

lenovo

*Lenovo IdeaPad S410p/
S410p Touch/S510p/
S510p Touch*

*Hardware
Maintenance
Manual*

Notes:

- Before using this information and the product it supports, be sure to read the general information under “Notices” on page 99.
- This manual applies to the following models: Lenovo IdeaPad S410p/S410p Touch/S510p/S510p Touch. The illustrations used in this manual are for Lenovo IdeaPad S510p unless otherwise stated.

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About this manual

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

Lenovo IdeaPad S410p/S410p Touch/S510p/S510p Touch

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.

Safety information

This chapter presents the following safety information that you need to get familiar with before you service a Lenovo IdeaPad S410p/S410p Touch/S510p/S510p Touch 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.
- Please remove covers and other parts in a safe place, away from all personnel, while you are servicing the machine.
- Keep your toolbox away from walk areas so that other people will not trip over it.
- 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 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.

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- 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.

Note:

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 לטלטל 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 altri 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.

Certaines 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 Systembatterie 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 לפרק סוללת המתנה, לטעון אותה מחדש, להשליך אותה לאש או למים או לקצר אותה. יש לשלוק את הסוללה כנדרש 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 לסלק 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 לתצתה 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, לשלק את המחבר המקוטב שלה, לפרק אותה או לחמם אותה בטמפרטורה העולה על 100 מעלות צלזיוס. אין לשרוף את הסוללה ואין לחשוף את תוכן התא למים. יש לשלק את הסוללה כנדרש בתקנות ובחוקים המקומיים. יש להשתמש רק בסוללה המומלצת ברשימת החלקים המתאימים. שימוש בסוללה אחרת עלול לגרום לשכנת שריפה או התפוצצות.

La batteria di supporto è una batteria al litio e può incendiarsi, esplodere o procurare gravi ustioni. Evitare di ricaricarla, smontarne il connettore polarizzato, smontarla, riscaldarla ad una temperatura superiore ai 100 gradi centigradi, incendiarla 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℃(212°F)以上の加熱、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 repuesto 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 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 הנביש הנוזלי (LCD) נשבר והנוזל מתוך המסך בא במגע עם עיניים או ידיים, שטפו את האזורים הנוגעים מיד במים במשך 15 דקות לפחות. פנו לקבלת עזרה רפואית אם חסמינים 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 の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 sintoma del fluido despues de lavarse.

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 מקוצרת או מוארזת 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 מארז 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 eljárásoktól, beállításoktól és vezérlésektől 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，请勿直视激光束，请勿直接查看视觉仪器，并且避免直接接触在激光束之中。

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!

Apriendo 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 nehládte 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.

Important service information

This chapter presents the following important service information:

- “Strategy for replacing FRUs” on page 16
 - “Strategy for replacing a hard disk drive” on page 17
 - “Important notice for replacing a system 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>

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 system board is replaced, ensure that the latest BIOS is loaded to the system 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 the 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 system 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.

Strategy for replacing a hard disk drive

Always try to run a low-level format before replacing a hard disk drive. This will cause all customer data on the hard disk to be lost. Make sure that the customer has a current backup of the data before performing this action.

Attention: The drive startup sequence in the computer you are servicing may have been changed. Be extremely careful during write operations such as copying, saving, or formatting. If you select an incorrect drive, data or programs can be overwritten.

Important notice for replacing a system board

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

Attention: When handling a system board:

- Do not drop the system board or apply any excessive force to it.
- Avoid rough handling of any kind.
- Avoid bending the system 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.

General checkout

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.**
- **Carefully remove screws for reuse when replacing FRUs.**
- **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 AC adapter” on page 21
- “Checking operational charging” on page 21
- “Checking the battery pack” on page 22

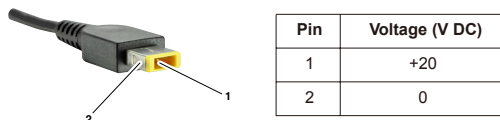
Checking the AC adapter

You are here because the computer fails only when the AC adapter is used.

- If the power-on indicator does not turn on, check the power cord of the AC adapter for correct continuity and installation.
- If the computer does not charge during operation, go to “Checking operational charging”.

To check the AC adapter, follow the steps below:

1. Unplug the AC adapter cable from the computer.
2. Measure the output voltage at the plug of the AC adapter cable. See the following figure:



Note: Output voltage for the AC adapter pin No. 2 may differ from the one you are servicing.

3. If the voltage is not correct, replace the AC adapter.
4. If the voltage is acceptable, do the following:
 - Replace the system board.
 - If the problem persists, go to “Lenovo IdeaPad S410p/S410p Touch/S510p/S510p Touch” on page 26.

Note: Noise from the AC adapter does not always indicate a defect.

Checking operational charging

To check whether the battery charges properly during operation, use a discharged battery pack or a battery pack that has less than 50% of the total power remaining when installed in the computer.

Perform operational charging. If the battery status indicator or icon does not light on, remove the battery pack and let it return to room temperature. Reinstall the battery pack. If the charge indicator or icon is still off, replace the battery pack.

If the charge indicator still does not light on, replace the system board. Then reinstall the battery pack. If it is still not charged, go to the next section.

Checking the battery pack

Battery charging does not start until the Power Meter shows that less than 95% of the total power remains; under this condition the battery pack can charge to 100% of its capacity. This protects the battery pack from being overcharged or from having a shortened life.

To check your battery, move your cursor to the Power Meter icon in the icon tray of the Windows® taskbar and wait for a moment (but do not click it), and the percentage of battery power remaining is displayed. To get detailed information about the battery, double-click the Power Meter icon.

Note: If the battery pack becomes hot, it may not be able to be charged. Remove it from the computer and leave it at room temperature for a while. After it cools down, reinstall and recharge it.

Related service information

This chapter presents the following information:

- “Restoring the factory contents by using OneKey Recovery” on page 23
- “Passwords” on page 24
- “Power management” on page 25

Restoring the factory contents by using OneKey Recovery

Restore of factory default

The Lenovo IdeaPad S410p/S410p Touch/S510p/S510p Touch computers come with pre-installed OneKey Recovery System. In order to save application files and the initial backed up files of the system, the hard disk in a Lenovo computer includes a hidden partition when it is shipped. If you need to restore the system to the point of your first boot up, just enter Lenovo OneKey Recovery System and run **System Recovery**. For details of OneKey Recovery System, see *the User Guide for Lenovo OneKey Recovery system*.

Note: This will delete all the new data on the system partition (C drive), which is not recoverable. Make sure to back up your critical data before you perform this action.

When you use the recovery discs to boot your computer, the system will enter the user interface for system recovery automatically. Please follow the prompt to insert the backup discs to complete the whole recovery process.

Note: The recovery process might take up to 2 hours.

Passwords

As many as three passwords may be needed for any Lenovo computer: the power-on password (POP), the hard disk password (HDP), and the administrator password.

If any of these passwords has been set, a prompt for it appears on the screen whenever the computer is turned on. The computer does not start until the password is entered.

Power-on password

A power-on password (POP) protects the system from being powered on by an unauthorized person. The password must be entered before an operating system can be booted.

Hard-disk password

There are two hard-disk passwords (HDPs):

- + User HDP - for the user
- + Master HDP - for the system administrator, who can use it to get access to the hard disk drive even if the user has changed the user HDP

Attention: If the user HDP has been forgotten, check whether a master HDP has been set. If it has, it can be used for access to the hard disk drive. If no master HDP is available, neither Lenovo nor Lenovo authorized service technicians provide any services to reset either the user or the master HDP, or to recover data from the hard disk drive. The hard disk drive can be replaced for a scheduled fee.

Administrator password

Administrator password controls the access of the whole setup utility. Only Administrator password was set then User password can be set. If Administrator password was cleared, the User password was cleared too.

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.

Screen blank state

If the time set on the “Turn off monitor” timer in the operating system expires, the LCD backlight turns off. You can also turn off the LCD backlight by pressing .

To end screen blank state and resume normal operation, press .

Putting the computer to sleep or shutting it down

When you have finished working with your computer, you can put it to sleep or shut it down.

Putting your computer to sleep

If you will be away from your computer for only a short time, put the computer to sleep. When the computer is in sleep mode, you can quickly wake it to resume use, bypassing the startup process. To put the computer to sleep, do one of the following:

- Close the display panel.
- Press the power button.
- Open the Charms and then select **Settings**  → **Power**  → **Sleep**.

Attention: Wait until the power indicator light starts blinking (indicating that the computer is in sleep mode) before you move your computer. Moving your computer while the hard disk is spinning can damage the hard disk, causing loss of data.

To wake the computer, do one of the following:

- Press any key on the keyboard.
- Press the power button.

Shutting down the computer

If you are not going to use your computer for a long time, shut it down. To shut down your computer:

- Open the charms bar, then select **Settings**  → **Power**  → **Shut down**.

Lenovo IdeaPad S410p/S410p Touch/S510p/S510p Touch

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

- “Specifications” on page 26
- “Status indicators” on page 28
- “Hotkeys” on page 29
- “FRU replacement notices” on page 30
- “Removing and replacing an FRU” on page 31
- “Locations” on page 73
- “Parts list” on page 75

Specifications

The following table lists the specifications of the Lenovo IdeaPad S410p/S410p Touch/S510p/S510p Touch:

Table 1. Specifications

Feature	Description
Processor	• See the system properties of your computer, you can do this as follows: Click Control Panel, then click Hardware and Sound, click Device Manager under Devices and Printers and double click Processors.
Graphic memory chip	• nvidia N14M-GE/Integrated
Display	• 14" 16:9, 1366 × 768 pixels (S410p/S410p Touch) • 15.6" 16:9, 1366 × 768 pixels (S510p/S510p Touch)
Standard memory	• DDR3L-1600MHz SODIMM x 2 (max 16 GB)
Hard disk drive	• 2.5-inch, 7 mm/9.5 mm SATA • 320 GB / 500 GB / 750 GB / 1TB 5400 rpm
Optical drive	• 2.5" External 9.0mm (Rambo, blue-ray Rambo)
I/O port	• Combo audio jack × 1 • RJ45 × 1 • HDMI port × 1 • USB 2.0 port × 1, USB 3.0 port × 2 • 2 in 1 slot × 1 (SD/MMC)
Audio	• 1/8" Combo audio jack • 1.5 W speakers × 2 • Array Microphone
Ethernet (on the system board)	• 10/100M
PCI Express Mini Card slot	• 1 slot
Bluetooth wireless	• Combined in combo card

Table 1. Specifications (continued)

Feature	Description
Keyboard	• 6 Row, ISO Full Size Keyboard
Touch pad	• Multi-touch type
Integrated camera	• 720P HD
Battery	• 4 cell, 41Wh or 32 Wh
AC adapter	• 20 V, 65 W or 45 W
Pre-installed operating system	• Win8

Status indicators

The system status indicators below show the computer status:



Table 2. Status indicators

Indicator	Indicator status	Meaning
 Power	On (solid white)	The computer is powered on.
	Blinking	The computer is in sleep mode.
	Off	The computer is powered off.
 Battery	On (solid white)	The battery has more than 20% charge.
	On (solid amber)	The battery has between 5% and 20% charge.
	Fast blinking amber	There is a problem with the battery or the battery connection.
	Slow blinking amber	The battery is being charged. When the battery charge reaches 20%, the blinking color changes to white.
	Slow blinking white	The battery has between 20% and 80% charge and is still charging. When the battery reaches 80% charge, the light will stop blinking, but charging will continue until the battery is fully charged.

Hotkeys

You can access certain system settings quickly by pressing the appropriate hotkeys.

