

ThinkPad

Hardware Maintenance Manual

ThinkPad Edge 14², Edge 15², E40, and E50

Note

Before using this information and the product it supports, be sure to read the general information under Appendix A “Notices” on page 149.

Sixth Edition (May 2013)

© Copyright Lenovo 2010, 2013.

LIMITED AND RESTRICTED RIGHTS NOTICE: If products, data, computer software, and services are delivered pursuant a General Services Administration “GSA” contract, use, reproduction, or disclosure is subject to restrictions set forth in Contract No. GS-35F-05925.

Contents

About this manual.	iii	How to remove the power-on password	40
Chapter 1. Safety information.	1	How to remove the hard-disk password	41
General safety	1	Power management	42
Electrical safety	2	Screen blank mode	42
Safety inspection guide	3	Sleep mode	42
Handling devices that are sensitive to electrostatic discharge.	3	Hibernation mode	42
Grounding requirements	4	Symptom-to-FRU index	42
Safety notices (multilingual translations).	4	Numeric error codes	43
Laser compliance statement (multilingual translations).	17	Error messages	45
Chapter 2. Important service information.	23	No-beep symptoms	45
Strategy for replacing FRUs	23	LCD-related symptoms	45
Strategy for replacing a hard disk drive	23	Intermittent problems	46
Important notice for replacing a system board	24	Undetermined problems	46
How to use error message	24	Chapter 5. Status indicators	49
Strategy for replacing FRUs for CTO, CMV, and GAV	24	Chapter 6. Special keys and Fn key combination.	51
Product definition	24	Chapter 7. FRU replacement notices	53
FRU identification for CTO, CMV, and GAV products	24	Screw notices	53
Chapter 3. General checkout	27	Retaining serial numbers.	54
What to do first	27	Restoring the serial number of the system unit	54
Checkout guide	28	Retaining the UUID	55
Diagnostics using PC-Doctor for DOS.	28	Reading or writing the ECA information	55
Lenovo ThinkVantage Toolbox (Lenovo System Toolbox)	31	Chapter 8. Removing or replacing a FRU	57
PC-Doctor for Rescue and Recovery	31	1010 Battery pack	58
Lenovo Solution Center	31	1020 Optical drive or travel cover	58
FRU tests	34	1030 Thermal cover.	59
Power system checkout	35	1040 Hard disk drive assembly	60
Checking the ac adapter	35	1050 Memory module.	61
Checking operational charging	35	1060 Fan assembly	62
Checking the battery pack	36	1070 Microprocessor	65
Checking the backup battery	36	1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN.	66
Chapter 4. Related service information	39	1090 Palm rest assembly with cables.	69
Restoring the factory contents by using the product Recovery Disc Set	39	1100 PCI Express Mini Card for wireless LAN	72
Passwords	40	1110 Backup battery	74
Power-on password.	40	1120 Bluetooth daughter card	74
Hard-disk password.	40	1130 Keyboard	75
Supervisor password	40	1140 Keyboard bezel	77
		1150 LCD unit	79
		1160 Top shielding assembly	82

1170 System board assembly	84	Overall	106
1180 USB connector board and USB cable assembly	88	LCD FRUs	123
1190 DC-in cable and base cover	90	Keyboard	138
2010 LCD front bezel	94	Miscellaneous parts	140
2020 Speaker assembly	95	AC adapters	140
2030 Integrated camera	96	Power cords	141
2040 Hinges, LCD panel, LCD cable, and LCD rear cover assembly	96	Recovery discs	142
2050 Antenna assembly	99	Windows 7 Home Basic (32 bit) DVDs.	142
Chapter 9. Locations	101	Windows 7 Home Premium (32 bit) DVDs	142
Front view	101	Windows 7 Home Premium (64 bit) DVDs	143
Rear view.	102	Windows 7 Professional (32 bit) DVDs.	144
Bottom view	103	Windows 7 Professional (64 bit) DVDs.	145
Chapter 10. Parts list	105	Common service tools	147
		Appendix A. Notices.	149
		Trademarks	150

About this manual

This manual contains service and reference information for the following ThinkPad® Notebook products:

ThinkPad Edge 14" and E40

Machine types (MT) 0199, 0578, and 0579

ThinkPad Edge 15" and E50

MT 0301, 0302, and 0319

Use this manual along with the advanced diagnostic tests to troubleshoot problems.

Important:

This manual is intended only for trained service technicians who are familiar with ThinkPad products. Use this manual along with the advanced diagnostic tests to troubleshoot problems effectively.

Before servicing a ThinkPad product, be sure to read all the information under Chapter 1 "Safety information" on page 1 and Chapter 2 "Important service information" on page 23.

Chapter 1. Safety information

This chapter presents following safety information that you need to be familiar with before you service a ThinkPad Notebook.

- “General safety” on page 1
- “Electrical safety” on page 2
- “Safety inspection guide” on page 3
- “Handling devices that are sensitive to electrostatic discharge” on page 3
- “Grounding requirements” on page 4
- “Safety notices (multilingual translations)” on page 4
- “Laser compliance statement (multilingual translations)” on page 17

General safety

Follow these rules to ensure general safety:

- Observe good housekeeping in the area of the machines during and after 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.
 4. Lift by standing or by pushing up with your leg muscles; this action removes 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 equipment unsafe.
- Before you start the machine, make sure that other service technicians and the customer's personnel are not in a hazardous position.
- Place removed covers and other parts in a safe place, away from all personnel, while you are servicing the machine.
- Keep your toolcase 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 a 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 a 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 might 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 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 equipment.

Important:

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

Many customers have, near their equipment, rubber floor mats that contain small conductive fibers to decrease electrostatic discharges. Do not use this type 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 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. Use extreme care when measuring 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* that it has been powered off.
- Always look carefully for possible hazards in your work area. Examples of these hazards are moist floors, non-grounded 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 generators
 - Similar units to listed above

This practice ensures correct grounding of the units.

- If an electrical accident occurs:
 - Use caution; do not become a victim yourself.
 - Switch off power.
 - Send another person to get medical aid.

Safety inspection guide

The purpose of this inspection guide is to assist you in identifying potentially unsafe conditions. As each machine was designed and built, required safety items were installed to protect users and service technicians from injury. This guide addresses only those items. You should use good judgment to identify potential safety hazards due to attachment of non-ThinkPad 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 potentially 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. Power 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-ThinkPad alterations. Use good judgment as to the safety of any non-ThinkPad 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 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 the following languages:

- English
- Arabic
- Brazilian Portuguese
- French
- German
- Hebrew
- Japanese
- Korean
- Spanish
- Traditional Chinese



DANGER

Before the computer is powered on after FRU replacement, make sure that 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 short circuits.



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.



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.



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.



DANGER

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



DANGER

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



DANGER

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



DANGER

Unless hot swap is allowed for the FRU being replaced, do as follows before removing it: power off the computer, unplug all power cords from electrical outlets, remove the battery pack, and disconnect any interconnecting cables.



خطر

قبل اعادة تشغيل الحاسب بعد الانتهاء من استبدال FRU، تأكد من أنه قد تم اعادة كل من المسامير و السوست وكل الأجزاء الصغيرة الأخرى في أماكنهم ولم يتم فقدهم داخل الحاسب. ويمكن التحقق من ذلك عن طريق هز الحاسب والاستماع لأي صوت صاخب يصدر منه. قد تؤدي الأجزاء أو الرقائق المعدنية الى حدوث دائرة قصر.



خطر

تحتوي بعض البطاريات الاحتياطية على كمية صغيرة من مادتي النيكل والكاديوم. لا تقم بفك أو اعادة شحن البطارية الاحتياطية ولا تقم أيضا بالقائها في النار أو الماء ولا تتسبب في احدث دائرة قصر بها. قم بالتخلص من البطارية كما هو موضح في القوانين المحلية. استخدم نوع البطارية المحدد والذي يوصى باستخدامه. حيث أنه قد يؤدي استخدام نوع بطارية غير صحيح الى اشتعالها أو انفجارها.



خطر

تحتوي حزمة البطارية على كمية صغيرة من مادة النيكل. لا تقم بفكها أو القاءها في النار أو الماء ولا تتسبب في احدث دائرة قصر بها. تخلص من حزمة البطارية وفقا لما هو موضح في القوانين المحلية. قم، عند استبدال حزمة البطارية، باستخدام الأنواع المحددة فقط والتي يوصى باستخدامها. حيث أنه قد يؤدي استخدام نوع بطارية غير صحيح الى اشتعالها أو انفجارها.



خطر

قد تتسبب بطارية الليثيوم في حدوث حريق أو انفجار أو حدوث حروق شديدة. لا تقم باعادة شحن البطارية أو ازالة موصل الاستقطاب الخاص بها ولا تحاول أيضا فكها أو تسخينها لأكثر من ١٠٠ درجة مئوية (٢١٢١ فهرنهايت) أو حرقها أو تعريض محتويات الخانة الخاصة بها للماء. قم بالتخلص من البطارية وفقا لما هو موضح في القوانين المحلية. استخدم نوع البطارية المحدد والذي يوصى باستخدامه. حيث أنه قد يؤدي استخدام نوع بطارية غير صحيح الى اشتعالها أو انفجارها.



خطر

إذا ما انكسرت شاشة LCD ولامس السائل الداخلي عينيك أو يديك، قم في الحال بغسلهما بالماء لمدة لا تقل عن ١٥ دقيقة. إذا ما وجدت أي أعراض بعد الغسل اطلب عندئذ المساعدة الطبية.



خطر

لتجنب التعرض لأي صدمات، لا تقم بإزالة الغطاء البلاستيكي الذي يحمي الجزء الأسفل من بطاقة العاكس.



خطر

على الرغم من أن البطاريات الرئيسية يكون لها جهد منخفض، إلا أنه قد تقوم البطاريات التي حدث قصور بها أو التي تم توصيلها أرضيا بإصدار تيار يكفي لحدوث حروق للأفراد أو تعرض المواد القابلة للاشتعال للحريق.



خطر

ما لم يتم السماح بالتبديل الفوري لأي FRU الجاري استبداله بدون ضرورة اغلاق النظام، قم بتنفيذ ما يلي قبل ازالته. قم بإيقاف تشغيل الحاسب ونزع كل أسلاك الطاقة من المخارج الكهربائية وقم أيضا بإزالة حزمة البطارية ثم قم بفصل أي كابلات متصلة.



PERIGO

Antes de ligar o computador após a substituição da FRU, certifique-se de que todos os parafusos, molas e outras peças pequenas estejam no lugar e não estejam soltos dentro do computador. Verifique isso sacudindo o computador e procurando ouvir sons de peças soltas. Peças metálicas ou lascas de metal podem causar curto-circuito.



PERIGO

Algumas baterias reserva contêm uma pequena quantidade de níquel e cádmio. Não desmonte uma bateria reserva, recarregue-a, jogue-a no fogo ou na água, ou deixe-a entrar em curto-circuito. Descarte a bateria conforme requerido pelas leis ou regulamentos locais. Use somente a bateria nas partes listadas apropriadas. O uso de uma bateria incorreta pode resultar em combustão ou explosão da bateria.



PERIGO

O pacote da bateria contém uma pequena quantidade de níquel. Não o desmonte, jogue-o no fogo ou na água, ou deixe-o entrar em curto-circuito. Descarte o pacote da bateria conforme requerido pelas leis ou regulamentos locais. Use somente a bateria nas partes listadas apropriadas ao substituir o pacote da bateria. O uso de uma bateria incorreta pode resultar em combustão ou explosão da bateria.



PERIGO

A bateria de lítio pode causar incêndio, explosão ou graves queimaduras. Não a recarregue, remova seu conector polarizado, desmonte-a, aqueça-a acima de 100°C (212°F), incinere-a, ou exponha o conteúdo de sua célula à água. Descarte a bateria conforme requerido pelas leis ou regulamentos locais. Use somente a bateria nas partes listadas apropriadas. O uso de uma bateria incorreta pode resultar em combustão ou explosão da bateria.



PERIGO

Se o LCD quebrar e o fluido de dentro dele entrar em contato com seus olhos ou com suas mãos, lave as áreas afetadas imediatamente com água durante pelo menos 15 minutos. Procure cuidados médicos se algum sintoma causado pelo fluido surgir após a lavagem.



PERIGO

Para evitar choque elétrico, não remova a capa plástica que protege a parte inferior da placa inversora.



PERIGO

Embora as principais baterias possuam baixa voltagem, uma bateria em curto-circuito ou aterrada pode produzir corrente o bastante para queimar materiais de pessoal ou inflamáveis.



PERIGO

A menos que uma hot swap seja permitida para a FRU que está sendo substituída, faça o seguinte antes de removê-la: desligue o computador, desconecte todos os cabos de energia das tomadas, remova o pacote de baterias e desconecte quaisquer cabos de interconexão.



DANGER

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.



DANGER

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.



DANGER

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.



DANGER

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.



DANGER

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.



DANGER

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



DANGER

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.



DANGER

Si le remplacement à chaud n'est pas autorisé pour l'unité remplaçable sur site que vous remplacez, procédez comme suit avant de retirer l'unité : mettez l'ordinateur hors tension, débranchez tous les cordons d'alimentation des prises de courant, retirez le bloc de batterie et déconnectez tous les câbles d'interconnexion.



VORSICHT

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.



VORSICHT

Die Bereitschaftsbatterie, die sich unter dem Diskettenlaufwerk befindet, kann geringe Mengen Nickel und Cadmium enthalten. Sie darf nur durch die Verkaufsstelle oder den IBM Kundendienst ausgetauscht werden. Sie darf nicht zerlegt, wiederaufgeladen, kurzgeschlossen, oder Feuer oder Wasser ausgesetzt werden. Die Batterie kann schwere Verbrennungen oder Verätzungen verursachen. 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.



VORSICHT

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.



VORSICHT

Die Systembatterie ist eine Lithiumbatterie. 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.



VORSICHT

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.



VORSICHT

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



VORSICHT

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.



VORSICHT

Wenn ein Austausch der FRU bei laufendem Betrieb nicht erlaubt ist, gehen Sie beim Austausch der FRU wie folgt vor: Schalten Sie den Computer aus, ziehen Sie alle Netzkabel von den Netzsteckdosen ab, entfernen Sie den Akku und ziehen Sie alle miteinander verbundenen Kabel ab.



לפני הפעלת המחשב לאחר החלפת FRU יש לוודא שכל חברגים, 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.



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 לסלק 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.



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



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



אם מסך הגביש נוזלי (LCD) נשבר והנוזל מתוך המסך בא במגע עם עיניכם או ידיכם, שטפו את האזורים הנוגעים מיד במים במשך 15 דקות לפחות. פנו לקבלת עזרה רפואית אם תסמינים הנובעים מהמגע עם הנוזל נמשכים לאחר הטיפוח.



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



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



אלא אם כן מותרת 'החלפה חמה' של ה-FRU המוחלף, פעלו כדלהלן לפני הסרתו:
כבו את המחשב, נתקו את כל כבלי החשמל מחשקעים, הוציאו את מארז הסוללות ונתקו את כל הכבלים
המחוברים.



危険

FRUの交換後、ThinkPadの電源を入れる前に、ねじ、パネ、その他の小さな部品がすべて正しい位置にあり、またThinkPad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、ThinkPad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。



危険

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。



危険

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。



危険

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



危険

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。



危険

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。



危険

메인·배터리의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。



危険

交換しようとしている FRU がホット・スワップに対応していない場合、それを取り外す前に、コンピューターの電源をオフにし、すべての電源コードをコンセントから抜き、バッテリー・パックを取り外して、相互接続しているケーブルをすべて切り離してください。



위험

FRU를 교체하고 나서 컴퓨터 전원을 켜기 전에 모든 나사, 스프링 및 기타 작은 부품들이 올바른 위치에 있는지, 컴퓨터 내부에 단단하게 연결되어 있는지 확인하십시오. 컴퓨터를 흔들어 달걀거리는 소리가 나지 않는지 확인하십시오. 금속 부품 또는 금속 조각은 누전을 일으킬 수 있습니다.



위험

일부 보조 배터리에는 소량의 니켈 및 카드뮴이 포함되어 있습니다. 보조 배터리를 분해하거나, 다시 충전하거나, 불 또는 물에 던지거나, 단락시키지 마십시오. 배터리 팩을 폐기할 때에는 해당 지역의 법률 규정을 따르십시오. 배터리 팩을 교체할 때에는 올바른 배터리만 사용하십시오. 올바르지 않은 배터리를 사용하면 배터리가 발화되거나 폭발할 수 있습니다.



위험

배터리 팩에는 소량의 니켈이 포함되어 있습니다. 배터리 팩을 분해하거나, 불 또는 물에 던지거나, 단락시키지 마십시오. 배터리 팩을 폐기할 때에는 해당 지역의 법률 규정을 따르십시오. 배터리 팩을 교체할 때에는 올바른 배터리만 사용하십시오. 올바르지 않은 배터리를 사용하면 배터리가 발화되거나 폭발할 수 있습니다.



위험

리튬 배터리는 화재, 폭발 또는 심각한 화상을 일으킬 수 있습니다. 리튬 배터리를 다시 충전하거나, 극성 커넥터를 제거하거나, 분해하거나, 100C(212F) 이상으로 가열하거나, 소각하거나, 전지 내용물을 물에 노출시키지 마십시오. 배터리를 폐기할 때에는 해당 지역을 법률 규정을 따르십시오. 올바른 배터리만 사용하십시오. 올바르지 않은 배터리를 사용하면 배터리가 발화되거나 폭발할 수 있습니다.



위험

LCD가 파손되어 LCD 내부의 액체가 눈에 들어가거나 손에 묻으면 즉시 깨끗한 물로 15분 이상 닦아 내십시오. 씻은 후에 조금이라도 이상을 느끼면 즉시 병원에 가서 의사의 진찰을 받아야 합니다.



위험

전기적 위험을 방지하려면 인버터 카드의 아래 부분을 보호하는 플라스틱 덮개를 제거하지 마십시오.



기본 배터리의 전압은 낮지만, 단락되거나 접지된 배터리는 화상을 입히기에 충분한 전류와 가연성 물질을 발생시킬 수 있습니다.



FRU 교체 시 Hot Swap이 지원되지 않는 경우, FRU를 제거하기 전에 컴퓨터의 전원을 끄고, 전기 콘센트에서 전원 코드를 분리하고, 배터리를 제거한 후, 연결된 모든 케이블을 분리하십시오.



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.



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.



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.



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.



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 médica si se presenta algún síntoma del fluido después de lavarse.



PELIGRO

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



PELIGRO

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.



PELIGRO

Salvo que se permita el intercambio en caliente para la unidad sustituible localmente, realice lo siguiente antes de extraerla: apague el sistema, desconecte todos los cables de alimentación de las tomas de alimentación eléctrica, extraiga la batería y desconecte los cables de interconexión.



危險

完成 FRU 更換之後，在開啟電腦的電源之前，請確定所有螺絲、彈簧及其他小零件都已歸位，沒有遺留在電腦內部。
若要確認這一點，請搖晃電腦，聽聽看是否有卡嗒的聲音。
金屬零件或機械的火花會造成電線短路。



危險

部分備用電池含有微量的鎳和鎘。請勿拆開備用電池、再充電、丟入火或水中，或使其形成短路。請按照當地法令或規定來棄置電池。
僅限使用零件清單中的電池。使用不適當的電池會導致電池起火或爆炸。



危險

電池套件含有微量的鎳。請勿拆開電池套件、丟入火或水中，或使其形成短路。請按照當地法令或規定來棄置電池套件。
更換電池套件時，僅限使用零件清單中的電池。使用不適當的電池會導致電池起火或爆炸。



危險

鋰電池會導致起火、爆炸或嚴重燒傷。請勿再充電、拔除其電極接頭、拆開、加熱超過 100°C (212°F)、焚燒，或讓電池組成物浸到水。請按照當地法令或規定來棄置電池。
僅限使用零件清單中的電池。使用不適當的電池會導致電池起火或爆炸。



如果 LCD 破裂導致 LCD 流出的液體沾到您的眼睛或手，請立即以清水沖洗沾染部位至少 15 分鐘。如果在清洗後出現該液體所造成的任何症狀，請就醫治療。



為避免電擊，請勿拆下轉換卡下面的塑膠護蓋。



雖然主電池的電壓很低，但短路或接地電池所產生的電流，仍足以使人燒傷或使可燃物質起火。



除非 FRU 允許以熱抽換來替換，否則請依下列方式將其移除：將電腦關機，拔除插座上所有電源線，移除電池包，並拔開任何交互連接的線材。

Laser compliance statement (multilingual translations)

The laser compliance statements in this section are provided in the following languages:

- English
- Arabic
- Brazilian Portuguese
- French
- German
- Hebrew
- Japanese
- Korean
- Spanish
- Traditional Chinese



CAUTION:

When laser products (such as CD-ROMs, DVD drives, fiber optic devices, or transmitters) are installed, note the following:

- Do not remove the covers. Removing the covers of the laser product could result in exposure to hazardous laser radiation. There are no serviceable parts inside the device.
- Use of controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.



DANGER

Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following.

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



تحذير:

عند تثبيت منتجات الليزر (مثل أقراص CD-ROM أو محركات تشغيل أقراص DVD أو أجهزة الألياف البصرية أو النواقل)، لاحظ ما يلي:

- لا تقم بنزع الغطاء. قد ينتج عن نزع غطاء منتج ليزر التعرض لأشعة ليزر في منتهى الخطورة. لا توجد أجزاء يمكن صيانتها داخل الجهاز.
- قد ينتج عن استخدام مفاتيح أو تنفيذ عمليات ضبط أو إجراءات بطريقة مختلفة عما هو محدد هنا التعرض لأشعة ليزر في منتهى الخطورة.



خطر

تحتوي بعض منتجات الليزر على صمام ثنائي ليزري مضمن من Class 3A أو Class 3B. لاحظ ما يلي. توجد أشعة ليزر عند الفتح. لا تنظر للشعاع ولا تنظر بطريقة مباشرة باستخدام أدوات ضوئية وتجنب التعرض المباشر للشعاع.

**CUIDADO:**

Quando produtos a laser (como CD-ROMs, unidades de DVD, dispositivos de fibra ótica ou transmissores) estão instalados, observe o seguinte:

- Não remova as tampas. A remoção das tampas do produto a laser pode resultar em exposição prejudicial à radiação de laser. Não há peças que permitam manutenção no interior do dispositivo.
- A utilização de controles ou ajustes ou a execução de procedimentos diferentes daqueles especificados aqui pode resultar em exposição perigosa à radiação.

**PERIGO**

Algumas produtos a laser contêm um diodo de laser Classe 3A ou Classe 3B integrado. Observe o seguinte:

Radiação a laser quando aberta. Não olhe diretamente para o feixe a olho nu ou com instrumentos óticos e evite exposição direta ao feixe.

**ATTENTION :**

Si des produits laser (tels que des unités de CD, DVD, à fibre optique ou des émetteurs) sont installés, lisez les informations suivantes :

- Ne retirez pas les carters. En ouvrant le produit laser, vous vous exposez au rayonnement dangereux du laser. Aucune pièce de l'unité n'est réparable.
- Pour éviter tout risque d'exposition au rayon laser, respectez les consignes de réglage et d'utilisation des commandes, ainsi que les procédures décrites dans le présent manuel.

**DANGER**

Certains produits à laser contiennent une diode à laser intégrée de classe 3A ou 3B. Prenez connaissance des informations suivantes.

Rayonnement laser lorsque le carter est ouvert. Evitez toute exposition directe au rayon laser. Evitez de regarder fixement le faisceau ou de l'observer à l'aide d'instruments optiques.



Vorsicht:

Bei der Installation von Lasergeräten (wie CD-ROM-Laufwerken, DVD-Laufwerken, Einheiten mit Lichtwellenleitertechnik oder Sendern) Folgendes beachten:

- Die Abdeckungen nicht entfernen. Durch Entfernen der Abdeckungen des Lasergeräts können gefährliche Laserstrahlungen freigesetzt werden. Das Gerät enthält keine zu wartenden Teile.
- Werden Steuerelemente, Einstellungen oder Durchführungen von Prozeduren anders als hier angegeben verwendet, kann gefährliche Laserstrahlung auftreten.



Gefahr

Einige Lasergeräte enthalten eine Laserdiode der Klasse 3A oder 3B. Beachten Sie Folgendes:

Laserstrahlung bei geöffneter Verkleidung. Nicht in den Strahl blicken. Keine Lupen oder Spiegel verwenden. Strahlungsbereich meiden.



זהירות:

כאשר מוצרי לייזר (כגון תקליטורים, כונני DVD, התקני סיבים אופטיים או משדרים) מותקנים, שימו לב להנחיות

הבאות:

- אל תסירו את הכיסויים. הסרת הכיסויים של מוצר הלייזר עלולה לגרום לחשיפה מסוכנת לקרינת לייזר. ההתקן אינם כוללים רכיבים להחלפה עצמית.
- שימוש בבקורות ובהתאמות שלא צוינו או ביצוע תהליכים שלא צוינו, יכולים לגרום לחשיפה מסוכנת לקרינה.



סכנה

כמה ממוצרי הלייזר מכילים דיודת לייזר מובנית Class 3A או Class 3B. שימו לב לדברים שלהלן. קיימת פליטת קרני לייזר כאשר המוצר פתוח. אל תביטו ישירות אל הקרן, אל תביטו אל הקרן ישירות דרך אמצעים אופטיים, והימנעו מחשיפה ישירה לקרן.



警告：

レーザー製品 (CD-ROM、DVD ドライブ、光ファイバー装置、または送信機など) を取り付ける場合には、以下のことに注意してください。

- カバーを外さないこと。カバーを取り外すと有害なレーザー光を浴びることがあります。この装置の内部には保守が可能な部品はありません。
- 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、レーザー放射の危険があります。



危険

一部のレーザー製品には、クラス 3A またはクラス 3B のレーザー・ダイオードが組み込まれています。次の点に注意してください。

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、光線を直接浴びることは避けてください。



경고：

레이저 제품 (CD-ROM, DVD 드라이브, 광섬유 장치 또는 송신기) 이 설치되어 있는 경우, 다음과 같은 취급 주의사항을 참고하십시오.

- 덮개를 제거하지 마십시오. 레이저 제품의 덮개를 제거하면 유해한 레이저 복사에 노출될 위험이 있습니다. 장치 내부에는 사용자가 수리할 수 있는 부분이 없습니다.
- 본 내용에서 설명한 이외의 방법으로 드라이브를 조정하거나 제어 또는 작동하는 경우, 해로운 레이저 복사에 노출될 수 있습니다.



위험

일부 레이저 제품은 임베디드 클래스 3A 또는 클래스 3B 레이저 다이오드가 포함되어 있습니다. 다음 주의사항을 유의하십시오.

드라이브의 덮개를 열면 전자파가 발생합니다. 광선 또는 광 장치를 직접 보거나 광선에 노출되지 않도록 주의하십시오.



PRECAUCIÓN:

Cuando haya instalados productos láser (por ejemplo, unidades de CD-ROM, unidades de DVD, dispositivos de fibra óptica o transmisores), tenga en cuenta lo siguiente:

- No extraiga las cubiertas. La extracción de las cubiertas del producto láser podría producir una exposición a radiación láser peligrosa. No hay ninguna pieza dentro del dispositivo que pueda reparar.
- La utilización de controles, ajustes o la realización de procedimientos diferentes a los especificados puede dar como resultado una exposición peligrosa a radiaciones.



PELIGRO

Algunos productos láser contienen un diodo láser de Clase 3A o Clase 3B incorporado. Tenga en cuenta lo siguiente.

Emite radiación láser cuando está abierto. No fije la vista en el rayo, no lo mire directamente con instrumentos ópticos y evite la exposición directa al rayo.



警告：

安裝雷射產品（如 CD-ROM、DVD 光碟機、光纖裝置或轉送器）時，請注意下列事項：

- 請勿卸下外蓋。卸下雷射產品的外蓋可能導致曝露於危險的雷射輻射。裝置內沒有可維修的零件。
- 若不遵守本文規定的控制、調整或操作程序，可能會導致危險的輻射外洩。



危險

某些雷射產品包含內嵌式 3A 類或 3B 類雷射二極體。這類光碟機的使用者應注意下列聲明。

在開啟光碟機時，會有雷射輻射。請勿直視光束或以光學儀器直接觀看光束，並避免直接暴露在光束中。

Chapter 2. Important service information

This chapter presents following important service information that applies to all machine types supported by this manual:

- “Strategy for replacing FRUs” on page 23
 - “Strategy for replacing a hard disk drive” on page 23
 - “Important notice for replacing a system board” on page 24
 - “How to use error message” on page 24
- “Strategy for replacing FRUs for CTO, CMV, and GAV” on page 24
 - “Product definition” on page 24
 - “FRU identification for CTO, CMV, and GAV products” on page 24

Important:

- Advise customers to contact the Lenovo Customer Support Center if they need any assistance in obtaining or installing any software fixes, drivers, and BIOS downloads. Telephone numbers for Lenovo Support are available at:
<http://www.lenovo.com/support/phone>
- System Disassembly/Reassembly videos that show the FRU removals or replacements for the Lenovo® authorized service technicians are available in the following support site:
<http://www.lenovoservicetraining.com/ion/>

Strategy for replacing FRUs

Before replacing parts:

Ensure that all software fixes, drivers, and UEFI BIOS downloads are installed before you replace any FRUs listed in this manual.

After a system board is replaced, ensure that the latest UEFI BIOS is loaded to the system board before you complete the service action.

To download and install software fixes, drivers, and UEFI BIOS, go to <http://www.lenovo.com/ThinkPadDrivers> and follow the instructions on the screen.

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

- If you are instructed to replace a FRU but the replacement does not correct 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 the processor board or the system board, and replacing one of them does not correct 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 might 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.

Strategy for replacing a hard disk drive

Always try to run a low-level format operation before replacing a hard disk drive or a solid-state drive. This will cause all customer data on the drive to be lost. Ensure that the customer has a current backup of the data before you perform this task.

Attention: The drive startup sequence in the computer you are servicing might 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 of a system board can cause damage to those components, and may cause a system malfunction.

Attention: When handling a system board:

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

How to use error message

Use the error codes displayed on the screen to diagnose failures. If more than one error code is displayed, begin the diagnosis with the first error code. Whatever causes the first error code might also cause false error codes. If no error code is displayed, see whether the error symptom is listed in the “Symptom-to-FRU Index” section.

Strategy for replacing FRUs for CTO, CMV, and GAV

Product definition

Dynamic Configure To Order (CTO)

This provides the ability for a customer to configure a Lenovo solution from an eSite, and have this configuration sent to fulfillment, where it is built and shipped directly to the customer. The machine label and eSupport will load these products as the 4-digit MT and 3-digit model, where model = “CTO” (Example: 1829-CTO).

Custom Model Variant (CMV)

This is a unique configuration that has been negotiated between Lenovo and the customer. A unique 4-digit MT and 3-digit model is provided to the customer to place orders (Example: 1829-W15). A CMV is a special bid offering. Therefore, it is NOT generally announced.

- The MTM portion of the machine label is the 4-digit MT and 3-digit model, where model = “CTO” (Example: 1829-CTO). The PRODUCT ID portion of the machine label is the 4-digit MT and 3-digit CMV model (Example: 1829-W15).
- eSupport will show both the CTO and CMV machine type models (Example: 1829-CTO and 1829-W15 will be found on the eSupport site.)

General Announce Variant (GAV)

This is a standard model (fixed configuration). GAVs are announced and offered to all customers. The MTM portion of the machine label is a 4-digit MT and 3-digit model, where model = a “fixed part number”, not “CTO” (Example: 1829-F1U). Also, eSupport will list these products under the same fixed model number.

FRU identification for CTO, CMV, and GAV products

There are three information resources to identify which FRUs are used to support CTO, CMV, and GAV products. These sources are PEW, eSupport, and the HMM.

Use Lenovo eSupport to identify major FRUs, FRU part numbers, and FRU descriptions for CTO, CMV, and GAV products at an MT - serial number level. Examples of major FRUs are hard disk drive, system board, liquid crystal display (LCD), and memory module. All CTO and CMV products are loaded under the 4-digit MT and 3-digit model, where model = "CTO" (example: 1829-CTO). GAVs are loaded under the 4-digit MT and 3-digit model, where model = a "fixed part number", not "CTO" (example: 1829-F1U).

To identify the major FRUs for a product, do the following:

1. Go to:
<http://www.lenovo.com/support>
2. Click **Warranty & Services**.
3. Click **Check Warranty Status**.
4. On the Warranty Status Lookup page, click **Parts Lookup**.
5. Type your machine type and serial number, and then click **Submit**.

eSupport also can be used to view the general FRU list for a product.

To get the general FRU list for a product, do the following:

1. Go to:
<http://www.lenovo.com/support>
2. Click **Parts & Accessories**.
3. Follow the instructions on the screen to select product.
4. Click **Products and Parts Detail**.
5. On the PRODUCT AND PARTS DETAIL page, click the **Parts Detail** tab to view the FRU list.

Note: The FRU list is a general list of components and does not contain specific model information.

