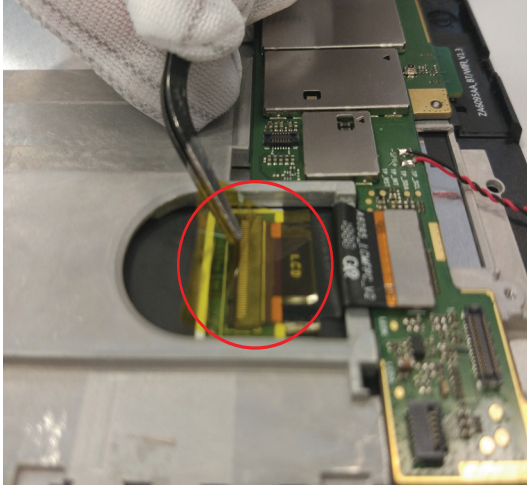


Figure 11. Removal steps of main board (continued)



Disconnect the ends and remove the LCD FPC.

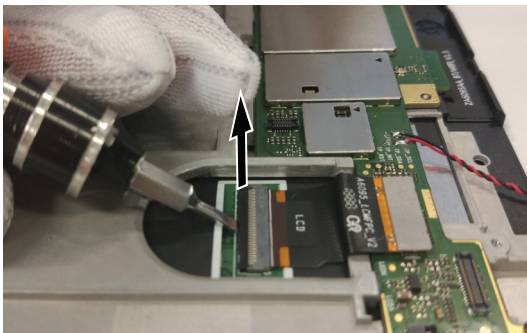
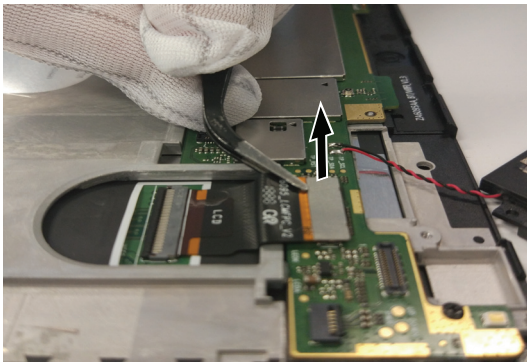
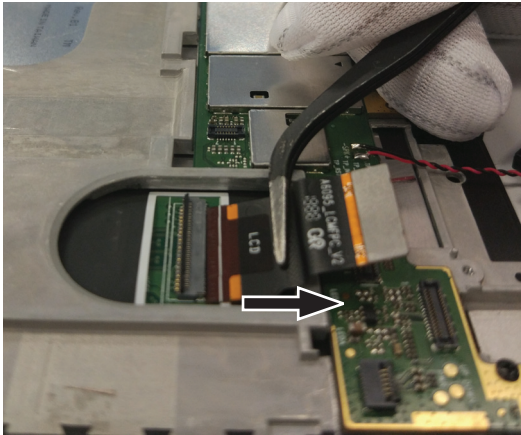


Figure 11. Removal steps of main board (continued)



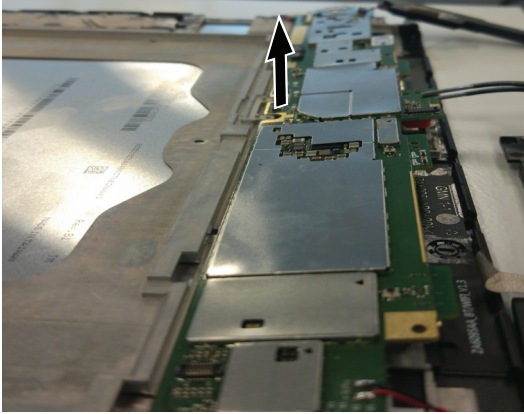
Remove the two screws on the main board.



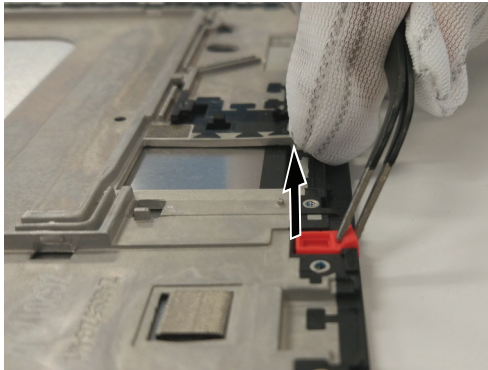
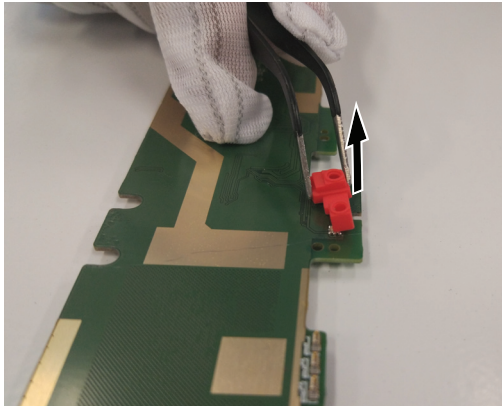
Step	Screw (quantity)	Color	Torque
1	M1.4*3.5 (2)	Black	0.7N