Table 3. Hotkeys

 F1	Mutes/unmutes the sound.
 F2	Decreases the volume level.
 F3	Increases the volume level.
 F4	Closes the currently active window.
 F5	Refreshes the desktop or the currently active window.
 F6	Enables/disables the touchpad.
 F7	Enables/disables Airplane mode.
 F8	Displays all currently active apps.
 F9	Turns on/off the backlight of the LCD screen.
 F10	Toggles the display between the computer and an external device.
 F11	Decreases display brightness.
 F12	Increases display brightness.

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.

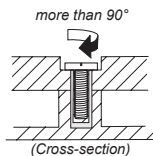
Do the following when you service this machine:

- 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:

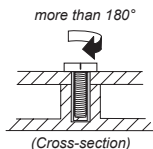
- **Plastic to plastic**

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. **Carefully remove screws for reuse when replacing FRUs. 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 30.
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 73.
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 system 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.

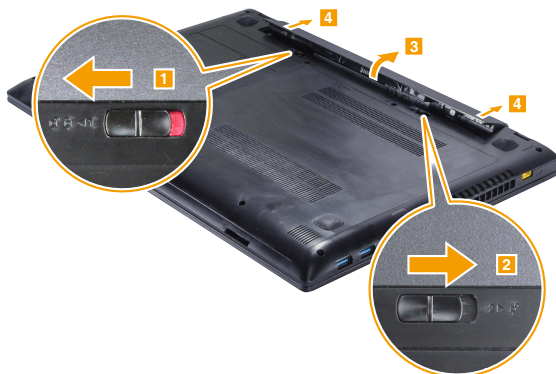
1010 Battery pack

⚠ DANGER

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

Figure 1. Removal steps of battery pack

Unlock the manual latch **1**. Slide the spring-loaded latch to the unlocked position **2** to eject the battery pack. Lift up the inner edge of the battery pack, pivoting it on the outer edge **3**. Gently raise the battery pack in the indicated direction **4** to remove it.



1020 Dummy card

Figure 2. Removal step of dummy card

Remove the dummy card in the direction shown by arrows **1** and **2**.



1030 Base cover

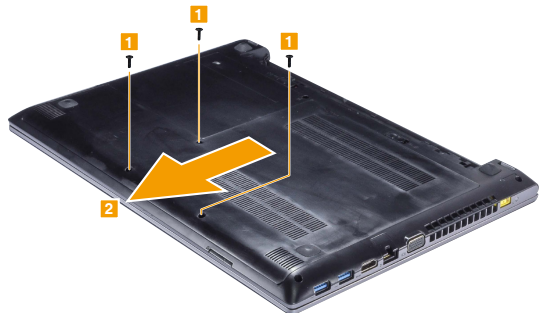
For access, remove this FRU:

- “1010 Battery pack” on page 32

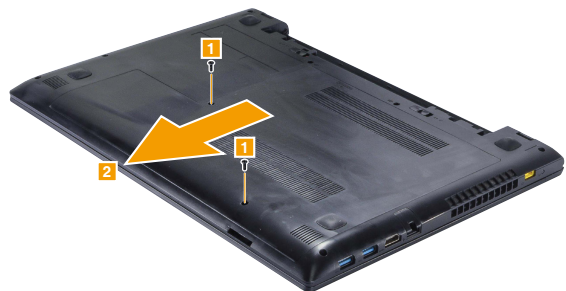
Figure 3. Removal steps of base cover

Remove the screws **1**. Then remove the base cover **2**.

S410p/S410p Touch



S510p/S510p Touch



Step	Screw (quantity)	Color	Torque
1	M2 × 6 mm, flat-head, nylok-coated (3) (S410p/S410p Touch) Door to U-case	Black	1.85+/-0.15 kgf*cm
2	M2 × 6 mm, flat-head, nylok-coated (2) (S510p/S510p Touch) Door to U-case	Black	1.85+/-0.15 kgf*cm

Note: Applying labels to the base cover

The new base cover FRU is shipped with a kit containing labels of several kinds. When you replace the base cover, you need to apply the following label:

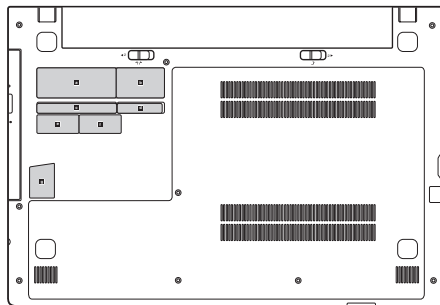
The following labels need to be peeled off from the old base cover and put on the new base cover.

- a** Rating label
- b** Black on line printing label
- c** Region label
- d** (ODM) Barcode label
- e** Brazil label_WLAN
- f** Brazil label_BT
- g** GML label

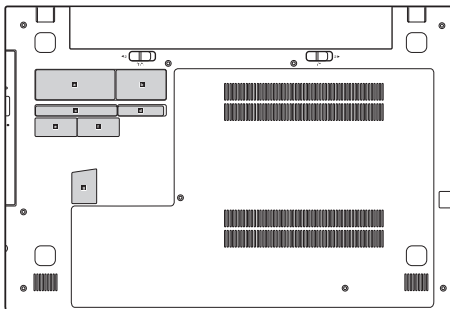
For some models, you also need to apply one or two FCC labels. Check the old base cover; if it has one or two FCC labels, find duplicates of them in the label kit and apply them to the new base cover.

For the location of each label, refer to the following figure:

S410p/S410p Touch



S510p/S510p Touch



1040 Optical drive

For access, remove this FRU:

- “1010 Battery pack” on page 32

Figure 4. Removal steps of optical drive

Remove the screw **■**. Pull the optical drive out in the direction shown by arrow **2**.



Step	Screw (quantity)	Color	Torque
■	M2 × 3 mm, flat-head, nylok-coated (1) ODD BRK to L-case	Black	1.85+/-0.15 kgf*cm

1050 Hard disk drive

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1030 Base cover” on page 34

Attention:

- **Do not drop the hard disk drive or apply any physical shock to it.** The hard disk drive is sensitive to physical shock. Improper handling can cause damage and permanent loss of data.
- Before removing the drive, suggest the customer to backup all the information on it if possible.
- Never remove the drive while the system is operating or in suspend mode.

Figure 5. Removal steps of hard disk drive

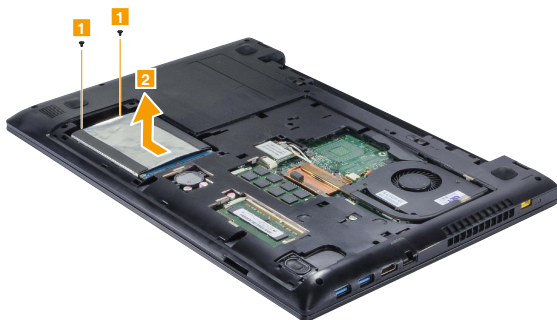
Remove the screws **1**. Detach the HDD connector and then remove the hard disk drive from the slot in the direction shown by arrow **2**.

S410p/S410p Touch



Figure 5. Removal steps of hard disk drive (continued)

S510p/S510p Touch



Step	Screw (quantity)	Color	Torque
■	M2 × 3 mm, flat-head, nylok-coated (2) HDD to L-case	Black	1.85+/-0.15 kgf*cm

When installing: Make sure that the HDD connector is attached firmly.

Remove the screws 3 and detach the metal frame from the hard disk drive.



Step	Screw (quantity)	Color	Torque
3	M3 × 4 mm, flat-head, nylok-coated (4) HDD Bracket to HDD Module	Black	3.0+/-0.3 kgf*cm

1060 PCI Express Mini Card for wireless LAN

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1030 Base cover” on page 34

Figure 6. Removal steps of PCI Express Mini Card for wireless LAN

Disconnect the two wireless LAN cables (black, white) ■, and then remove the screw ■.



In step ■, unplug the jacks by using the removal tool antenna RF connector (P/N: 08K7159), or pick up the connectors with your fingers and gently unplug them in the direction shown by arrows.

Notes: The wireless LAN card has 2 cables in step ■.

The wireless LAN card in some models might have 3 cables in step ■.

Step	Screw (quantity)	Color	Torque
2	M2 × 3 mm, flat-head, nylok-coated (1) Wlan to L-case	Black	1.85+/-0.15 kgf*cm

Figure 6. Removal steps of PCI Express Mini Card for wireless LAN (continued)

Remove the card in the direction shown by arrow **3**.



When installing:

- In models with a wireless LAN card that has two antenna connectors, plug the black cable (1st) (MAIN) into the jack labeled **1**, and the white cable (2nd) (AUX) into the jack labeled **2** on the card.
- In models with a wireless LAN card that has three antenna connectors, plug the black cable (1st) (MAIN) into the jack labeled **1**, the grey cable (3rd) into the jack labeled **3**, and the white cable (2nd) (AUX) into the jack labeled **2** on the card.

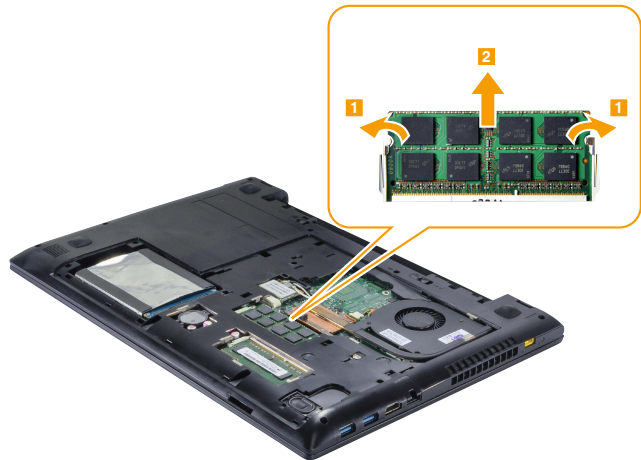
1070 DIMM

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1030 Base cover” on page 34

Figure 7. Removal steps of DIMM

Release the two latches on both edges of the socket at the same time in the direction shown by arrows **1**, and then unplug the DIMM in the direction shown by arrow **2**.



When installing: Insert the notched end of the DIMM into the socket. Push the DIMM firmly, and pivot it until it snaps into place. Make sure that it is firmly fixed in the slot and is difficult to move.

1080 Keyboard

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1070 DIMM” on page 41

Figure 8. Removal steps of keyboard

Remove the screws ■.



Step	Screw (quantity)	Color	Torque
■	M2 × 6 mm, flat-head, nylok-coated (3) L-case to KB	Black	1.85+/-0.15 kgf*cm

Figure 8. Removal steps of keyboard (continued)

Insert the screwdriver into the bottom hole **2**. Then pull the keyboard out of the keyboard bezel **3**.

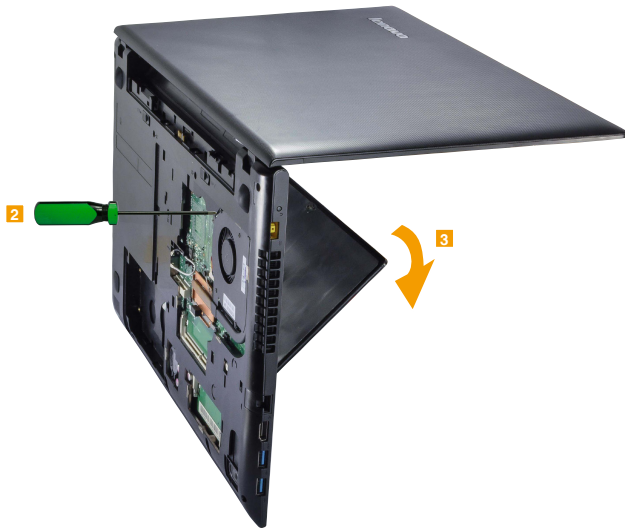


Figure 8. Removal steps of keyboard (continued)

Lift the keyboard slightly **4**. Detach the connectors in the direction shown by arrows **5** and **6**. Then remove the keyboard.