Chapter 3. General checkout

This chapter presents following information:

- “What to do first” on page 27
- “Checkout guide” on page 28
 - “Diagnostics using PC-Doctor for DOS” on page 28
 - “Lenovo ThinkVantage Toolbox (Lenovo System Toolbox)” on page 31
 - “PC-Doctor for Rescue and Recovery” on page 31
 - “FRU tests” on page 34
- “Power system checkout” on page 35

The descriptions in this chapter apply to any ThinkPad model that supports the PC-Doctor® for DOS diagnostics program. Some descriptions might not apply to your particular computer.

Before you go to the checkout guide, be sure to read the following important notes.

Important:

- **Only certified trained personnel should service the computer.**
- **Before replacing any FRU, read the entire page on removing and replacing FRUs.**
- **When you replace FRUs, use new nylon-coated screws.**
- **Be extremely careful during such write operations as copying, saving, or formatting.** Drives in the computer that you are servicing sequence might have been altered. If you select an incorrect drive, data or programs might be overwritten.
- **Replace a FRU only with another FRU of the correct model.** When you replace a FRU, make sure that the model of the machine and the FRU part number are correct by referring to the FRU parts list.
- **A FRU should not be replaced 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 a FRU only when a problem recurs. If you suspect that a FRU is defective, clear the error log 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 a 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 service technician
2. Date of service
3. Date on which the machine failed
4. Date of purchase
5. Failure symptoms, error codes appearing on the display, and beep symptoms
6. Procedure index and page number in which the failing FRU was detected
7. Failing FRU name and part number
8. Machine type, model number, and serial number
9. 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.

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 disc 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.
- Check for obvious damage to a hard disk drive. If the spindle of a hard disk drive becomes noisy, the hard disk drive might have been dropped or subject to excessive force.

Checkout guide

Use the following procedures as a guide in identifying and correcting problems with the ThinkPad Notebook.

Note: The diagnostic tests are intended to test only ThinkPad products. The use of non-ThinkPad products, prototype cards, or modified options can lead to false indications of errors and invalid system responses.

1. Identify the failing symptoms in as much detail as possible.
2. Verify the symptoms. Try to re-create the failure by running the diagnostic test or by repeating the operation.

Diagnostics using PC-Doctor for DOS

The ThinkPad Notebook has a test program called PC-Doctor for DOS (hereafter called *PC-Doctor*.) You can detect errors by running the diagnostics test included in PC-Doctor.

Notes:

- PC-Doctor for DOS is available at the following Web site:
<http://support.lenovo.com>
- To create the PC-Doctor diagnostic CD, follow the instructions on the Web site.

For some possible configurations of the computer, PC-Doctor might not run correctly. To avoid this problem, you need to initialize the computer setup by use of the BIOS Setup Utility before you run PC-Doctor.

To enter BIOS Setup Utility, do as follows:

1. Turn on the computer.
2. When the ThinkPad logo comes up, immediately press F1 to enter the BIOS Setup Utility.

Note: If a supervisor password has been set by the customer, BIOS Setup Utility menu appears after the password is entered. You can start BIOS Setup Utility by pressing Enter instead of entering the supervisor password; however, you cannot change the parameters that are protected by the supervisor password.

On the BIOS Setup Utility screen, press F9, Enter, F10, and then Enter.

Note: When you initialize the computer configuration, some devices are disabled, such as the serial port. If you test one of these devices, you will need to enable it by using Configuration utility for DOS. The utility is available on the following Web site:
<http://support.lenovo.com>

Testing the computer

Note: The PC-Doctor for DOS CD-R/CD-RW disc supports only test of internal optical disc drives (CD-RW, CD-RW/DVD Combo, and DVD Multi drives) on ThinkPad computers. It does not support test of any optical disc drives connected through USB devices, PC cards, CardBus cards, or similar. The USB limitation only applies to testing of the device. Using a bootable PC-Doctor for DOS CD/DVD, the system can be started from a USB attached optical drive.

To run the test, do as follows:

1. Turn off the computer.
2. Make sure that the optical drive that is supported as a startup device is installed to the computer you are servicing.
3. Turn on the computer. If the computer cannot be powered on, go to “Power system checkout” on page 35, and check the power sources.

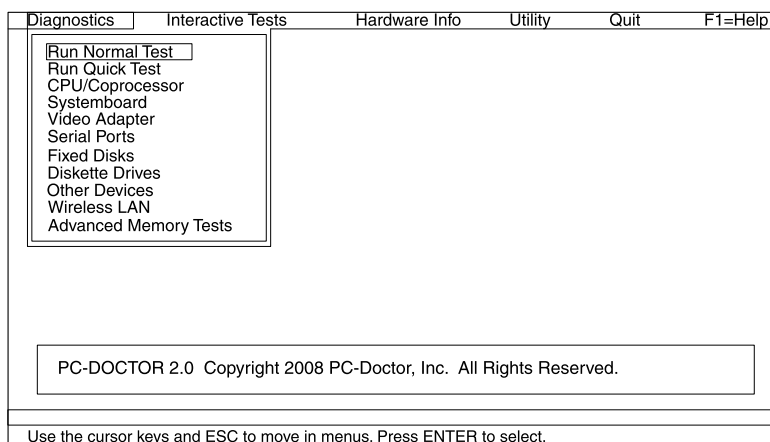
If an error code appears, go to “Symptom-to-FRU index” on page 42.

4. When the ThinkPad logo comes up, immediately press F12 to enter the Boot Menu.
5. Insert the PC-Doctor CD into the optical drive.
6. Press cursor keys to select **ATAPI CDx** (x: 0, 1, ...) and then press Enter.
7. Follow the instructions on the screen.
8. The main panel of PC-Doctor appears.
9. Select **Diagnostics** with the arrow keys, and press Enter.

Note: You can select an item not only with the arrow keys, but also with the TrackPoint® pointer. Instead of pressing Enter, click the left button.

A pull-down menu appears. (Its exact form depends on the model.)

Note: PC-Doctor menu does not mean the formal support device list. Some unsupported device names may appear in the PC-Doctor menu.



The options on the test menu are as follows:

Diagnostics	Interactive Tests
<ul style="list-style-type: none"> • Run Normal Test • Run Quick Test • Microprocessor/Coprocessor • System board • Video Adapter • Serial Ports • Fixed Disks • Diskette Drives • Other Devices • Wireless LAN • Advanced Memory Tests 	<ul style="list-style-type: none"> • Keyboard • Video • Internal Speaker • Mouse • Diskette • System Load • Optical Drive Test • Intel WLAN Radio Test
<p>Notes:</p> <ul style="list-style-type: none"> • In the Keyboard test in Interactive Tests, the Fn key should be held down for at least 2 seconds; otherwise, it cannot be sensed. • Video Adapter test supports only the LCD display on the ThinkPad Notebook. If you have an external monitor attached to the computer, detach it before running PC-Doctor for DOS. • To test Digital Signature Chip, the security chip must be set to Active. 	

10. Run the applicable function test.
11. Follow the instructions on the screen. If there is a problem, PC-Doctor shows messages describing it.
12. To exit the test, select **Quit — Exit Diag**. To cancel the test, press **Esc**.

Note: After running PC-Doctor, check the time and date on the system and reset them if they are incorrect.

Detecting system information with PC-Doctor

PC-Doctor can detect the following system information:

- | | |
|----------------------|--|
| Hardware Info | <ul style="list-style-type: none"> • System Configuration • Memory Contents • Physical Disk Drives • Logical Disk Drives • VGA Information • IDE Drive Info • PCI Information • PNPISA Info • SMBIOS Info • VESA LCD Info • Hardware Events Log |
| Utility | <ul style="list-style-type: none"> • Run External Tests • Surface Scan Hard Disk • Benchmark System • DOS Shell • Tech Support Form • Battery Rundown • View Test Log • Print Log • Save Log • Full Erase Hard Drive • Quick Erase Hard Drive |

Lenovo ThinkVantage Toolbox (Lenovo System Toolbox)

Lenovo ThinkVantage® Toolbox is a diagnostic program that works through the Windows® operating system. It enables you to view symptoms of computer problems and solutions for them, and includes automatic notification when action is required, computing assistance, advanced diagnostics, and diagnostic history.

Note: The latest Lenovo ThinkVantage Toolbox is available at the following Web site:
<http://web.lenovothinkvantagetoolbox.com/>

To install the latest Lenovo ThinkVantage Toolbox on the computer, follow the instructions on the Web site.

To run this program, do as follows:

Click **Start → Control Panel → System and Security → Lenovo's System Health and Diagnostics**.

Follow the instructions on the screen. Lenovo ThinkVantage Toolbox (Lenovo System Toolbox) also has problem determination aids that determine software and usage problems.

For additional information about this program, see the Help for the program.

PC-Doctor for Rescue and Recovery

By using PC-Doctor from the Rescue and Recovery® workspace, you can diagnose the hardware features of the computer without starting up the operating system.

To run the test, do as follows:

1. Power off the computer, and then power it on again.
2. When the ThinkPad logo comes up, immediately press **Enter** key. The Rescue and Recovery workspace opens.
3. Click **Launch advanced Rescue and Recovery**.
4. Click **Diagnose hardware**.

For more information about PC-Doctor, see the Help for the program.

Lenovo Solution Center

The Lenovo Solution Center program enables you to troubleshoot and resolve computer problems. It combines diagnostic tests, system information collection, security status, and support information, along with hints and tips for maximum system performance.

Note: The Lenovo Solution Center program is available only on models preinstalled with the Windows 7 operating system. It also can be downloaded from <http://www.lenovo.com/diags>.

To run the Lenovo Solution Center program, click **Start → Control Panel → System and Security → Lenovo - System Health and Diagnostics**, and then follow the instructions on the screen.

For additional information about this program, see the help information system.

Quick test programs

Lenovo Hard Drive Quick Test and Lenovo Memory Quick Test are two quick test programs that enable you to troubleshoot and resolve computer internal storage and memory problems.

Notes:

- If the computer you are servicing is not installed with the Lenovo Solution Center program, you can download the quick test programs from the Lenovo Support Web site.
- The two programs are applicable to computers installed with the Windows 7, Windows XP, Windows Server 2003, or Windows Server 2008 operating system.

To download and install a quick test program, go to <http://www.lenovo.com/diags>, and follow the instructions on the Web site.

To run a quick test using the downloaded program, do the following:

1. Go to the C:\SWTOOLS\ldiag folder.
2. Double-click the gui_lsc_lite.exe file.
3. When the **User Account Control** window opens, click **Yes**.
4. Select the device class to be tested.
5. Select the devices to be tested.
6. Select the tests to be performed.
7. Follow the instructions on the screen to start the test. When a problem is detected, information messages will be displayed. Refer to the messages to troubleshoot the problem.

UEFI diagnostic program

A UEFI diagnostic program is preinstalled on the computer. It enables you to test memory and internal storage problems, view system information, and check and recover bad sectors on internal storage devices.

To run the UEFI diagnostic program, do the following:

1. Turn on the computer. If the computer cannot be turned on, go to “Power system checkout” on page 35, and check the power sources. If an error code is displayed, go to “Symptom-to-FRU index” on page 42 for error code descriptions and troubleshooting hints.
2. When the ThinkPad logo is displayed, repeatedly press and release the F12 key. When the Boot Menu window opens, release the F12 key.
3. Press the Tab key to switch to the Application Menu window.
4. Use the arrow keys to select **Lenovo Diagnostics** and then press Enter. The main screen of the UEFI diagnostic program is displayed.
5. Follow the instructions on the screen to use the diagnostic program.

The options on the main screen are as follows:

Tests	Tools
<ul style="list-style-type: none"> • Quick Memory Test • Quick Storage Device Test • Exit Application 	<ul style="list-style-type: none"> • System Information • Recover Bad Sectors Tool

Bootable diagnostic programs

If the computer you are servicing is not installed with the UEFI diagnostic program, you can download a bootable diagnostic program from the Lenovo Support Web site. The bootable diagnostic programs enable you to test computer memory and internal storage devices, view system information, and check and recover the internal storage devices. To use the bootable diagnostic programs, you can create a bootable diagnostic medium on a USB device or CD.

To create a bootable diagnostic medium, do the following:

1. Go to <http://www.lenovo.com/diags>.

2. Click **Lenovo Bootable Diagnostics**.
3. Follow the instructions on the Web site to create a bootable diagnostic medium on a USB device or CD.

To use the diagnostic medium you have created, do one of the following:

- If you have created the bootable diagnostic medium on a USB device, do the following:
 1. Attach the USB device to the computer.
 2. Turn on the computer. If the computer cannot be turned on, go to “Power system checkout” on page 35, and check the power sources. If an error code is displayed, go to “Symptom-to-FRU index” on page 42 for error code descriptions and troubleshooting hints.
 3. When the ThinkPad logo is displayed, repeatedly press and release the F12 key. When the Boot Menu window opens, release the F12 key.
 4. Use the arrow keys to select **USB HDD** and then press Enter. The diagnostic program will be launched automatically.
 5. Follow the instructions on the screen to use the diagnostic program.
- If you have created the bootable diagnostic medium on a CD, do the following:
 1. Turn on the computer. If the computer cannot be turned on, go to “Power system checkout” on page 35, and check the power sources. If an error code is displayed, go to “Symptom-to-FRU index” on page 42 for error code descriptions and troubleshooting hints.
 2. Insert the CD into the optical drive.
 3. Restart the computer.
 4. When the ThinkPad logo is displayed, repeatedly press and release the F12 key. When the Boot Menu window opens, release the F12 key.
 5. Use the arrow keys to select **ATAPI CDx** (x: 0, 1, ...) and then press Enter. The diagnostic program will be launched automatically.
 6. Follow the instructions on the screen to use the diagnostic program.

Lenovo ThinkVantage Toolbox

Lenovo ThinkVantage® Toolbox is a diagnostic program that works through the Windows® operating system. It enables you to view symptoms of computer problems and solutions for them, and includes automatic notification when action is required, computing assistance, advanced diagnostics, and diagnostic history.

Note: To install the latest Lenovo ThinkVantage Toolbox on the computer, go to <http://web.lenovothinkvantagetoolbox.com/>, click **Download Lenovo ThinkVantage Toolbox**, and then follow the instructions on the Web site.

To run this program, do as follows:

Windows 7:

Click **Start → Control Panel → System and Security → Lenovo - System Health and Diagnostics**.

Windows XP:

Click **Start → All Programs → ThinkVantage → Lenovo ThinkVantage Toolbox**.

Follow the instructions on the screen. Lenovo ThinkVantage Toolbox also has problem determination aids that determine software and usage problems.

For additional information about this program, see the Help for the program.

FRU tests

The following table shows the test for each FRU.

Table 1. FRU tests

FRU	Applicable test
System board	<ol style="list-style-type: none"> 1. Diagnostics → Microprocessor/Coprocessor 2. Diagnostics → Systemboard
Power	Diagnostics → ThinkPad Devices → AC Adapter → Battery 1 (Battery2)
LCD unit	<ol style="list-style-type: none"> 1. Diagnostics → Video Adapter 2. Interactive Tests → Video
Audio	Enter the BIOS Setup Utility and change Serial ATA (SATA) setting to Compatibility , and run Diagnostics → Other Device → Conexant Audio .
Speaker	<p>Interactive Tests → Internal Speaker</p> <p>Note: Once Audio test is done, the no sound is heard this test. In this case, turn off and turn on the computer. Then, run this test again.</p>
Keyboard	<ol style="list-style-type: none"> 1. Diagnostics → Systemboard → Keyboard 2. Interactive Tests → Keyboard
Hard disk drive	<p>Enter the BIOS Setup Utility and change Serial ATA (SATA) setting to Compatibility, and run Diagnostics → Fixed Disks.</p> <p>You can also diagnose the drive without starting up the operating system. To diagnose the drive from the BIOS Setup Utility, do as follows:</p> <ol style="list-style-type: none"> 1. Remove any diskette from the diskette drive, and then turn off the computer. 2. Turn on the computer. 3. While the message, "To interrupt normal startup, press Enter," is displayed at the lower left of the screen, press F1 to enter the BIOS Setup Utility. 4. Using cursor keys, select HDD diagnostic program. Press enter. 5. Using cursor keys, select Main hard disk drive. 6. Press Enter to start the diagnostic program.
Diskette drive	<ol style="list-style-type: none"> 1. Diagnostics → Diskette Drives 2. Interactive Tests → Diskette
Memory	<ol style="list-style-type: none"> 1. If two memory modules are installed, remove one of them and run Diagnostics → Advanced Memory Tests. 2. If the problem does not recur, return the memory module to its place, remove the other one, and run the test again.
TrackPoint® or pointing device	<p>If the TrackPoint does not work, check the configuration as specified in the BIOS Setup Utility. If the TrackPoint is disabled, select Automatic to enable it.</p> <p>After you use the TrackPoint, the pointer may drift on the screen for a short time. This drift can occur when a slight, steady pressure is applied to the TrackPoint pointer. This symptom is not a hardware problem. If the pointer stops after a short time, no service action is necessary.</p> <p>If enabling the TrackPoint does not correct the problem, continue with the following:</p> <ul style="list-style-type: none"> • Interactive Tests → Mouse
Touch Pad	<p>If the Touch Pad does not work, check the configuration as specified in the BIOS Setup Utility. If the Touch Pad is disabled, select Automatic to enable it. If enabling the Touch Pad does not correct the problem, continue with the following:</p> <ul style="list-style-type: none"> • Interactive Tests → Mouse

Power system checkout

To verify a symptom, do the following:

1. Turn off the computer.
2. Remove the battery pack.
3. Connect the ac adapter.
4. Check 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. Check 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 35
- “Checking operational charging” on page 35
- “Checking the battery pack” on page 36
- “Checking the backup battery” on page 36

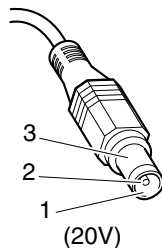
Checking the ac adapter

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” on page 35

To check the ac adapter, do the following:

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:



Pin	Voltage (V dc)
1	+20
2	0
3	Ground

Note: Output voltage of pin no.2 of the ac adapter 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 “FRU tests” on page 34.

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

Checking operational charging

To check whether the battery charges properly during operation, do the following:

Note: Before you begin, install a discharged battery pack or battery pack that has less than 50% of the total power remaining in the computer.

1. If the status indicator does not turn on, remove the battery pack and let it return to room temperature.
2. Reinstall the battery pack.

3. If the indicator still does not turn on, replace the battery pack.
4. If the indicator still does not turn on, replace the system board. Otherwise, refer to “Checking the backup battery” on page 36.

Checking the battery pack

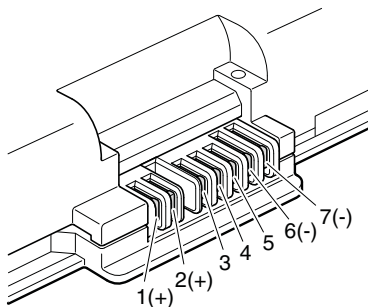
Battery charging does not start until the Power Manager Battery Gauge shows that less than 96% of the total power remains; under this condition the battery pack can charge to 100% of its capacity. This protects the battery pack from being overcharged or from having a shortened life.

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

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

To check the battery pack, do the following:

1. Turn off the computer and disconnect the ac power adapter.
2. Remove the battery pack and measure the voltage between battery terminals 1 (+) and 7 (-). The following correct voltages are shown in the following table:



Terminal	Voltage (V dc)
1	+ 0 to + 12.6
7	Ground (-)

3. If the voltage is less than +11.0 V dc, the battery pack has been discharged.

Note: Recharging will take at least 3 hours, even if the indicator does not turn on.

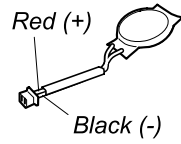
If the voltage is still less than +11.0 V dc after recharging, replace the battery.

4. If the voltage is more than +11.0 V dc, measure the resistance between battery terminals 5 and 7. The resistance must be 4 to 30 K Ω . If the resistance is not correct, replace the battery pack. If the resistance is correct, replace the system board.

Checking the backup battery

Do the following:

1. Power off the computer, and unplug the ac adapter from it.
2. Turn the computer upside down.
3. Remove the battery pack (see “1010 Battery pack” on page 58).
4. Remove the backup battery (see “1110 Backup battery” on page 74).
5. Measure the voltage of the backup battery. See the following figure.



Wire	Voltage (V dc)
Red	+2.5 to +3.2
Black	Ground

- If the voltage is correct, replace the system board.
- If the voltage is not correct, replace the backup battery.
- If the backup battery discharges quickly after replacement, replace the system board.

Chapter 4. Related service information

This chapter presents following information:

- “Restoring the factory contents by using the product Recovery Disc Set” on page 39
- “Passwords” on page 40
- “Power management” on page 42
- “Symptom-to-FRU index” on page 42

Service Web site:

When the latest maintenance diskette and the system program service diskette become available, they will be posted on <http://support.lenovo.com>.

Restoring the factory contents by using the product Recovery Disc Set

When the main storage device is replaced because of a failure, no product recovery program is on the new drive. In this case, the customer must use the Recovery Disc Set to recover the tablet. Order the Recovery Disc Set and the drive at the same time so that the customer can restore the tablet to the factory default settings by using the Recovery Disc Set after the new drive is installed. For information about which discs to order, go to:

<http://www.lenovo.com/serviceparts-lookup>

Depending on the model, the number of recovery discs included in the Recovery Disc Set differs. To restore the factory contents by using the product Recovery Disc Set, do the following:

Notes:

- During the recovery process, all data on the drive will be deleted. If possible, copy any important data or personal files that you want to keep onto removable media or a network drive before you start the recovery process.
- The recovery process takes one to two hours to complete. The length of time depends on the method you use. If you use product Recovery Disc Set, the recovery process takes about two hours.
 1. Connect an external CD/DVD drive.
 2. Make the CD/DVD drive the first startup device in the startup sequence using the following procedure:
 - a. Open the ThinkPad Setup program and select **Startup → Boot**.
 - b. Select the CD/DVD drive as the **1st Boot Device**.
 3. Insert the bootable recovery disc into the CD/DVD drive.
 4. Start the computer from the external CD/DVD drive.
 5. When prompted, select your language and click **Next**.
 6. Read the license and accept the terms and conditions. Then follow the instructions on the screen.
 7. If the Recovery Disc Set contains a *Supplemental Recovery Disc*, insert it when prompted and click **Yes**.

Note: Not all Recovery Disc Sets come with a Supplemental Recovery Disc. If there is a Supplemental Recovery Disc, it will be clearly marked as such.

8. When all of the data has been copied from the last disc in the set and has been processed, remove the external CD/DVD drive and restart the computer. Follow the instructions on the screen to finish the recovery.

Note: The rest of the recovery process is fully automated and no action from you is required. The computer will restart into the Microsoft Windows desktop several times and you might experience periods when no activity is apparent on the screen for several minutes at a time. This is normal.

9. When the recovery process completes, the Welcome to Microsoft Windows screen is displayed. Follow the instructions on the screen to complete the Windows setup.
10. After you have completed the Windows setup, you might want to restore the original startup sequence. Start the ThinkPad Setup program and then press F9 to restore the default settings. Press F10 to save changes and exit the ThinkPad Setup program.

Note: After restoring a drive to the factory default settings, you might need to reinstall some device drivers.

Passwords

As many as three passwords may be needed for any ThinkPad Notebook: the power-on password (POP), the hard-disk password (HDP), and the supervisor password (SVP).

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.

Exception: If only an SVP is installed, the password prompt does not appear when the operating system is booted.

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. For how to remove the POP, see “How to remove the power-on password” on page 40.

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 even if the user has changed the user HDP

Note: There are two modes for the HDP: **User only** and **Master + User**. The **Master + User** mode requires two HDPs; the system administrator enters both in the same operation. The system administrator then provides the user HDP to the system user.

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.

For how to remove the POP, see “How to remove the hard-disk password” on page 41.

Supervisor password

A supervisor password (SVP) protects the system information stored in the BIOS Setup Utility. The user must enter the SVP in order to get access to the BIOS Setup Utility and change the system configuration.

Attention: If the SVP has been forgotten and cannot be made available to the service technician, there is no service procedure to reset the password. The system board must be replaced for a scheduled fee.

How to remove the power-on password

To remove a POP that you have forgotten, do the following:

(A) If no SVP has been set:

1. Turn off the computer.
2. Remove the battery pack. For how to remove the battery pack, see “1010 Battery pack” on page 58.
3. Remove the backup battery. For how to remove the backup battery, see “1110 Backup battery” on page 74.
4. Turn on the computer and wait until the POST ends. After the POST ends, the password prompt does not appear. The POP has been removed.
5. Reinstall the backup battery and the battery pack.

(B) If an SVP has been set and is known by the service technician:

1. Turn on the computer.
2. When the ThinkPad logo comes up, immediately press F1 to enter BIOS Setup Utility. For models supporting the Passphrase function, press F1 while the POP icon is appearing on the screen; then enter the POP. For the other models, enter the POP.

Note: To check whether the ThinkPad Notebook you are servicing supports the Passphrase function, enter the BIOS Setup Utility and go to **Security → Password**. If the **Using Passphrase** item is displayed in the menu, this function is available on the ThinkPad Notebook.

3. Select **Security**, using the cursor directional keys to move down the menu.
4. Select **Password**.
5. Select **Power-On Password**.
6. Type the current SVP in the **Enter Current Password** field, then leave the **Enter New Password** field blank and press Enter twice.
7. In the Changes have been saved window, press Enter.
8. Press F10; then, in the Setup confirmation window, select **Yes**.

How to remove the hard-disk password

Attention: If **User only** mode is selected and the user HDP has been forgotten and cannot be made available to the service technician, neither Lenovo nor Lenovo authorized service technicians provide any services to reset the user HDPs or to recover data from the hard disk drive. To put the system back to operational status, the only Lenovo and Lenovo-authorized service solution would be to replace the hard disk drive with a scheduled fee.

To remove a user HDP that has been forgotten, when the SVP and the master HDP are known, do the following:

1. Turn on the computer.
2. When the ThinkPad logo comes up, immediately press F1 to enter BIOS Setup Utility. For models supporting the Passphrase function, press F1 while HDP icon is appearing on the screen; then enter the master HDP. For the other models, enter the master HDP.

Note: To check whether the ThinkPad Notebook you are servicing supports the Passphrase function, enter the BIOS Setup Utility and go to **Security → Password**. If **Using Passphrase** item is displayed in the menu, this function is available on the ThinkPad Notebook.

3. Select **Security**, using the cursor directional keys to move down the menu.
4. Select **Password**.
5. Select **Hard-disk x password**, where x is the letter of the hard disk drive. A pop-up window opens.
6. Select **Master HDP**.
7. Type the current master HDP in the **Enter Current Password** field, then leave the **Enter New Password** field blank and press Enter twice.
8. Press F10.

9. Select **Yes** in the Setup Configuration window. Both user HDP and master HDP will have been removed.

Power management

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

Screen blank mode

To put the computer into screen blank mode, do as follows:

1. Right-click the Power Manager Battery Gauge in the task bar.
2. Select **Power off display**.

Sleep mode

When the computer enters sleep mode, the following events occur in addition to what occurs in screen blank mode:

- The LCD is powered off.
- The hard disk drive is powered off.
- The microprocessor stops.

To enter sleep mode, do as follows:

1. Click **Start**.
2. Click the triangle mark on the right side of the **Shut down** icon; then select **Sleep**.

To return from sleep mode, press the Fn key.

Hibernation mode

By using this mode, you can turn off your computer completely without saving files or exiting from any applications that are running. When you enter hibernation, all open applications, folders, and files are saved to the hard disk, and then the computer turns off.

To enter hibernation mode, do as follows:

1. Click **Start**.
2. Click the triangle mark on the right side of the **Shut down** icon; then select **Hibernate**.

To return from hibernation mode, press the power button for more than 4 seconds.

Symptom-to-FRU index

This section contains following information:

- “Numeric error codes” on page 43
- “Error messages” on page 45
- “No-beep symptoms” on page 45
- “LCD-related symptoms” on page 45
- “Intermittent problems” on page 46
- “Undetermined problems” on page 46

The symptom-to-FRU index in this section lists symptoms and errors and their possible causes. The most likely cause is listed first, in boldface type.

Note: Do the FRU replacement or other actions in the sequence shown in the column headed “FRU or action, in sequence.” If replacing a FRU does not solve the problem, put the original part back in the computer. Do not replace a nondefective FRU.

This index can also help you determine, during regular servicing, what FRUs are likely to need to be replaced next.

A numeric error is displayed for each error detected in POST or system operation. In the displays, **n** can be any number.

If no numeric code is displayed, check the narrative descriptions of symptoms. If the symptom is not described there, go to “Intermittent problems” on page 46.

Note: For a device not supported by diagnostic codes in the ThinkPad Notebooks, see the manual for that device.

Numeric error codes

Table 2. Numeric error codes

Symptom or error (beeps, if any)	FRU or action, in sequence
0187 EAIA data access error—The access to EEPROM is failed. (two short beeps)	System board.
0189 Invalid RFID configuration information area—The EEPROM checksum is not correct. (two short beeps)	System board.
0190 Critical low-battery error (two short beeps)	<ol style="list-style-type: none"> Charge the battery pack. Battery pack.
0191 System Security—Invalid Remote Change requested.	<ol style="list-style-type: none"> Run BIOS Setup Utility, and then save current setting by pressing F10. System board.
0210 Stuck Key (two short beeps)	Change keyboard, and restart the computer.
0211 Keyboard error (two short beeps)	Run interactive tests of the keyboard and the auxiliary input device.
0230 Shadow RAM error—Shadow RAM fails at offset nnnn. (two short beeps)	System board.
0231 System RAM error—System RAM fails at offset nnnn. (two short beeps)	<ol style="list-style-type: none"> Memory module. System board.
0232 Extended RAM error— Extended RAM fails at offset nnnn. (two short beeps)	<ol style="list-style-type: none"> Memory module. System board.
0250 System battery error—System battery is dead. (two short beeps)	<ol style="list-style-type: none"> Charge the backup battery for more than 8 hours by connecting the ac adapter. Replace the backup battery and run BIOS Setup Utility to reset the time and date.

Table 2. Numeric error codes (continued)

Symptom or error (beeps, if any)	FRU or action, in sequence
0251 System CMOS checksum bad— Default configuration used. (two short beeps)	<ol style="list-style-type: none"> 1. Charge the backup battery for more than 8 hours by connecting the ac adapter. 2. Replace the backup battery and run BIOS Setup Utility to reset the time and date.
0254 System NV7 Volume checksum bad- Default configuration used (two short beeps)	Turn off the computer and discharge CMOS. Then restart the computer.
0260 System timer error. (two short beeps)	<ol style="list-style-type: none"> 1. Charge the backup battery for more than 8 hours by connecting the ac adapter. 2. Replace the backup battery and run BIOS Setup Utility to reset the time and date. 3. System board.
0270 Real-time clock error. (two short beeps)	<ol style="list-style-type: none"> 1. Charge the backup battery for more than 8 hours by connecting the ac adapter. 2. Replace the backup battery and run BIOS Setup Utility to reset the time and date. 3. System board.
0271 Date and time error— Neither the date nor the time is set in the computer. (two short beeps)	Run BIOS Setup Utility to reset the time and date.
0280 Previous boot incomplete— Default configuration used. (two short beeps)	<ol style="list-style-type: none"> 1. Load “Setup Default” in BIOS Setup Utility. 2. Memory module. 3. System board.
02D0 System cache error. (two short beeps)	<ol style="list-style-type: none"> 1. Microprocessor. 2. System board.
02F0 Microprocessor ID:xx Failed.	<ol style="list-style-type: none"> 1. Microprocessor. 2. System board.
02F5 DMA test failed. (two short beeps)	<ol style="list-style-type: none"> 1. Memory module. 2. System board.
02F6 Software NMI failed (two short beeps)	<ol style="list-style-type: none"> 1. Memory module. 2. System board.
02F7 Fail-safe timer NMI failed (two short beeps)	<ol style="list-style-type: none"> 1. Memory module. 2. System board.
1802 Unauthorized network card is plugged in—Turn off and remove the miniPCI network card. (two short beeps)	<ol style="list-style-type: none"> 1. Remove the Mini PCI network card. 2. System board.
1804 Unauthorized WAN card is plugged in—Power off and remove the WAN card.	<ol style="list-style-type: none"> 1. Remove the wireless WAN card. 2. System board.

Error messages

Table 3. Error messages

Symptom or error (beeps, if any)	FRU or action, in sequence
Bad CRC2. Enter BIOS Setup Utility, and load Setup defaults. (two short beeps)	Press F1 to enter BIOS Setup Utility. Press F9, and Enter to load the default setting. Then save the current setting by pressing F10, and restart the computer.
Fan error. (four short beeps, one long beep)	<ol style="list-style-type: none"> 1. Fan. 2. Thermal grease. 3. System board.
DRAM is unplugged. (one short beep, pause, three short beeps, pause, three short beeps, pause, one short beep.)	Memory card is not installed. Install memory card.
DRAM is not well plugged. (one short beep, pause, three short beeps, pause, three short beeps, pause, one short beep.)	Reinstall the memory card.
Operating system not found.	<ol style="list-style-type: none"> 1. Check that the operating system has no failure and is installed correctly. 2. Enter BIOS Setup Utility and see whether the hard disk drive is properly identified. If you still see the same error message, check the boot sequence. 3. Reinstall the hard disk drive. 4. Reinstall the operating system.
System Configuration Data Read Error (two short beeps)	Press F1 to enter BIOS Setup Utility. Press F9, and Enter to load the default setting. Then save the current setting by pressing F10, and restart the computer.