Figure 11. Removal steps of main board (continued)

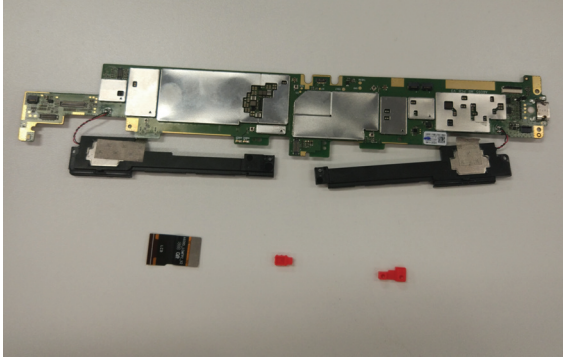
Take out the main board.



Remove the P-sensor rubber and the Mic rubber with tweezers.



*Figure 11. Removal steps of main board (continued)*



## 1120 Fingerprint module

For access, remove these FRUs in order:

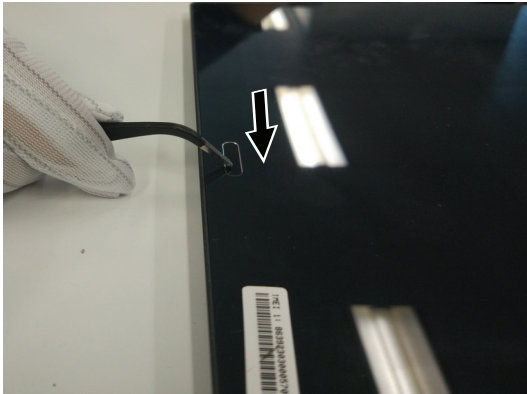
- “1010 Back Cover” on page 27
- “1020 Battery” on page 29
- “1030 Mid Frame” on page 32

*Figure 12. Removal steps of fingerprint module*

Remove the conductive tape on the fingerprint module.



Push out the fingerprint module from the top side.

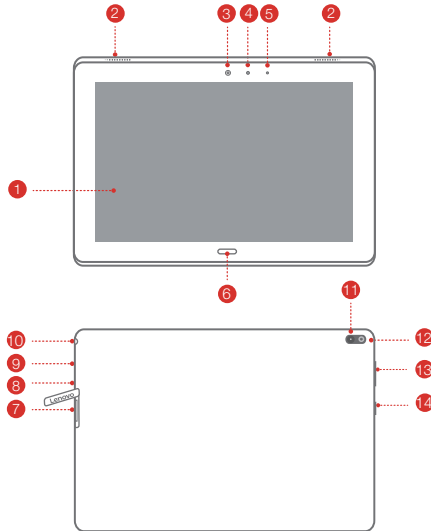


*Figure 12. Removal steps of fingerprint module (continued)*



## Locations

Model	Version
Lenovo TB-X704Y	WLAN
Lenovo TB-X704V	WLAN + LTE



- 1** Touch screen
- 2** Speakers
- 3** Front camera
- 4** Light sensor
- 5** Indicator
- 6** Fingerprint sensor
- 7** Card tray
- 8** Microphone
- 9** Type C USB 2.0 connector
- 10** Headset connector
- 11** Rear camera
- 12** Flash
- 13** Volume buttons
- 14** Power button