When installing: Make sure that the FPC connector is attached firmly.

1090 Keyboard bezel

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1070 DIMM” on page 41
- “1080 Keyboard” on page 42

Figure 9. Removal steps of keyboard bezel

Remove the screws ■.

S410p

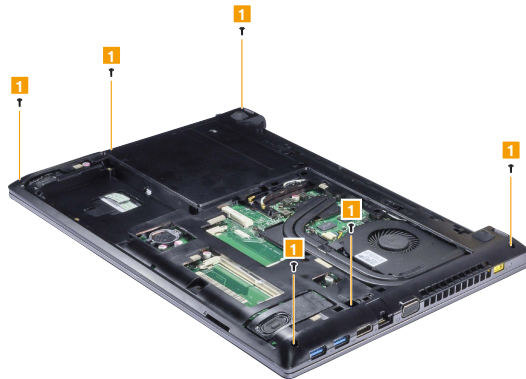
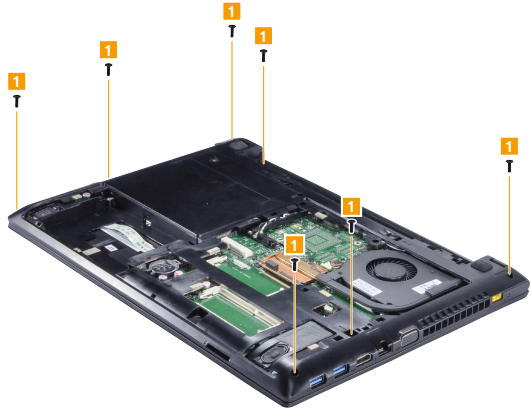
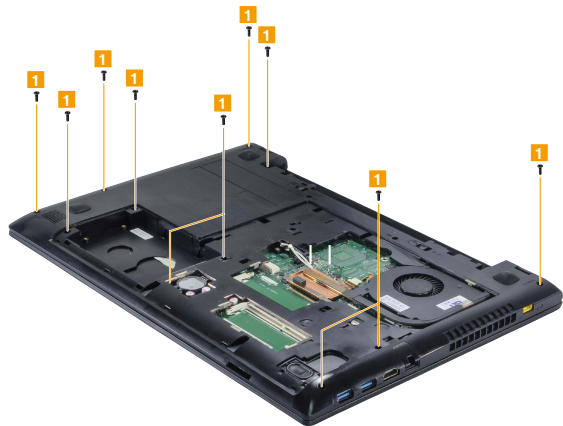


Figure 9. Removal steps of keyboard bezel (continued)

S410p Touch



S510p/S510p Touch



Step	Screw (quantity)	Color	Torque
■	M2 × 6 mm, flat-head, nylok-coated (6) (S410p) L-case to U-case	Black	1.85+/-0.15 kgf*cm
■	M2 × 6 mm, flat-head, nylok-coated (7) (S410p Touch) L-case to U-case	Black	1.85+/-0.15 kgf*cm
■	M2 × 6 mm, flat-head, nylok-coated (11) (S510p/S510p Touch) L-case to U-case	Black	1.85+/-0.15 kgf*cm

Figure 9. Removal steps of keyboard bezel (continued)

Disconnect the DC-in connector, touch pad cable connector and power board connector in the directions shown by arrows 2, 3, and 4. Remove the screws 5.

S410p/S410p Touch



Figure 9. Removal steps of keyboard bezel (continued)

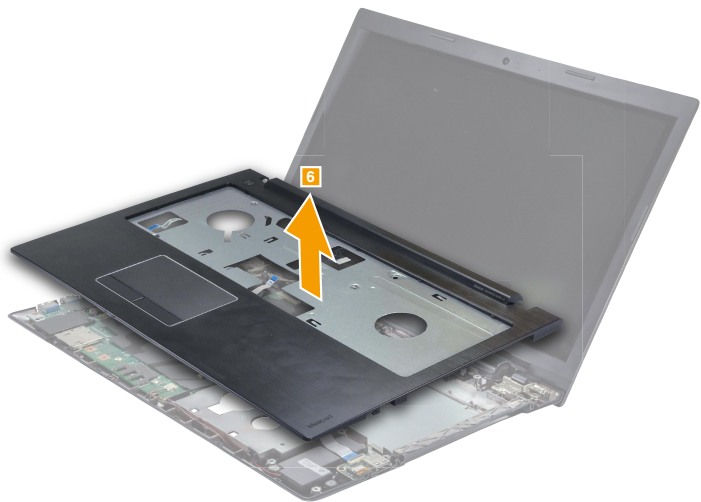
S510p/S510p Touch



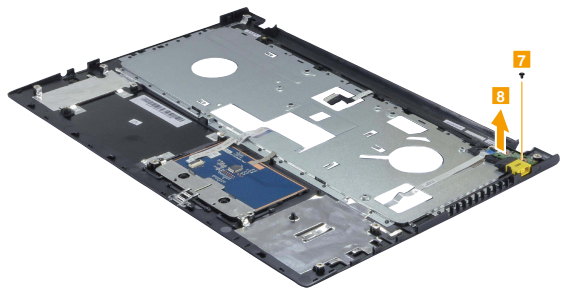
Step	Screw (quantity)	Color	Torque
5	M2 × 6 mm, flat-head, nylok-coated (2) KB Support to L-Case	Black	1.85+/-0.15 kgf*cm
5	M2 × 6 mm, flat-head, nylok-coated (4) KB Support to L-Case	Black	1.85+/-0.15 kgf*cm

Figure 9. Removal steps of keyboard bezel (continued)

Remove the keyboard bezel in the direction shown by arrow 6.



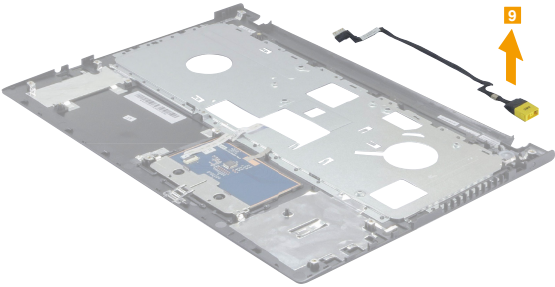
Remove the screw 7, then remove the power board in the direction shown by arrow 8.



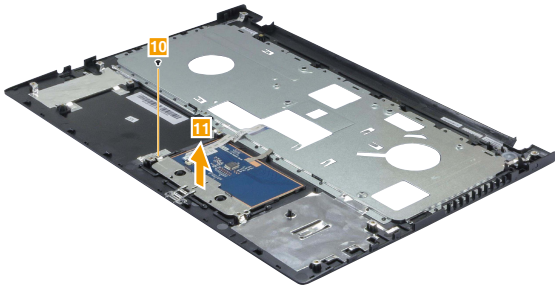
Step	Screw (quantity)	Color	Torque
7	M2 × 3 mm, flat-head, nylok-coated (1) Power board to U-case	Black	1.85+/-0.15 kg-cm

Figure 9. Removal steps of keyboard bezel (continued)

Remove the DC-in jack in the direction shown by arrow **9**.



Remove the screw **10**, then remove the touch pad bracket in the direction shown by arrow **11**.



Step	Screw (quantity)	Color	Torque
10	M2 × 3 mm, flat-head, nylok-coated (1) TP BRK to L-case	Black	1.85+/-0.15 kg-cm

1100 USB board and ODD board

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1080 Keyboard” on page 42
- “1090 Keyboard bezel” on page 45

Figure 10. Removal steps of USB board and ODD board

Detach the USB board connector in the direction shown by arrows **1** and **2**. Remove the screw **3**, then remove the USB board **4**.



Step	Screw (quantity)	Color	Torque
3	M2 × 6 mm, flat-head, nylok-coated (1) USB Board to L-case	Black	1.85+/-0.15 kgf*cm

Figure 10. Removal steps of USB board and ODD board (continued)

Detach the ODD board connector in the direction shown by arrows **5** and **6**.
Remove the screw **7**, then remove the ODD board **8**.



Step	Screw (quantity)	Color	Torque
7	M2 × 6 mm, flat-head, nylok-coated (1) ODD Board to L-case	Black	1.85+/-0.15 kgf*cm

1110 System board

Important notices for handling the system board:

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

- Be careful not to drop the system board on a bench top that has a hard surface, such as metal, wood, or composite.
- Avoid rough handling of any kind.
- During the whole process, make sure not to drop or stack the system board.
- If you put a system 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 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1080 Keyboard” on page 42
- “1090 Keyboard bezel” on page 45
- “1100 USB board and ODD board” on page 51

Figure 11. Removal steps of system board (continued)

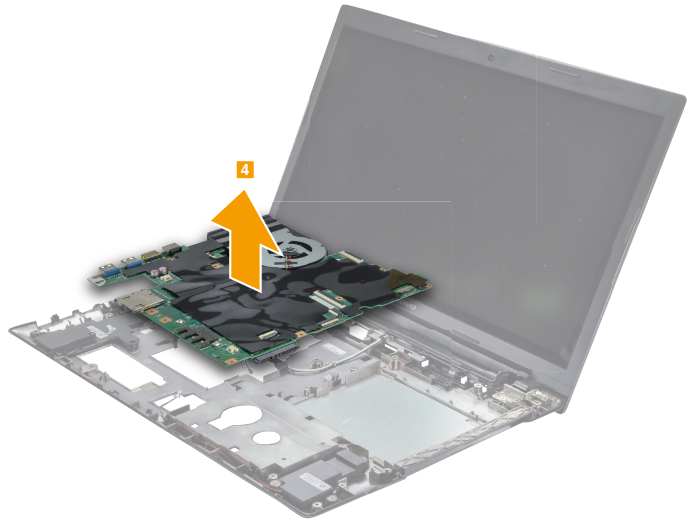
Disconnect the three connectors in the direction shown by arrows **1** and **2**.
Remove the screw **3**.



Step	Screw (quantity)	Color	Torque
3	M2 × 6 mm, flat-head, nylok-coated (1) MB to L-case	Black	1.85+/-0.15 kgf·cm

Figure 11. Removal steps of system board (continued)

Remove the system board in the direction shown by arrow **4**.



1120 Fan assembly and heat sink assembly

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1080 Keyboard” on page 42
- “1090 Keyboard bezel” on page 45
- “1100 USB board and ODD board” on page 51
- “1110 System board” on page 53

Figure 12. Removal steps of fan assembly and heat sink assembly

Disconnect the fan connector in the direction shown by arrow **1** and then loosen the screws **2**.

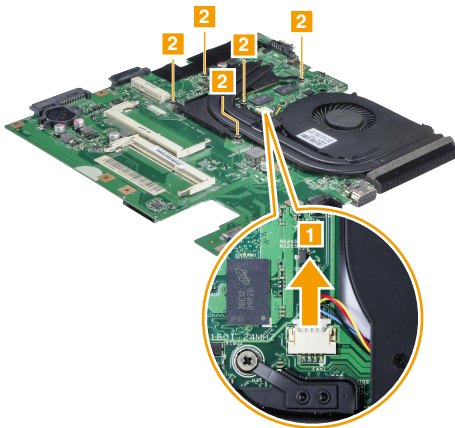
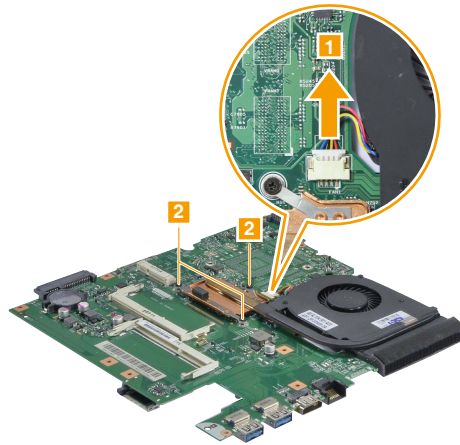


Figure 12. Removal steps of fan assembly and heat sink assembly (continued)



Lift the fan assembly and heat sink assembly in the direction shown by arrow 3. Be careful not to damage the connector.