No-beep symptoms

Table 4. No-beep symptoms

Symptom or error	FRU or action, in sequence
No beep, power-on indicator on, LCD blank, and no POST.	<ol style="list-style-type: none"> 1. Make sure that every connector is connected tightly and correctly. 2. Memory module. 3. System board.
No beep, power-on indicator on, and LCD blank during POST.	<ol style="list-style-type: none"> 1. Reseat Memory module. 2. System board.
The power-on password prompt appears.	A power-on password or a supervisor password is set. Type the password and press Enter .
The hard-disk password prompt appears.	A hard-disk password is set. Type the password and press Enter .

LCD-related symptoms

Important: The TFT LCD for the notebook computer contains many thin-film transistors (TFTs). The presence of a small number of dots that are missing, discolored, or always lighted is characteristic of TFT LCD technology, but excessive pixel problems can cause viewing concerns.

If the LCD you are servicing has two or less visible defective pixels, it should not be considered faulty. However, if the LCD has three or more visible defective pixels, it will be deemed as defective by Lenovo and it should be replaced.

Notes:

- This policy applies to all ThinkPad Notebooks purchased on 1 January, 2008 or later.
- Lenovo will not provide warranty replacement if the LCD is within specifications because we cannot guarantee that any replacement LCD will have zero pixel defects.
- One pixel consists of R, G, B sub-pixels.

Table 5. LCD-related symptoms

Symptom or error	FRU or action, in sequence
No beep, power-on indicator on, and a blank LCD during POST.	System board.
<ul style="list-style-type: none">• LCD backlight not working.• LCD too dark.• LCD brightness cannot be adjusted.• LCD contrast cannot be adjusted.	<ol style="list-style-type: none">1. Reseat the LCD connectors.2. LCD assembly.3. System board.
<ul style="list-style-type: none">• LCD screen unreadable.• Characters missing pixels.• Screen abnormal.• Wrong color displayed.	<ol style="list-style-type: none">1. See important note for “LCD-related symptoms.”2. Reseat all LCD connectors.3. LCD assembly.4. System board.
Horizontal or vertical lines displayed on LCD.	LCD assembly.

Intermittent problems

Intermittent system hang problems can be due to a variety of causes that have nothing to do with a hardware defect, such as cosmic radiation, electrostatic discharge, or software errors. FRU replacement should be considered only when a problem recurs.

When analyzing an intermittent problem, do the following:

1. Run the diagnostic test for the system board in loop mode **at least 10 times**.
2. If no error is detected, do **not** replace any FRUs.
3. If any error is detected, replace the FRU shown by the FRU code. Rerun the test to verify that no more errors exist.

Undetermined problems

If the diagnostic tests did not identify the adapter or device that has failed, if wrong devices are installed, or if the system simply is not operating, follow these procedures to isolate the failing FRU (do not isolate FRUs that have no defects).

Verify that all attached devices are supported by the computer.

Verify that the power supply being used at the time of the failure is operating correctly. (See “Power system checkout” on page 35.)

1. Turn off the computer.
2. Visually check each FRU for damage. Replace any damaged FRU.
3. Remove or disconnect all of the following devices:
 - a. Non-ThinkPad devices
 - b. Printer, mouse, and other external devices
 - c. Battery pack
 - d. Hard disk drive
 - e. External diskette drive or optical drive
 - f. Memory module

- g. Optical disk or diskette in the internal drive
 - h. PC Cards
4. Turn on the computer.
 5. Determine whether the problem has been solved.
 6. If the problem does not recur, reconnect the removed devices one at a time until you find the failing FRU.
 7. If the problem remains, replace the following FRUs one at a time (do not replace a nondefective FRU):
 - a. System board
 - b. LCD assembly

Chapter 5. Status indicators

This chapter presents the system status indicators that show the status of the computer.

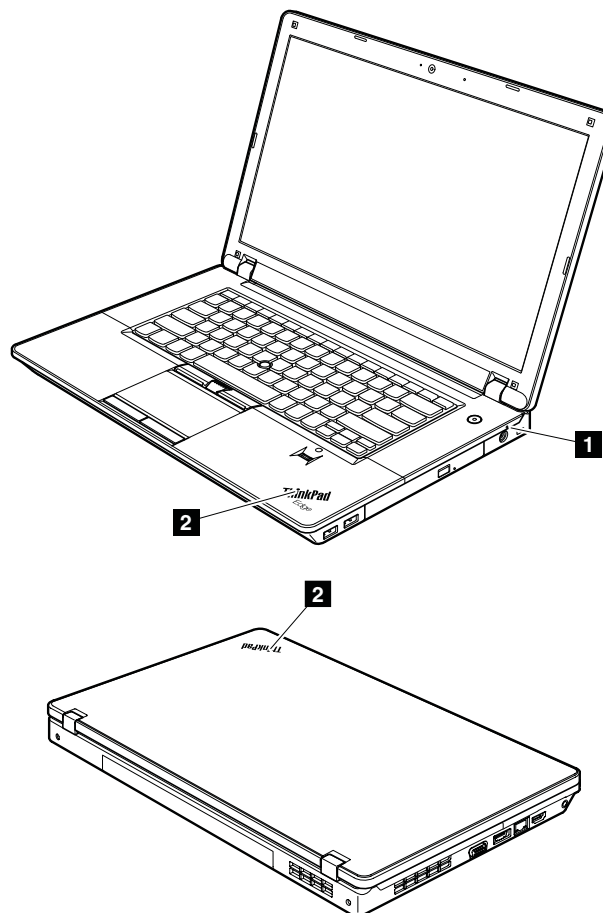


Table 6. Status indicators




Indicator	Meaning
1 Power status	<p>Green: The ac adapter is connected. If a battery is installed on the computer, it is charged when this indicator is on.</p> <p>Off: The ac adapter is not connected.</p>
2 Sleep (standby) status  Sleep (standby) status	<p>The illumination dot in the ThinkPad logo on the outer lid of the computer and on the palm rest works as a system-status indicator: it shows whether the computer is in sleep (standby), hibernation, or normal mode.</p> <p>Red: The computer is on (in normal mode).</p> <p>Fast blinking red: The computer is entering sleep (standby) or hibernation mode.</p>

Table 6. Status indicators (continued)

Indicator	Meaning
	<p>Slow blinking red: The computer is in sleep (standby) mode.</p> <p>Off: The computer is off or in hibernation mode.</p>
<p>On-screen indicators</p>	<p>Caps lock:  Caps Lock mode is enabled. You can enter all alphabetic characters (A-Z) in uppercase without pressing the Shift key.</p> <p>Wireless status: Press F9 to enable or disable the wireless features. You can quickly change the power state of each feature in the list.</p>

Chapter 6. Special keys and Fn key combination

This computer has several special keys at the upper row of the keyboard. To use each function, directly press the desired key.

Note: To use F1 - F12 functions, press Fn and the desired function key simultaneously; this is the default setting.

The following table shows the function of each special key.

Table 7. Special keys and Fn key combination










Special key or Fn key combination	Description
Speaker mute (F1) 	If you mute the sound and then turn off the computer, the sound will remain muted when you turn on the computer again. To turn on the sound, press the Speaker volume up or Speaker volume down keys.
Speaker volume down (F2) 	
Speaker volume up (F3) 	
Microphone mute (F4) 	When you press the microphone mute key, all of the recording devices are set on mute or unmute; this is the default setting.
Camera mute (F5) 	During a video conference, you can control the video streaming from the integrated camera by pressing this key. The video output will be grayed out, and the audio streaming will continue.
Switching a display output location (F6) 	<p>For Windows 7: Switch between the computer display and an external monitor. Windows will show these display options:</p> <ul style="list-style-type: none"> • Computer display only (LCD) • Computer display and external monitor (same image) • Computer display and external monitor (extended desktop function) • External monitor only <p>Note: To switch between the computer display and an external monitor, the Win+P key combination is also available.</p>
Display brightness down (F7) 	<p>The computer display becomes dimmer.</p> <p>The purpose of this method is to change the brightness level temporarily. To change the default brightness level, change the settings of the Power Option in the Control Panel or use the Power Manager.</p>

Table 7. Special keys and Fn key combination (continued)

Special key or Fn key combination	Description
Display brightness up (F8) 	The computer display becomes brighter. The purpose of this method is to change the brightness level temporarily. To change the default brightness level, change the settings of the Power Option in the Control Panel or use the Power Manager.
Wireless radio control (F9) 	Enable or disable the built-in wireless networking features. If you press this key, a list of wireless features is displayed. You can quickly change the power state of each feature in the list. Notes: To use this function, following device drivers must be installed on the computer beforehand: <ul style="list-style-type: none"> • Power Management driver • OnScreen Display Utility • Wireless device drivers
Fn + Spacebar (some models)	Some models have a backlit keyboard. To illuminate the keyboard in less than perfect lighting, press and hold the Fn key and press the Spacebar. If you turn on the keyboard illumination and then turn the computer off, put it in sleep or hibernation mode, the keyboard illumination setting is reset of "Off".

Chapter 7. FRU replacement notices

External CRU statement to customers:

Some problems with your product can be resolved with a replacement part you can install yourself, called a “Customer Replaceable Unit” or “CRU.” Some CRUs are designated as Self-service CRUs and others are designated as Optional-service CRUs. *Installation of Self-service CRUs is your responsibility; you may request that Lenovo installs an Optional-service CRU according to the warranty service for your product.* Where you are installing the CRU, Lenovo will ship the CRU to you. CRU information and replacement instructions are shipped with your product and are available from Lenovo at any time upon request. You may find a list of CRUs in the publications that ship with your product or at <http://www.lenovo.com/CRUs>. You may be required to return the defective part that is replaced by the CRU. When return is required: (1) return instructions, a prepaid shipping label, and a container will be included with the replacement CRU; and (2) you may be charged for the replacement CRU if Lenovo does not receive the defective part within thirty (30) days of your receipt of the replacement CRU. See your Lenovo Limited Warranty documentation for full details.

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

Screw notices

Loose screws can cause a reliability problem. In the ThinkPad notebook 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.

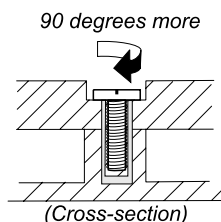
Do the following when you service this machine:

- Keep the screw kit in your tool bag. For the part number of the screw kit, see “Miscellaneous parts” on page 140.
- It is recommended to use new screws.
- It is recommended to use each screw only once.
- Use a torque screwdriver if you have one.

Tighten screws as follows:

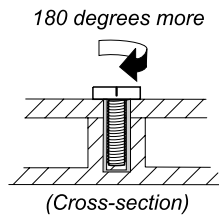
- **Plastic to plastic**

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



- **Logic card to plastic**

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



- **Torque driver**

If you have a torque driver, refer to the “Torque” in the screw information table for each step.

- Make sure that you use the correct screw. It is recommended to use new screws for replacements. If you have a torque screwdriver, tighten all screws firmly to the torque specified in the screw information table for each step.
- Ensure torque screw drivers are calibrated correctly by following country specifications.

Retaining serial numbers

This topic provides instructions on the following:

- “Restoring the serial number of the system unit” on page 54
- “Retaining the UUID” on page 55
- “Reading or writing the ECA information” on page 55

Restoring the serial number of the system unit

When the computer was manufactured, the EEPROM on the system board was loaded with the serial numbers of the system and all major components. These numbers need to remain the same throughout the life of the computer.

If you replace the system board, you must restore the serial number of the system unit to its original value.

Before replacing the system board, save the original serial number by doing the following:

1. Install the latest version of LENOVO ThinkPad Hardware Maintenance Diskette or Maintenance Key, and then restart the computer.
2. From the main menu, select **1. Set system identification**.
3. Turn off the computer, and then turn on the computer again.
4. When the ThinkPad logo is displayed, press Esc.
5. Select **2. Read S/N data from EEPROM** and follow the instructions on the screen. The serial number of each device in your computer is displayed; the serial number of the system unit is listed as follows:
 - 20 Serial number
6. Write down that number.

Note: The serial number of the system unit is also written on the label attached to the bottom of the computer.

After you have replaced the system board, restore the serial number by doing the following:

1. Install the latest version of LENOVO ThinkPad Hardware Maintenance Diskette or Maintenance Key, and then restart the computer.
2. From the main menu, select **1. Set system identification**.
3. Turn off the computer, and then turn on the computer again.
4. When the ThinkPad logo is displayed, press Esc.
5. Select **1. Add S/N data from EEPROM**. Follow the instructions on the screen.

If the MTM and Product ID numbers differ from each other on the rear label, use what is shown for the Product ID field. See the following example:

MTM on the rear label:

TTTT-CTO S/N SSSSSSS

Product ID on the rear label:

TTTT-MMM (Use this number when setting Serial Number.)

In the example, the Serial Number to be input is “1STTTTMMMSSSSSSSS”.

Retaining the UUID

The Universally Unique Identifier (UUID) is a 128-bit number uniquely assigned to your computer at production and stored in the EEPROM of your system board.

The algorithm that generates the number is designed to provide unique IDs until the year A.D. 3400. No two computers in the world have the same number.

When you replace the system board, follow the following steps to create new UUID for the system board if the system board does not have a UUID:

1. Install the latest version of LENOVO ThinkPad Hardware Maintenance Diskette or Maintenance Key, and then restart the computer.
2. From the main menu, select **4. Assign UUID**. A new UUID is created and written. If a valid UUID already exists, it is not overwritten.

Reading or writing the ECA information

Information on Engineering Change Announcements (ECA) are stored in the EEPROM of the system board. The electronic storage of this information simplifies the procedure to check if the ECA has been previously applied to a machine. The machine does not need to be disassembled to check for the ECA application.

To check what ECAs have been previously applied to the machine, use the ECA Information Read/Write function on the LENOVO ThinkPad Hardware Maintenance Diskette or Maintenance Key.

1. Insert the latest version of LENOVO ThinkPad Hardware Maintenance Diskette or Maintenance Key, and then restart the computer.
2. From the main menu, select **6. Set ECA Information**.
3. To read the ECA information, select **2. Read ECA/rework number from EEPROM** and follow the instructions on the screen; To read box build date, select **5. Read box build date from EEPROM**, and follow the instructions on the screen.

After an ECA has been applied to the machine, the EEPROM must be updated to reflect the ECA's application. Use the latest version of LENOVO ThinkPad Hardware Maintenance Diskette or Maintenance Key to update the EEPROM.

Note: Only the ECA number is stored in the EEPROM. The machine type of the ECA is assumed to be the same as the machine type of the machine that had the ECA applied to it.

1. Insert the latest version of LENOVO ThinkPad Hardware Maintenance Diskette or Maintenance Key, and then restart the computer.
2. From the main menu, select **6. Set ECA Information**.
3. To write the ECA information, select **1. Write ECA/rework number from EEPROM**, and follow the instruction; To write box build date, select **4. Write box build date from EEPROM**, and follow the instruction on the screen.

If the system board is being replaced, try to read the ECA information from the old system board and transfer the information to the new system. If the system board is inoperable, this will not be possible.

Chapter 8. Removing or replacing a FRU

External CRU statement to customers:

Some problems with your product can be resolved with a replacement part you can install yourself, called a “Customer Replaceable Unit” or “CRU.” Some CRUs are designated as Self-service CRUs and others are designated as Optional-service CRUs. *Installation of Self-service CRUs is your responsibility; you may request that Lenovo installs an Optional-service CRU according to the warranty service for your product.* Where you are installing the CRU, Lenovo will ship the CRU to you. CRU information and replacement instructions are shipped with your product and are available from Lenovo at any time upon request. You may find a list of CRUs in the publications that ship with your product or at <http://www.lenovo.com/CRUs>. You may be required to return the defective part that is replaced by the CRU. When return is required: (1) return instructions, a prepaid shipping label, and a container will be included with the replacement CRU; and (2) you may be charged for the replacement CRU if Lenovo does not receive the defective part within thirty (30) days of your receipt of the replacement CRU. See your Lenovo Limited Warranty documentation for full details.

This chapter presents directions and drawings for use in removing and replacing a FRU. Be sure to observe the following general rules:

1. Do not try 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 Chapter 7 “FRU replacement notices” on page 53.
3. Begin by removing any FRUs that have to be removed before the failing FRU. Any 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 for removing the FRU, as given in the drawings by the numbers in square callouts.
5. When turning a screw to replace a FRU, turn it in the direction as given by the arrow in the drawing.
6. When removing the FRU, move it in the direction as given by the arrow in the drawing.
7. To put the new FRU in place, reverse the removal procedure and follow any notes that pertain to replacement. For information about connecting and arranging internal cables, see Chapter 9 “Locations” on page 101.
8. When replacing a FRU, use the correct screw as shown in the procedures.



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.

Attention: After replacing a 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 by using an electrostatic discharge (ESD) strap (P/N 6405959).

1010 Battery pack

Important notice for replacing a battery pack:

Lenovo ThinkVantage Toolbox has an automatic battery diagnostic that determines if the battery pack is defective. A battery pack FRU should not be replaced unless this diagnostic shows that the battery is defective.

The only exception to this is if the battery pack is physically damaged or a customer is reporting a possible safety issue.

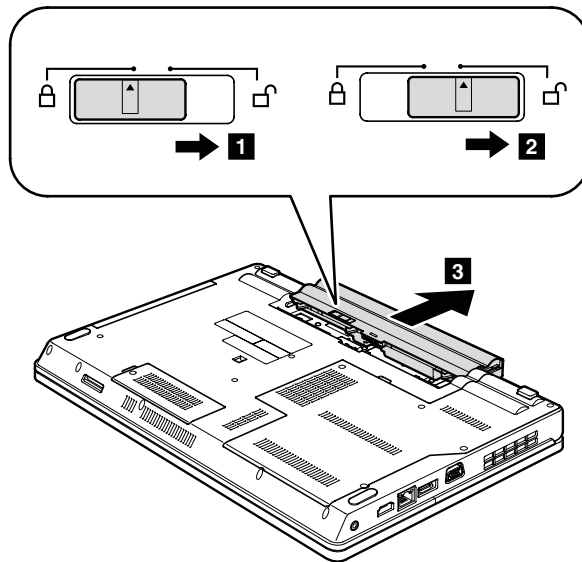
If Lenovo ThinkVantage Toolbox is not installed in the computer, the customer should download this program before a non-physically damaged battery pack is replaced. Note that the replacement of a physically damaged battery pack is not covered by the warranty.

Removal steps of the battery pack



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

Unlock the battery latch **1**. Holding the battery lock lever in the unlocked position **2**, remove the battery pack in the direction shown by arrow **3**.



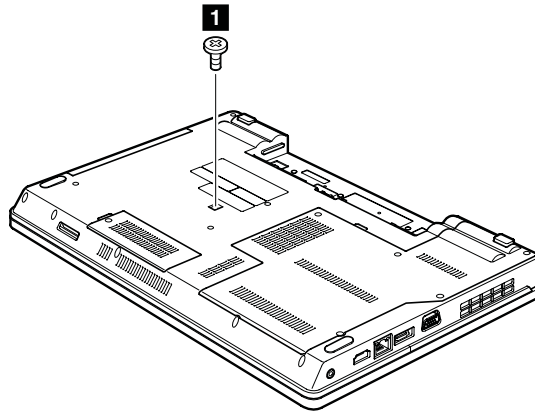
When installing: Install the battery pack along the slide rails of the slot. Then make sure that the battery release lever is in the locked position.

1020 Optical drive or travel cover

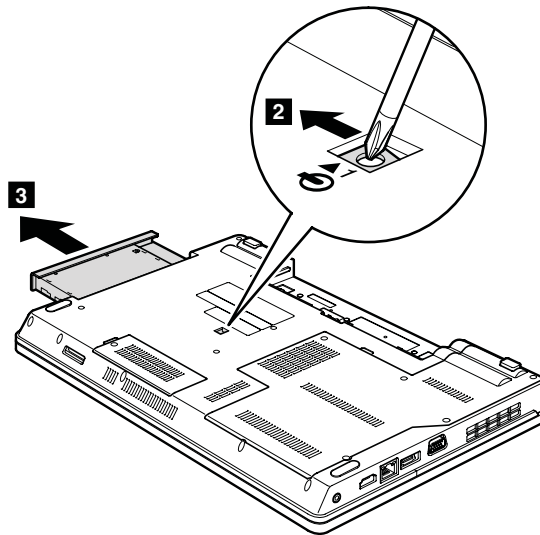
For access, remove this FRU:

- “1010 Battery pack” on page 58

Removal steps of the optical drive or travel cover



Step	Screw (quantity)	Color	Torque
1	M2 × 8 mm, wafer-head, nylon-coated (1)	Black	0.181 Nm (1.85 kgf-cm)



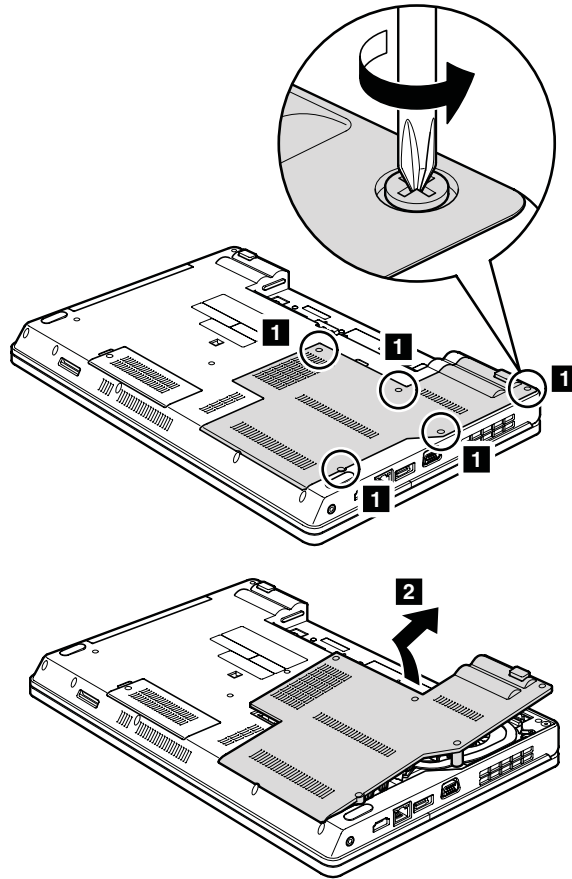
1030 Thermal cover

For access, remove this FRU:

- “1010 Battery pack” on page 58

Removal steps of the thermal cover

Loosen the screws **1**, but do not remove them.



Attention: Do *not* touch or apply any excessive force to the fan motor located in the slot. It might cause damage to the fan assembly or the computer to malfunction.

1040 Hard disk drive assembly

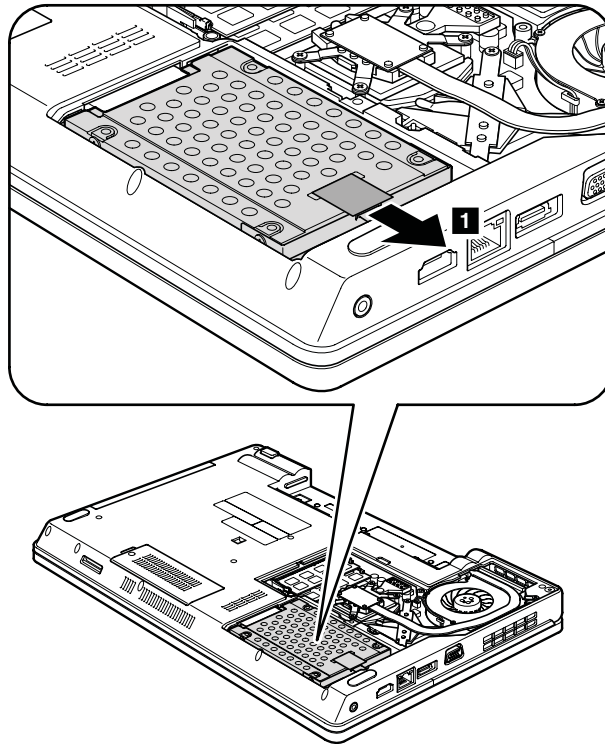
For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1030 Thermal cover” on page 59

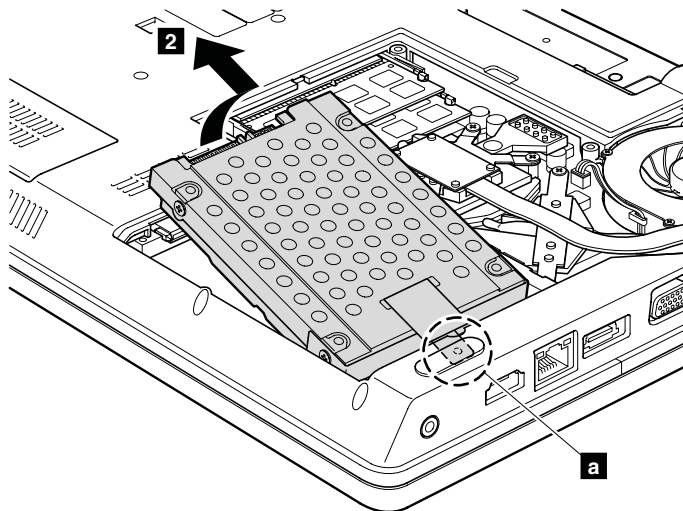
Attention:

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

Removal steps of the hard disk drive assembly



When installing: Make sure that the hard disk drive connector is attached firmly.



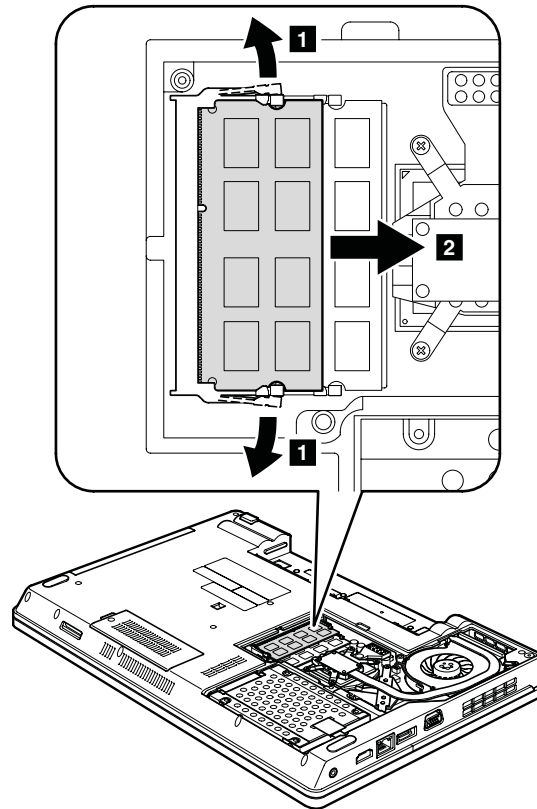
When installing: Do *not* apply excessive force to the hard disk drive bracket **a**. To do so, you might bend or break it.

1050 Memory module

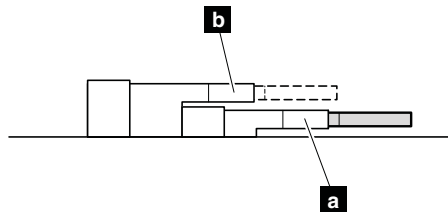
For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1030 Thermal cover” on page 59

Removal steps of the memory module



Note: If only one memory module is used on the computer you are servicing, the card must be installed in SLOT-0 (**a**: lower slot), but not in SLOT-1 (**b**: upper slot).



When installing: Insert the notched end of the memory module into the socket. Press the memory module firmly, and pivot it until it snaps into the place. Make sure that it is firmly fixed in the slot and does not move easily.

1060 Fan assembly

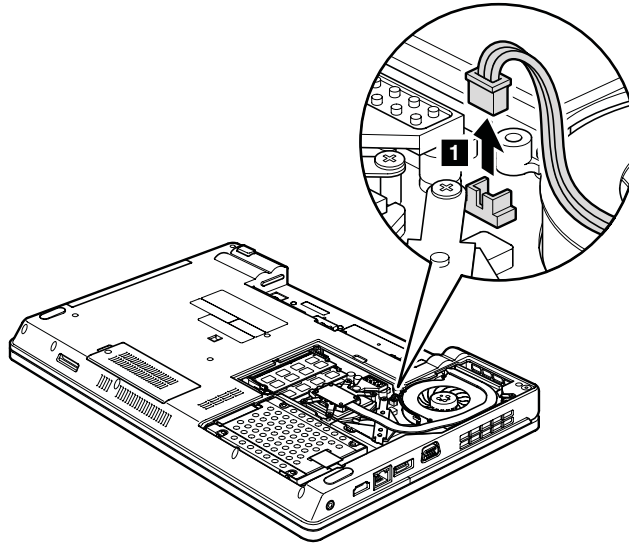
For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1030 Thermal cover” on page 59

Attention:

- Do *not* handle the fan roughly. Improper handling of the fan can cause distortion or deformation and imperfect contact with components.
- Do *not* touch or apply any excessive force to the fan motor. It might cause damage to the fan assembly or the computer to malfunction.

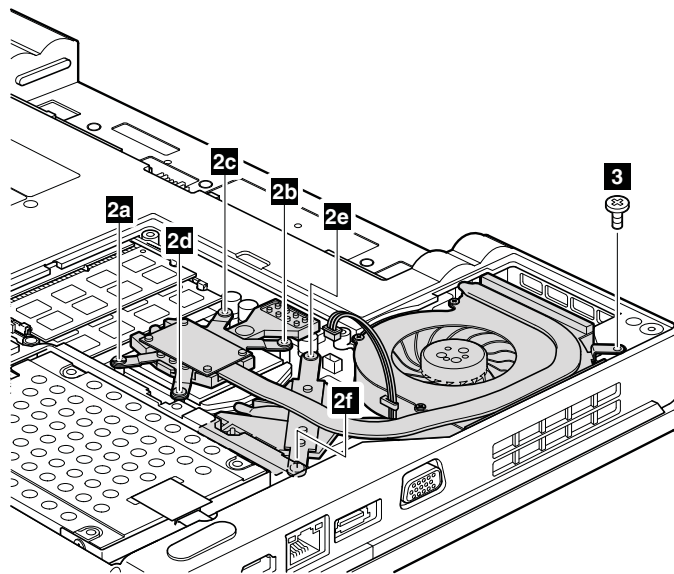
Removal steps of the fan assembly



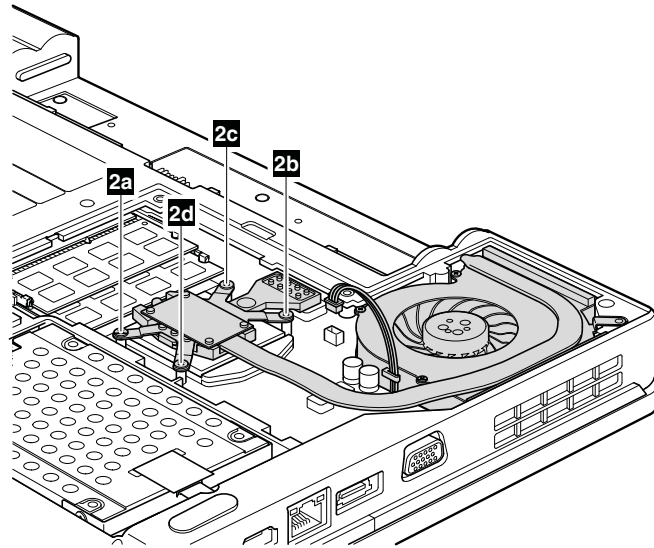
When installing: Make sure that the fan connector is attached firmly to the system board.

Note: Loosen the screws **2a** to **2f** in order, but do *not* remove them. When you attach the fan, secure the screws in order.

For Thinkpad Edge 15" and E50:

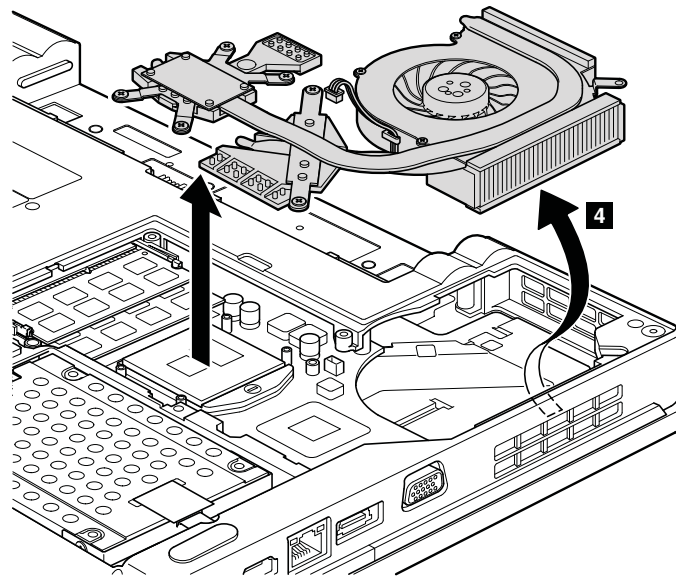


For ThinkPad Edge 14" and E40:



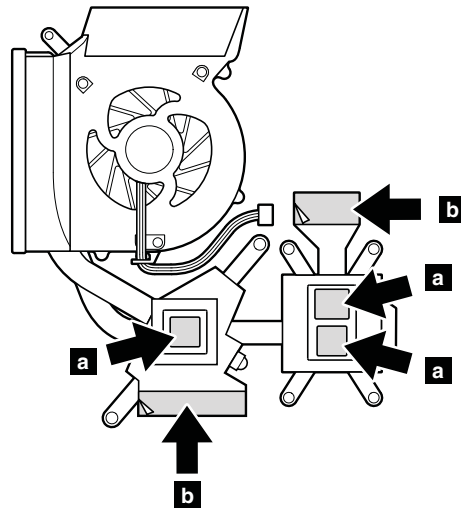
Note: Step **3** is only for ThinkPad Edge 15". For ThinkPad Edge 14", skip step **3**.