**Notes:** The WLAN version (Lenovo TB-X704Y) does not have a Nano-SIM card slot.

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## **Parts list**

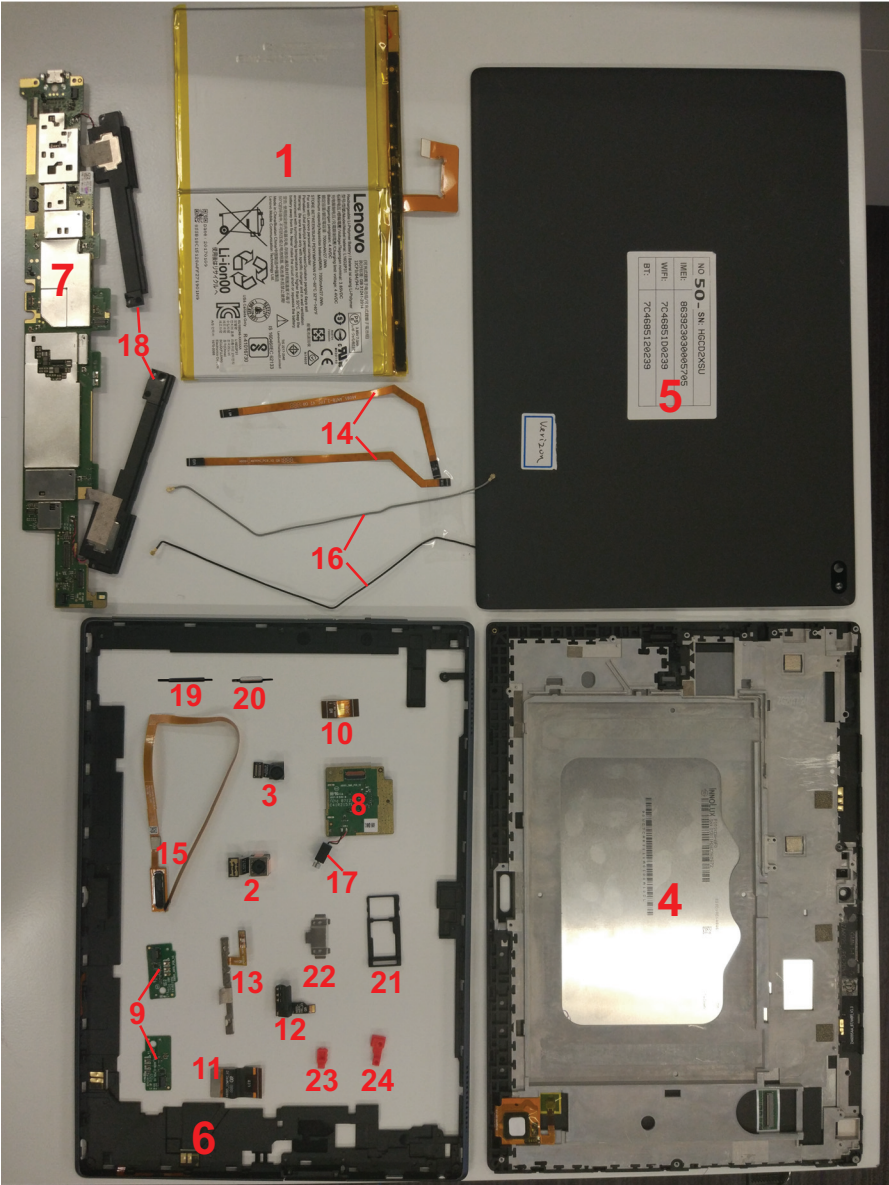
This section presents the following service parts:

- “Overall” on page 59
- “AC Adapter” on page 63
- “USB Cable” on page 63
- “Screw” on page 63
- “Others” on page 64

**Notes:**

- Each FRU is available for all types or models, unless specific types or models are specified.