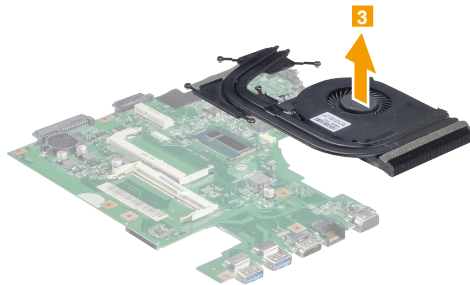
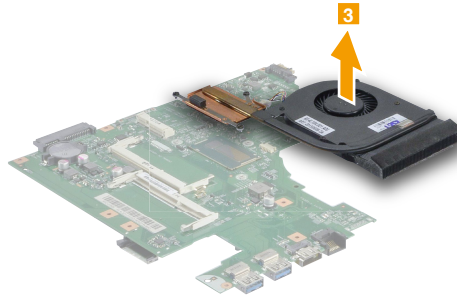


Figure 12. Removal steps of fan assembly and heat sink assembly (continued)



Attention: Do not handle the heat sink assembly roughly. Improper handling can cause distortion or deformation and imperfect contact with components.

1130 Speakers

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1080 Keyboard” on page 42
- “1090 Keyboard bezel” on page 45
- “1100 USB board and ODD board” on page 51
- “1110 System board” on page 53

Figure 13. Removal steps of speakers

S410p/S410p Touch

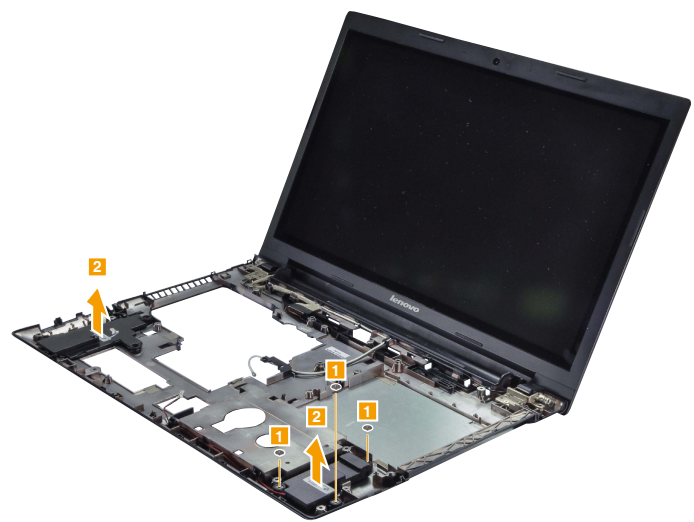
Remove the speakers in the direction shown by arrows ■.



Figure 13. Removal steps of speakers (continued)

S510p/S510p Touch

Remove the screws **■**. Then remove the speakers in the direction shown by arrows **2**.



Step	Screw (quantity)	Color	Torque
■	M2 × L2XD7.2, flat-head, nylok-coated (3) (S510p/S510p Touch) Speaker to L-case	Black	1.85+/-0.15 kgf*cm

1140 LCD unit

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1080 Keyboard” on page 42
- “1090 Keyboard bezel” on page 45
- “1100 USB board and ODD board” on page 51
- “1110 System board” on page 53
- “1130 Speakers” on page 59

Figure 14. Removal steps of LCD unit

Remove the screws ■.

S410p/S410p Touch



Figure 14. Removal steps of LCD unit (continued)

S510p/S510p Touch



Step	Screw (quantity)	Color	Torque
■	M2.5 × 4 mm, flat-head, nylok-coated (4) (S410p/S410p Touch) Hinge to L-case	Black	3.0 +/- 0.3 kgf*cm
■	M2.5 × 4.5 mm, flat-head, nylok-coated (6) (S510p/S510p Touch) Hinge BRK L to L-case & Hinge BRK R to L-case	Black	3.0 +/- 0.3 kgf*cm

When installing:

- Route the antenna cables along the cable guides. As you route the cables, make sure that they are not subjected to any tension. Tension could cause the cables to be damaged by the cable guides, or a wire to be broken.
- Make sure that the LCD connector is attached firmly and that you do not pinch the antenna cables when you attach the LCD assembly. Route the LCD cable along the cable guides.

Figure 14. Removal steps of LCD unit (continued)

Remove the LCD unit in the direction shown by arrow 2.



1150 Non-touch LCD unit (S410p/S510p)

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1080 Keyboard” on page 42
- “1090 Keyboard bezel” on page 45
- “1100 USB board and ODD board” on page 51
- “1110 System board” on page 53
- “1140 LCD unit” on page 61

Figure 15. Removal steps of non-touch LCD unit (S410p/S510p)

Remove the LCD front bezel in the direction shown by arrows ■.

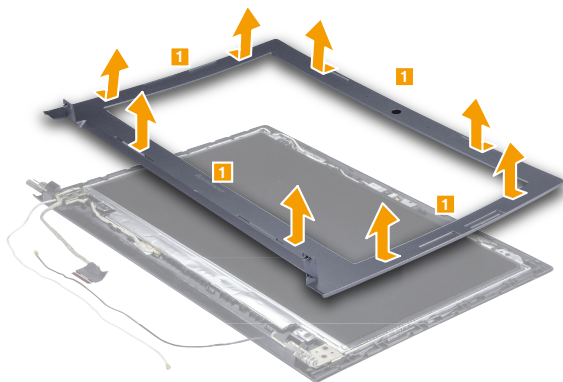
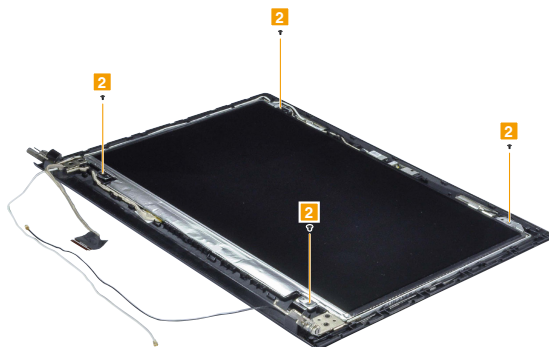


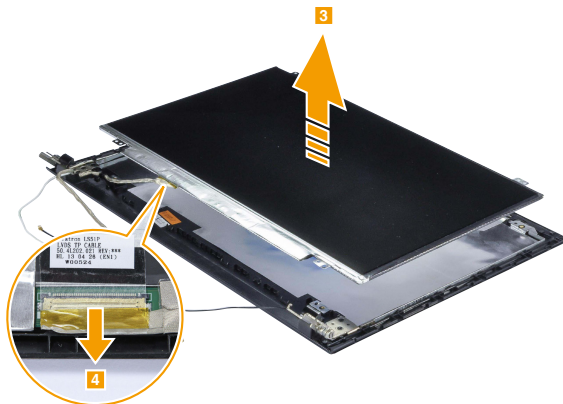
Figure 15. Removal steps of non-touch LCD unit (S410p/S510p) (continued)

Remove the screws **2**.



Step	Screw (quantity)	Color	Torque
2	M2 × 2.5 mm, flat-head, nylok-coated (4) (S410p) LCD Bracket to LCD Cover	Black	1.85+/-0.15 kgf*cm
2	M2 × 3 mm, flat-head, nylok-coated (4) (S510p) LCD Bracket to LCD Cover	Black	1.85+/-0.15 kgf*cm

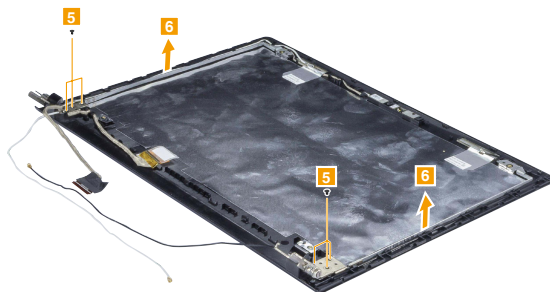
Lift the LCD panel slightly **3**. Peel off the adhesive tape and detach the connector in the direction shown by arrow **4**. Then remove the LCD panel.



When installing: Make sure that the metal connector is attached firmly.

Figure 15. Removal steps of non-touch LCD unit (S410p/S510p) (continued)

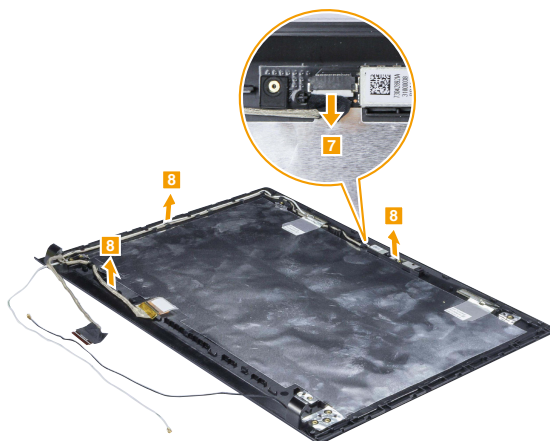
Remove the screws **5**. Then release the hinges in the direction shown by arrows **6**.



Step	Screw (quantity)	Color	Torque
5	M2 × 3 mm, flat-head, nylok-coated (6) (S410p) Hinge Bracket to LCD Cover	Black	1.85+/-0.15 kgf*cm
5	M2.5 × L2.5 x D8 mm, flat-head, nylok-coated (6) (S510p) Hinge Bracket to LCD Cover	Black	3.0+/-0.3 kgf*cm

Detach the integrated camera connector in the direction shown by arrow **7**. Then remove the camera and LCD cable in the direction shown by arrows **8**.

Note: The integrated camera is stuck on the top center of the LCD cover.



When installing: Stick the integrated camera to the top center of the LCD cover and adjust its placement to make sure the connector is attached firmly.

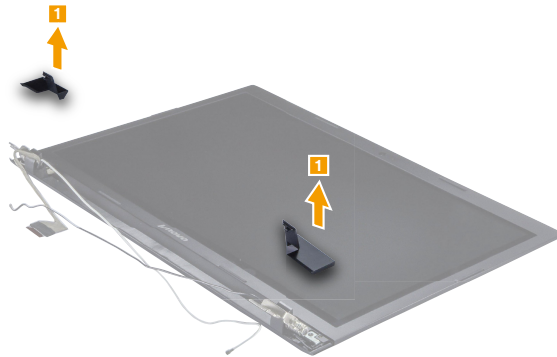
1160 Touch LCD unit (S410p Touch/S510p Touch)

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1080 Keyboard” on page 42
- “1090 Keyboard bezel” on page 45
- “1100 USB board and ODD board” on page 51
- “1110 System board” on page 53
- “1140 LCD unit” on page 61

Figure 16. Removal steps of touch LCD unit (S410p Touch/S510p Touch)

Remove the hinge covers ■.



*Figure 16. Removal steps of touch LCD unit (S410p Touch/S510p Touch)
(continued)*

Remove the screws **2** **3**.

S410p Touch



S510p Touch



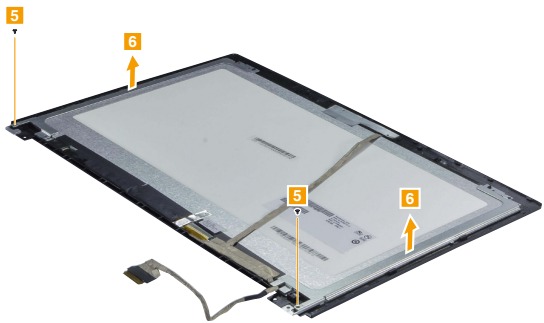
Step	Screw (quantity)	Color	Torque
2	M2 × 3 mm, flat-head, nylok-coated (2) Hinge Bracket to LCD Cover	Black	1.85+/-0.15 kgf*cm
3	M2.5 x L2.5 x D8 mm, flat-head, nylok-coated (2) (S510p Touch) Hinge Bracket to LCD Cover	Black	3.0+/-0.3 kgf*cm

Figure 16. Removal steps of touch LCD unit (S410p Touch/S510p Touch)
(continued)

Remove the LCD panel 4.