Step	Screw (quantity)	Color	Torque
3	M2 × 4 mm, wafer-head, nylon-coated (1)	Silver	0.181 Nm (1.85 kgf-cm)

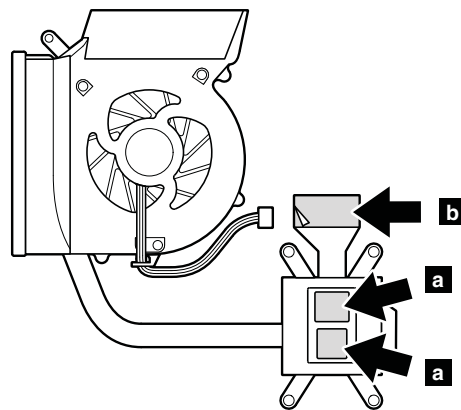


When installing: Before you attach the fan assembly to the computer, apply thermal grease, at an amount of 0.2 grams, on the parts marked **a** as in the following figures. Either too much or too less application of grease can cause a thermal problem due to imperfect contact with a component. For the new microprocessor thermal device/fan, you need to peel the thin film off from the rubbers marked **b**.

For discrete fan assembly



For integrated fan assembly



1070 Microprocessor

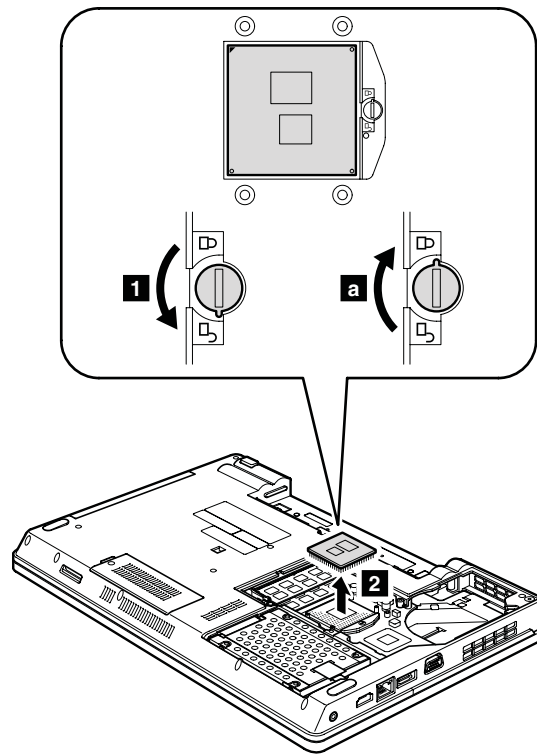
For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1030 Thermal cover” on page 59
- “1060 Fan assembly” on page 62

Attention: The microprocessor is extremely sensitive. When you service the microprocessor, avoid any kind of rough handling.

Removal steps of the microprocessor

Rotate the head of the screw in the direction shown by arrow **1** to release the lock; then remove the microprocessor **2**.



When installing: Place the microprocessor on the microprocessor socket, and then rotate the head of the screw in the direction shown by arrow **a** to secure the microprocessor.

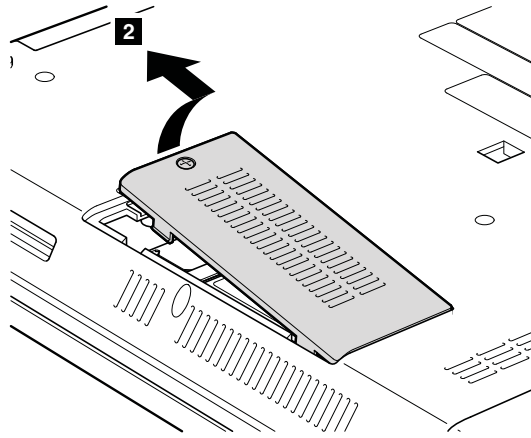
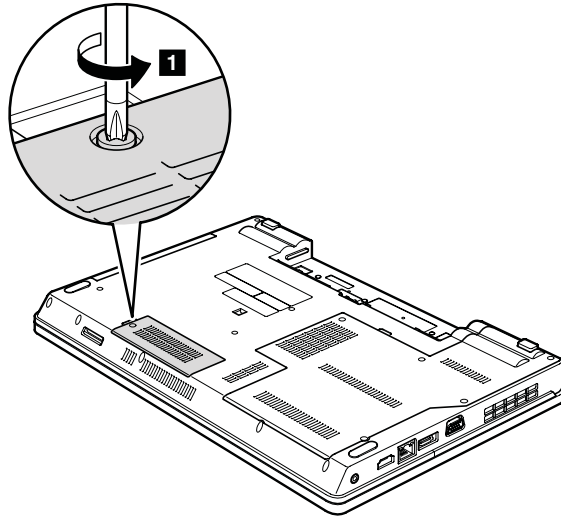
1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN

For access, remove this FRU:

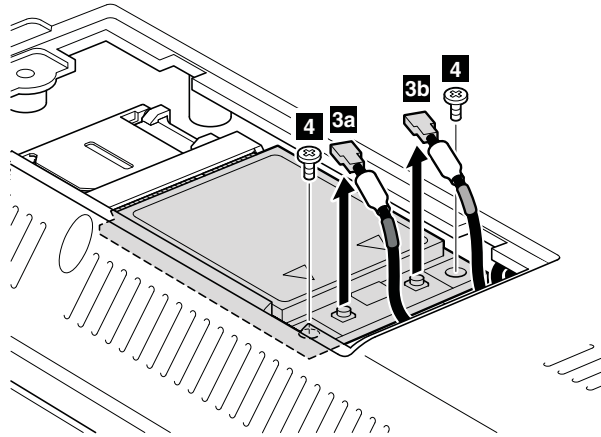
- “1010 Battery pack” on page 58

Removal steps of the wireless WAN slot cover and PCI Express Mini Card for wireless WAN

Loosen the screw **1**, but do *not* remove it.

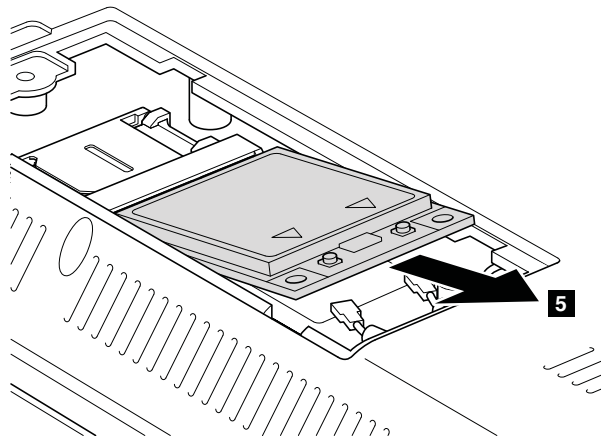


In step **3a** and **3b**, unplug the connectors by using the removal tool antenna RF connector (P/N: 08K7159) or pick the connectors with your fingers and gently unplug them in direction of the arrow.



When installing: Plug the red cable **3a** into the connector labeled **MAIN**, and the blue cable **3b** into the connector labeled **AUX** on the card.

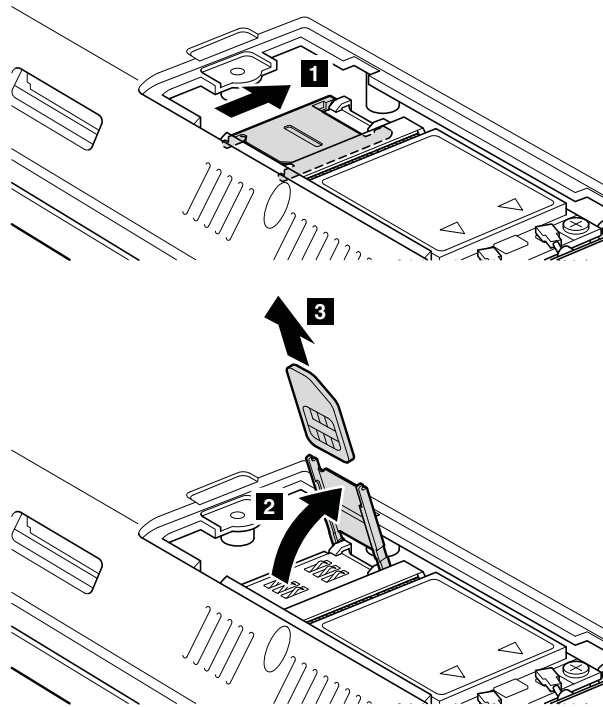
Step	Screw (quantity)	Color	Torque
4	M2 × 3 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgf-cm)



Removal steps of the SIM card

Some models of ThinkPad Edge 14", Edge 15", E40, and E50 might have the SIM card that the customer has been installed. If you need to replace the system board in those models, remove the SIM card as follows:

After you finish the servicing, make sure that you insert the card back into the slot firmly.



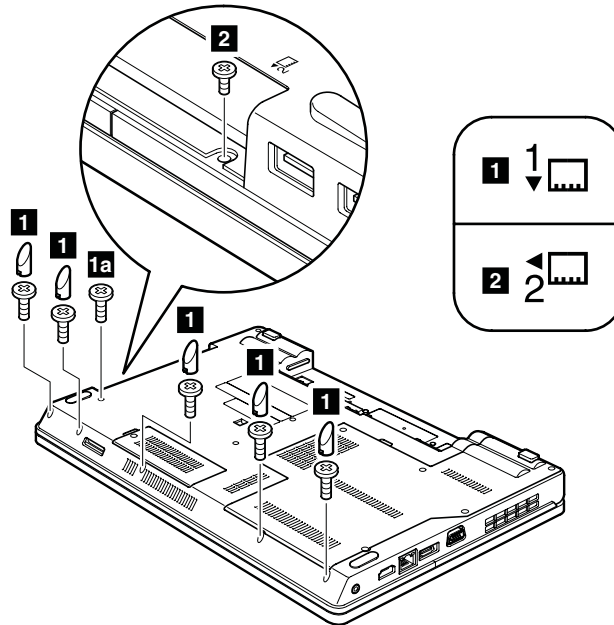
1090 Palm rest assembly with cables

For access, remove these FRUs in order:

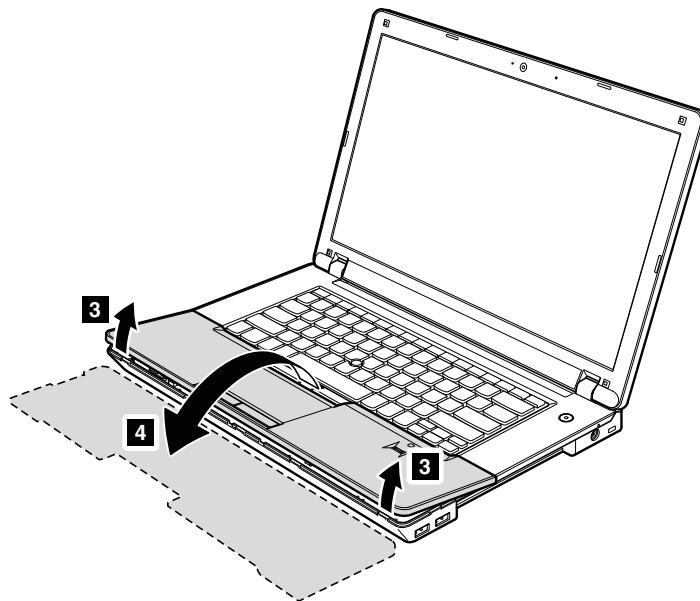
- “1010 Battery pack” on page 58
- “1020 Optical drive or travel cover” on page 58

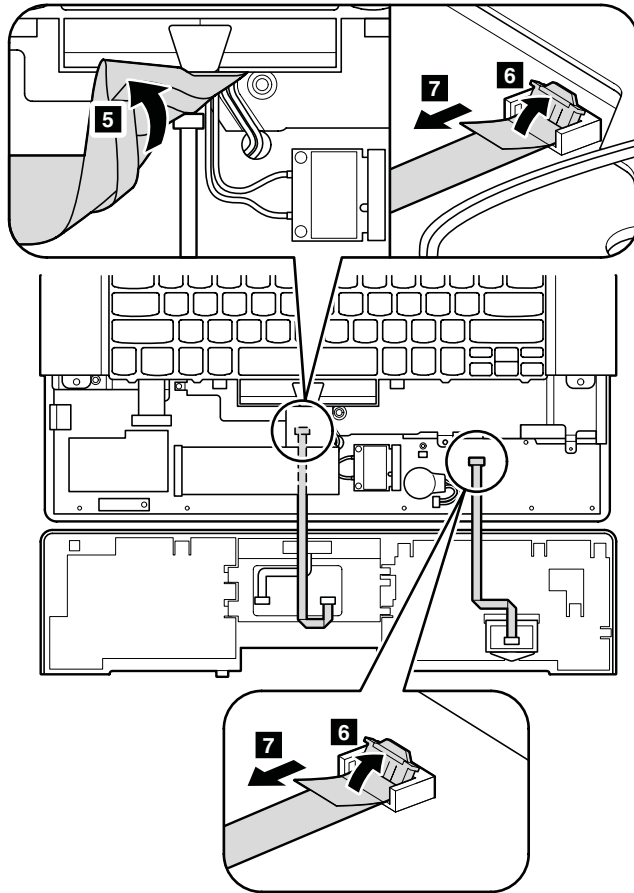
Note: In models with the fingerprint reader, the sensor is attached to the palm rest FRU. If the fingerprint reader has any defects, you can replace it by the procedures given in this section, which are the same for a palm rest with or without a fingerprint reader.

Removal steps of the palm rest assembly with cables



Step	Screw (quantity)	Color	Torque
1	M2 × 8 mm, wafer-head, nylon-coated (5)	Black	0.181 Nm (1.85 kgf-cm)
1a	M2 × 5 mm, wafer-head, nylon-coated (1)	Black	0.181 Nm (1.85 kgf-cm)
2	M2 × 3 mm, wafer-head, nylon-coated (1)	Black	0.181 Nm (1.85 kgf-cm)



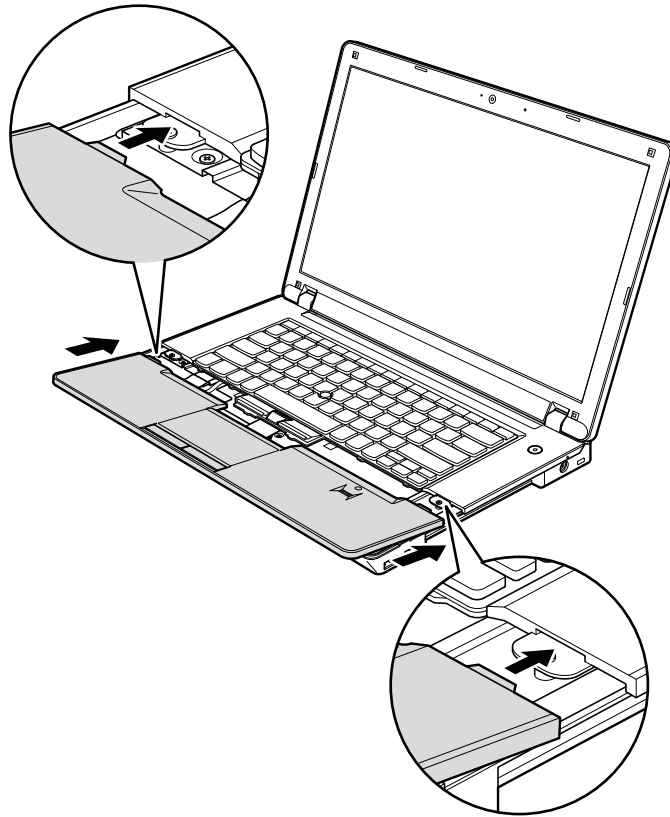


Installation of the palm rest assembly with cables

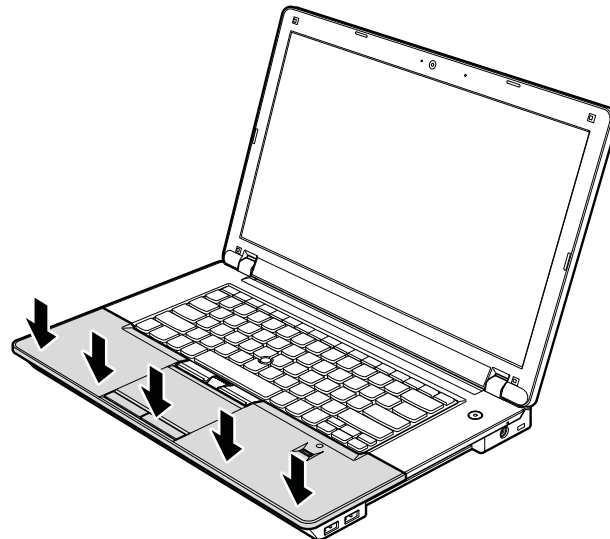
When installing:

1. Attach the cables to the system board firmly.

2. Attach the palm rest so that the two small projections of the palm rest firmly fit into the guide holes of the keyboard bezel as shown in this figure.



3. Push the front side of the palm rest until it clicks into place.



4. Close the LCD cover and turn the computer over. Then fasten the screws to secure the palm rest.

1100 PCI Express Mini Card for wireless LAN

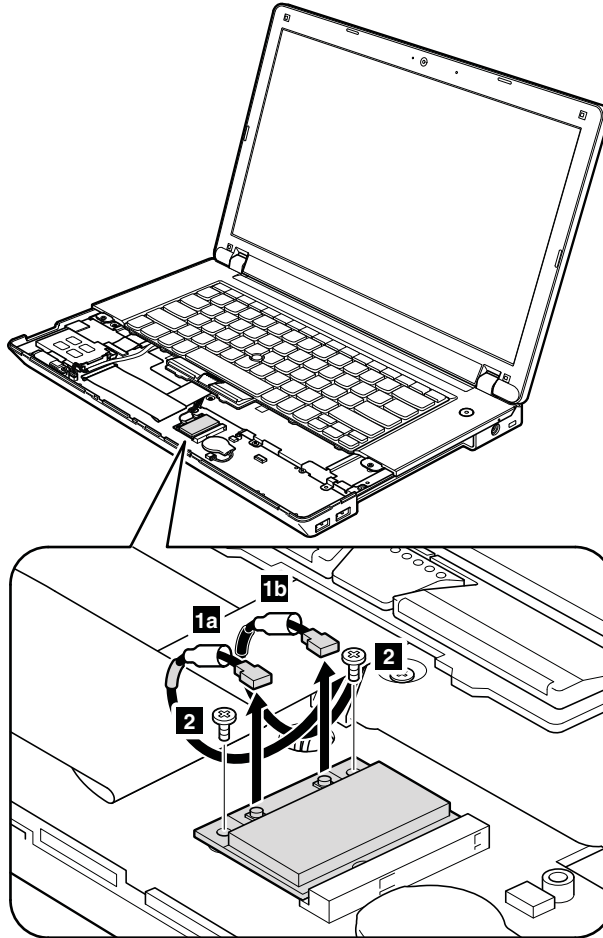
For access, remove these FRUs in order:

- “1010 Battery pack” on page 58

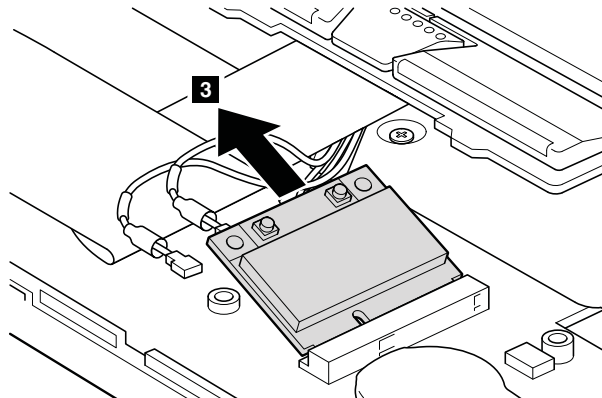
- “1020 Optical drive or travel cover” on page 58
- “1090 Palm rest assembly with cables” on page 69

Removal steps of the PCI Express Mini Card for wireless LAN

In step **1a** and **1b**, unplug the connectors by using the removal tool antenna RF connector (P/N: 08K7159) or pick the connectors with your fingers and gently unplug them in direction of the arrow.



Step	Screw (quantity)	Color	Torque
2	M2 × 3 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgf-cm)



When installing: Plug the gray cable into the connector labeled **MAIN** or **1**, and the black cable into the connector labeled **AUX** or **2** on the card.

1110 Backup battery

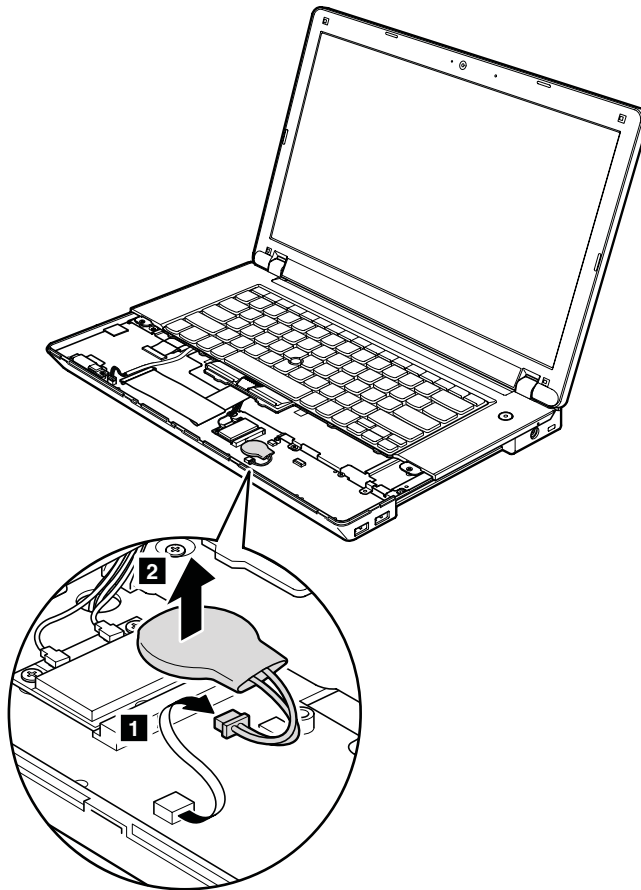
For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1020 Optical drive or travel cover” on page 58
- “1090 Palm rest assembly with cables” on page 69



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

Removal steps of the backup battery



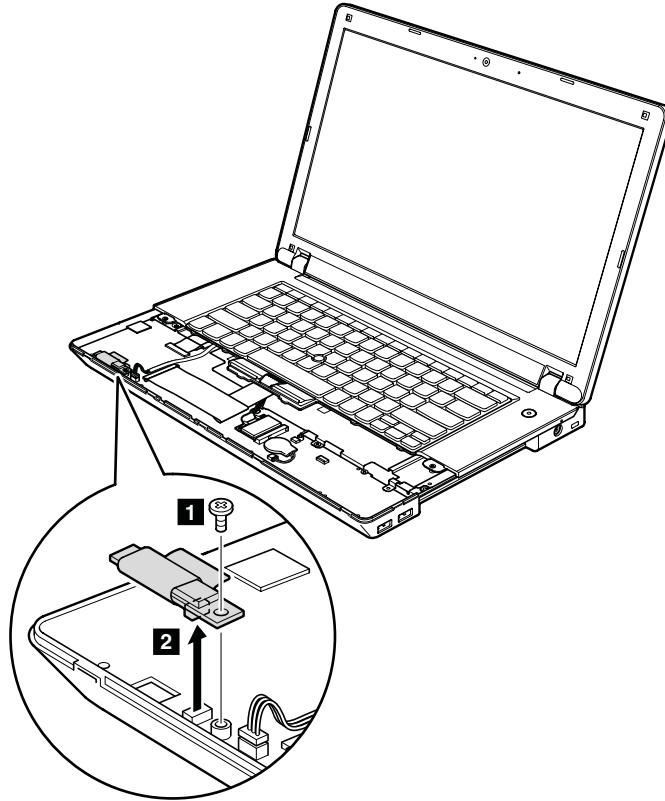
When installing: Make sure that the battery connector is attached firmly to the system board.

1120 Bluetooth daughter card

For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1020 Optical drive or travel cover” on page 58
- “1090 Palm rest assembly with cables” on page 69

Removal steps of the Bluetooth daughter card



Step	Screw (quantity)	Color	Torque
1	M2 × 3 mm, wafer-head, nylon-coated (1)	Black	0.181 Nm (1.85 kgf-cm)

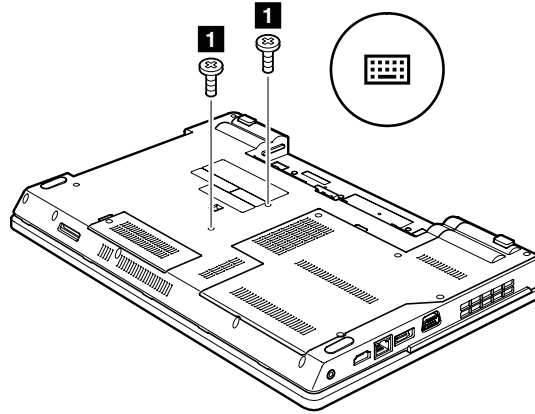
When installing: Make sure that the connector on bottom side of the card is attached firmly to the system board.

1130 Keyboard

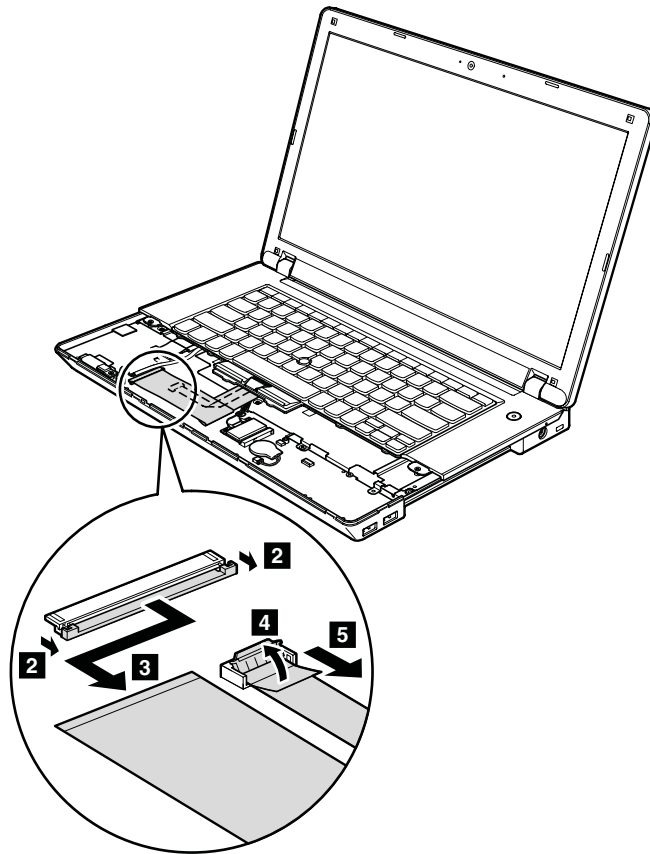
For access, remove these FRUs in order:

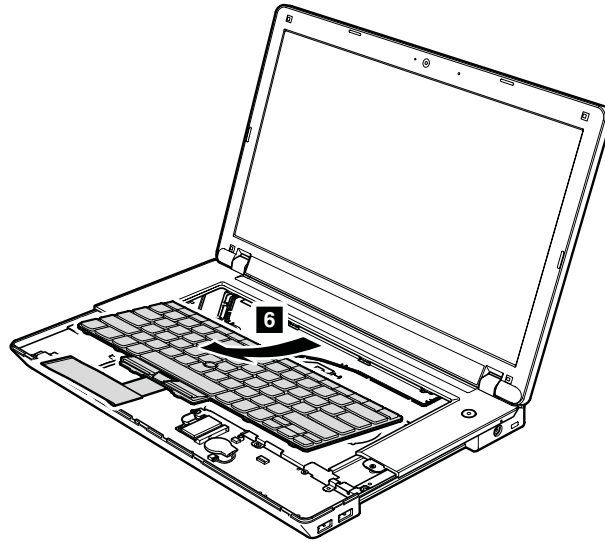
- “1010 Battery pack” on page 58
- “1020 Optical drive or travel cover” on page 58
- “1090 Palm rest assembly with cables” on page 69

Removal steps of the keyboard



Step	Screw (quantity)	Color	Torque
1	M2 × 5 mm, wafer-head, nylon-coated (1)	Black	0.181 Nm (1.85 kgf-cm)

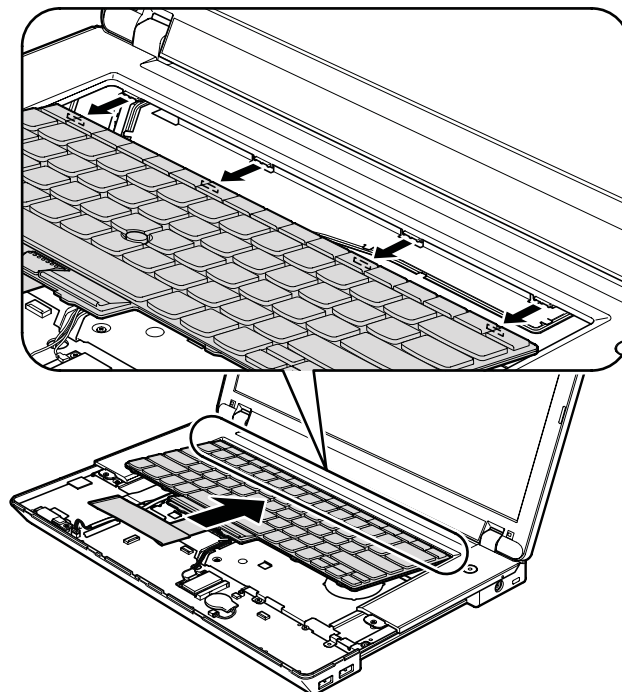




Installation of the keyboard

When installing the keyboard, do as follows:

1. Attach the connectors.
2. Attach the keyboard so that the keyboard edges are under the frame as shown in this figure.



3. To make sure that the front side of the keyboard is housed firmly, gently press the keys with your thumbs and try to slide the keyboard toward you.
4. Secure the keyboard by tightening the screws from the bottom side of the computer.