Overall



**Table 1. Parts list—Overall**

<b>No.</b>	<b>FRU</b>	<b>FRU no.</b>	<b>CRU ID</b>
1	Battery, (B/S)SCUD-A L16D2P31 3.85V27Wh 2cell bty Battery, (B/S)CPT-C L16D2P31 3.85V27Wh 2cell bty Battery, (B/S)SCUD-A-N L16D2P31 3.85V27Wh 2cell bty	SB18C15128 SB18C15788 SB18C17072	N
2	Camera, (B/S)CCM FX219BH 8M IMX219 COB 30PIN BtoB Camera, (B/S)CCM FX219BU 8M IMX219 COB 30PIN BtoB	SC28C07275 SC28C18371	N
3	Camera, (B/S)CCM F5695AK 5M OV5695 COB 24PIN BtoB Camera, (B/S)CCM F5695AZ 5M OV5695 COB 24PIN BtoB	SC28C09104 SC28C18370	N
4	TP LCM Ass'y, TB-X704 TPLCM ASSY_BL&*HQ31603986000 CS TP LCM Ass'y, TB-X704Y TPLCM_BL&*HQ31604378000 CS TP LCM Ass'y, TB-X704L TPLCM_BL&*HQ31604165000 CS TP LCM Ass'y, TB-X704V TPLCM_BL&*HQ31604403000 CS TP LCM Ass'y, TB-X704A TPLCM&*HQ31604570000 CS TP LCM Ass'y, TB-X704 TPLCM ASSY_WH&*HQ31603989000 CS TP LCM Ass'y, TB-X704 NEC TPLCM_WH&*HQ31604075000 CS TP LCM Ass'y, TB-X704L TPLCM_WH&*HQ31604166000 CS	5D68C08248 5D68C08973 5D68C08800 5D68C09009 5D68C09084 5D68C08249 5D68C08568 5D68C08801	N
5	Mechanical Parts, TB-X704 Rear Cover_BL&*HQ31603987000 CS Mechanical Parts, TB-X704 Rear Cover_WH&*HQ31603990000 CS Mechanical Parts, TB-X704 NEC R-cover_WH&*HQ31604076000 CS Mechanical Parts, TB-X704Y BAT cover_BL&*HQ31604379000 CS Mechanical Parts, TB-X704A BAT Cover&*HQ31604569000 CS	5S58C08251 5S58C08252 5S58C08569 5S58C08974 5S58C09121	N
6	Mechanical Parts, TB-X704Y Mid frame&*HQ20713700000 CS Mechanical Parts, TB-X704V Mid frame&*HQ20713697000 CS Mechanical Parts, TB-X704A Mid frame&*HQ20713804000 CS	5S58C08975 5S58C09010 5S58C09122	N

No.	FRU	FRU no.	CRU ID
7	MB, TB-X704F MB_3+16G&*HQ31603988000 CS MB, TB-X704F MB_4+64G&*HQ31603985000 CS MB, TB-X704 NEC MB&*HQ31604074000 CS MB, TB-X704L 3+16G MB&*HQ31604164000 CS MB, TB-X704L 4+64G MB&*HQ31604163000 CS MB, TB-X704Y MB Assy&*HQ31604376000 CS MB, TB-X704V MB Assy&*HQ31604402000 CS MB, TB-X704A MB_2+32G&*HQ31604568000 CS	5B28C08223 5B28C08250 5B28C08570 5B28C08804 5B28C08803 5B28C08976 5B28C09011 5B28C09123	N
8	Sub Board, TB-X704F SIM Sub Board&*HQ31206481000 CS Sub Board, TB-X704L SIMB&*HQ31206479000 CS Sub Board, TB-X704V SIMB&*HQ31604404000 CS Sub Board, TB-X704Y SIMB&*HQ31604377000 CS Sub Board, TB-X704A SIMB Assy&*HQ31604571000 CS Sub Board, TB-X704 NEC SIMB&*HQ31206559000 CS	5P68C08224 5P68C08805 5P68C09012 5P68C08977 5P68C09126 5P68C08571	N
9	Sub Board, TB-X704L ANT B&*HQ31206242000 CS Sub Board, TB-X704 ANTB_V4&*HQ31206866000 CS Sub Board, TB-X704A ANTB&*HQ31206659000 CS Sub Board, TB-X704V ANTB-2&*HQ31206111000 CS Sub Board, TB-X704A ANTB-2&*HQ31206388000 CS	5P68C08763 5P68C09041 5P68C09128 5P68C09013 5P68C09127	N
10	FPC, TB-X704 SIM board FPC&*HQ2201Y008000 CS FPC, TB-X704 SIM board FPC&*HQ22010404000CS FPC, TB-X704A SIMB_FPC&*HQ22015484000 CS	5F78C08225 5F78C08308 5F78C09133	N
11	FPC, TB-X704 LCD FPC&*HQ22002139000 CS FPC, TB-X704 LCD FPC&*HQ22002231000 CS FPC, TB-X704A LCD FPC&*HQ22002235000 CS	5F78C08226 5F78C08309 5F78C09305	N
12	FPC, TB-X704 Earphone FPC&*HQ22001463000 CS FPC, TB-X704 Earphone FPC&*HQ22001464000 CS FPC, TB-X704V Earphone&*HQ22002145000 CS FPC, TB-X704A Earphone_FPC&*HQ22002192000 CS	5F78C08227 5F78C08310 5F78C09018 5F78C09131	N
13	FPC, TB-X704 SideKey FPC&*HQ22010403000 CS FPC, TB-X704 SideKey FPC&*HQ22010396000 CS FPC, TB-X704Y sidekey_FPC&*HQ22015463000 CS FPC, TB-X704Y sidekey_FPC&*HQ22015462000 CS FPC, TB-X704A Sidekey_FPC&*HQ22015483000 CS	5F78C08228 5F78C08311 5F78C08978 5F78C08979 5F78C09132	N
14	FPC, TB-X704V ANTB_FPC&*HQ22010399000 CS FPC, TB-X704A ANTB_FPC&*HQ22015481000 CS FPC, TB-X704V ANTB-2_FPC&*HQ2201Y007000 CS FPC, TB-X704A ANTB-2_FPC&*HQ22015478000 CS	5F78C09014 5F78C09130 5F78C09015 5F78C09129	N
15	FPC, (B/S)Achilles4_PT_GBlack_GT3206/ FLVAG110INC FPC, (B/S)Achilles4_JYT_GBlack_GT3206/JYAA075A FPC, (B/S)Achilles4_PT_GWhite_GT3206/ FLVAG210INC FPC, (B/S)Achilles4_JYT_GWhite_GT3206/JYAA076A	SC98C15397 SC98C15605 SC98C15398 SC98C15606	N