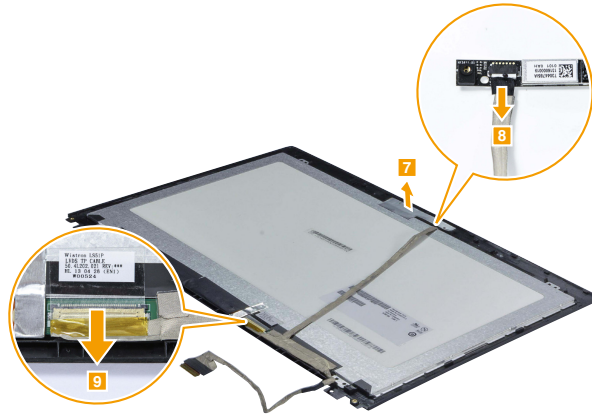
Remove the screws 5. Then remove the LCD bracket in the direction shown by arrows 6.



Step	Screw (quantity)	Color	Torque
5	M2 × 2.5 mm, flat-head, nylok-coated (2) LCD Bracket to LCD panel	Black	1.85+/- 0.15 kgf*cm

*Figure 16. Removal steps of touch LCD unit (S410p Touch/S510p Touch)
(continued)*

Lift the camera slightly **7**, then detach the integrated camera connector in the direction shown by arrow **8**. Peel off the adhesive tape and detach the connector in the direction shown by arrow **9**. Then remove the camera and LCD cable.

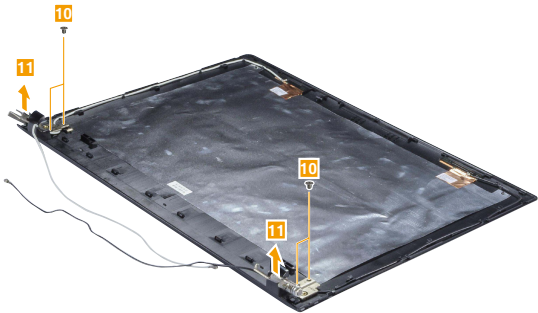


When installing: Make sure that the connectors are attached firmly.

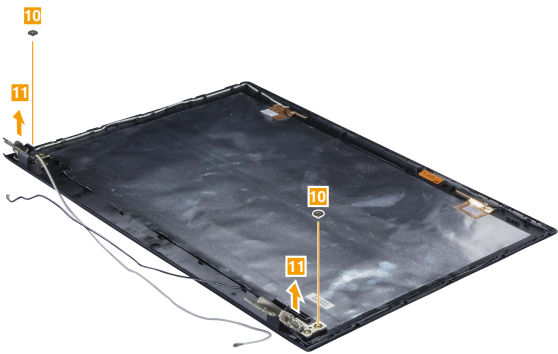
Figure 16. Removal steps of touch LCD unit (S410p Touch/S510p Touch)
(continued)

Remove the screws **10**. Then release the two hinges in the direction shown by arrows **11**.

S410p Touch



S510p Touch



Step	Screw (quantity)	Color	Torque
10	M2 × 3 mm, flat-head, nylok-coated (4)(S410p Touch) Hinge to LCD Cover	Black	1.85+/-0.15 kgf*cm
10	M2.5 × L2.5 × D8 mm, flat-head, nylok-coated (2) (S510p Touch) Hinge to LCD Cover	Black	3.0+/-0.3 kgf*cm

1170 Antenna assembly and LCD cover

For access, remove these FRUs in order:

- “1010 Battery pack” on page 32
- “1020 Dummy card” on page 33
- “1030 Base cover” on page 34
- “1040 Optical drive” on page 36
- “1050 Hard disk drive” on page 37
- “1060 PCI Express Mini Card for wireless LAN” on page 39
- “1080 Keyboard” on page 42
- “1090 Keyboard bezel” on page 45
- “1100 USB board and ODD board” on page 51
- “1110 System board” on page 53
- “1140 LCD unit” on page 61
- “1150 Non-touch LCD unit (S410p/S510p)” on page 64
- “1160 Touch LCD unit (S410p Touch/S510p Touch)” on page 67

Figure 17. Removal steps of antenna assembly and LCD cover

Remove the antenna assembly in the direction shown by arrows .



Locations

Front view and right-side view

- 1 Integrated camera
- 2 Built-in microphone
- 3 Wireless LAN antennas
- 4 Computer display
- 5 Power button
- 6 Touchpad
- 7 Memory card slot
- 8 System status indicators

Note: For the description of each indicator, see “Status indicators” on page 28.

- 9 Combo audio jack
- 10 USB port
- 11 Optical drive



Bottom and Left-side view

- Speaker
- 2 USB port
- 3 HDMI port
- 4 RJ-45 port
- 5 VGA port
- 6 Fan louvers
- 7 AC power adapter jack
- 8 Novo button

S410p/S410p Touch



S510p/S510p Touch



Parts list

This section presents the following service parts:

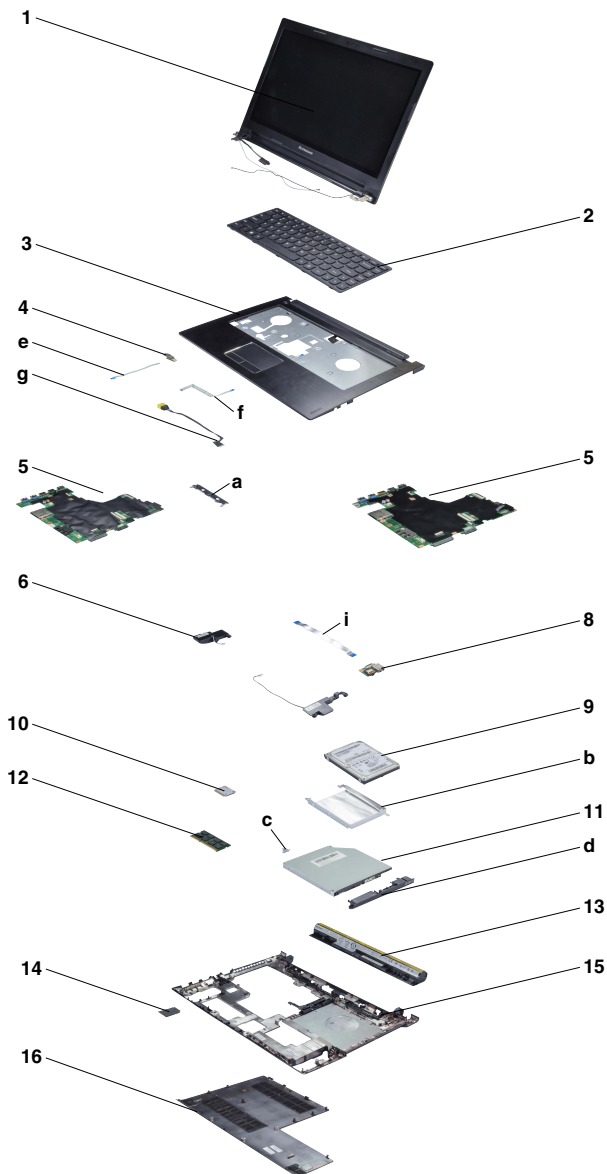
- “Overall” on page 76
- “LCD FRUs” on page 82
- “Keyboard” on page 86
- “Miscellaneous parts” on page 94
- “AC adapters” on page 95
- “Power cords” on page 96

Notes:

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

Overall

S410p/S410p Touch



S510p/S510p Touch

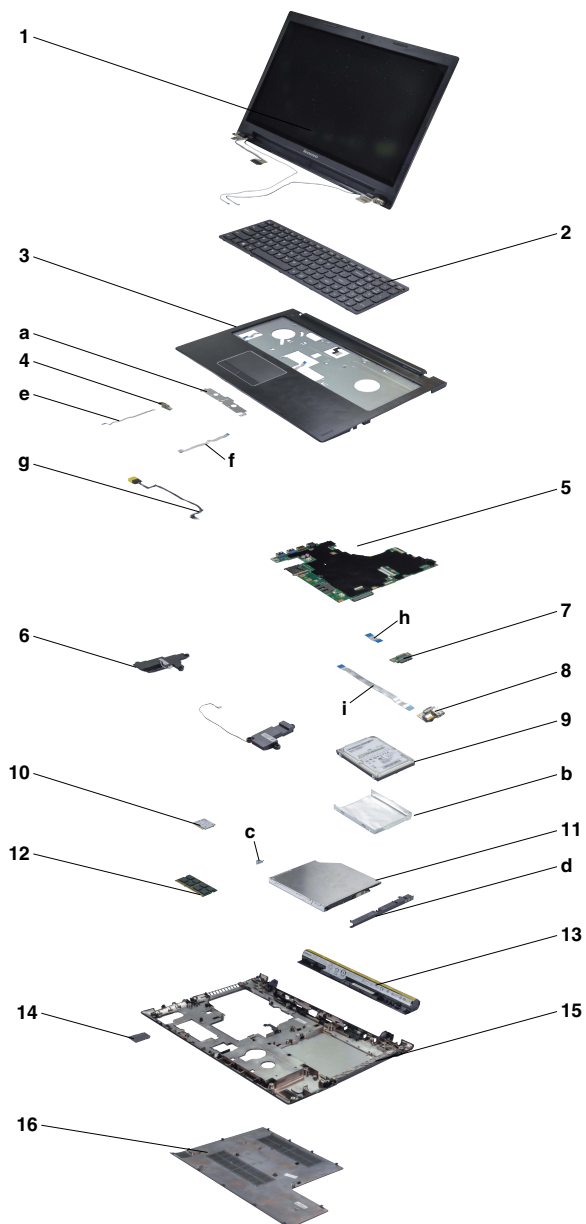


Table 4. Parts list—Overall

No.	FRU	FRU no.	CRU ID.
a-i	See "Miscellaneous parts" on page 94.		
1	LCD unit (see "LCD FRUs" on page 82.)		
2	Keyboard (see "Keyboard" on page 86.)		
3	LS41P Upper Case Black W/TP(S410p/S410p Touch)	90203834	
3	LS41P Upper Case Silver W/TP(S410p/S410p Touch)	90203835	
3	LS51P Upper Case Silver W/TP(S510p/S510p Touch)	90203866	
3	LS51P Upper Case Black W/TP(S510p/S510p Touch)	90203867	
4	LS41P Power Board(S410p/S410p Touch)	90004110	
4	LS51P Power Board(S510p/S510p Touch)	90004148	
5	LS41P MB UMA I3-4100U(S410p)	90004112	
5	LS41P MB DIS I3-4010U 1G(S410p)	90004114	
5	LS41P MB DIS I5-4250U 1G(S410p)	90004115	
5	LS41P MB DIS I5-4250U 2G(S410p)	90004116	
5	LS41P MB DIS I5-4200U 2G(S410p)	90004118	
5	LS41P MB W8S UMA I3-4100U(S410p)	90004119	
5	LS41P MB W8P UMA I3-4100U(S410p)	90004120	
5	LS41P MB W8S DIS I3-4010U 1G(S410p)	90004123	
5	LS41P MB W8P DIS I3-4010U 1G(S410p)	90004124	
5	LS41P MB W8S DIS I5-4250U 1G(S410p)	90004125	
5	LS41P MB W8P DIS I5-4250U 1G(S410p)	90004126	
5	LS41P MB W8S DIS I5-4250U 2G(S410p)	90004127	
5	LS41P MB W8P DIS I5-4250U 2G(S410p)	90004128	
5	LS41P MB W8P DIS I5-4200U 2G(S410p)	90004132	
5	LS41P MB UMA I5-4200U TS(S410p Touch)	90004113	
5	LS41P MB W8S UMA I5-4200U TS(S410p Touch)	90004121	
5	LS41P MB W8P UMA I5-4200U TS(S410p Touch)	90004122	
5	LS41P MB DIS I3-4100U 2G TS(S410p Touch)	90004117	
5	LS41P MB W8S DIS I3-4100U 2G TS (S410p Touch)	90004129	
5	LS41P MB W8P DIS I3-4100U 2G TS (S410p Touch)	90004130	
5	LS51P MB UMA I3-4100U(S510p)	90004151	
5	LS51P MB DIS I3-4010U 1G(S510p)	90004153	
5	LS51P MB DIS I5-4250U 1G(S510p)	90004154	
5	LS51P MB DIS I5-4250U 2G(S510p)	90004155	
5	LS51P MB DIS I5-4200U 2G(S510p)	90004157	
5	LS51P MB W8S UMA I3-4100U(S510p)	90004158	
5	LS51P MB W8P UMA I3-4100U(S510p)	90004159	
5	LS51P MB W8S DIS I3-4010U 1G(S510p)	90004162	
5	LS51P MB W8P DIS I3-4010U 1G(S510p)	90004163	
5	LS51P MB W8S DIS I5-4250U 1G(S510p)	90004164	
5	LS51P MB W8P DIS I5-4250U 1G(S510p)	90004165	
5	LS51P MB W8S DIS I5-4250U 2G(S510p)	90004166	
5	LS51P MB W8P DIS I5-4250U 2G(S510p)	90004167	
5	LS51P MB W8S DIS I5-4200U 2G(S510p)	90004170	
5	LS51P MB W8P DIS I5-4200U 2G(S510p)	90004171	
5	LS51P MB UMA I5-4200U TS(S510p Touch)	90004152	
5	LS51P MB W8S UMA I5-4200U TS(S510p Touch)	90004160	

Table 4. Parts list—Overall (continued)

No.	FRU	FRU no.	CRU ID.
5	LS51P MB W8P UMA I5-4200U TS(S510p Touch)	90004161	
5	LS51P MB DIS I3-4100U 2G TS(S510p Touch)	90004156	
5	LS51P MB W8S DIS I3-4100U 2G TS(S510p Touch)	90004168	
5	LS51P MB W8P DIS I3-4100U 2G TS(S510p Touch)	90004169	
6	LS41P Speaker L(S410p/S410p Touch)	90203844	
6	LS41P Speaker R(S410p/S410p Touch)	90203845	
6	LS51P Speaker L(S510p/S510p Touch)	90203875	
6	LS51P Speaker R(S510p/S510p Touch)	90203876	
7	LS51P ODD Board(S510p/S510p Touch)	90004150	
8	LS41P USB Board(S410p/S410p Touch)	90004111	
8	LS51P USB Board(S510p/S510p Touch)	90004149	
9	HDD320G 5400rpm ST320LT012 6G 7mm 5.4K 320G HDD	16200384	
9	HDD320G 5400rpm ST320LM001 6G 9.5mm 5.4K 320G HDD	16200388	
9	HDD320G 5400rpm WD3200LPCX-24C6HT0 6G 7mm 5.4K 320G HDD	16200551	
9	HDD320G 5400rpm HTS545032A7E660 6G 7mm 5.4K 320G HDD	16200405	
9	HDD500G 5400rpm ST500LM012 6G 9.5mm 5.4K 500G HDD	16200387	
9	HDD500G 5400rpm ST500LT012 6G 7mm 5.4K 500G HDD	16200383	
9	HDD500G 5400rpm HTS545050A7E660 6G 7mm 5.4K 500G HDD	16200404	
9	HDD500G 5400rpm MQ01ABF050 6G 7mm 5.4K 500G HDD	16200433	
9	HDD500G 5400rpm WD5000LPCX-24C6HT0 6G 7mm 5.4K 500G HDD	16200395	
9	HDD750G 5400rpm ST750LM022 6G 9.5mm 5.4K 750G HDD	16200386	
9	HDD750G 5400rpm HTS541075A9E660 6G 9.5mm 5.4K 750G HDD	16200401	
9	HDD750G 5400rpm TSB MQ01ABD075 6G 9.5mm 5.4K 750G HDD	16200430	
9	HDD750G 5400rpm WD7500BPCX-24UE4T0 6G 9.5 5.4K 750G HDD	16200428	
9	HDD1TB 5400rpm ST1000LM024 6G 9.5mm 5.4K 1T HDD	16200385	
9	HDD1TB 5400rpm HTS541010A9E660 6G 9.5mm 5.4K 1T HDD	16200400	
9	HDD1TB 5400rpm TSB MQ01ABD100 6G 9.5mm 5.4K 1T HDD	16200429	
9	HDD1TB 5400rpm WD10JPCX-24UE4T0 6G 9.5mm 5.4K 1T HDD	16200393	
9	HDD1T Hybrid ST1000LM014 6G 9.5mm 1T SSHD	16200389	
9	HDD500G Hybrid ST500LM000 6G 7mm 500G SSHD	16200391	

Table 4. Parts list—Overall (continued)

No.	FRU	FRU no.	CRU ID.
10	WLAN WiFi 1×1 BGN Cbt BCM94313HMG 1×1BGN HMC	20200102	
10	WLAN WiFi 1×1 BGN Liteon HB125 1×1BGN HMC	20200223	
10	WLAN WiFi 1×1 BGN+BT4.0 Cbt BCM943142HM 1×1BGN+BT4.0 HMC	20200222	
10	WLAN WiFi 1×1 BGN+BT4.0 Liteon WB225 1×1BGN+BT4.0 HMC	20200224	
10	WLAN WiFi 1×1 BGN+BT4.0 Liteon WB335 1×1BGN+BT4.0 HMC	20200437	
11	ODD 9.0 Rambo PLDS DA-8A5SH Slim SATA Tray Rambo	25213110	
11	ODD 9.0 Rambo HLDS GU71N Slim SATA Tray Rambo	25213108	
12	DDR3L 1600 2GB M471B5773DH0-YK0 2GB DDR3L 1600	11200502	
12	DDR3L 1600 2GB HMT425S6AFR6A-PB 2GB DDR3L 1600	11201299	
12	DDR3L 1600 2GB RMT3170ED58F8W-1600	11201835	
12	DDR3L 1600 2GB MT4KTF25664HZ-1G6E1 2GB DDR3L 1600	11201967	
12	DDR3L 1600 4GB M471B5173BH0-YK0 4GB DDR3L 1600	11201966	
12	DDR3L 1600 4GB HMT451S6AFR8A-PB 4GB DDR3L 1600	11201300	
12	DDR3L 1600 4GB RMT3170EB68F9W-1600 4GB DDR3L 1600	11201512	
12	DDR3L 1600 4GB SM321NQ08ICF 4GB DDR3L 1600	11201834	
12	DDR3L 1600 4GB MT8KTF51264HZ-1G6J1 4GB DDR3L 1600	11201342	
12	DDR3L 1600 8GB M471B1G73BH0-YK0 8GB DDR3L 1600	11200504	
12	DDR3L 1600 8GB HMT41GS6AFR8A-PB 8GB DDR3L 1600	11201301	
12	DDR3L 1600 8GB SM322NW08IAF 8GB DDR3L 1600	11201514	
12	DDR3L 1600 8GB MT16KTF1G64HZ-1G6E1 8GB DDR3L 1600	11201304	
13	G5XXS SY L12S4E01 14.4V41Wh 4cell bty	121500171	
13	G5XXS SP/L L12M4E01 14.88V41Wh 4cell bty	121500172	
13	G5XXS LG L12L4E01 14.8V41Wh 4cell bty	121500173	
13	G5XXS SY L12S4A02 14.4V32Wh 4cell bty	121500174	
13	G5XXS SP/L L12M4A02 14.4V32Wh 4cell bty	121500175	
13	G5XXS LG L12L4A02 14.4V32Wh 4cell bty	121500176	
14	LS41P SD Dummy Card(S410p/S410p Touch)	90203828	
14	LS51P SD Dummy Card(S510p/S510p Touch)	90203859	
15	LS41P Lower Case(S410p/S410p Touch)	90203822	

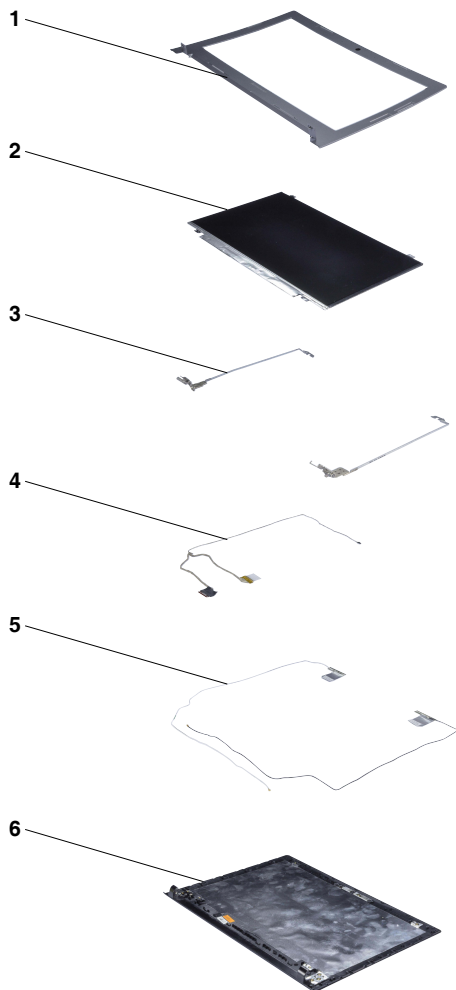
Table 4. Parts list—Overall (continued)

No.	FRU	FRU no.	CRU ID.
15	LS51P Lower Case(S510p/S510p Touch)	90203855	
16	LS41P Lower Case Cover(S410p/S410p Touch)	90203823	
16	LS51P Lower Case Cover(S510p/S510p Touch)	90203856	
—	LS41P Screw Pack	90203843	
—	LS51P Screw Pack	90203874	
—	AC adapter (see “AC adapters” on page 95).		

LCD FRUs

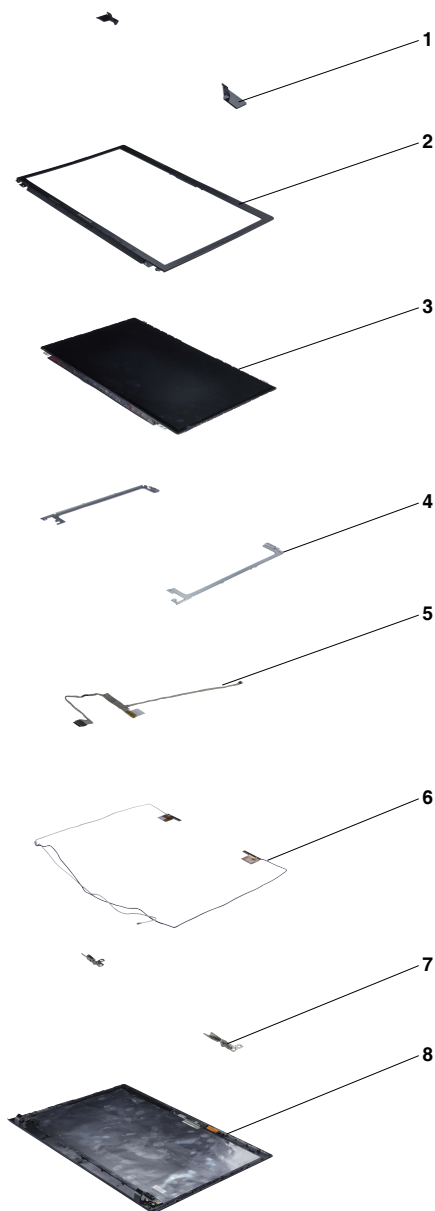
In Lenovo IdeaPad S410p/S410p Touch/S510p/S510p Touch, there are following types of LCDs.