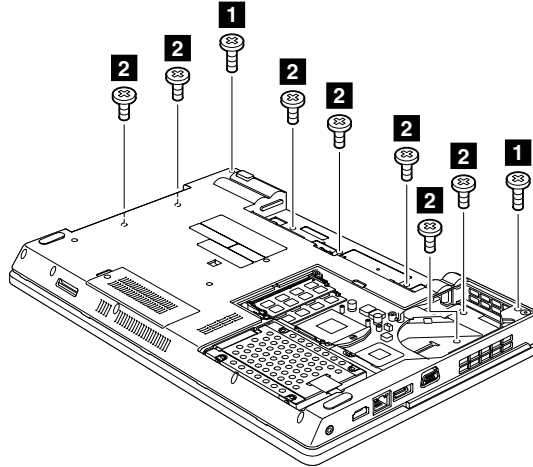
1140 Keyboard bezel

For access, remove these FRUs in order:

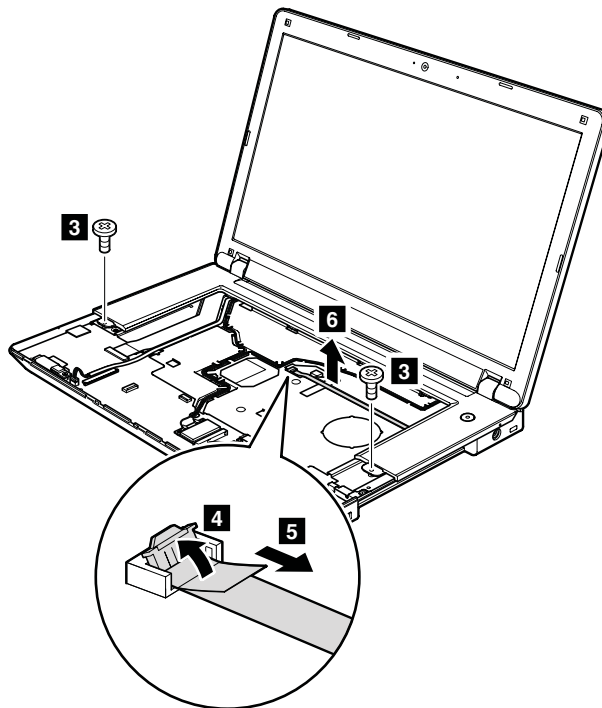
- “1010 Battery pack” on page 58

- “1020 Optical drive or travel cover” on page 58
- “1030 Thermal cover” on page 59
- “1060 Fan assembly” on page 62
- “1090 Palm rest assembly with cables” on page 69
- “1130 Keyboard” on page 75

Removal steps of the keyboard bezel

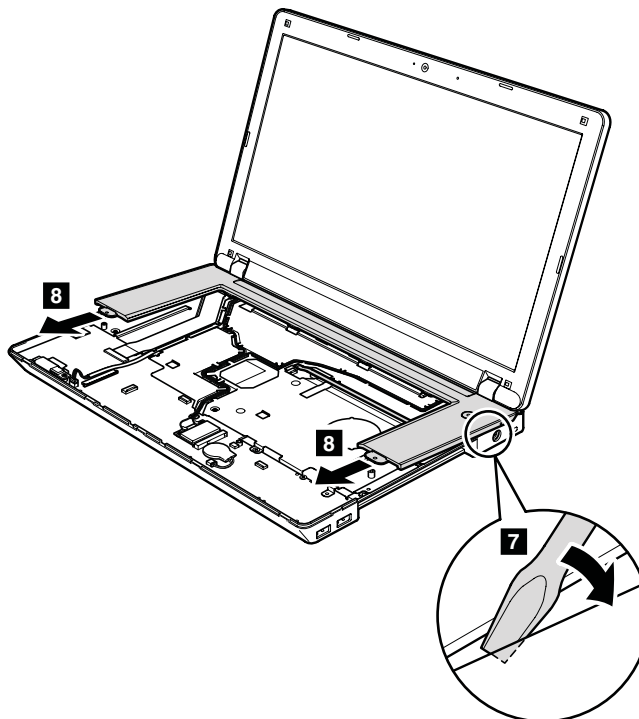


Step	Screw (quantity)	Color	Torque
1	M2.5 × 6.5 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgf-cm)
2	M2 × 3 mm, wafer-head, nylon-coated (7)	Black	0.181 Nm (1.85 kgfcm)



Step	Screw (quantity)	Color	Torque
3	M2 × 3 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgf-cm)

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

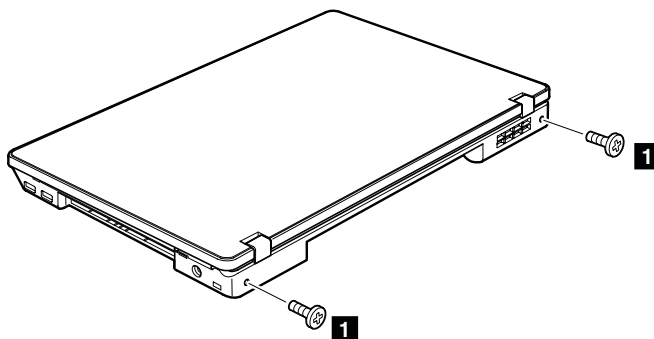


1150 LCD unit

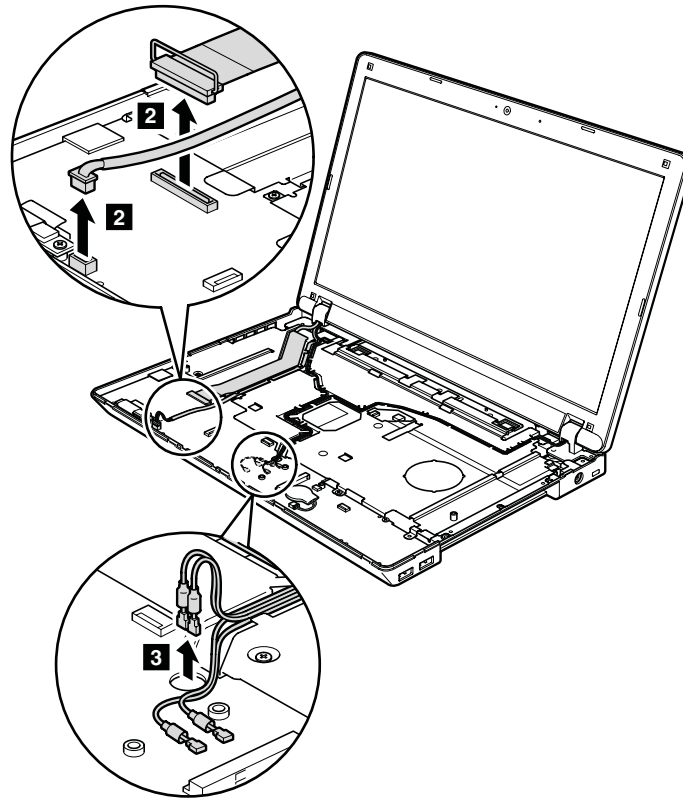
For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1020 Optical drive or travel cover” on page 58
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77

Removal steps of the LCD unit

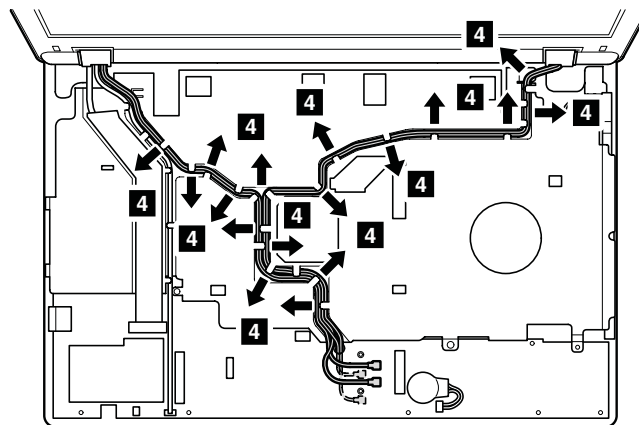


Step	Screw (quantity)	Color	Torque
1	M2.5 × 6.5 mm, wafer-head, nylon-coated (2)	Black	0.392 Nm (4 kgfcm)



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

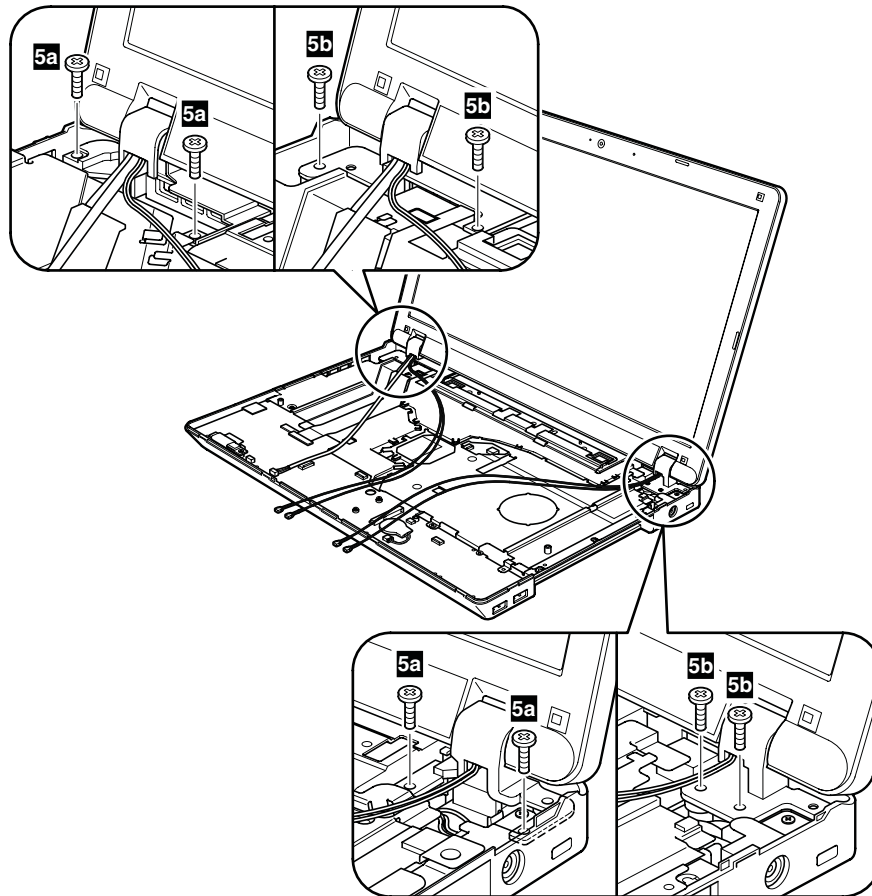
In step **4**, release wireless antenna cables from the cable guides.



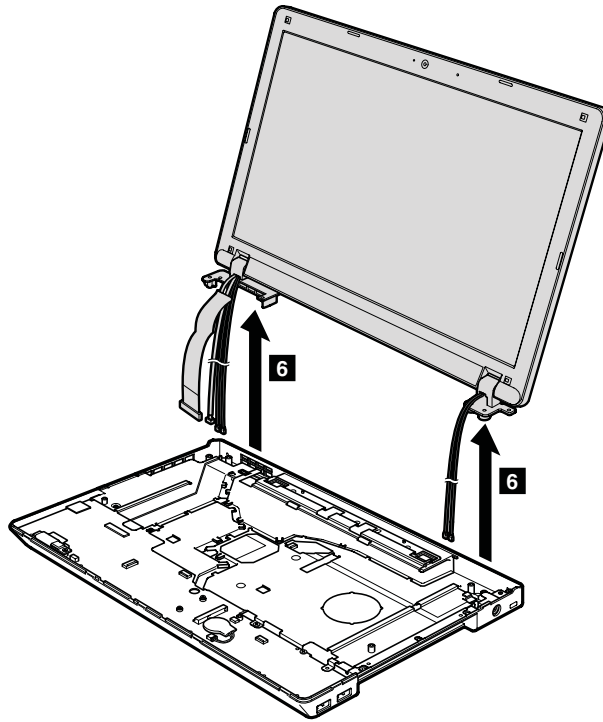
When installing: Make sure that the cables are attached to the cable guides firmly .

Attention: When 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.

Steps **5a** are for ThinkPad Edge 14" and E40, and steps **5b** are for ThinkPad Edge 15" and E50.



Step	Screw (quantity)	Color	Torque
5a or 5b	M2.5 × 6.5 mm, wafer-head, nylon-coated (4)	Black	0.392 Nm (4 kgf-cm)



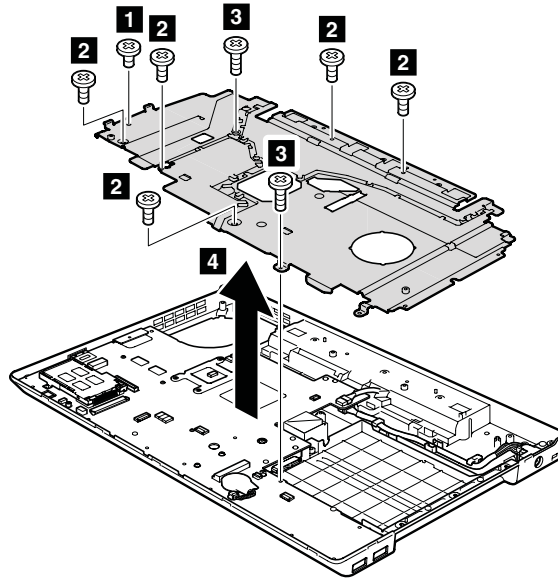
1160 Top shielding assembly

For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1020 Optical drive or travel cover” on page 58
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77
- “1150 LCD unit” on page 79

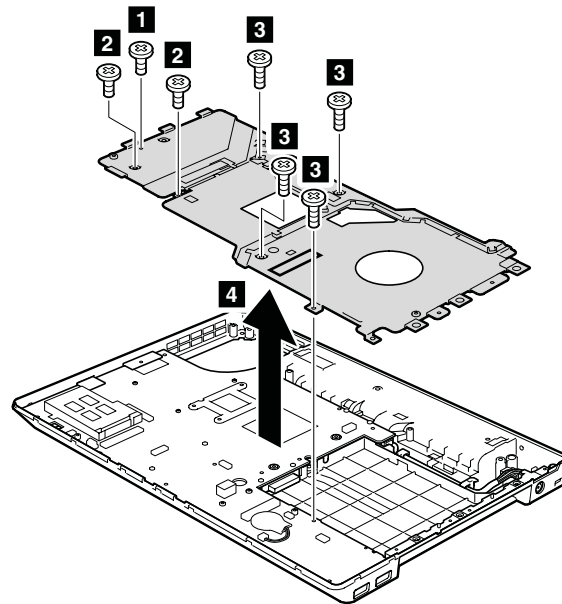
Removal steps of the top shielding assembly

For ThinkPad Edge 15" and E50:



Step	Screw (quantity)	Color	Torque
1	M2 × 2 mm, wafer-head, nylon-coated (3)	Silver	0.181 Nm (1.85 kgf-cm)
2	M2 × 3 mm, wafer-head, nylon-coated (5)	Black	0.181 Nm (1.85 kgfcm)
3	M2 × 5 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgfcm)

For ThinkPad Edge 14" and E40:



Step	Screw (quantity)	Color	Torque
1	M2 × 2 mm, wafer-head, nylon-coated (1)	Silver	0.181 Nm (1.85 kgf-cm)
2	M2 × 3 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgfcm)
3	M2 × 5 mm, wafer-head, nylon-coated (4)	Black	0.181 Nm (1.85 kgfcm)

1170 System board assembly

Important notices for handling the system board:

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

- The system board has an accelerometer, which can be broken by applying several thousands of G-forces.

Note: Dropping a system board from a height of as little as 6 inches so that it falls flat on a hard bench can subject the accelerometer to as much as 6,000 G's of shock.

- Be careful not to drop the system board on a bench top that has a hard surface, such as metal, wood, or composite.
- If a system board is dropped, you must test it, using PC-Doctor for DOS, to make sure that the hard disk drive Active Protection System™ still functions (see below).

Note: If the test shows that hard disk drive Active Protection System is not functioning, be sure to document the drop in any reject report, and replace the system board.

- Avoid rough handling of any kind.
- At every point in the process, be sure not to drop or stack the system board.
- If you put a system board down, be sure to put it only on a padded surface such as an ESD mat or conductive corrugated material.

After replacing the system board, run PC-Doctor for DOS to make sure that hard disk drive Active Protection System still functions. The procedure is as follows:

1. Place the computer on a horizontal surface.
2. Run **Diagnostics** → **ThinkPad Devices** → **HDD Active Protection Test**.

Attention: Do *not* apply physical shock to the computer while the test is running.

For access, remove these FRUs, in order:

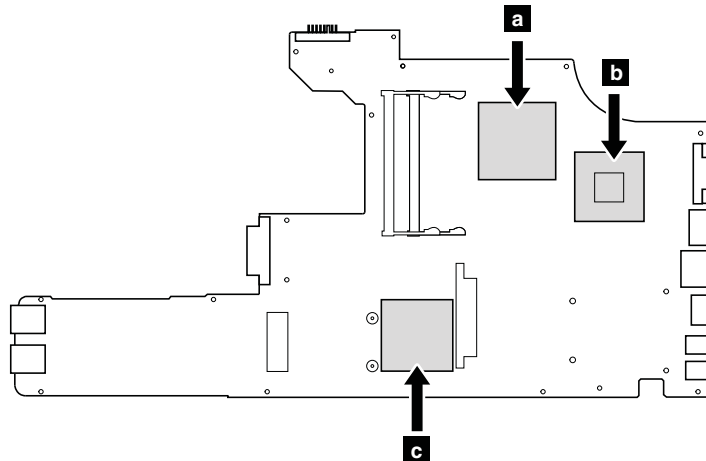
- “1010 Battery pack” on page 58
- “1020 Optical drive or travel cover” on page 58
- “1030 Thermal cover” on page 59
- “1040 Hard disk drive assembly” on page 60
- “1050 Memory module” on page 61
- “1060 Fan assembly” on page 62
- “1070 Microprocessor” on page 65
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1110 Backup battery” on page 74
- “1120 Bluetooth daughter card” on page 74
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77
- “1150 LCD unit” on page 79
- “1160 Top shielding assembly” on page 82

Location of major sensitive components on the system board

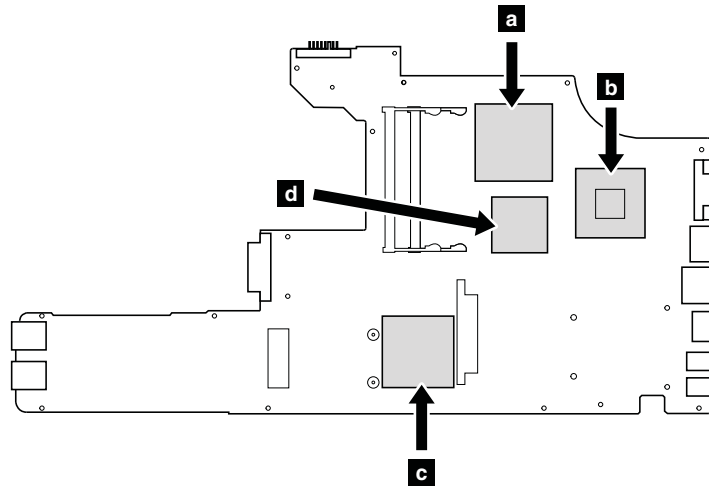
Following components soldered on the top side of the system board are extremely sensitive. When you service the system board, avoid any kind of rough handling.

- a** Integrated video chip (GMCH)
- b** Microprocessor
- c** I/O Controller Hub (ICH)
- d** Video chip

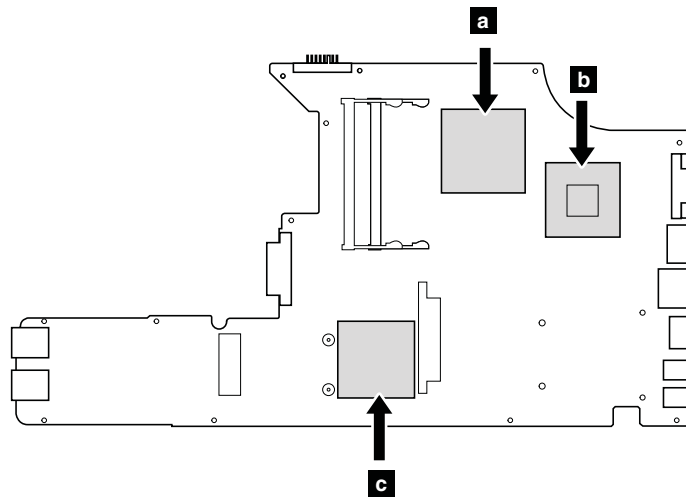
For ThinkPad Edge 14" and E40 integrated models:



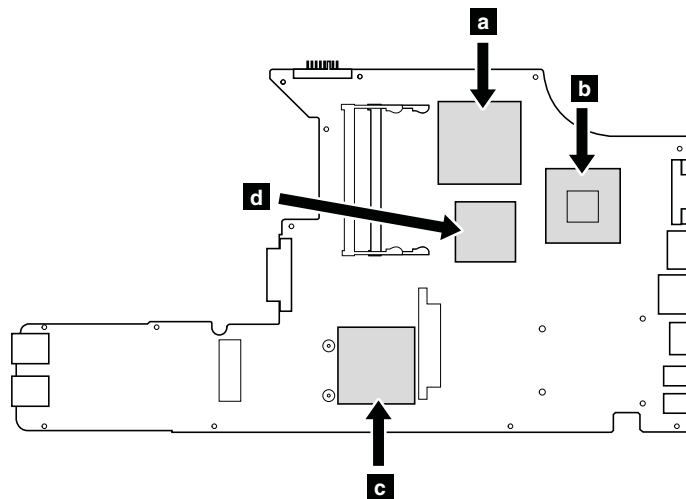
For ThinkPad Edge 14" and E40 discrete models:



For ThinkPad Edge 15" and E50 integrated models:

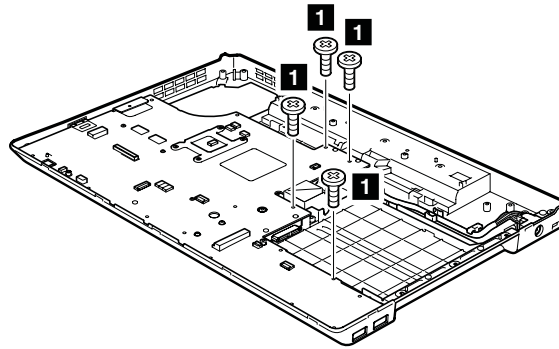


For ThinkPad Edge 15" and E50 discrete models:



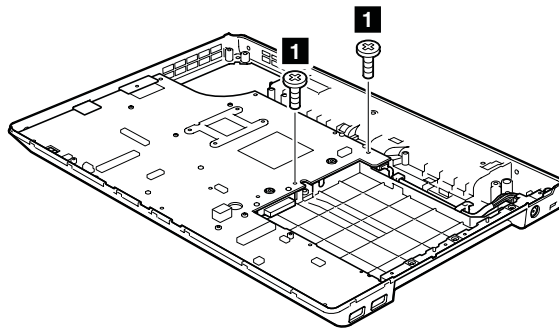
Removal steps of the system board assembly

For ThinkPad Edge 15" and E50:

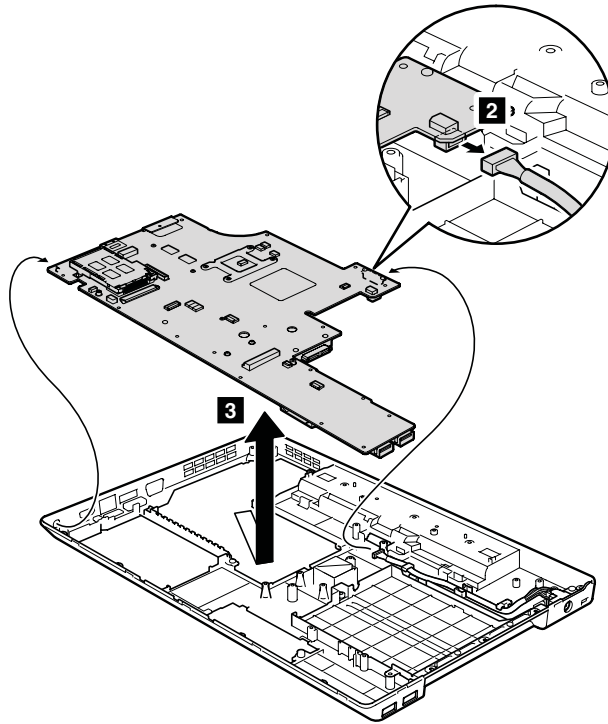


Step	Screw (quantity)	Color	Torque
1	M2 × 5 mm, wafer-head, nylon-coated (4)	Black	0.181 Nm (1.85 kgf-cm)

For ThinkPad Edge 14" and E40:



Step	Screw (quantity)	Color	Torque
1	M2 × 5 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgf-cm)



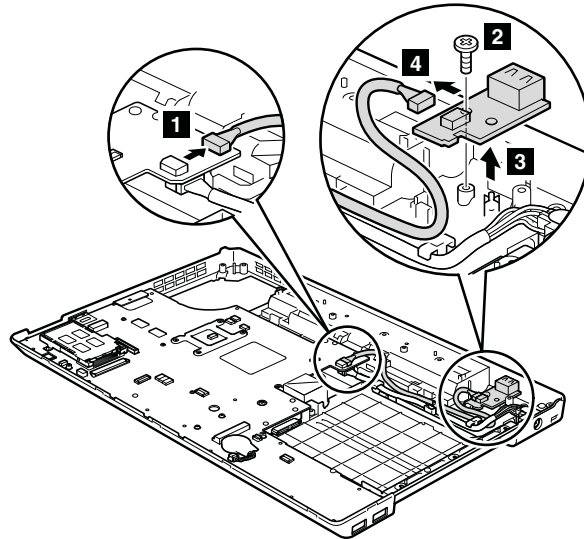
When installing: Make sure that the connectors are attached firmly to the system board.

1180 USB connector board and USB cable assembly

For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1030 Thermal cover” on page 59
- “1040 Hard disk drive assembly” on page 60
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77
- “1150 LCD unit” on page 79
- “1160 Top shielding assembly” on page 82

Removal steps of the USB connector board and USB cable assembly

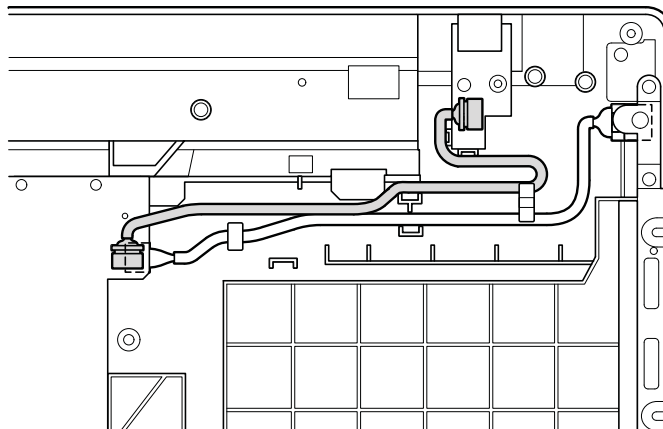


Step	Screw (quantity)	Color	Torque
2	M2 × 3 mm, wafer-head, nylon-coated (1)	Black	0.181 Nm (1.85 kgf-cm)

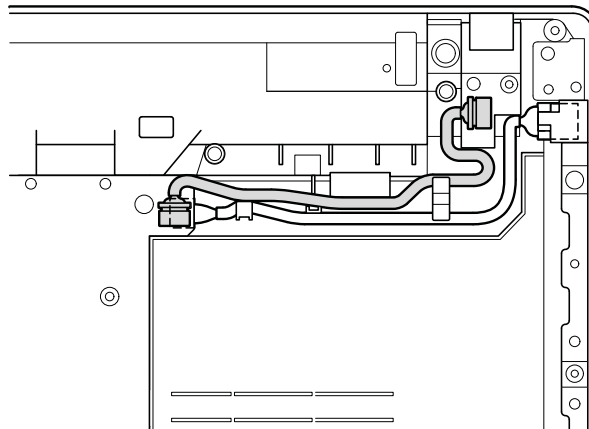
When installing: Make sure that the connectors are attached firmly.

Cable routing: Route the USB cable assembly as shown in these figures.

For ThinkPad Edge 15" and E50:



For ThinkPad Edge 14" and E40:



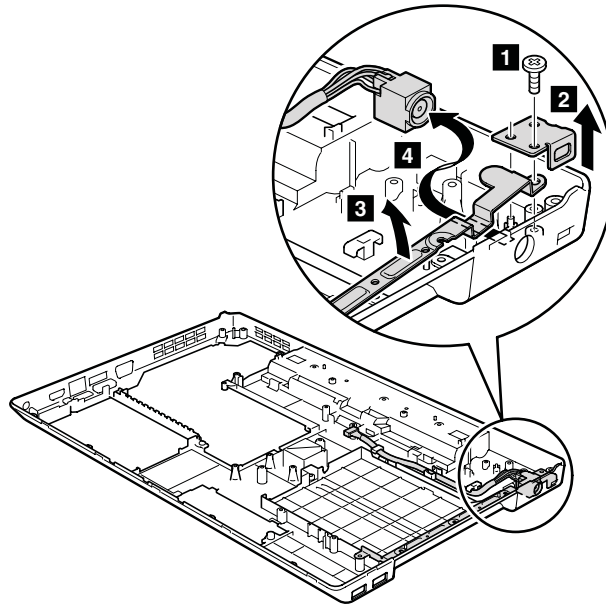
1190 DC-in cable and base cover

For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1020 Optical drive or travel cover” on page 58
- “1030 Thermal cover” on page 59
- “1040 Hard disk drive assembly” on page 60
- “1050 Memory module” on page 61
- “1060 Fan assembly” on page 62
- “1070 Microprocessor” on page 65
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1110 Backup battery” on page 74
- “1120 Bluetooth daughter card” on page 74
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77
- “1150 LCD unit” on page 79
- “1160 Top shielding assembly” on page 82
- “1170 System board assembly” on page 84

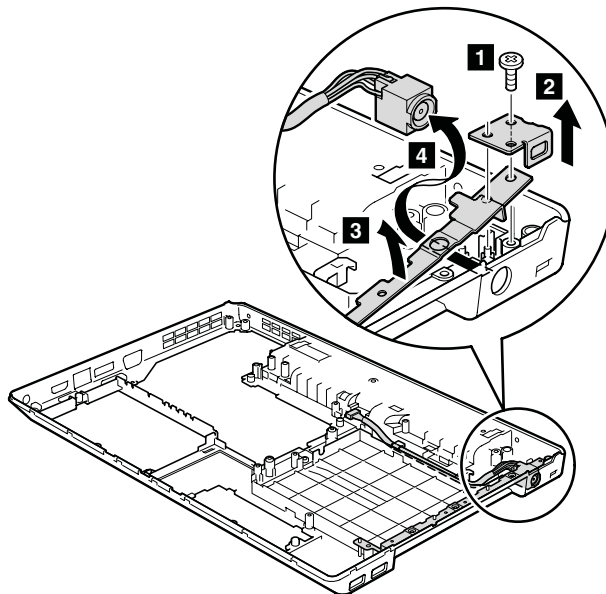
Removal steps of the DC-in cable and base cover

For ThinkPad Edge 15" and E50:



Step	Screw (quantity)	Color	Torque
1	M2 × 3 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgf-cm)

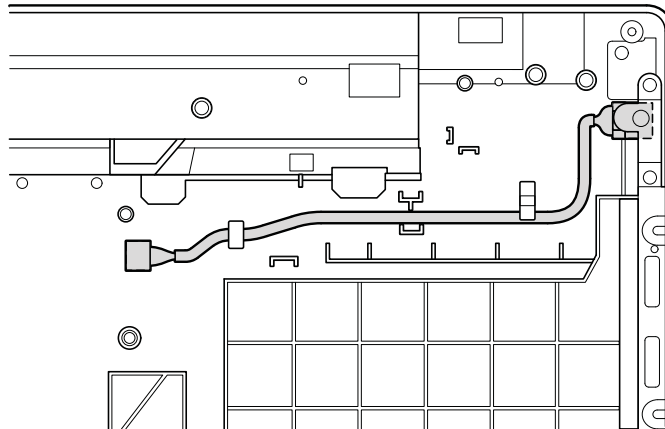
For ThinkPad Edge 14" and E40:



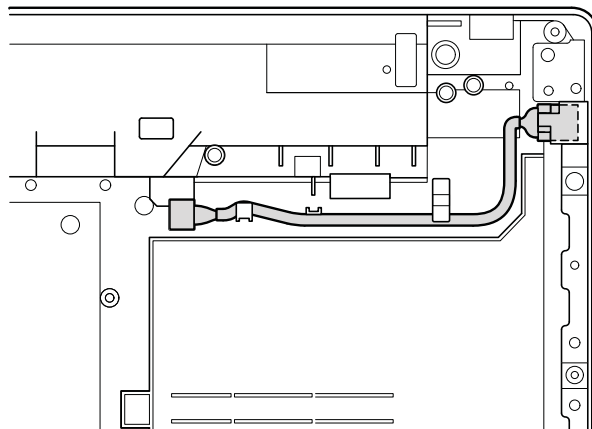
Step	Screw (quantity)	Color	Torque
1	M2 × 5 mm, wafer-head, nylon-coated (1)	Black	0.181 Nm (1.85 kgf-cm)

Cable routing: Route the cable as shown in these figures.

For ThinkPad Edge 15" and E50:



For ThinkPad Edge 14" and E40:



Applying labels to the base cover

The new base cover FRU is shipped with a kit containing labels of several kinds.

If the Windows Certificate of Authentication label (COA) **3** is attached to a part that is replaced, return the old part with the label attached to the customer, or provide a letter to the customer stating what the label was originally on the system and what the label part number, serial number, and product key were.

When you replace the base cover, apply the following labels:

- 4** Battery word label
- 6** Homologation label

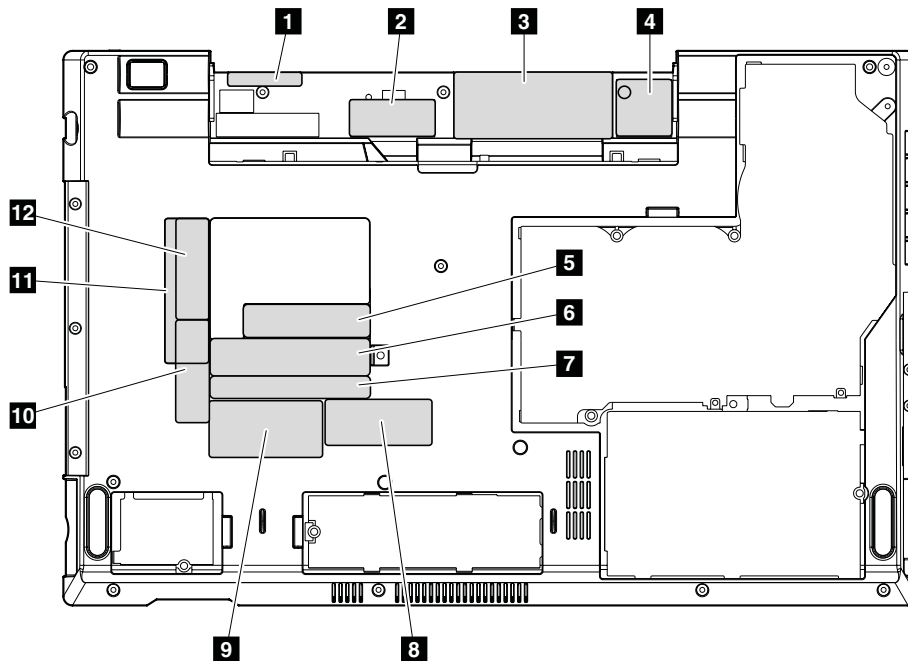
The following labels need to be peeled off from the old base cover, and need to be put on the new base cover.