No.	FRU	FRU no.	CRU ID
16	Cable, TB-X704V Cable_GR&*HQ21310162000 CS Cable, TB-X704A ANTB_Cable&*HQ21310166000 CS Cable, TB-X704V Cable_BL&*HQ2131Y002000 CS Cable, TB-X704A ANTB-2_Cable&*HQ21310165000 CS Cable, TB-X704L RF Cabel&*HQ21300173000 CS	5C18C09016 5C18C09124 5C18C09017 5C18C09125 5C18C08762	N
17	Motor, TB-X704 Motor&*HQ20401062000 CS Motor, TB-X704 Motor&*HQ20400149000 CS	5M78C08233 5M78C08312	N
18	Speaker, TB-X704F speaker1&*HQ20330293000 CS Speaker, TB-X704F speaker1&*HQ20330291000 CS Speaker, TB-X704F speaker2&*HQ20330294000 CS Speaker, TB-X704F speaker2&*HQ20330292000 CS	55B8C08234 55B8C08313 55B8C08235 55B8C08314	N
19	Key, TB-X704A Volumn key&*HQ21007407000 CS Key, TB-X704Y Volum key&*HQ21007382000 CS	5B68C09120 5B68C08972	N
20	Key, TB-X704A Power key&*HQ21007408000 CS Key, TB-X704Y Power key&*HQ21007383000 CS	5B68C09148 5B68C08992	N
21	Metal, TB-X704 SimTray_BL&*HQ20900228000 CS Metal, TB-X704 SimTray_WH&*HQ20900340000 CS Metal, TB-X304 SimTray_BL&*HQ20900219000 CS Metal, TB-X704A Sim tray&*HQ20900345000 CS Metal, TB-X304 SimTray_WH&*HQ20900341000 CS	5M88C08236 5M88C08237 5M88C08072 5M88C09134 5M88C08073	N
22	Metal, TB-X704 BAT lock metal&*HQ20900225000 CS Metal, TB-X704Y Bat fix steel&*HQ20900229000 CS Metal, TB-X704A BAT lock&*HQ20900342000 CS	5M88C08238 5M88C08980 5M88C09135	N
23	Rubber, TB-X704 MIC Rubber_red&*HQ21400823000 CS Rubber, TB-X704Y MiC rubber&*HQ21403692000 CS Rubber, TB-X704A MIC rubber &*HQ21403805000 CS	5M08C08239 5M08C08982 5M08C09136	N
24	Rubber, TB-X704 Psensor rubber&*HQ21400824000 CS Rubber, TB-X704Y P-sensor rub&*HQ21403693000 CS Rubber, TB-X704A P-sensor rub&*HQ21403804000 CS	5M08C08240 5M08C08981 5M08C09137	N