- S410p/S510p LCD FRUs



Lenovo IdeaPad S410p/S410p Touch/S510p/S510p Touch

- S410p Touch/S510p Touch LCD FRUs



S410p/S510p LCD FRUs

Table 5. Parts list—S410p/S510p LCD FRUs

No.	FRU	FRU no.	CRU ID.
1	LS41P LCD Bezel Black	90203820	N
1	LS41P LCD Bezel Silver	90203821	
1	LS51P LCD Bezel Black	90203853	
1	LS51P LCD Bezel Silver	90203854	
2	Panel LVDS 3.0t AUO B140XTN02.7 HW0A HD G S LED1 NB LCD(S410p)	18201152	
2	Panel LVDS 3.0t CMI N140BGE-LB2 VC1 HD G S LED1 NB LCD(S410p)	18200793	
2	Panel LVDS 3.0t SDC LTN140AT27-L01 HD G S LED1 NB LCD(S410p)	18200703	
2	Panel LVDS 3.0t LGD LP140WHU-TLA1 HD G S LED1 NB LCD(S410p)	18200762	
2	Panel LVDS 3.0t BOE HB140WX1-500 HD G S LED1 NB LCD(S410p)	18200704	
2	Panel LVDS 3.0t AUO B156XTN03.2 HW6A HD G S LED1 NB LCD(S510p)	18200979	
2	Panel LVDS 3.0t SDC LTN156AT29-L01 HD G S LED1 NB LCD(S510p)	18200705	
2	Panel LVDS 3.0t CMI N156BGE-LB1 C2 HD G S LED1 NB LCD(S510p)	18200831	
2	Panel LVDS 3.0t LGD LP156WHU-TLA1 HD G S LED1 NB LCD(S510p)	18200768	
3	LS41P Hinge L+R	90203838	
3	LS51P Hinge L+R	90203870	
4	LS41P LCD Cable W/Camera Cable	90203814	
4	LS51P LCD Cable W/Camera Cable	90203846	
5	LS41P Antenna L	90203840	
5	LS51P Antenna L	90203872	
5	LS51P Antenna R	90203873	
6	LS41P LCD Cover W/0.3M Camera	90203881	
6	LS41P LCD Cover W/1M Camera	90203836	
6	LS51P LCD Cover W/0.3M Camera	90203868	
6	LS51P LCD Cover W/1M Camera	90203883	

S410p Touch/S510p Touch LCD FRUs

Table 6. Parts list—S410p Touch/S510p Touch LCD FRUs

No.	FRU	FRU no.	CRU ID.
1	LS41P Hinge Cover L TS	90203830	N
1	LS41P Hinge Cover R TS	90203831	
1	LS51P Hinge Cover L TS	90203864	
1	LS51P Hinge Cover R TS	90203865	
2	LS41P LCD Bezel Black	90203820	
2	LS41P LCD Bezel Silver	90203821	
2	LS51P LCD Bezel TS	90203861	
3	Touch Panel ETP AUO B140XTT01.0 0A G S LED1 NB LCD(T)(S410p Touch)	18201042	
3	Touch Panel ETP BOE HB140WXA-100 HD G S LED1 NB LCD(T)(S410p Touch)	18201133	
3	Touch Panel eTPAUO B156XTT01.0 0A HD G S LED1 NB LCD(T)(S510p Touch)	18201043	
4	LS41P LCD Bracket L TS	90203832	
4	LS41P LCD Bracket R TS	90203833	
4	LS51P LCD Bracket L TS	90203862	
4	LS51P LCD Bracket R TS	90203863	
5	LS41P LCD Cable W/Camera Cable TS	90203817	
5	LS51P LCD Cable W/Camera Cable TS	90203852	
6	LS41P Antenna L TS	90203842	
6	LS41P Antenna R	90203841	
6	LS51P Antenna L	90203872	
6	LS51P Antenna R	90203873	
7	LS41P Hinge L+R TS	90203839	
7	LS51P Hinge L+R TS	90203871	
8	LS41P LCD Cover W/1M Camera TS	90203837	
8	LS41P LCD Cover W/0.3M Camera TS	90203882	
8	LS51P LCD Cover W/0.3M Camera TS	90203869	
8	LS51P LCD Cover W/1M Camera TS	90203884	

Keyboard

Table 7. Parts list—Keyboard

Language			P/N	CRU ID.
S410p/ S410p Touch	Chicony (Black)	English	25211110	N
		U.K. English	25211111	
		Italian	25211112	
		Spanish	25211113	
		Turkish	25211114	
		Thai	25211115	
		Portuguese	25211116	
		Latin	25211117	
		Canadian English&French	25211118	
		Korean	25211119	
		Traditional Chinese	25211120	
		Russian	25211121	
		French	25211122	
		German	25211123	
		Arabic	25211124	
		Brazilian	25211125	
		Japanese	25211126	
		Dutch	25211127	
		Greek	25211128	
		Hebrew	25211129	
		Hungarian	25211130	
		Four Nordic countries	25211131	
		Belgian	25211132	
		Icelandic	25211133	
		Slovenian	25211134	
		Swiss	25211135	
		International English	25211136	
		Czechoslovakian	25211137	
		Bulgarian	25211138	
		Indian	25211139	
	Chicony (Grey)	English	25213886	
		U.K. English	25213887	
		Italian	25213888	
		Spanish	25213889	
		Turkish	25213890	
		Thai	25213891	
		Portuguese	25213892	
		Latin	25213893	
		Canadian English&French	25213894	
		Korean	25213895	
		Traditional Chinese	25213896	
		Russian	25213897	
		French	25213898	
		German	25213899	

Table 7. Parts list—Keyboard (continued)

Language			P/N	CRU ID.
S410p/ S410p Touch (continued)	Chicony (Grey) (continued)	Arabic	25213900	N
		Brazilian	25213901	
		Japanese	25213902	
		Dutch	25213903	
		Greek	25213904	
		Hebrew	25213905	
		Hungarian	25213906	
		Four Nordic countries	25213907	
		Belgian	25213908	
		Icelandic	25213909	
		Slovenian	25213910	
		Swiss	25213911	
		International English	25213912	
		Czechoslovakian	25213913	
		Bulgarian	25213914	
		Indian	25213915	
	Sunrex (Black)	English	25211140	
		U.K. English	25211141	
		Italian	25211142	
		Spanish	25211143	
		Turkish	25211144	
		Thai	25211145	
		Portuguese	25211146	
		Latin	25211147	
		Canadian English&French	25211148	
		Korean	25211149	
		Traditional Chinese	25211150	
		Russian	25211151	
		French	25211152	
		German	25211153	
		Arabic	25211154	
		Brazilian	25211155	
		Japanese	25211156	
		Dutch	25211157	
		Greek	25211158	
		Hebrew	25211159	
		Hungarian	25211160	
		Four Nordic countries	25211161	
		Belgian	25211162	
		Icelandic	25211163	
		Slovenian	25211164	
		Swiss	25211165	
		International English	25211166	
		Czechoslovakian	25211167	
		Bulgarian	25211168	
		Indian	25211169	

Table 7. Parts list—Keyboard (continued)

Language			P/N	CRU ID.
S410p/ S410p Touch (continued)	Sunrex (Grey)	English	25213916	N
		U.K. English	25213917	
		Italian	25213918	
		Spanish	25213919	
		Turkish	25213920	
		Thai	25213921	
		Portuguese	25213922	
		Latin	25213923	
		Canadian English&French	25213924	
		Korean	25213925	
		Traditional Chinese	25213926	
		Russian	25213927	
		French	25213928	
		German	25213929	
		Arabic	25213930	
		Brazilian	25213931	
		Dutch	25213933	
		Greek	25213934	
		Hebrew	25213935	
		Hungarian	25213936	
		Four Nordic countries	25213937	
		Belgian	25213938	
		Icelandic	25213939	
		Slovenian	25213940	
	Darfon (Black)	Swiss	25213941	
		International English	25213942	
		Czechoslovakian	25213943	
		Bulgarian	25213944	
		Indian	25213945	
		English	25211170	
		U.K. English	25211171	
		Italian	25211172	
		Spanish	25211173	
		Turkish	25211174	
		Thai	25211175	
		Portuguese	25211176	
		Latin	25211177	
		Canadian English&French	25211178	
		Korean	25211179	
		Traditional Chinese	25211180	
		Russian	25211181	
		French	25211182	
		German	25211183	
		Arabic	25211184	
		Brazilian	25211185	

Table 7. Parts list—Keyboard (continued)

Language			P/N	CRU ID.
S410p/ S410p Touch (continued)	Darfon (Black) (continued)	Japanese	25211186	N
		Dutch	25211187	
		Greek	25211188	
		Hebrew	25211189	
		Hungarian	25211190	
		Four Nordic countries	25211191	
		Belgian	25211192	
		Icelandic	25211193	
		Slovenian	25211194	
		Swiss	25211195	
		International English	25211196	
		Czechoslovakian	25211197	
		Bulgarian	25211198	
		Indian	25211199	
	Darfon (Grey)	English	25213946	
		U.K. English	25213947	
		Italian	25213948	
		Spanish	25213949	
		Turkish	25213950	
		Thai	25213951	
		Portuguese	25213952	
		Latin	25213953	
		Canadian English&French	25213954	
		Korean	25213955	
		Traditional Chinese	25213956	
		Russian	25213957	
		French	25213958	
		German	25213959	
		Arabic	25213960	
		Brazilian	25213961	
		Japanese	25213962	
		Dutch	25213963	
		Greek	25213964	
		Hebrew	25213965	
		Hungarian	25213966	
		Four Nordic countries	25213967	
		Belgian	25213968	
		Icelandic	25213969	
		Slovenian	25213970	
		Swiss	25213971	
		International English	25213972	
		Czechoslovakian	25213973	
		Bulgarian	25213974	
		Indian	25213975	

Table 7. Parts list—Keyboard (continued)

Language			P/N	CRU ID.
S510p/ S510p Touch	Chicony (Black)	English	25211020	N
		U.K. English	25211021	
		Italian	25211022	
		Spanish	25211023	
		Turkish	25211024	
		Thai	25211025	
		Portuguese	25211026	
		Latin	25211027	
		Canadian English&French	25211028	
		Korean	25211029	
		Traditional Chinese	25211030	
		Russian	25211031	
		French	25211032	
		German	25211033	
		Arabic	25211034	
		Brazilian	25211035	
		Japanese	25211036	
		Dutch	25211037	
		Greek	25211038	
		Hebrew	25211039	
		Hungarian	25211040	
		Four Nordic countries	25211041	
		Belgian	25211042	
		Icelandic	25211043	
		Slovenian	25211044	
		Swiss	25211045	
		International English	25211046	
		Czechoslovakian	25211047	
		Bulgarian	25211048	
		Indian	25211049	
	Chicony (Grey)	English	25212971	
		U.K. English	25212972	
		Italian	25212973	
		Spanish	25212974	
		Turkish	25212975	
		Thai	25212976	
		Portuguese	25212977	
		Latin	25212978	
		Canadian English&French	25212979	
		Korean	25212980	
		Traditional Chinese	25212981	
		Russian	25212982	
		French	25212983	
		German	25212984	
		Arabic	25212985	