- 1** MAC address label
- 2** Wireless WAN MAC address label
- 5** Serial number label
- 7** FCC label
- 8** SIRM label
- 9** SIM ICC ID label
- 10** Brazil Anatel BG label
- 11** Israel label (SIM model)
- 12** Brazil Anatel Bluetooth label

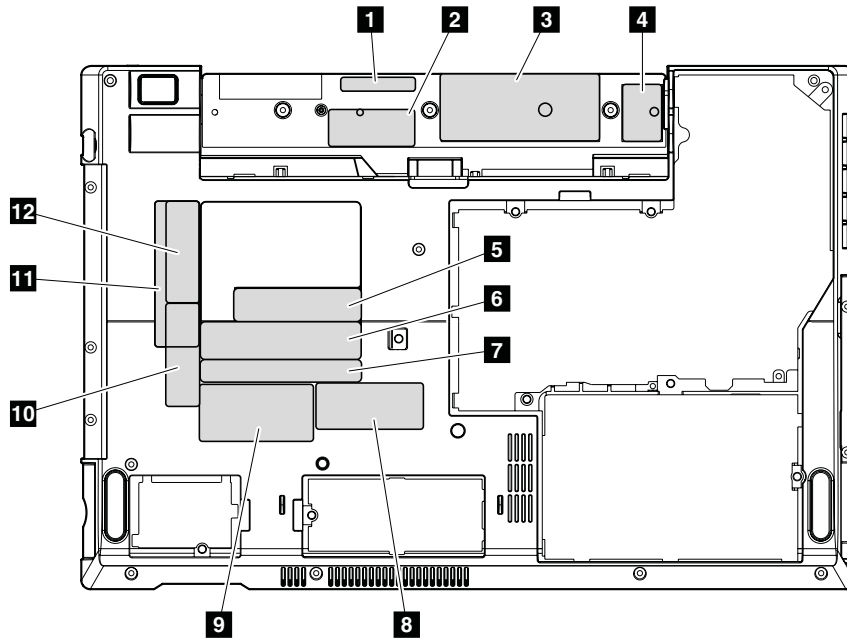
For some models, you also need to apply one or two FCC labels. Check the old base cover; if it has one or two FCC labels, find duplicates of them in the label kit and apply them to the new base cover.

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

For ThinkPad Edge 15" and E50:



For ThinkPad Edge 14" and E40:

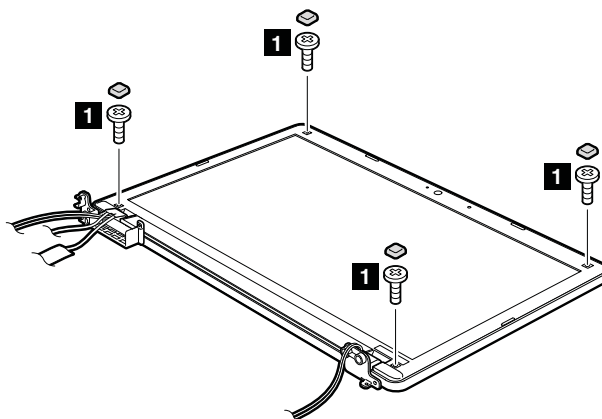


2010 LCD front bezel

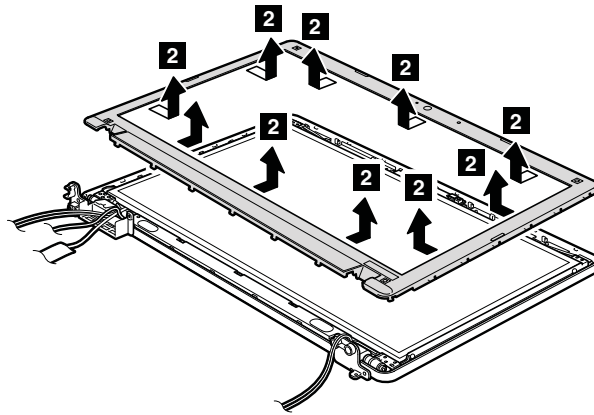
For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77
- “1150 LCD unit” on page 79

Removal steps of the LCD front bezel



Step	Screw (quantity)	Color	Torque
1	M2 × 5 mm, wafer-head, nylon-coated (4), with rubber caps	Black	0.181 Nm (1.85 kgf-cm)



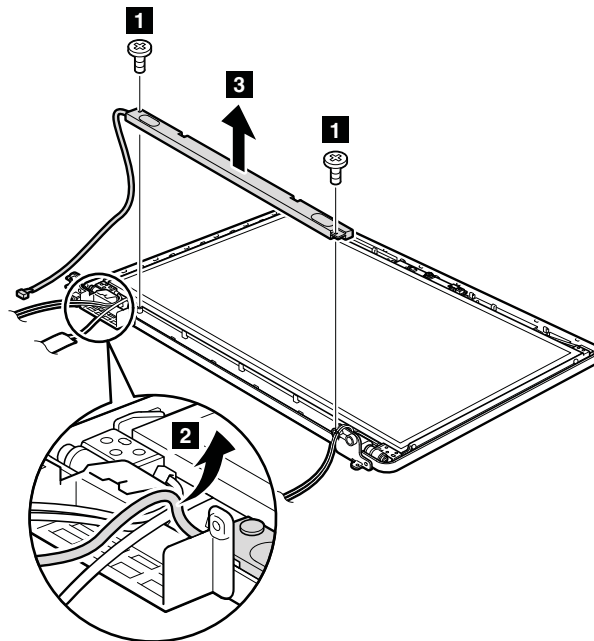
When installing: Make sure that all the latches are attached firmly. Then secure the bezel with the screws.

2020 Speaker assembly

For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77
- “1150 LCD unit” on page 79
- “2010 LCD front bezel” on page 94

Removal steps of the speaker assembly



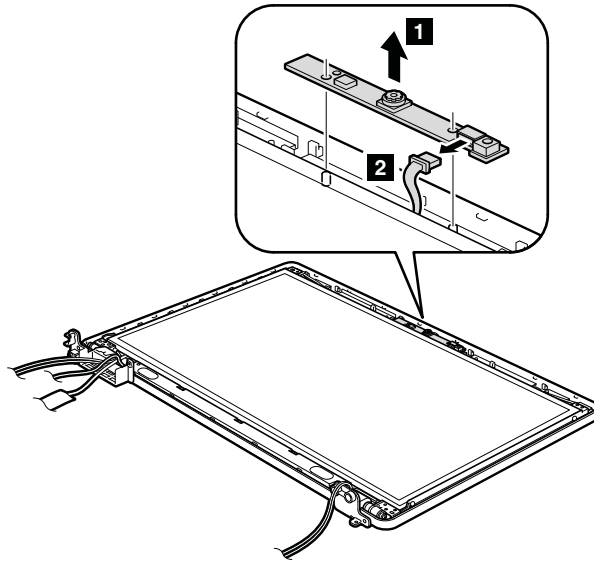
Step	Screw (quantity)	Color	Torque
1	M2 × 3 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgf-cm)

2030 Integrated camera

For access, remove these FRUs, in order:

- “1010 Battery pack” on page 58
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77
- “1150 LCD unit” on page 79
- “2010 LCD front bezel” on page 94

Removal steps of the integrated camera



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

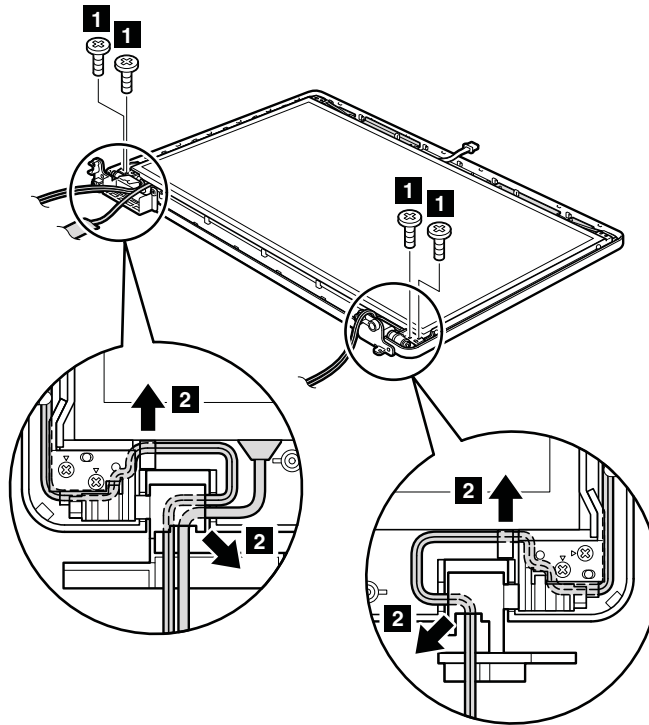
2040 Hinges, LCD panel, LCD cable, and LCD rear cover assembly

For access, remove these FRUs, in order:

- “1010 Battery pack” on page 58
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77
- “1150 LCD unit” on page 79
- “2010 LCD front bezel” on page 94

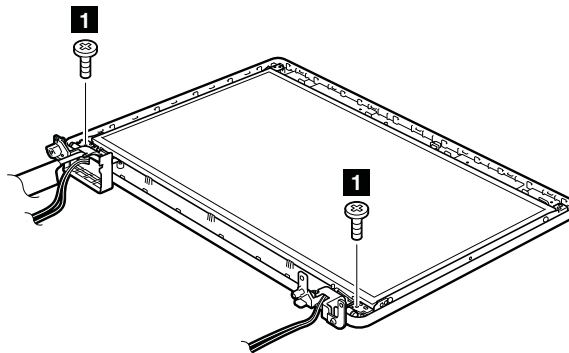
Removal steps of the hinges, LCD panel, LCD cable, and LCD rear cover assembly

For ThinkPad Edge 15" and E50:

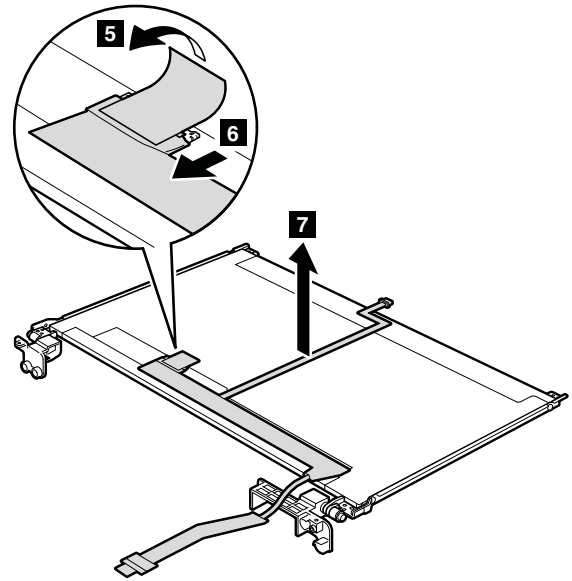
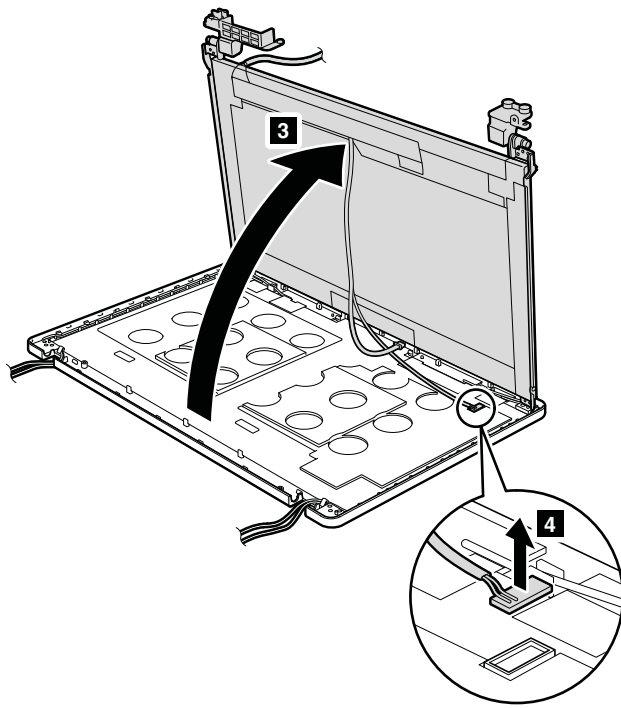


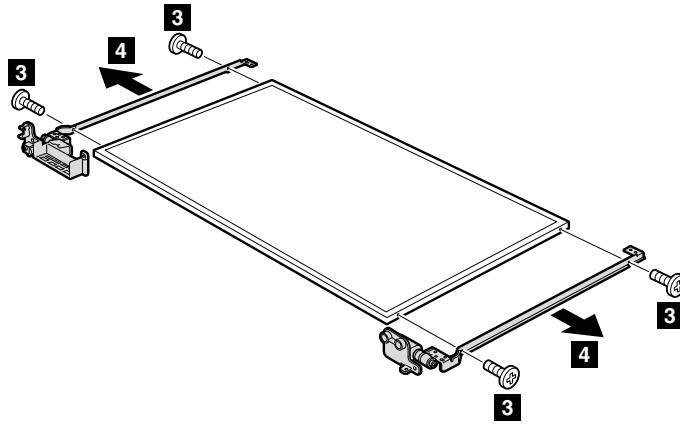
Step	Screw (quantity)	Color	Torque
1	M2 × 5 mm, wafer-head, nylon-coated (4)	Black	0.181 Nm (1.85 kgf-cm)

For ThinkPad Edge 14" and E40:



Step	Screw (quantity)	Color	Torque
1	M2 × 5 mm, wafer-head, nylon-coated (2)	Black	0.181 Nm (1.85 kgf-cm)





Step	Screw (quantity)	Color	Torque
3	M2 × 3 mm, small-head, nylon-coated (4)	Black	0.181 Nm (1.85 kgf-cm)

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

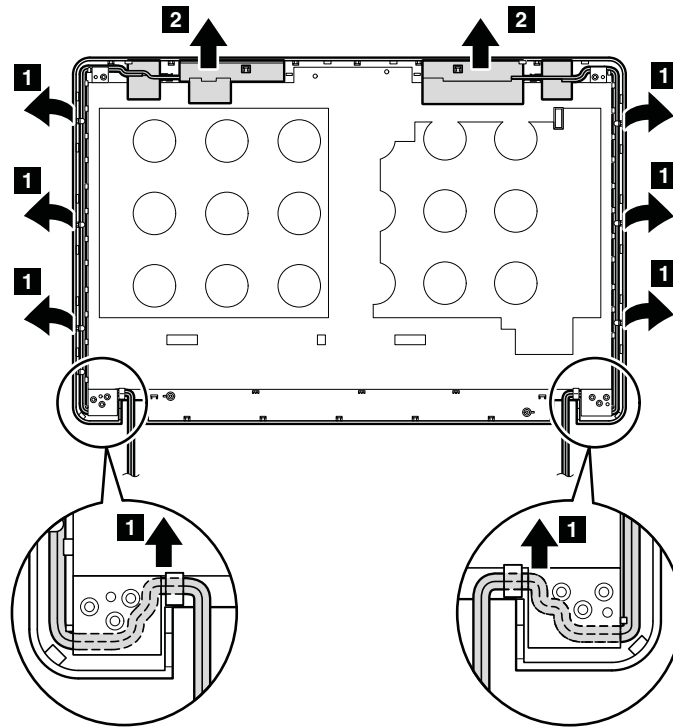
2050 Antenna assembly

For access, remove these FRUs in order:

- “1010 Battery pack” on page 58
- “1080 Wireless WAN slot cover and PCI Express Mini Card for wireless WAN” on page 66
- “1090 Palm rest assembly with cables” on page 69
- “1100 PCI Express Mini Card for wireless LAN” on page 72
- “1130 Keyboard” on page 75
- “1140 Keyboard bezel” on page 77
- “1150 LCD unit” on page 79
- “2010 LCD front bezel” on page 94
- “2020 Speaker assembly” on page 95
- “2030 Integrated camera” on page 96
- “2040 Hinges, LCD panel, LCD cable, and LCD rear cover assembly” on page 96

Removal steps of the antenna assembly

Release the antenna cables from the cable guides of the LCD rear cover assembly and from the hinges.



When installing: Route the cables as shown in this figure. When 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.

Chapter 9. Locations

This chapter presents the location of ThinkPad Edge 14", Edge 15", E40, and E50 features and hardware.

Front view

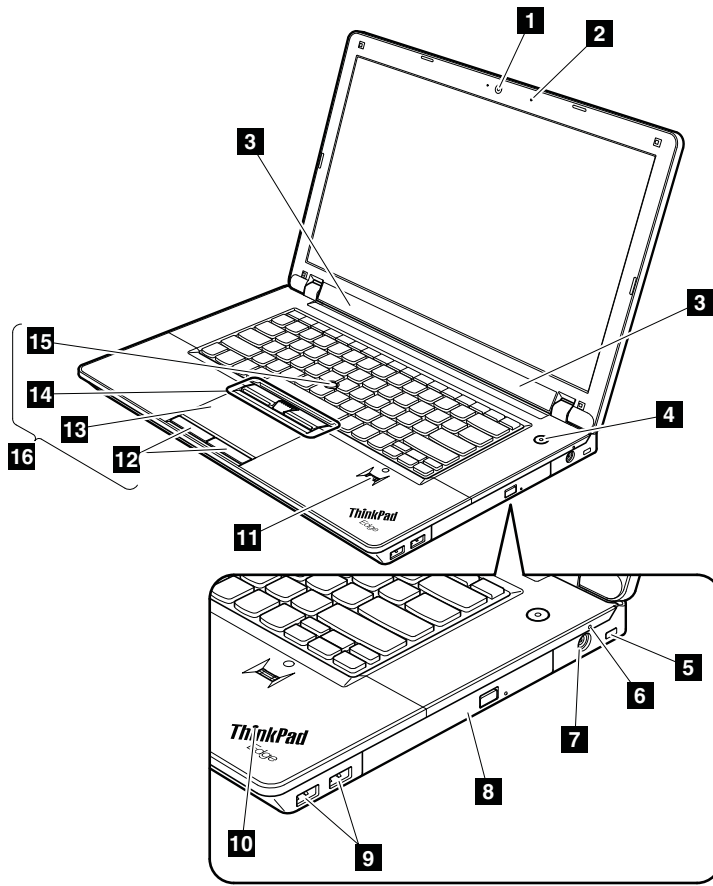
- 1** Integrated camera
- 2** Built-in microphone
- 3** Built-in stereo speakers
- 4** Power switch
- 5** Security keyhole
- 6** Power status indicator

Note: For the description of the indicator, see Chapter 5 “Status indicators” on page 49.

- 7** AC power connector
- 8** Optical drive or travel cover
- 9** Universal serial bus (USB) connectors
- 10** Sleep (standby) status indicator

Note: For the description of the indicator, see Chapter 5 “Status indicators” on page 49.

- 11** Fingerprint reader (for some models)
- 12** Touch pad buttons
- 13** Touch pad
- 14** TrackPoint buttons
- 15** TrackPoint pointing stick
- 16** UltraNav®

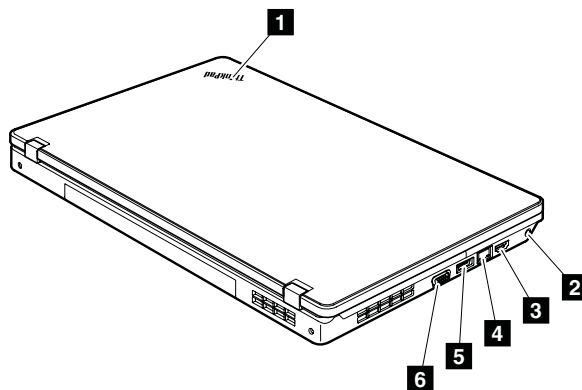


Rear view

- 1** Sleep (standby) status indicator

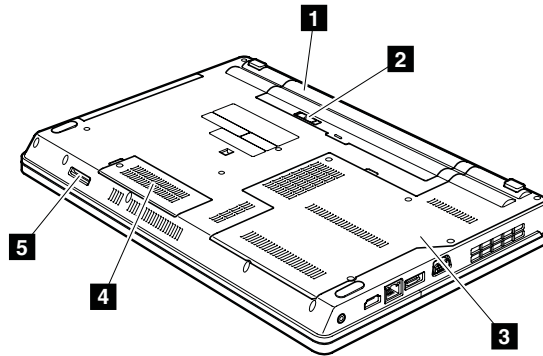
Note: For the description of the indicator, see Chapter 5 “Status indicators” on page 49.

- 2** Combo audio connector
- 3** HDMI connector
- 4** RJ-45 (Ethernet) connector
- 5** eSATA/USB connector
- 6** External monitor connector



Bottom view

- 1** Battery pack
- 2** Battery pack latch
- 3** Thermal slot (memory module, hard disk drive, fan assembly)
- 4** Wireless WAN card slot
- 5** Media Card Reader



Chapter 10. Parts list

This chapter contains following lists of the service parts.

- “Overall” on page 106
- “LCD FRUs” on page 123
- “Keyboard” on page 138
- “Miscellaneous parts” on page 140
- “AC adapters” on page 140
- “Power cords” on page 141
- “Recovery discs” on page 142
- “Common service tools” on page 147

Notes:

- Each FRU is available for all types or models, unless specific types or models are specified.
- FRU with specific models listed and described as xxU (where U is an example of a country designator) should be used for all models ending in U.
- FRU with specific models listed and described as 3Dx (where 3D is an example of a unique configuration) should be used for all of these models, unless specific country or region designator is specified.
- A CRU (customer replaceable unit) is identified by a single asterisk (*) or two asterisks (**) in the CRU ID column. An N in the CRU ID column means that the part is not a CRU. A single asterisk (*) means that the part is a Self-service CRU; two asterisks (**) means that the part is an Optional-service CRU.

External CRU statement to customers:

Some problems with your product can be resolved with a replacement part you can install yourself, called a “Customer Replaceable Unit” or “CRU.” Some CRUs are designated as Self-service CRUs and others are designated as Optional-service CRUs. *Installation of Self-service CRUs is your responsibility; you may request that Lenovo installs an Optional-service CRU according to the warranty service for your product.* Where you are installing the CRU, Lenovo will ship the CRU to you. CRU information and replacement instructions are shipped with your product and are available from Lenovo at any time upon request. You may find a list of CRUs in the publications that ship with your product or at <http://www.lenovo.com/CRUs>. You may be required to return the defective part that is replaced by the CRU. When return is required: (1) return instructions, a prepaid shipping label, and a container will be included with the replacement CRU; and (2) you may be charged for the replacement CRU if Lenovo does not receive the defective part within thirty (30) days of your receipt of the replacement CRU. See your Lenovo Limited Warranty documentation for full details.

ThinkPad computers contain the following types of CRUs:

- **Self-service CRUs:** These CRUs unplug or are held by no more than two screws. Examples of these types of CRUs include the ac power adapter, power cord, battery, and hard disk drive. Other Self-service CRUs depending on product design may include the memory module, wireless card, keyboard, and palm rest with finger print reader and touchpad.
 - **Optional-service CRUs:** These CRUs are isolated parts within the computer that are concealed by an access panel that is typically secured by more than two screws. Once the access panel is removed, the specific CRU is visible.
- FRUs marked with **OP** are available as options.

Overall

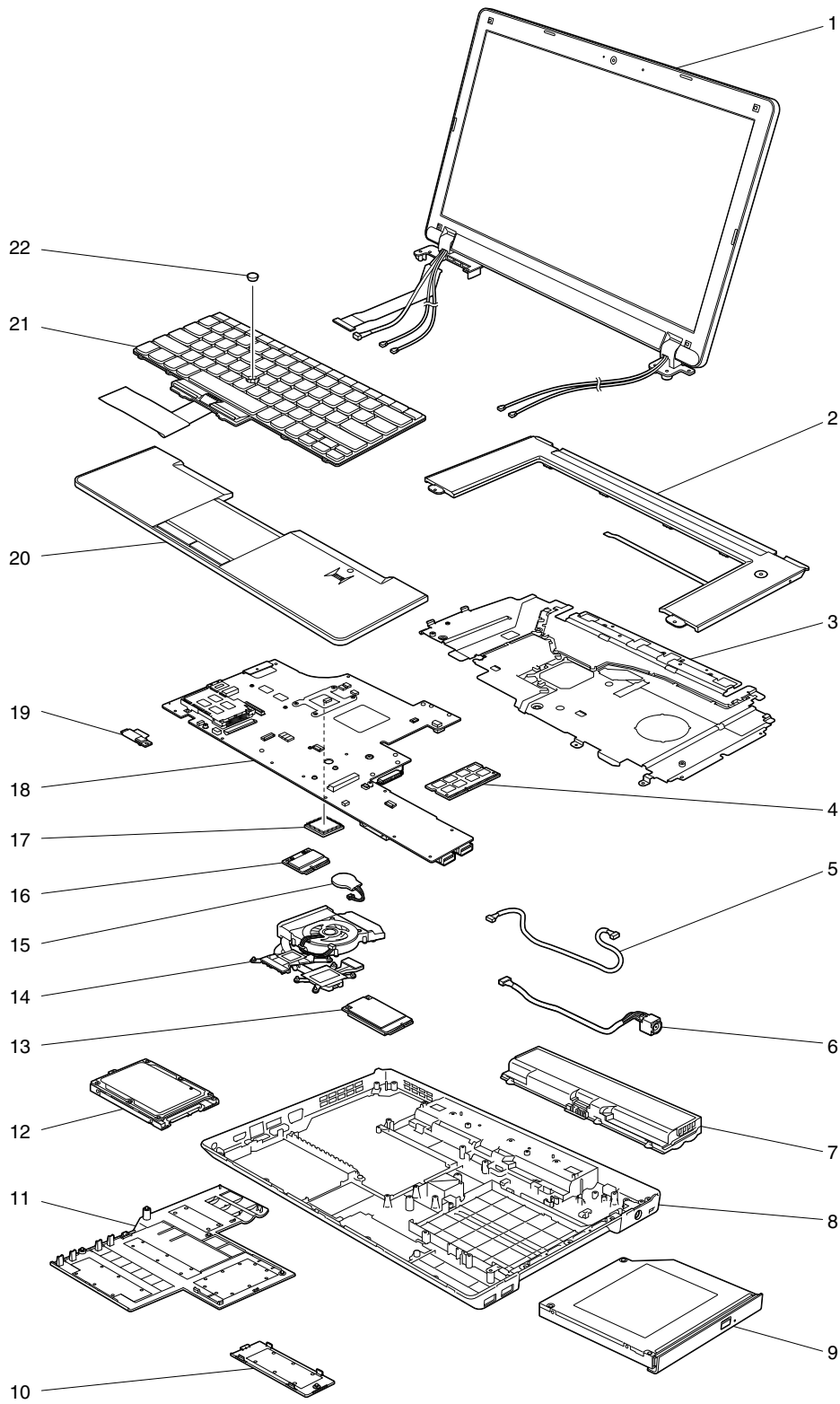


Table 8. Parts list—Overall

No.	FRU (Overall)	FRU no.	CRU ID
1	LCD unit (see “LCD FRUs” on page 123.)		
2	Keyboard bezel assembly 14W	60Y5597	No
2	Keyboard bezel assembly 15W	60Y5599	No
3	Top shielding assembly 14W	75Y6120	No
3	Top shielding assembly for 0199	04W0273	No
3	Top shielding assembly 15W	75Y6121	No
4	1-GB DDR3-1067 SDRAM SO-DIMM (PC3-8500) card <ul style="list-style-type: none"> • 0301-all • 0319-CTO • 0199-CTO, 6Ax, AEx • 0578-CTOI • 0579-all 	55Y3712	**
4	2-GB DDR3-1067 SDRAM SO-DIMM (PC3-8500) card <ul style="list-style-type: none"> • 0301-all • 0302-CTO, 4Gx, 4Hx, 4Jx, 4Kx, 4Sx, 53x, 54x, 55x • 0319-CTO, 49x, 48x, 47x, 46x, 45x, 44x, 43x, 42x, 3Zx, 3Yx, 3Xx, 3Wx, 3Vx, 3Ux, 3Tx, 3Sx, 3Rx, 3Qx, 3Px • 0578-all • 0579-CTO, 49x, 48x, 47x, 46x, 45x, 44x, 43x, 42x, 3Zx, 3Yx, 3Xx, 3Wx, 3Vx, 3Ux, 3Tx, 3Sx, 3Rx, 3Qx, 3Px 	55Y3713	**
4	1-GB DDR3-1333 SDRAM SO-DIMM (PC3-10600) card <ul style="list-style-type: none"> • 0199-CTO, 6Px, 6Qx • 0301-all • 0302-CTO, 54x, 55x • 0319-CTO • 0578-all • 0579-CTO 	55Y3715	**
4	2-GB DDR3-1333 SDRAM SO-DIMM (PC3-10600) card <ul style="list-style-type: none"> • 0199-CTO, 6Px, 6Qx • 0301-all • 0302-CTO, 54x, 55x • 0319-CTO • 0578-CTO, all • 0579-CTO 	55Y3716	**
4	4-GB DDR3-1333 SDRAM SO-DIMM (PC3-10600) card <ul style="list-style-type: none"> • 0199-CTO • 0301-CTO, CSx, CUx, CVx, CWx, CXx, CYx, GCx, GDx, GEx, GFx, GGx, GUx, H7x, H8x, HAx, HBx, HFx, HLx, HMx, HNx, HPx, HVx, GXx, GYx, K2x, K3x, JJx, JLx, JNx, JQx, JRx, JSx • 0302-CTO, 2Mx, 35x, 48x, 4Lx, 4Nx, 4Qx, 52x • 0319-CTO • 0578-CTO, G2x, G3x, G4x, KNx, KPx, KQx, JYx, JZx, KZx, M2x, MGx, N3x, NPx, P2x, P3x, PEx • 0579-CTO 	55Y3717	**
5	USB cable assembly 14W	45M2861	No
5	USB cable assembly 15W	45M2871	No
6	DC-in cable 14W	45M2862	No
6	DC-in cable 15W	45M2863	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
7	Battery pack, 4 cell Li-Polymer (2.2 Ah) <ul style="list-style-type: none"> • 0199-CTO, 24x, 25x, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 3Cx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 57x, 58x, 59x, 5Ax, 5Bx • 0301-CTO, 25x, 2Ex, 3Ex, 3Fx, 3Ux, 3Vx, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 8Qx, 93x, 95x, 8Ax, 9Wx, 9Xx, 9Yx • 0302-CTO, 24x, 28x, 29x, 3Cx, 3Dx, 3Fx, 3Gx, 3Mx, 4Tx • 0319-CTO, 3Xx, 3Wx • 0578-CTO, 25x, 2Fx, 2Gx, 2Xx, 2Yx, 3Ex, 3Fx, 3Nx, 3Px, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x • 0579-CTO, 5Hx 	42T4763 42T4765 42T4913	*
7	Battery pack, 6 cell Li-ion (2.2 Ah) <ul style="list-style-type: none"> • 0199-CTO, 22x, 23x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Dx, 3Ex, 3Fx, 3Gx, 3Wx, 3Xx, 42x, 43x, 44x, 45x, 4Gx, 4Hx, 4Jx, 4Kx • 0301-CTO, 23x, 24x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx • 0302-CTO, 22x, 23x, 25x, 26x, 27x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Ex • 0319-CTO, 49x, 48x, 47x, 46x, 45x, 44x, 43x, 42x, 3Zx, 3Yx, 3Vx, 3Ux, 3Tx, 3Sx, 3Rx, 3Qx, 3Px • 0578-CTO, 23x, 24x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Gx • 0579-CTO, 6Ax, 66x, 65x, 64x, 63x, 62x, 5Zx, 5Yx, 5Xx, 5Wx, 5Ux, 5Tx, 5Sx, 5Qx, 5Px, 5Nx, 5Mx, 5Lx, 5Kx, 5Jx, 5Ex, 5Dx, 5Cx, 5Bx, 5Ax, 59x, 58x, 57x, 56x, 55x, 54x, 53x 	42T4751 42T4753 42T4755 42T4848	*
7	Battery pack, 9 cell Li-ion (2.8 Ah) <ul style="list-style-type: none"> • 0199-CTO • 0301-CTO, 22x • 0302-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	42T4710 42T4712 42T4851	*
7	Battery pack, 9 cell Li-ion (2.8 Ah) dual-mode <ul style="list-style-type: none"> • 0199-CTO • 0301-CTO • 0302-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	42T4799 42T4801 42T4853	*
8	Base cover assembly 14W	75Y6085	No
8	Base cover assembly 15W	75Y6086	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
9	DVD-RAM/RW drive <ul style="list-style-type: none"> • 0199-CTO, 6Px, 6Qx • 0301-all • 0302-CTO,54x, 55xl • 0319-CTO, 49x, 48x, 47x, 46x, 45x, 44x, 43x, 42x, 3Zx, 3Yx, 3Xx, 3Wx, 3Vx, 3Ux, 3Tx, 3Sx, 3Rx, 3Qx, 3Px • 0578-all • 0579-CTO, 6Ax, 66x, 65x, 64x, 63x, 62x, 5Zx, 5Yx, 5Xx, 5Wx, 5Ux, 5Tx, 5Sx, 5Qx, 5Px, 5Nx, 5Mx, 5Lx, 5Kx, 5Jx, 5Hx, 5Ex, 5Dx, 5Cx, 5Bx, 5Ax, 59x, 58x, 57x, 56x, 55x, 54x, 53x 	75Y5019 63Y0901 63Y0905 75Y5171	*
9	Blu-ray Disc drive <ul style="list-style-type: none"> • 0199-CTO • 0301-CTO, 22x • 0302-CTO • 0319-CTO • 0578-CTO, 22x • 0579-CTO 	63Y0907	*
9	Travel cover <ul style="list-style-type: none"> • 0199-CTO • 0301-CTO • 0302-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	60Y5601	*
10	Wireless WAN card slot cover with screw	75Y4489	*
11	Thermal cover with screw 14W	75Y4485	*
11	Thermal cover with screw 15W	75Y4487	*
12	SATA hard disk drive, 250 GB, 5,400 rpm <ul style="list-style-type: none"> • 0199-CTO, 24x, 25x, 27x, 29x, 2Bx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Yx, 33x, 35x, 38x, 3Cx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 46x, 47x, 48x, 49x, 4Bx, 4Cx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Lx, RZx, 5Sx, 68x, 69x, 6Ax • 0301-CTO, 24x, 25x, 26x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Ex, 2Hx, 2Jx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 34x, 35x, 38x, 39x, 3Cx, 3Dx, 3Ex, 3Fx, 3Ux, 3Vx, 49x, 4Ax, 4Cx, 4Dx, 4Ex, 4Fx, 5Gx, 5Nx, 5Qx, 5Vx, 5Wx, 5Zx, 62x, 65x, 66x, 7Lx, 7Mx, 7Qx, 7Yx, 7Zx, 82x, 84x, 86x, 8Ex, 8Gx, 8Jx, 8Lx, 8Mx, 8Qx, 8Xx, 8Yx, 8Zx, 92x, 93x, 95x, 98x, 9Ax, 8Ax, 9Ex, B8x, BFx, BGx, BHx, BJx, BVx, BWx, BXx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, D2x, D3x, D4x, DBx, DFx, E3x, E4x, ECx, Efx, EKx, EMx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, GJx, GKx, H2x, HQx, HRx, HSx, HTx, HUx, K4x, K5x, K6x, K7x, KKx, Q2x • 0302-CTO, 24x, 25x, 28x, 29x, 2Bx, 2Dx, 2Fx, 2Nx, 2Px, 2Rx, 2Ux, 2Wx, 2Yx, 3Cx, 3Dx, 3Ux • 0319-CTO • 0578-CTO, 24x, 25x, 27x, 28x, 29x, 2Ax, 2Dx, 2Fx, 2Gx, 2Mx, 2Nx, 2Rx, 2Sx, 2Vx, 2Wx, 2Xx, 2Yx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Nx, 3Px, 3Wx, 3Yx, 3Zx, 5Ux, 64x, 69x, 6Ax, 6Dx, 6Ex, 6Hx, 6Jx, 7Px, 7Rx, 7Vx, 7Yx, 7Zx, 82x, 83x, 84x, 85x, 87x, 89x, 8Dx, 8Gx, 8Mx, 8Qx, 8Vx, 8Xx, 93x, 96x, 9Bx, 9Ex, AUx, AVx, AWx, BSx, C4x, DFx, DSx, DTx, DUx, DVx, DWx, DXx, F5x, FAx, FBx, FCx, FFx, FGx, FHx, FJx, G7x, H2x, HJx, HKx, HTx, HUx, HYx, KBx, KCx, KFx, KSx, JYx, JZx, M5x, M6x, M9x, MGx, MHx, N8x, NPx, Q2x, QDx, QGx, QLx • 0579-CTO 	41W0777 41W0769 41W0785 75Y5033 75Y5043	**