## AC Adapter

Table 2. Parts list—AC Adapters

FRU	FRU no.	CRU ID
(B/S)AC Adapter;C-P35;5.2V/2A;UL;black	SA18C01254	N
(B/S)AC Adapter;C-P35;5.2V/2A EMC;US;Black	SA18C04963	N
(B/S)AC Adapter;C-P36;5.2V/2A;EU;black	SA18C01255	N
(B/S)AC Adapter;C-P36;5.2V/2A EMC;EU;Black	SA18C04965	N
(B/S)AC Adapter;C-P37;5.2V/2A;UK;black	SA18C01256	N
(B/S)AC Adapter;C-P37;5.2V/2A EMC;UK;Black	SA18C04967	N
(B/S)Charger;C-P48;5.2V/2A;AUS;Black	5A19A464N0	N
(B/S)AC Adapter;C-P49;5.2V/2A;BIS logo;IN;B	SA18C08979	N
(B/S)Ac adapter;C-P49;5.2V/2A;india;black	SA18C15911	N
(B/S)Charger;C-P46;5.2V/2A Korea;Black	5A19A464N2	N
(B/S)AC Adapter;HKC0105220-2C;5.2V/2A;NEC	SA18C01775	N
(B/S)ACCY,AC ADPTR,2A,SSW-2919UMTJ;10W;US	SA18C15930	N

## USB Cable

Table 3. Parts list—USB Cable

FRU	FRU no.	CRU ID
TB-X704 USB Cable&*HQ60321067000 CS	5C18C08246	N
TB-X704 USB Cable&*HQ60321069000 CS	5C18C08317	N
TB-X704 NEC usb cable&*HQ60321102000 CS	5C18C08864	N
TB-X704V USB cable&*HQ60321061000 CS	5C18C09019	N
TB-X704V USB cable&*HQ60321062000 CS	5C18C09020	N
TB-X704A USB Cable&*HQ60321094000 CS	5C18C09147	N

## Screw

Table 4. Parts list—Screw

FRU	FRU no.	CRU ID
TB2-X30 Screw_Silver&*HQ22110033000 CS	5M88C03673	N
A298t Screw&*HQ22110001000 CS	5M89A33311	N

## Others

Table 6. Parts list—Others

FRU	FRU no.	CRU ID
TB-X704 camera Cloth&*HQ21940724000 CS	5D78C08241	N
TB-X704Y F-cam clothes&*HQ21941257000 CS	5D78C08988	N
TB-X704A F-cam cloth&*HQ21941327000 CS	5D78C09143	N
TB-X704 BTB FPC Mylar&*HQ22231245000 CS	5D78C08242	N
TB-X704Y R-cam mylar&*HQ22231261000 CS	5D78C08987	N
TB-X704A R-cam mylar&*HQ22231331000 CS	5D78C09138	N
TB-X704 LCD Conn Mylar&*HQ22231249000 CS	5D78C08243	N
TB-X704Y TPLCM mylar&*HQ22231260000 CS	5D78C08983	N
TB-X704A LCM mylar&*HQ22231335000 CS	5D78C09139	N
TB-X704 Sub brd mylar&*HQ22231247000 CS	5D78C08244	N
TB-X704 LCD cloth&*HQ21941314000 CS	5D78C08245	N
TB-X704Y TPLCM clothes&*HQ21941287000 CS	5D78C08990	N
TB-X704A LCM cloth&*HQ21941319000 CS	5D78C09145	N
TB-X704 conduct cloth&*HQ21941351000 CS	5D78C08862	N
TB-X704Y Key clothes&*HQ21941256000 CS	5D78C08986	N
TB-X704A Sidekey cloth&*HQ21941323000 CS	5D78C09142	N
TB-X704 insulating tape&*HQ22231361000 CS	5D78C08863	N
Sealing Label&*HQ60400551000 CS	5L19A26109	N
TB-X704 D-cov adhesive&*HQ22211028000 CS	5D78C08305	N
TB-X704 D-cov adhesive&*HQ22211029000 CS	5D78C08306	N
TB-X704 Bat adhesive&*HQ22280067000 CS	5D78C08307	N
TB-X704V/Y/A PULL Tab&*HQ22211059000 CS	5D78C09146	N
TB-X704 FPM cloth&*HQ21941280000 CS	5D78C08315	N
TB-X704Y FPM clothes&*HQ21941290000 CS	5D78C08989	N
TB-X704A FPM cloth &*HQ21941317000 CS	5D78C09144	N
TB-X704Y Rating LBL_US&*HQ60406014000 CS	5L18C08991	N
TB-X704V Rating label&*HQ60406015000 CS	5L18C09021	N
TB-X704Y Box1 clothes&*HQ21941258000 CS	5D78C08984	N
TB-X704A box1 cloth&*HQ21941321000 CS	5D78C09140	N
TB-X704Y Box2 clothes&* HQ21941260000 CS	5D78C08985	N
TB-X704A box2 cloth&*HQ21941328000 CS	5D78C09141	N
TB-X704 Bat FPC foam&*HQ22201757000 CS	5D78C09042	N

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