Table 7. Parts list—Keyboard (continued)

Language			P/N	CRU ID.
S510p/ S510p Touch (continued)	Chicony (Grey) (continued)	Brazilian	25212986	N
		Japanese	25212987	
		Dutch	25212988	
		Greek	25212989	
		Hebrew	25212990	
		Hungarian	25212991	
		Four Nordic countries	25212992	
		Belgian	25212993	
		Icelandic	25212994	
		Slovenian	25212995	
		Swiss	25212996	
		International English	25212997	
		Czechoslovakian	25212998	
		Bulgarian	25212999	
		Indian	25213000	
	Sunrex (Black)	English	25211050	
		U.K. English	25211051	
		Italian	25211052	
		Spanish	25211053	
		Turkish	25211054	
		Thai	25211055	
		Portuguese	25211056	
		Latin	25211057	
		Canadian English&French	25211058	
		Korean	25211059	
		Traditional Chinese	25211060	
		Russian	25211061	
		French	25211062	
		German	25211063	
		Arabic	25211064	
		Brazilian	25211065	
		Dutch	25211067	
		Greek	25211068	
		Hebrew	25211069	
		Hungarian	25211070	
		Four Nordic countries	25211071	
		Belgian	25211072	
		Icelandic	25211073	
		Slovenian	25211074	
		Swiss	25211075	
		International English	25211076	
		Czechoslovakian	25211077	
		Bulgarian	25211078	
		Indian	25211079	

Table 7. Parts list—Keyboard (continued)

Language			P/N	CRU ID.
S510p/ S510p Touch (continued)	Sunrex (Grey)	English	25213001	N
		U.K. English	25213002	
		Italian	25213003	
		Spanish	25213004	
		Turkish	25213005	
		Thai	25213006	
		Portuguese	25213007	
		Latin	25213008	
		Canadian English&French	25213009	
		Korean	25213010	
		Traditional Chinese	25213011	
		Russian	25213012	
		French	25213013	
		German	25213014	
		Arabic	25213015	
		Brazilian	25213016	
		Dutch	25213018	
		Greek	25213019	
		Hebrew	25213020	
		Hungarian	25213021	
		Four Nordic countries	25213022	
		Belgian	25213023	
		Icelandic	25213024	
		Slovenian	25213025	
		Swiss	25213026	
		International English	25213027	
		Czechoslovakian	25213028	
		Bulgarian	25213029	
		Indian	25213030	
	Darfon (Black)	English	25211080	
		U.K. English	25211081	
		Italian	25211082	
		Spanish	25211083	
		Turkish	25211084	
		Thai	25211085	
		Portuguese	25211086	
		Latin	25211087	
		Canadian English&French	25211088	
		Korean	25211089	
		Traditional Chinese	25211090	
		Russian	25211091	
		French	25211092	
		German	25211093	
		Arabic	25211094	
		Brazilian	25211095	
		Japanese	25211096	

Table 7. Parts list—Keyboard (continued)

Language			P/N	CRU ID.
S510p/ S510p Touch (continued)	Darfon (Black) (continued)	Dutch	25211097	N
		Greek	25211098	
		Hebrew	25211099	
		Hungarian	25211100	
		Four Nordic countries	25211101	
		Belgian	25211102	
		Icelandic	25211103	
		Slovenian	25211104	
		Swiss	25211105	
		International English	25211106	
		Czechoslovakian	25211107	
		Bulgarian	25211108	
		Indian	25211109	
	Darfon (Grey)	English	25213031	
		U.K. English	25213032	
		Italian	25213033	
		Spanish	25213034	
		Turkish	25213035	
		Thai	25213036	
		Portuguese	25213037	
		Latin	25213038	
		Canadian English&French	25213039	
		Korean	25213040	
		Traditional Chinese	25213041	
		Russian	25213042	
		French	25213043	
		German	25213044	
		Arabic	25213045	
		Brazilian	25213046	
		Japanese	25213047	
		Dutch	25213048	
		Greek	25213049	
		Hebrew	25213050	
		Hungarian	25213051	
		Four Nordic countries	25213052	
		Belgian	25213053	
		Icelandic	25213054	
		Slovenian	25213055	
		Swiss	25213056	
		International English	25213057	
		Czechoslovakian	25213058	
		Bulgarian	25213059	
		Indian	25213060	

Miscellaneous parts

Table 8. Parts list—Miscellaneous parts

FRU	P/N	CRU ID.
System miscellaneous parts:		
• (a) LS51P TP Bracket	90203860	
• (b) LS41P HDD Bracket	90203826	
• (c) LS41P ODD Bracket	90203827	
• (d) LS41P ODD Bezel Black	90203824	
• (d) LS41P ODD Bezel Sliver	90203825	
• (d) LS51P ODD Bezel Black	90203857	
• (d) LS51P ODD Bezel Sliver	90203858	
Cable miscellaneous parts:		
• (e) LS41P Power Board Cable	90203818	N
• (e) LS51P Power Board Cable	90203849	
• (f) LS41P TP Cable	90203815	
• (f) LS51P TP Cable	90203847	
• (g) LS41P DC-IN Cable	90203816	
• (g) LS51P DC-IN Cable	90203848	
• (h) LS51P ODD Board Cable	90203850	
• (i) LS41P USB Board Cable	90203819	
• (i) LS51P USB Board Cable	90203851	
Note: Italicized letters in parentheses are references to the exploded view in “Overall” on page 76 .		

AC adapters

Table 9. Parts list—3-pin AC adapters

FRU	P/N	CRU ID.
45W Delta ADLX45NDC3A 20V2.25A adapter	36200245	*
45W Liteon ADLX45NLC3A 20V2.25A adapter	36200246	
45W Chicony ADLX45NCC3A 20V2.25A adapter	36200247	
65W Delta ADLX65NDC3A 20V3.25A adapter	36200249	
65W Liteon ADLX65NLC3A 20V3.25A adapter	36200251	
65W Chicony ADLX65NCC3A 20V3.25A adapter	36200253	

Power cords

A Lenovo power cord for a specific country or region is usually available only in that country or region:

Table 10. Parts list—3-pin power cords

Region	P/N	CRU ID.
CCC • LINETEK PC323+RVV300/300+LS15 1m	145000600	*
Argentina • LINETEK LS15+H03VV-F+LP39 1m	145000599	
Danmark • LINETEK LS15+H03VV-F+LP-38 1m	145000598	
Switzerland • LINETEK LS15+H03VV-F+LP-37 1m	145000597	
Brazil • LINETEK LS15 H03VV-F LP26A 1m	145000596	
Israel • LINETEK LS15+H03VV-F+LP-41 1m	145000595	
UL • LINETEK LP-30B + SPT-2 + LS15 1m	145000594	
UK • LINETEK LP-61L+ H03VV-F+ LS15 1m	145000593	
Indian • LINETEK PE-361+ H05VV-F+ LS15 1m	145000592	
Italy • LINETEK LS15+H03VV-F+PE-336 1m	145000591	
Korea • LINETEK LS15+H05VV-F+LP-E04A 1m	145000590	
Australia • LINETEK LS15+H03VV-F+LP-23A 1m	145000589	
Taiwan • LINETEK LS15+VCTF+LP-53 1m	145000588	
Japan • LINETEK LS15+VCTF+LP-54 1m	145000587	
Africa • LINETEK LS15+H03VV-F+PE-364 1m	145000586	
CE • LINETEK LP-34+H03VV-F + LS15 1m	145000585	
CCC • Longwell LSG-31+RVV300/300+LS-18 1m	145000568	
Argentina • Longwell LP-24+H03VV-F+LS-18 1m	145000567	
Danmark • Longwell LP-40+H03VV-F+LS-18 1m	145000566	
Switzerland • Longwell LP-37+H03VV-F+LS-18 1m	145000565	

Table 10. Parts list—3-pin power cords (continued)

Region	P/N	CRU ID.
Brazil	145000564	*
• Longwell LP-46+H03VV-F+LS-18 1m		
Israel	145000563	
• Longwell LP-41+H03VV-F+LS-18 1m		
UL	145000562	
• Longwell LP-30B+SPT-2 18AWG+LS-18 1m		
UK	145000561	
• Longwell LP-61L+H03VV-F+LS-18 1m		
Indian	145000560	
• Longwell LP-67+BIS+LS-18 1m		
Italy	145000559	
• Longwell LP-22+H03VV-F+LS-18 1m		
Korea	145000558	
• Longwell LP-486+KTLH03VV-F+LS-5 1m		
Australia	145000557	
• Longwell LP-23A+LFC-3R+LS-18 1m		
Taiwan	145000556	
• Longwell LP-71+VCTF+LS-33 1m		
Japan	145000555	
• Longwell LP-54+VCTF+LS-18 1m		
Africa	145000554	
• Longwell LP-39+H03VV-F+LS-18 1m		
CE	145000553	
• Longwell LP-34A+H03VV-F+LS-18 1m		
CCC	145000538	
• VOLEX GB10S3+RVV 300/500+VAC5S 1m		
UL	145000537	
• Volex US15S3+SPT-2 +VAC5S 1m		
UK	145000605	
• VOLEX MP5004+H03VV-F+VAC5S 1m		
Indian	145000536	
• VOLEX IA6A3+IS694+VAC5S 1m		
Switzerland	145000524	
• VOLEX MP232+H03VV-F+VAC5S 1m		
Italy	145000535	
• VOLEX IT10S3+H03VV-F+VAC5S 1m		
Denmark	145000534	
• VOLEX MP233D+H03VV-F+VAC5S 1m		
Korea	145000533	
• VOLEX M2511+KETI IEC+VAC5S 1m		
Australia	145000532	
• VOLEX AU10S3+H03VV-F+VAC5S 1m		
Taiwan	145000531	
• VOLEX TW15CS3+VCTF+VAC5S 1m		

Table 10. Parts list—3-pin power cords (continued)

Region	P/N	CRU ID.
Japan • VOLEX VAC5S+VCTF+M755 1m	145000530	*
Argentina • VOLEX VA2073+H03VV-F+VAC5S 1m	145000528	
Brazil • VOLEX CH10S3+H03VV-F+VAC5S 1m	145000527	
Israel • VOLEX SI16S3+H03VV-F+VAC5S 1m	145000526	
CE • VOLEX M2511+H03VV-F+VAC5S 1m	145000525	
UK • lux 0031+H03VV-F 0.75/3C+0011 1m	145500000	
Europe • lux 0033+H03VV-F 0.75/3C+0011 1m	145500001	
US • lux 0014+SPT-2 60°C 18/3C+0016 1m	145500002	
China • lux 0036+RVV 300/300 0.75/3C+0002 1m	145500003	
Indian • lux 0046+IS694 0.75/3C+0011 1m	145500004	
Japan • lux 0018(E)+VCTF 0.75/3C+0021 1m	145500005	
Australia • lux 0038+H03VV-F 0.75/3C+0011 1m	145500006	
Taiwan • lux 0019+VCTF 0.75/3C+0021 1m	145500007	
Korea • lux 0033+H03VV-F 0.75/3C+0011 1m	145500008	
Italy • lux 0029+H03VV-F 0.75/3C+0011 1m	145500009	
South Africa • lux 0044+H03VV-F 0.75/3C+0011 1m	145500010	
Brazil • lux 0034+H03VV-F 0.75/3C+0011 1m	145500011	
Israel • lux 0041+H03VV-F 0.75/3C+0011 1m	145500012	
Switzerland • lux 0027+H03VV-F 0.75/3C+0011 1m	145500013	
Denmark • lux 0048+H03VV-F 0.75/3C+0011 1m	145500014	
Argentina • lux 0040+H03VV-F 0.75/3C+0011 1m	145500015	

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