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
12	SATA hard disk drive, 250 GB, 5,400 rpm, 7mmH <ul style="list-style-type: none"> • 0199-CTO, 24x, 25x, 27x, 29x, 2Bx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Yx, 33x, 35x, 38x, 3Cx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 46x, 47x, 48x, 49x, 4Bx, 4Cx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Lx, RZx, 5Sx, 68x, 69x, 6Ax • 0301-CTO, 24x, 25x, 26x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Ex, 2Hx, 2Jx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 34x, 35x, 38x, 39x, 3Cx, 3Dx, 3Ex, 3Fx, 3Ux, 3Vx, 49x, 4Ax, 4Cx, 4Dx, 4Ex, 4Fx, 5Gx, 5Nx, 5Qx, 5Vx, 5Wx, 5Zx • 0302-CTO, 24x, 25x, 28x, 29x, 2Bx, 2Dx, 2Fx, 2Nx, 2Px, 2Rx, 2Ux, 2Wx, 2Yx, 3Cx, 3Dx, 3Ux • 0319-CTO • 0578-CTO, 24x, 25x, 27x, 28x, 29x, 2Ax, 2Dx, 2Fx, 2Gx, 2Mx, 2Nx, 2Rx, 2Sx, 2Vx, 2Wx, 2Xx, 2Yx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Nx, 3Px, 3Wx, 3Yx, 3Zx, 5Ux, 64x, 69x, 6Ax, 6Dx, 6Ex, 6Hx, 6Jx, 7Px, 7Rx • 0579-CTO 	75Y5133 75Y5145	**
12	SATA hard disk drive, 320 GB, 5,400 rpm <ul style="list-style-type: none"> • 0199-CTO, 23x, 26x, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Zx, 34x, 36x, 3Ax, 3Bx, 3Dx, 3Ex, 3Fx, 3Gx, 3Xx, 42x, 4Ax, 4Dx, 4Ex, 4Kx, 4Nx, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Wx, 5Yx, RYx, 5Px, 5Qx, 5Rx • 0301-CTO, 22x, 2Dx, 2Fx, 2Gx, 2Kx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 36x, 37x, 3Ax, 3Bx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 47x, 48x, 4Bx, 4Hx, 4Jx, 4Kx, 4Lx • 0302-CTO, 23x, 26x, 2Ax, 2Qx, 2Sx, 2Vx, 2Xx, 33x, 34x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Ex, 3Fx, 3Gx, 3Jx, 3Qx, 3Rx, 3Vx, 43x, AWx, AYx, 49x, 4Px, 4Qx, 4Sx, 4Tx • 0319-CTO • 0578-CTO, 22x, 2Cx, 2Ex, 2Hx, 2Jx, 2Kx, 2Lx, 2Px, 2Qx, 2Tx, 2Ux, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Lx, 3Mx, 3Vx, 3Xx, 47x, 48x, 49x, 4Ax, 4Gx, 4Hx, 4Jx, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Nx, 5Vx, 5Wx, 67x, 68x, 6Bx, 6Cx, 6Fx, 6Gx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 7Nx, 7Qx, 7Sx, 7Ux, 7Wx, 7Xx, 8Bx, 8Ex, 8Hx, 8Kx, 8Nx, 8Rx, 8Tx, 8Zx, 94x, 97x, 99x, 9Cx, 9Fx, 9Hx, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AXx, AYx, AZx, B2x, B3x, B4x, BPx, BRx, BVx, C7x, C8x, C9x, CUx, CVx, CWx, CXx, CYx, CZx, D2x, D3x, DEx, DJx, DYx, DZx, ECx, EDx, EEx, ELx, EMx, ENx, EPx, EQx, ERx, ESx, ETx, EUx, EVx, EWx, EXx, EYx, EZx, F2x, F3x, F4x, FDx, FEx, FQx, FSx, FTx, FUx, FVx, FWx, FXx, FYx, FZx, G6x, G8x, G9x, GBx, GCx, GDx, GEx, GFx, GGx, GHx, GJx, GKx, GLx, GMx, GNx, GPx, GQx, GTx, GUx, GVx, GWx, HLx, HRx, HVx, HWx, J2x, J9x, JQx, K4x, K Dx, KGx, KJx, KKx, KLx, KRx, KUx, KVx, KWx, KYx, KZx, LVx, LWx, M2x, M3x, M4x, M7x, MAx, MCx, MDx, MEx, N2x, NTx, NFx, NGx, NMx, NVx, QEx • 0579-CTO, 6Ax 	41W0779 41W0771 41W0787 75Y5035 75Y5045	**
12	SATA hard disk drive, 320 GB, 5,400 rpm, 7 mmH <ul style="list-style-type: none"> • 0199-CTO, 23x, 26x, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Zx, 34x, 36x, 3Ax, 3Bx, 3Dx, 3Ex, 3Fx, 3Gx, 3Xx, 42x, 4Ax, 4Dx, 4Ex, 4Kx, 4Nx, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Wx, 5Yx, RYx, 5Px, 5Qx, 5Rx • 0301-CTO, 22x, 2Dx, 2Fx, 2Gx, 2Kx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 36x, 37x, 3Ax, 3Bx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 47x, 48x, 4Bx, 4Hx, 4Jx, 4Kx, 4Lx • 0302-CTO, 23x, 26x, 2Ax, 2Qx, 2Sx, 2Vx, 2Xx, 33x, 34x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Ex, 3Fx, 3Gx, 3Jx, 3Qx, 3Rx, 3Vx, 43x, AWx, AYx, 49x, 4Px, 4Qx, 4Sx, 4Tx • 0319-CTO • 0578-CTO, 22x, 2Cx, 2Ex, 2Hx, 2Jx, 2Kx, 2Lx, 2Px, 2Qx, 2Tx, 2Ux, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Lx, 3Mx, 3Vx, 3Xx, 47x, 48x, 49x, 4Ax, 4Gx, 4Hx, 4Jx, 53x, 54x, 55x, 56x, 57x • 0579-CTO, 63x, 62x, 5Zx, 5Yx, 5Xx, 5Wx, 5Qx, 5Px, 5Nx, 5Mx, 5Lx, 5Kx, 5Jx, 5Hx, 5Ex, 5Dx, 5Cx, 5Bx, 5Ax, 59x, 58x, 57x, 56x, 53x 	75Y5135	**

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
12	SATA hard disk drive, 320 GB, 7,200 rpm <ul style="list-style-type: none"> • 0199-CTO, 22x, 28x, 2Ax, 2Cx, 2Gx, 2Hx, 39x, 4Gx, 4Hx, 4Jx, RXx, 5Ux, 5Vx, 6Cx, 6Dx, 6Ex, 6Hx, 6Px, 6Qx • 0301-CTO, 23x, 27x, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Yx, 5Dx, 5Kx, 5Px, 5Rx, 5Sx, 8Dx, 8Fx, 8Hx, 8Kx, 8Nx, 8Px, 9Cx, B7x, D9x, DAx, DCx, DDx, DEx, DSx, DTx, DUx, DVx, DWx, EGx, ELx, F2x, GTx, GYx, KDx • 0302-CTO, 22x, 27x, 2Cx, 2Ex, 2Kx, 2Lx, 2Mx, 2Zx, 3Hx, 3Kx, 3Lx, 42x, 44x, 45x, 4Mx, 54x, 55x • 0319-CTO, 49x, 48x, 47x, 3Xx, 3Wx, 3Rx, 3Qx • 0578-CTO, 23x, 2Bx, 43x, 44x, 45x, 46x, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Kx, 4Lx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 5Mx, 5Px, 5Qx, 5Xx, 5Yx, 65x, 66x, 7Gx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Tx, 86x, 88x, 8Fx, 8Px • 0579-CTO, 49x, 48x, 47x, 3Xx, 3Wx, 3Rx, 3Qx 	60Y4809 60Y4819 75Y5123 75Y5187	**
12	SATA hard disk drive, 320 GB, 7,200 rpm, 7 mmH <ul style="list-style-type: none"> • 0199-CTO, 22x, 28x, 2Ax, 2Cx, 2Gx, 2Hx, 39x, 4Gx, 4Hx, 4Jx, RXx, 5Ux, 5Vx, 6Cx, 6Dx, 6Ex, 6Hx, 6Px, 6Qx • 0301-CTO, 23x, 27x, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Yx, 5Dx, 5Kx, 5Px, 5Rx, 5Sx, 8Dx, 8Fx, 8Hx, 8Kx, 8Nx, 8Px, 9Cx, B7x, D9x, DAx, DCx, DDx, DEx, DSx, DTx, DUx, DVx, DWx, EGx, ELx, F2x, GTx, GYx, KDx • 0302-CTO, 22x, 27x, 2Cx, 2Ex, 2Kx, 2Lx, 2Mx, 2Zx, 3Hx, 3Kx, 3Lx, 42x, 44x, 45x, 4Mx, 54x, 55x • 0319-CTO, 49x, 48x, 47x, 3Xx, 3Wx, 3Rx, 3Qx • 0578-CTO, 23x, 2Bx, 43x, 44x, 45x, 46x, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Kx, 4Lx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 5Mx, 5Px, 5Qx, 5Xx, 5Yx, 65x, 66x, 7Gx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Tx, 86x, 88x, 8Fx, 8Px • 0579-CTO, 28x, 29x, 2Dx, 2Ex, 2Mx, 2Nx, 2Px, 2Qx, 2Vx, 2Wx, 33x, 34x, 35x, 36x, 37x, 39x, 3Ax, 3Bx, 3Cx, 3Ex, 3Hx, 3Jx, 3Kx, 3Lx, 3Nx, 3Rx, 3Sx, 4Cx, 4Dx, 4Ex, 4Fx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx 	75Y5139 75Y5149	**
12	SATA hard disk drive, 500 GB, 5,400 rpm <ul style="list-style-type: none"> • 0199-CTO, 3Wx 43x 44x 45x 4Fx 4Lx 4Mx 52x 53x 54x 55x 56x 5Mx 5Nx 5Xx 5Zx 5Tx 62x 63x 6Jx A2x A3x • 0301-CTO, BKx, BNx, BPx, BQx, C9x, CAx, CBx, CCx, CDx, CEx, CSx, CUx, CVx, CWx, CXx, CYx, E2x, E7x, E8x, E9x, EBx, EHx, F4x, F5x, F8x, F9x, FAX, FBx, FCx, FDx, FEx, FFx, FGx, GBx, GCx, GDx, GEx • 0302-CTO, 3Mx, 3Nx, 3Px, 3Sx, 3Tx, 3Wx, 46x, 47x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Lx, 4Nx, 4Rx, 52x, 53x • 0319-CTO, 43x, 42x, 3Zx, 3Yx, 3Vx, 3Ux, 3Tx, 3Sx, 3Px • 0578-CTO, 26x, 9Kx, DHx, FKx, FLx, FMx, FNx, FPx, G2x, G3x, G4x, G5x, GRx, GSx, GXx, GYx, GZx, HMx, HNx, HPx, HQx, HXx, HZx, J3x, J4x, JAx, JBx, JCx, JEx, JFx, JGx, JHx, JJx, JKx, JLx, JMx, JNx, JPx • 0579-CTO, 66x, 65x, 64x, 5Ux, 5Tx, 5Sx, 55x, 54x 	41W0781 41W0773 41W0789 75Y5037 75Y5047	**
12	SATA hard disk drive, 500 GB, 7,200 rpm <ul style="list-style-type: none"> • 0199-CTO, 2Dx, 2Ex, 2Fx, 37x, 4Px, 4Qx, 5Dx, 5Kx, 64x, 65x, 66x, 67x, 6Bx, 6Kx, 6Lx, 6Mx, 6Nx, AAx, ABx, ADx • 0301-CTO, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 46x, 4Gx, 4Xx, 53x, 54x, 5Cx, 5Ex, 5Fx, 5Lx, 5Mx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Xx, 89x • 0302-CTO, 2Gx, 2Hx, 2Jx, 2Tx, 35x, AXx, AZx, 48x, 4Gx, 4Hx, 4Jx, 4Kx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx • 0319-CTO • 0578-CTO, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 4Mx, 4Nx, 4Px, 4Qx, 4Yx, 4Zx, 52x, 5Rx, 5Sx, 5Tx, 5Zx, 62x, 63x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 8Ax, 8Cx, 8Jx, 8Lx, 8Sx, 8Ux, 8Yx, 92x, 98x, 9Ax, 9Gx, 9Jx • 0579-CTO 	60Y4811 60Y4821 75Y5125	**

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
13	Integrated Mobile Broadband (Gobi 2000 3G with GPS) <ul style="list-style-type: none"> • 0301-CTO, 22x, 27x, 2Ax, 2Bx, 2Kx, 3Zx, 44x, 5Px, 6Nx, 6Rx, 6Tx, 6Vx, 6Zx, 74x, 76x, 78x, 7Cx, 7Fx, 7Xx, 9Ax, 9Lx, 9Px, A3x, A6x, A8x, AAx, AEx, AHx, AKx, AMx, ARx, AUx, B5x, DDx, DMx, BHx, BNx • 0319-CTO • 0578-CTO, 22x, 2Ax, 2Bx, 3Rx, 3Tx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Vx, 4Yx, 72x, 75x, 7Ax, 7Dx, 7Fx, 7Gx, 7Hx, 7Lx, 84x, B5x, B6x, B7x, 9Lx, 9Qx, CBx, CDx, CGx, CHx, CJx, CKx, CLx, CXx, D2x, D7x, DAx • 0579-CTO 	60Y3263	**
13	Integrated Mobile Broadband for Malaysia (Gobi 2000 3G with GPS) <ul style="list-style-type: none"> • 0301-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	60Y3259	**
13	Integrated China Mobile Mobile Broadband (Leadcore LC5370D) <ul style="list-style-type: none"> • 0301-CTO, 9Bx • 0319-CTO • 0578-CTO, C4x • 0579-CTO 	60Y3225	**
13	Integrated China Telecom Mobile Broadband (Huawei EM660) <ul style="list-style-type: none"> • 0301-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	60Y3227	**
14	Thermal module with fan (for Intel® integrated graphics) <ul style="list-style-type: none"> • 0301-CTO, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx • 0319-CTO, 22x, 23x, 24x, 25x, 26x, 27x, 28x, 2Ax, 2Bx, 2Cx, 2Kx, 2Lx, 2Mx, 2Qx, 2Ux, 2Vx, 2Zx, 32x, 33x, 3Bx, 3Fx, 3Gx, 3Hx • 0578-CTO, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 3Ax, 3Bx, 3Ex, 3Fx • 0579-CTO, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Zx, 32x, 33x, 34x, 3Bx, 3Ex, 3Fx, 3Gx, 3Kx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Vx, 3Wx, 3Xx, 3Yx, 42x, 43x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx 	75Y4481	No
14	Thermal module with fan (for Intel discrete graphics) <ul style="list-style-type: none"> • 0301-CTO, 22x, 2Kx, 2Vx, 2Wx, 2Xx, 2Yx, 3Lx, 3Mx, 3Nx, 3Px, 3Sx, 3Tx, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Gx, 4Hx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Xx, 4Yx, 5Ax, 5Bx • 0319-CTO, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Nx, 2Px, 2Rx, 2Sx, 2Tx, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Cx, 3Dx, 3Ex • 0578-CTO, 22x, 36x, 37x, 38x, 39x, 3Cx, 3Dx, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Hx, 4Jx, 4Lx, 4Mx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 6Px, 6Qx • 0579-CTO, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Zx, 32x, 33x, 34x, 3Bx, 3Ex, 3Fx, 3Gx, 3Kx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Vx, 3Wx, 3Xx, 3Yx, 42x, 43x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx 	75Y5994	No
14	Thermal module with fan (for AMD® discrete graphics) <ul style="list-style-type: none"> • 0199-CTO, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Lx, 4Mx, 4Px, 4Qx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, RXx, RYx, RZx, 5Px, 5Qx 	75Y6001	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
14	Thermal module with fan (for AMD integrated graphics) <ul style="list-style-type: none"> • 0199-CTO, 22x, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x • 0302-all 	75Y4756	No
15	Backup battery	92P1161	No
16	ThinkPad 1x1 11b/g/n Wireless LAN Mini-PCI Express Adapter II <ul style="list-style-type: none"> • 0319-all • 0579-all 	60Y3247 60Y3249	**
16	ThinkPad 1x2 11b/g/n Wireless LAN Mini-PCI Express Adapter II <ul style="list-style-type: none"> • 0199-CTO, 22x, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Wx, 5Xx, 5Yx, 5Zx, 6Rx, 6Yx, 6Zx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Ox, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Gx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Ox, 7Px, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 89x, 8Ax, 8Bx, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Ox, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, 9Kx, 9Lx, 9Mx, 9Nx, 9Ox, 9Px, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, 02x, 03x, 04x, 05x, 06x, 07x, 08x, 09x, 0Ax, 0Bx, 0Cx, 0Dx, 0Ex, 0Fx, 0Gx, 0Hx, 0Jx, 0Kx, 0Lx, 0Mx, 0Nx, 0Ox, 0Px, 0Qx, 0Rx, 0Sx, 0Tx, 0Ux, 0Vx, 0Wx, 0Xx, 0Yx, 0Zx, 12x, 13x, 14x, 15x, 16x, 17x, 18x, 19x, 1Ax, 1Bx, 1Cx, 1Dx, 1Ex, 1Fx, 1Gx, 1Hx, 1Jx, 1Kx, 1Lx, 1Mx, 1Nx, 1Ox, 1Px, 1Qx, 1Rx, 1Sx, 1Tx, 1Ux, 1Vx, 1Wx, 1Xx, 1Yx, 1Zx, 22x, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x • 0301-CTO, 25x, 2Lx, 2Nx, 2Qx, 2Sx, 2Ux, 2Wx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Ox, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Ox, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Ox, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Gx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Ox, 7Px, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 89x, 8Ax, 8Bx, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Ox, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, 9Kx, 9Lx, 9Mx, 9Nx, 9Ox, 9Px, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, 02x, 03x, 04x, 05x, 06x, 07x, 08x, 09x, 0Ax, 0Bx, 0Cx, 0Dx, 0Ex, 0Fx, 0Gx, 0Hx, 0Jx, 0Kx, 0Lx, 0Mx, 0Nx, 0Ox, 0Px, 0Qx, 0Rx, 0Sx, 0Tx, 0Ux, 0Vx, 0Wx, 0Xx, 0Yx, 0Zx, 12x, 13x, 14x, 15x, 16x, 17x, 18x, 19x, 1Ax, 1Bx, 1Cx, 1Dx, 1Ex, 1Fx, 1Gx, 1Hx, 1Jx, 1Kx, 1Lx, 1Mx, 1Nx, 1Ox, 1Px, 1Qx, 1Rx, 1Sx, 1Tx, 1Ux, 1Vx, 1Wx, 1Xx, 1Yx, 1Zx, 22x, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x • 0319-CTO • 0578-CTO, 25x, 2Fx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Hx, 3Kx, 3Mx, 43x, 44x, 46x, 4Hx, 4Jx • 0579-CTO 	43Y6553 60Y3177	**
16	ThinkPad 2x2 11a/b/g/n Wireless LAN Mini-PCI Express Adapter II <ul style="list-style-type: none"> • 0199-CTO • 0301-CTO, HMx • 0302-CTO • 0319-CTO • 0578-CTO, JXx, JYx, JZx, MGx, MHx, MJx, N3x, NPx • 0579-CTO 	60Y3251	**
16	Intel WiFi Link 1000 <ul style="list-style-type: none"> • 0301-CTO, 24x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Hx, 2Jx, 2Mx, 2Px, 2Rx, 2Tx, 2Vx, 2Xx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx • 0319-CTO • 0578-CTO, 24x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Gx, 3Gx, 3Jx, 3Lx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 45x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Kx • 0579-CTO 	60Y3203	**

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
16	Intel Centrino® Advanced-N 1000 <ul style="list-style-type: none"> • 0301-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	60Y3241	**
16	Intel Centrino Advanced-N 6200 <ul style="list-style-type: none"> • 0301-CTO, 24x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Hx, 2Jx, 2Mx, 2Px, 2Rx, 2Tx, 2Vx, 2Xx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx • 0319-CTO • 0578-CTO, 23x, 2Hx, 2Jx, 4Mx, 7Fx, 9Mx, C8x, C9x, CGx, EAx, EBx, EJx, EKx, FEx, H6x, H7x, HCx, HDx, HEX, HFX, HGx, HHx, K7x, K8x, K9x, KMx, LHx, LJx, LKx, LLx, LTx, PGx, PHx, PJx, PRx, Q3x, Q4x • 0579-CTO 	60Y3231	**
16	Intel Centrino Advanced-N 6200, Russian SKU <ul style="list-style-type: none"> • 0301-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	60Y3209	**
16	Intel Centrino Advanced-N x WiMAX 6250, MoW SKU <ul style="list-style-type: none"> • 0301-CTO, 22x, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 8Hx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx • 0319-CTO • 0578-CTO, 22x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, JNx, JPx, JSx • 0579-CTO 	60Y3195	**
16	Intel Centrino Advanced-N x WiMAX 5150, Russian SKU <ul style="list-style-type: none"> • 0301-CTO, H7x, H8x, H9x, HPx, HVx, HWx • 0319-CTO • 0578-CTO • 0579-CTO 	43Y6541	No
17	Microprocessor assembly, Intel Celeron® P4500 Arrandale (1.86 GHz) C2 <ul style="list-style-type: none"> • 0301-CTO, 28x, 2Hx, 3Ex, 3Fx, 3Ux, 3Vx, 4Dx, 4Fx, 5Nx, 93x, 95x, FHx, FJx, FKx, FLx, FMx, FNx, FPx • 0319-CTO • 0578-CTO, 28x, 2Fx, 2Xx, 2Yx, 3Ex, 3Fx, 3Nx, 3Px, 3Zx, 55x, 56x, 57x, 64x, 7Vx, 7Yx, 7Zx, BSx • 0579-CTO 	63Y2177	No
17	Microprocessor assembly, Intel Celeron P4600 Arrandale (2.0 GHz) C2 <ul style="list-style-type: none"> • 0301-CTO, GSx, KKx • 0319-CTO • 0578-CTO • 0579-CTO 	04W0341	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
17	Microprocessor assembly, Intel Core™ i3-330M Processor (2.13 GHz), C2 <ul style="list-style-type: none"> • 0301-CTO, 25x, 26x, 27x, 29x, 2Ax, 2Bx, 2Cx, 2Ex, 2Jx, 2Kx, 2Mx, 2Nx, 3Ax, 3Bx, 3Cx, 3Dx, 3Qx, 3Rx, 3Sx, 3Tx, 48x, 49x, 4Ax, 4Cx, 4Ex, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 57x, 5Ax, 5Gx, 5Hx, 5Px, 5Qx, 5Rx, 5Sx, 63x, 64x, 65x, 66x, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Qx, 7Yx, 84x, 87x, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Qx, 8Rx, 8Sx, 8Xx, 8Yx, 8Zx, 94x, 96x, 97x, 98x, 9Ax, 9Bx, 9Yx, 9Zx, A2x, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, E8x • 0319-CTO • 0578-CTO, 25x, 26x, 27x, 29x, 2Ax, 2Bx, 2Dx, 2Gx, 2Tx, 2Ux, 2Vx, 2Wx, 3Ax, 3Bx, 3Cx, 3Dx, 3Gx, 3Hx, 3Wx, 3Xx, 3Yx, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Kx, 4Lx, 4Sx, 4Ux, 4Wx, 58x, 59x, 5Ax, 5Kx, 5Lx, 5Mx • 0579-CTO 	63Y2174	No
17	Microprocessor assembly, Intel Core i3-350M Processor (2.26 GHz), C2 <ul style="list-style-type: none"> • 0301-CTO, 23x, 24x, 2Dx, 2Fx, 2Px, 2Qx, 47x, 4Bx, 4Jx, 4Yx, 4Zx, 52x, 55x, 56x, 5Bx, 5Cx, 5Jx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Hx, 7Px, 7Zx, 82x, 88x, 8Ex • 0319-CTO • 0578-CTO, 23x, 24x, 2Cx, 2Hx, 3Jx, 3Kx, 3Vx, 43x, 4Jx, 4Tx, 4Vx, 4Xx, 5Nx, 5Px, 5Wx, 5Xx, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Gx, 7Hx, 7Jx, 7Kx, 7Mx, 7Nx, 7Rx, 89x, 8Ax, 8Gx, 8Hx, 8Jx, 8Qx • 0579-CTO 	63Y2175	No
17	Microprocessor assembly, Intel Core i3-350M Processor (2.26 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, 23x, 24x, 2Dx, 2Fx, 2Px, 2Qx, 47x, 4Bx, 4Jx, 4Yx, 4Zx, 52x, 55x, 56x, 5Bx, 5Cx, 5Jx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Hx, 7Px, 7Zx, 82x, 88x, 8Ex • 0319-CTO • 0578-CTO, 23x, 24x, 2Cx, 2Hx, 3Jx, 3Kx, 3Vx, 43x, 4Jx, 4Tx, 4Vx, 4Xx, 5Nx, 5Px, 5Wx, 5Xx, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Gx, 7Hx, 7Jx, 7Kx, 7Mx, 7Nx, 7Rx, 89x, 8Ax, 8Gx, 8Hx, 8Jx, 8Qx • 0579-CTO 	63Y1510	No
17	Microprocessor assembly, Intel Core i3-370M Processor (2.40 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, BFx, BGx, CDx, CEx, DBx, DCx, DDx, DEx, DWx, E6x, ECx, EDx, Efx, EGx, EKx, ELx, F2x, F3x, F4x, F5x, F7x, F8x, FAx, FBx, FCx, FDx, FEx, FFx, FGx, GPx, GQx, GRx, GTx, H7x, HAx, HDx, HEx • 0319-CTO • 0578-CTO, DNx, E2x, E3x, EBx, ELx, EMx, ENx, EPx, EQx, ERx, ESx, ETx, EUx, EVx, EWx, EXx, F5x, F6x, F7x, F8x, F9x, FHx, FJx, H6x, H8x, H9x, HAx, HBx, HMx, HQx, HRx, HSx, HUx, HWx, HYx, J6x, J8x • 0579-CTO, 5Ux, 5Px, 5Nx, 5Ex, 5Bx, 5Ax 	75Y4905	No
17	Microprocessor assembly, Intel Core i3-380M Processor (2.53 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx • 0319-CTO, 49x, 48x, 46x, 44x, 3Zx, 3Yx, 3Xx, 3Wx, 3Ux, 3Tx, 3Sx, 3Rx, 3Qx • 0578-CTO, K4x, K5x, K6x, JUx, JVx, JWx, L2x, L3x, L4x, L5x, L6x, L7x, LEx, Lfx, LGx, LMx, LSx, Lx, MDx, N2x, N3x, N4x, P6x, P7x, P8x, P9x, PCx, Q2x, QEx, QGx, QLx • 0579-CTO, 6Ax, 5Tx, 53x 	04W0336	No
17	Microprocessor assembly, Intel Core i5-390M Processor (2.66 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, J8x, J9x, JAx, JBx, JEx, JFx, JHx, Jx, JKx, JQx, JRx, JSx, JTx, K2x, K3x, Kdx, KEx, KMx, KPx • 0319-CTO, 35x, 36x, 3Dx, 3Ex, 3Hx • 0578-CTO, N5x, N6x, N8x, NAx, NBx, NCx, NEx, Nfx, NGx, NHx, P3x, P4x, P5x, Pfx, PKx, PLx, PPx, PSx, PUX, QAx, QBx, QFx, QHx, QJx, QKx • 0579-CTO, 5Qx, 5Dx, 5Cx 	04W0478	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
17	Microprocessor assembly, Intel Core i5-430M Processor (2.26 GHz), C2 <ul style="list-style-type: none"> • 0301-CTO, K2x, K3x, KDx, KEx, KMx, KPx, JHx, JJx, JKx, JQx, JRx, JSx, JTx • 0319-CTO, 35x, 36x, 3Dx, 3Ex, 3Hx • 0578-CTO, N5x, N6x, N8x, NAx, NBx, NCx, NEx, NFx, NGx, NHx, P3x, P4x, P5x, PFx, PKx, PLx, PPx, PSx, PUx, QAx, QBx, QFx, QHx, QJx, QKx • 0579-CTO 	63Y2176	No
17	Microprocessor assembly, Intel Core i5-450M Processor (2.40 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, BKx, BMx, BNx, BPx, BQx, CSx, CUx, CVx, CWx, Cx, CYx, D5x, D6x, D7x, D8x, D9x, DAx, DGx, DHx, DJx, DKx, DLx, DMx, DXx, DYx, E5x, EAx, EBx, EHx, EJx, F9x • 0319-CTO • 0578-CTO, DJx, DQx, DRx, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EYx, EZx, FPx, G2x, G3x, G4x, G5x, GFx, GGx, GHx, GJx, GKx, GLx, GMx, GTx, GUx, GVx, GWx, GXx, GYx, H3x, H4x, H5x, H7x, HCx, HDx, HEX • 0579-CTO 	75Y4906	No
17	Microprocessor assembly, Intel Core i5-460M Processor (2.53 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, GCx, GDx, GEx, GFx, GGx, GHx, GUx, HBx, HCx, Hfx, EPx, EQx, HMx • 0319-CTO • 0578-CTO, K2x, K3x, K7x, K8x, K9x, KLx, KNx, KPx, KQx, JTx, JYx, JZx, KYx, KZx, L8x, L9x, LAx, LBx, LCx, LDx • 0579-CTO 	04W0337	No
17	Microprocessor assembly, Intel Core i5-480M Processor (2.66 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, GCx, GDx, GEx, GFx, GGx, GHx, GUx, HBx, HCx, Hfx, EPx, EQx, HMx • 0319-CTO • 0578-CTO, K2x, K3x, K7x, K8x, K9x, KLx, KNx, KPx, KQx, JTx, JYx, JZx, KYx, KZx, L8x, L9x, LAx, LBx, LCx, LDx, LHx, LJx, LKx, LLx, LTx, LYx, LZx, M2x, MEx, MGx, PGx • 0579-CTO 	04W0477	No
17	Microprocessor assembly, Intel Core i5-520M Processor (2.40 GHz), C2 <ul style="list-style-type: none"> • 0301-CTO, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 4Wx, 4Xx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 9Tx, BRx, BSx, BTx, BUx • 0319-CTO • 0578-CTO, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 42x, 4Gx, 4Mx, 4Yx, 4Zx, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, CFx, CGx, CLx, CMx, EJx, EKx, J4x, KMx • 0579-CTO, 5Zx, 5Yx 	60Y5731	No
17	Microprocessor assembly, Intel Core i5-520M Processor (2.40 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 4Wx, 4Xx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 9Tx, BRx, BSx, BTx • 0319-CTO • 0578-CTO, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 4Gx, 4Mx, 4Yx, 4Zx, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, CFx, CGx • 0579-CTO 	63Y1513	No
17	Microprocessor assembly, Intel Core i5-540M Processor (2.53 GHz), C2 <ul style="list-style-type: none"> • 0301-CTO, AVx • 0319-CTO • 0578-CTO, J5x • 0579-CTO, 66x, 65x, 64x, 5Xx, 5Wx 	60Y5732	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
17	Microprocessor assembly, Intel Core i5-540M Processor (2.53 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, AVx • 0319-CTO, 42x, 43x • 0578-CTO, J5x • 0579-CTO 	63Y1512	No
17	Microprocessor assembly, Intel Core i5-560M Processor (2.66 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, HGx, HHx, HJx, HKx, K8x, K9x, KAx, KBx • 0319-CTO • 0578-CTO, LUx, MFx, PTx • 0579-CTO, 63x, 62x 	04W0338	No
17	Microprocessor assembly, Intel Core i7-620M Processor (2.66 GHz), C2 <ul style="list-style-type: none"> • 0301-CTO • 0319-CTO • 0578-CTO, J7x • 0579-CTO 	60Y5733	No
17	Microprocessor assembly, Intel Core i7-620M Processor (2.66 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO • 0319-CTO • 0578-CTO, J7x • 0579-CTO 	63Y1511	No
17	Microprocessor assembly, Intel Core i7-640M Processor (2.80 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	04W0307	No
17	Microprocessor assembly, Intel Pentium® P4500 Processor (1.86 GHz), C2 <ul style="list-style-type: none"> • 0301-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	63Y2177	No
17	Microprocessor assembly, Intel Pentium P4600 Processor (2.0 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO • 0319-CTO • 0578-CTO • 0579-CTO 	04W0341	No
17	Microprocessor assembly, Intel Pentium P6000 Processor (1.86 GHz), C2 <ul style="list-style-type: none"> • 0301-CTO, CBx, CCx, CFx, CGx, CZx, DNx, DPx, DQx, DVx, DZx, E3x, E4x, E7x • 0319-CTO • 0578-CTO, DMx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, ECx, EDx, EEx, F2x, FMx, FNx, FQx, FSx, G6x, G7x, GZx, H2x, HJx, HKx • 0579-CTO 	75Y4910	No
17	Microprocessor assembly, Intel Pentium P6100 Processor (2.0 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, GBx, GJx, GKx, GLx, GMx, GNx, H2x, H3x, H4x, H5x, H6x, H8x, H9x, ENx, ERx • 0319-CTO, 22x, 23x, 27x, 28x, 29x, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Xx, 3Bx • 0578-CTO, KAx, KBx, KCx, KDx, KEx, KRx, KSx, LVx, M5x, M6x, M7x, M8x • 0579-CTO, 23x, 24x, 25x, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 32x, 33x, 34x, 35x, 36x, 39x, 3Ax, 3Bx, 3Hx, 3Jx, 3Kx, 3Tx, 3Ux, 3Vx, 3Wx, 4Nx, 4Px, 4Qx, 4Rx 	04W0339	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
17	Microprocessor assembly, Intel Pentium P6200 Processor (2.13 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, G2x, HTx, HUX, HVx, HWx, HXx • 0319-CTO • 0578-CTO, KFx, KGx, KHx, LNx, LPx, LQx, LRx, M9x, MAx, MBx, NTx, NUx, QDx • 0579-CTO, 5Sx, 5Mx, 5Lx, 5Kx, 5Jx, 5Hx, 59x, 58x, 57x, 56x, 55x, 54x 	04W0340	No
17	Microprocessor assembly, Intel Pentium P6300 Processor (2.26 GHz), K0 <ul style="list-style-type: none"> • 0301-CTO, KLx, JLx, JMx, JNx, JPx • 0319-CTO • 0578-CTO, NVx, NWx • 0579-CTO 	04W0479	No
17	Microprocessor assembly, AMD Athlon II X2 Dual-Core P320 (2.1 GHz) <ul style="list-style-type: none"> • 0199-CTO, 24x, 25x, 27x, 28x, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Yx, 33x, 34x, 35x, 36x, 38x, 3Ax, 3Cx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Wx, 42x • 0302-CTO, 24x, 25x, 26x, 28x, 29x, 2Bx, 2Cx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Ux, 2Vx, 2Wx, 2Yx, 33x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Fx, 3Mx, 3Px, 3Qx, 3Ux 	75Y4141	No
17	Microprocessor assembly, AMD Athlon II X2 Dual-Core P340 (2.2 GHz) <ul style="list-style-type: none"> • 0199-CTO, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Gx, 4Hx, 4Kx, 52x, 53x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Lx, 5Qx, 5Rx, 5Sx • 0302-CTO, 44x, 46x, 49x, 4Dx, 4Ex, 4Fx 	04W0335	No
17	Microprocessor assembly, AMD Athlon II X2 Dual-Core P360 (2.3 GHz) <ul style="list-style-type: none"> • 0199-CTO, 5Ux, 64x, 65x, 66x, 67x, 69x, 6Dx, 6Qx, A5x, AAx, ABx • 0302-CTO, 4Jx, 4Kx, 4Mx, 4Qx, 4Rx, 4Sx, 4Tx, 53x, 55x 	04W1440	No
17	Microprocessor assembly, AMD Turion II X2 Dual-Core P520 (2.3 GHz) <ul style="list-style-type: none"> • 0199-CTO, 5Ux, 64x, 65x, 66x, 67x, 69x, 6Dx, A5x, AAx, ABx, 6Qx • 0302-CTO, 4Jx, 4Kx, 4Mx, 4Qx, 4Rx, 4Sx, 4Tx, 53x, 55x 	75Y4140	No
17	Microprocessor assembly, AMD Turion II X2 Dual-Core P540 (2.4 GHz) <ul style="list-style-type: none"> • 0199-CTO, 4Bx, 4Cx, 4Dx, 4Jx, 54x, 56x, 5Mx, 5Wx, 5Xx, 5Yx, 5Zx, RYx • 0302-CTO, 43x, 45x, 47x, AWx, AXx, AYx, AZx, 4Ax, 4Bx, 4Cx 	04W0334	No
17	Microprocessor assembly, AMD Turion II X2 Dual-Core P560 (2.5 GHz) <ul style="list-style-type: none"> • 0199-CTO, 5Vx, 63x, 6Ex, A2x, A4x, 6Px • 0302-CTO, 4Gx, 4Hx, 4Nx, 4Px, 54x 	04W1439	No
17	Microprocessor assembly, AMD Phenom II X2 Dual-Core P650 (2.6 GHz) <ul style="list-style-type: none"> • 0199-CTO, 6Cx, ACx • 0302-CTO 	04W1438	No
17	Microprocessor assembly, AMD Phenom II X3 Triple-Core P820 (1.8 GHz) <ul style="list-style-type: none"> • 0199-CTO, 22x, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Wx, 2Xx, 37x, 39x, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 4Px, 4Qx • 0302-CTO, 22x, 27x, 2Fx, 2Gx, 2Hx, 2Jx, 2Mx, 2Tx, 2Zx, 35x, 3Hx, 3Tx 	75Y4139	No
17	Microprocessor assembly, AMD Phenom II X3 Triple-Core P840 (1.9 GHz) <ul style="list-style-type: none"> • 0199-CTO, 4Ex, 4Fx, 4Lx, 4Mx, 55x, 5Dx, 5Kx, 5Nx, RXx, 5Px, 5Tx, 6Kx, 6Lx, 6Mx, 6Nx • 0302-CTO, 42x, 48x, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx 	04W0333	No
17	Microprocessor assembly, AMD Phenom II X3 Triple-Core P860 (2.0 GHz) <ul style="list-style-type: none"> • 0199-CTO, 62x, 68x, 6Ax, 6Bx, 6Hx, 6Jx, A3x, A7x, ADx, AEx • 0302-CTO, 4Lx, 52x 	04W1437	No
17	Microprocessor assembly, AMD Phenom II x4 Quad-Core P960 (1.8GHz) <ul style="list-style-type: none"> • 0199-CTO • 0302-CTO 	04W1658	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
18	System board assembly, Intel HM55 Integrated 14W without wireless WAN <ul style="list-style-type: none"> • 0578-CTO, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 3Ax, 3Bx, 3Ex, 3Fx, 3Gx, 3Hx • 0579-CTO, 22x, 23x, 24x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Cx, 3Dx, 3Hx, 3Jx, 3Lx, 3Mx, 3Tx, 3Ux, 3Zx, 44x, 45x, 46x 	63Y1596	No
18	System board assembly, Intel HM55 Integrated 14W with wireless WAN <ul style="list-style-type: none"> • 0578-CTO, 2Ax, 2Bx, 4Kx, 4Nx, 4Px, 4Qx, 4Vx, 4Yx, 72x, 75x, 7Ax, 7Dx, 84x, B5x, 9Qx, C4x, CHx, CJx, CKx, CLx, CXx, D2x, D7x, DAx, F8x, FGx, FJx, FTx, LGx, LJx, LSx, M3x, P5x, P4x • 0579-CTO 	63Y2132	No
18	System board assembly, Intel HM55 Discrete 14W without wireless WAN <ul style="list-style-type: none"> • 0578-CTO, 36x, 37x, 38x, 39x, 3Cx, 3Dx, 3Qx, 3Sx, 3Ux, 3Vx, 3Wx, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Hx, 4Jx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 6Px, 6Qx, 6Rx, 6Sx, 6Vx, 6Wx, 7Xx, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AWx, AXx, AYx, AZx, B2x, BVx, 9Mx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, AQx, ARx, ASx, ATx, BTx, BUx, BWx, BXx, BYx, BZx, C2x, C3x, CAx, CCx, CEx, CFx, CPx, CQx, CRx, DJx, DLx, DNx, DQx, DRx, DVx, DWx, DXx, DYx, DZx, Efx, EGx, EHx, EJx, EKx, ESx, ETx, EUx, EVx, EWx, EXx, EYx, EZx, F2x, F3x, F4x, FLx, FNx, FPx, G3x, G4x, G6x, G7x, G8x, G9x, GBx, GCx, GDx, GEx, GFx, GGx, GHx, GJx, GKx, GLx, GMx, GNx, GPx, GQx, GRx, GSx, GTx, GUx, GVx, GWx, GXx, GYx, GZx, H2x, HKx, HQx, J3x, J4x, J5x, J7x, JBx, JCx, JEx, JFx, K2x, K3x, K4x, KPx, KQx, KSx, JVx, L2x, L3x, L4x, L5x, L6x, L7x, L8x, L9x, LAx, LBx, LCx, LDx, LMx, LUx, M5x, M6x, M7x, M8x, M9x, MAx, MBx, MCx, MDx, MEx, MFx, NTx, NAx, NBx, NCx, NFx, NGx, NNx, NRx, NVx, P2x, P3x, PAx, PBx, PJx, PPx, PQx, PRx, PSx, PTx, PUx, PVx, PWx, Q3x, Q4x, Q8x, QHx • 0579-CTO, 6Ax, 66x, 65x, 64x, 63x, 62x, 5Zx, 5Yx, 5Xx, 5Wx, 5Ux, 5Tx, 5Sx, 5Qx, 5Px, 5Nx, 5Mx, 5Lx, 5Kx, 5Jx, 5Hx, 5Ex, 5Dx, 5Cx, 5Bx, 5Ax, 59x, 58x, 57x, 56x, 55x, 54x, 53x 	63Y1598	No
18	System board assembly, Intel HM55 Discrete 14W with wireless WAN <ul style="list-style-type: none"> • 0578-CTO, 36x, 37x, 38x, 39x, 3Cx, 3Dx, 3Qx, 3Sx, 3Ux, 3Vx, 3Wx, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Hx, 4Jx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 6Px, 6Qx, 6Rx, 6Sx, 6Vx, 6Wx, 7Xx • 0579-CTO 	63Y2136	No
18	System board assembly, AMD RS880M/SB820M Integrated 14W <ul style="list-style-type: none"> • 0199-CTO, 22x, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Wx, 3Xx, 42x, 43x, 44x, 45x, 46x, 47x, 4Gx, 4Hx, 4Jx, 4Kx, 4Nx, 5Wx, 5Xx, 5Yx, 5Zx, 5Rx, 5Sx, 66x, 67x, 69x, 6Dx, 6Ex, 6Mx, 6Nx, 6Px, 6Qx 	75Y4040	No
18	System board assembly, AMD RS880M/SB820M Discrete HD5470M 512M 14W <ul style="list-style-type: none"> • 0199-CTO, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Lx, 4Mx, 4Px, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, Rxx, RYx, RZx, 62x, 63x, 6Hx 	75Y4182	No
18	System board assembly, AMD RS880M/SB820M Discrete HD5470M 1G 14W <ul style="list-style-type: none"> • 0199-CTO, 4Ex, 4Fx, 4Qx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Px, 5Qx, 5Tx, 5Ux, 5Vx, 64x, 65x, 68x, 6Ax, 6Bx, 6Cx, 6Jx, 6Kx, 6Lx 	75Y4184	No
18	System board assembly, AMD RS880M/SB820M Discrete HD6370M 512M 14W <ul style="list-style-type: none"> • 0199-CTO, A2x, A3x 	04W1524	No
18	System board assembly, AMD RS880M/SB820M Discrete HD6370M 1G 14W <ul style="list-style-type: none"> • 0199-CTO, A4x, A5x, A7x, AAx, ABx, ACx, ADx, AEx 	04W1525	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
18	System board assembly, Intel HM55 Integrated 15W without wireless WAN <ul style="list-style-type: none"> • 0301-CTO, 23x, 24x, 25x, 26x, 28x, 29x, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Qx, 3Rx, 3Ux, 3Vx, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Wx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Fx, 6Gx, 6Kx, 6Lx, 6Mx, 6Px, 6Qx, 6Sx, 6Ux, 6Wx, 6Xx, 6Yx, 72x, 73x, 75x, 77x, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Px, 7Qx, 7Rx, 7Sx, 7Vx, 7Wx, 7Yx, 85x, 86x, 87x, 88x, 8Cx, 8Ex, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 98x, 89x, 8Ax, 8Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Ux, 9Vx, 9Yx, 9Zx, A2x, A4x, A5x, A7x, A9x, ABx, ACx, ADx, AFx, AGx, AJx, ALx, AWx, AXx, AYx, B3x, B4x, B6x, B8x, BFx, BGx, BJx, BRx, BSx, BTx, BUx, BVx, BWx, BXx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CBx, CEx, CFx, CGx, CJx, CKx, CLx, CNx, CPx, CQx, CRx, CZx, D2x, D3x, D4x, DBx, DCx, DEx, Dfx, DGx, DKx, DLx, DNx, DPx, DQx, DRx, DUx, DVx, E2x, E3x, E5x, E6x, E7x, E8x, EAx, ECx, EDx, EEx, EFx, EGx, EHx, EJx, EKx, ELx, F3x, F4x, F7x, FAx, FBx, FCx, FDx, FEx, FFx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, GBx, GLx, GMx, GPx, GQx, GRx, GSx, GTx, H2x, H3x, H9x, HAx, HBx, HCx, HDx, HEx, HFx, HGx, HHx, HJx, HKx, RVx, RWx, RXx, RYx, RZx, ENx, EPx, HLx, HRx, HSx, HWx, G2x, G3x, G4x, G5x, G6x, G7x, G8x, GVx, GWx, GXx, GYx, GZx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, KDx, KEx, KFx, KGx, KJx, KKx, Q2x, JHx, JKx, JNx, JPx, JTx • 0319-CTO, 49x, 48x, 47x, 46x, 45x, 44x, 43x, 42x, 3Zx, 3Yx, 3Xx, 3Wx, 3Vx, 3Ux, 3Tx, 3Sx, 3Rx, 3Qx, 3Px 	63Y1600	No
18	System board assembly, Intel HM55 Integrated 15W with wireless WAN <ul style="list-style-type: none"> • 0301-CTO, 27x, 2Ax, 2Bx, 5Px, 6Nx, 6Rx, 6Tx, 6Vx, 6Zx, 74x, 76x, 78x, 9Ax, 9Bx, A3x, A6x, A8x, AAx, AEx, AHx, AKx, AMx, BHx, CHx, CMx, DDx, EMx • 0319-CTO 	63Y2140	No
18	System board assembly, Intel HM55 Discrete 15W without wireless WAN <ul style="list-style-type: none"> • 0301-CTO, 27x, 2Ax, 2Bx, 5Px, 6Nx, 6Rx, 6Tx, 6Vx, 6Zx, 74x, 76x, 78x, 9Ax, 9Bx, A3x, A6x, A8x, AAx, AEx, AHx, AKx, AMx, BHx, CHx, CMx, DDx, EMx • 0319-CTO, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Nx, 2Px, 2Rx, 2Sx, 2Tx, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Cx, 3Dx, 3Ex 	63Y1602	No
18	System board assembly, Intel HM55 Discrete 15W with wireless WAN <ul style="list-style-type: none"> • 0301-CTO, 22x, 2Kx, 3Zx, 44x, 7Cx, 7Fx, 7Xx, 9Lx, 9Px, ARx, AUx, B5x, BNx, BPx, CVx, DMx, GDx, EQx • 0319-CTO 	63Y2144	No
18	System board assembly, AMD RS880M/SB820M Integrated 15W <ul style="list-style-type: none"> • 0302-all 	75Y4042	No
19	Bluetooth daughter card (BDC-2.1) <ul style="list-style-type: none"> • 0199-CTO, 22x, 25x, 26x, 28x, 2Ax, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Wx, 3Xx, 42x, 43x, 44x, 45x, 4Kx, 4Lx, 4Mx, 4Nx, 52x, 53x • 0301-CTO, 22x, 27x, 2Ax, 2Bx, 2Dx, 2Ex, 2Fx, 2Gx, 2Kx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx • 0302-CTO, 22x, 25x, 26x, 27x, 29x, 2Ax, 2Cx, 2Ex, 2Gx, 2Hx, 2Jx, 2Kx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 42x, 43x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 52x, 53x • 0319-CTO, 49x, 48x, 47x, 45x, 44x, 43x, 3Zx, 3Yx, 3Vx, 3Ux, 3Tx • 0578-CTO, 22x, 2Ax, 2Bx, 2Cx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 	60Y3199 60Y3213	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
	<p>3Dx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Gx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Wx, 7Xx, 83x, 84x, 86x, 89x, 8Ax, 8Bx, 8Cx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Xx, 8Yx, 8Zx, 92x, 96x, 97x, 98x, 99x, 9Ax, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AUx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, B5x, B6x, B7x, BBx, BDx, BFX, BGx, BHx, BMx, BNx, BPx, BQx, BRx, BSx, BVx, 9Lx, 9Mx, 9Nx, 9Px, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, AQx, ARx, ASx, ATx, BTx, BUx, BWx, Bxx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CAx, CBx, CCx, CDx, CEx, CFx, CGx, CHx, CJx, CKx, CLx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, Cxx, CYx, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAx, DBx, DCx, DDx, DEx, DFx, DGx, DHx, DJx, DKx, DLx, DMx, DNx, DQx, DRx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EBx, ECx, EDx, EEx, Efx, EGx, EHx, EJx, EKx, ELx, EMx, ENx, EPx, EQx, ERx, ESx, ETx, EUx, EVx, EWx, EXx, EYx, EZx, F7x, F8x, F9x, FAx, FBx, FCx, FDx, FEx, FFx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, FQx, FSx, FTx, FUx, FVx, FWx, FXx, FYx, FZx, G2x, G3x, G4x, G5x, H3x, H4x, H5x, H6x, H7x, H8x, H9x, HAx, HBx, HCx, HDx, HEx, Hfx, HGx, HHx, HJx, HKx, HLx, HMx, HNx, HPx, HQx, HRx, HSx, Hxx, J2x, J3x, J4x, J5x, J6x, J7x, J8x, J9x, JAx, JBx, JCx, JEx, JFx, JGx, JHx, JJx, JKx, JLx, JMx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KKx, KLx, KMx, KNx, KPx, KQx, KTx, JTx, JUx, JVx, JWx, Jxx, JYx, JZx, KUx, KVx, KWx, Kxx, KYx, KZx, L2x, L3x, L4x, L5x, L6x, L7x, L8x, L9x, LAx, LBx, LCx, LDx, LEx, Lfx, LGx, LHx, LJx, LKx, LLx, LMx, LNx, LPx, LQx, LRx, LSx, LTx, LUx, LVx, LWx, Lxx, LYx, LZx, M2x, M4x, MGx, MHx, MJx, N2x, N3x, N4x, N5x, N6x, NAx, NBx, NCx, NEx, NJx, NLx, NMx, NNx, NPx, NQx, P2x, P3x, P4x, P5x, P6x, P7x, P8x, P9x, PAx, PBx, PCx, PDx, PEx, Pfx, PGx, PHx, PJx, PKx, PLx, PMx, PNx, PPx, PQx, PRx, Q3x, Q4x, Q6x, Q7x, Q8x, Q9x, QAx, QBx, QFx, QHx, QJx, QKx</p> <ul style="list-style-type: none"> • 0579-CTO, 65x, 64x, 5Ux, 5Tx, 5Nx, 5Mx, 5Jx, 5Cx, 5Bx, 58x, 57x, 55x 		
20	<p>Palm rest assembly without fingerprint reader 14W</p> <ul style="list-style-type: none"> • 0199-CTO, 23x, 24x, 25x, 27x, 29x, 2Bx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 33x, 35x, 3Cx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Wx, 3Xx, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Bx, 6Cx, 6Dx, 6Ex, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, A2x, A3x, A4x, A5x, A7x, AAx, ABx, ACx, ADx, 6Px, 6Qx • 0578-CTO, 23x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Fx, 2Gx, 2Hx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 43x, 44x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 4Zx, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Ux, 5Vx, 5Wx, 5Xx, 64x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 7Px, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 89x, 8Ax, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Vx, 8Wx, 8Xx, 8Yx, 93x, 94x, 95x, 96x, 97x, 98x, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AUx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, B5x, B6x, B7x, BBx, BDx, BMx, BNx, BPx, BQx, BRx, BSx, BVx, 9Kx, 9Lx, 9Mx, 9Nx, 9Px, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, ATx, BTx, BUx, C4x, C5x, C6x, C8x, CEx, CLx, CMx, DGx, DHx, DJx, DKx, DLx, DMx, DNx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EBx, ECx, EDx, EEx, Efx, EGx, EHx, EJx, EKx, ELx, EMx, ENx, EPx, EQx, ERx, ESx, ETx, EUx, EVx, EWx, EXx, EYx, EZx, F2x, F3x, F4x, F5x, F6x, FAx, FBx, FCx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FQx, FSx, G6x, G8x, G9x, GBx, GCx, GDx, GFx, GGx, GHx, GJx, GKx, GLx, GNx, GPx, 	60Y5589	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
	<p>GQx, GRx, GSx, GTx, GUx, GVx, GWx, GXx, GYx, GZx, H2x, H6x, H7x, H8x, H9x, HAX, HBx, HCx, HDx, HEX, HFx, HGx, HHx, HJx, HKx, HTx, HUx, HVx, HWx, HYx, HZx, J2x, J3x, J8x, J9x, JAX, JBX, JCx, JEx, JFx, JNx, JPx, JQx, JRx, JSx, K3x, K4x, KAX, KBx, KCx, KDx, KEX, KFx, KGx, KHx, KJx, KKx, KRx, KSx, KTx, JXx, JYx, JZx, L2x, L3x, L4x, L5x, L6x, L7x, L8x, L9x, LAX, LBx, LCx, LDx, M5x, M6x, M7x, M8x, M9x, MAX, MBx, MCx, MDx, MEX, MFX, MGx, MHx, MJx, N2x, N3x, NTx, NUx, N8x, NAX, NBx, NEX, NFX, NGx, NHx, NLx, NMx, NPx, NRx, NSx, NVx, NWx, P2x, P3x, PEX, PSx, PTx, PUX, PVx, PWx, Q2x, QDx, QEX, QGX, QLx</p> <ul style="list-style-type: none"> • 0579-all 		
20	<p>Palm rest assembly with fingerprint reader 14W</p> <ul style="list-style-type: none"> • 0199-CTO, 22x, 26x, 28x, 2Ax, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Yx, 2Zx, 34x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Dx, 4Mx, 4Nx, RXx, 5Px, 6Ax, AEX • 0578-CTO, 22x, 24x, 2Ex, 2Jx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 45x, 4Mx, 4Nx, 4Px, 4Qx, 52x, 5Qx, 5Rx, 5Sx, 5Tx, 5Yx, 5Zx, 62x, 63x, 65x, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Gx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Qx, 7Rx, 7Sx, 7Tx, 8Bx, 8Cx, 8Kx, 8Lx, 8Tx, 8Ux, 8Zx, 92x, 99x, 9Ax, 9Hx, 9Jx, BFx, BGx, BHx, 9Xx, 9Yx, 9Zx, AQx, ARx, ASx, BWx, Bx, BYx, BZx, C2x, C3x, C7x, C9x, CAX, CBx, CCx, CDx, CFx, CGx, CHx, CJx, CKx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, CXx, CYx, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAX, DBx, DCx, DDx, DEX, DFX, DQx, DRx, F7x, F8x, F9x, FDx, FEX, FFx, FPx, FTx, FUX, FVx, FWx, FXx, FYx, FZx, G2x, G3x, G4x, G5x, G7x, GEX, GMx, H3x, H4x, H5x, HLx, HMx, HNX, HPx, HQx, HRx, HSx, HXx, J4x, J5x, J6x, J7x, JGx, JHx, JJx, JKx, JLx, JMX, K2x, K5x, K6x, K7x, K8x, K9x, KLx, KMx, KNx, KPx, KQx, JTx, JUx, JVx, JWx, KUx, KVx, KWx, KXx, KYx, KZx, LEX, LFX, LGx, LHx, LJx, LKx, LLx, LMx, LNX, LPx, LQx, LRx, LSx, LTx, LUX, LVx, LWx, LXx, LYx, LZx, M2x, M3x, M4x, N4x, N5x, N6x, NCx, NJx, NNx, NQx, P4x, P5x, P6x, P7x, P8x, P9x, PAX, PBx, PCx, PDx, PFX, PGx, PHx, PJx, PKx, PLx, PMx, PNx, PPx, PQx, PRx, Q3x, Q4x, Q6x, Q7x, Q8x, Q9x, QAX, QBx, QFx, QHx, QJx, QKx • 0579-CTO 	60Y5591	No
20	<p>Palm rest assembly without fingerprint reader 15W</p> <ul style="list-style-type: none"> • 0301-CTO, 23x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Yx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Gx, 5Hx, 5Jx, 5Nx, 5Qx, 5Rx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 7Lx, 7Mx, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 8Gx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 8Ax, 9Bx, 9Cx, 9Dx, 9Fx, 9Rx, 9Ux, 9Vx, AXx, AYx, AZx, B2x, B3x, B4x, B5x, B9x, BEX, BFX, BGx, BHx, BJx, BKx, BMx, BNx, BPx, BQx, BRx, BSx, BTx, BUx, BVx, BWx, Bx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CAX, CBx, CCx, CDx, CEX, CFx, CGx, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAX, DBx, DFX, DGx, DHx, DJx, DKx, DLx, DMx, DNx, DPx, DQx, DRx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E7x, E8x, E9x, EAX, EBx, ECx, EFX, EGx, EKx, EMx, F2x, F3x, F4x, F5x, F7x, F8x, F9x, FHx, FJx, FKx, FLx, FMx, FNx, FPx, GBx, GJx, GKx, GLx, GMx, GNx, GPx, GQx, GRx, GSx, GTx, GUx, H2x, H3x, H4x, H5x, H6x, H8x, H9x, HGx, HHx, HJx, HKx, RVx, RWx, RXx, RYx, RZx, ENx, EPx, EQx, HLx, HMx, HSx, HTx, HUx, HVx, HWx, HXx, HYx, G2x, GVx, GWx, GXx, GYx, GZx, K2x, K3x, KKx, KLx, KMx, KNx, KPx, Q2x, JLx, JMX, JNx, JPx, JQx, JRx, JSx, JTx • 0302-CTO, 23x, 24x, 28x, 29x, 2Bx, 2Dx, 2Fx, 2Lx, 2Nx, 2Px, 2Qx, 2Rx, 2Wx, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Fx, 3Gx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 42x, 44x, 45x, 46x, 47x, AWx, AXx, AYx, AZx, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 52x, 53x, 54x, 55x • 0319-all 	75Y6111	No

Table 8. Parts list—Overall (continued)

No.	FRU (Overall)	FRU no.	CRU ID
20	Palm rest assembly with fingerprint reader 15W <ul style="list-style-type: none"> • 0301-CTO, 22x, 24x, 2Gx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 4Gx, 4Hx, 4Xx, 5Dx, 5Ex, 5Fx, 5Kx, 5Lx, 5Mx, 5Px, 5Sx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Hx, 7Jx, 7Kx, 7Nx, 7Px, 88x, 8Cx, 8Dx, 8Ex, 8Fx, 8Hx, 89x, 8Bx, 9Ex, 9Gx, 9Hx, 9Jx, 9Kx, 9Lx, 9Mx, 9Nx, 9Px, 9Qx, 9Sx, 9Tx, 9Wx, 9Xx, 9Yx, 9Zx, A2x, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AQx, ARx, ASx, ATx, AUx, AWx, B6x, B7x, B8x, CHx, CJx, CKx, CLx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, CXx, CYx, DCx, DDx, DEx, E5x, E6x, EDx, EEx, EHx, EJx, ELx, FAx, FBx, FCx, FDx, FEx, FFx, FGx, GCx, GDx, GEx, GFx, GGx, GHx, H7x, HAx, HBx, HCx, HDx, HEx, HFx, HNx, HPx, HQx, HRx, G3x, G4x, G5x, G6x, G7x, G8x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, K Dx, KEx, KFx, KGx, KHx, KJx, JHx, JJx, JKx • 0302-CTO, 22x, 25x, 26x, 27x, 2Ax, 2Cx, 2Ex, 2Gx, 2Hx, 2Jx, 2Kx, 2Mx, 2Sx, 2Tx, 2Ux, 2Vx, 2Xx, 2Yx, 2Zx, 33x, 34x, 3Ex, 3Hx, 43x • 0319-CTO 	75Y6113	No
22	Keyboard (see “Keyboard” on page 138.)		
22	Illuminated keyboard (see “Keyboard” on page 138.) <ul style="list-style-type: none"> • 0199-CTO • 0301-CTO, RWx • 0302-CTO • 0319-CTO • 0578-CTO, 26x, GNx, GPx, GQx, GRx, GSx, GTx, GUx, GVx, GWx, GXx, GYx, HZx, JPx • 0579-CTO 		
23	TrackPoint stick caps	91P9642	*
—	AC power adapter (see “AC adapters” on page 140.)		

LCD FRUs

In ThinkPad Edge 14", Edge 15", E40, and E50, there are following types of LCDs.

- 14.0-inch HD LED-backlight LCD (Table 9 “Parts list—14.0-inch HD LCD” on page 125)
- 15.6-inch HD LED-backlight LCD (Table 10 “Parts list—15.6-inch HD LCD” on page 132)

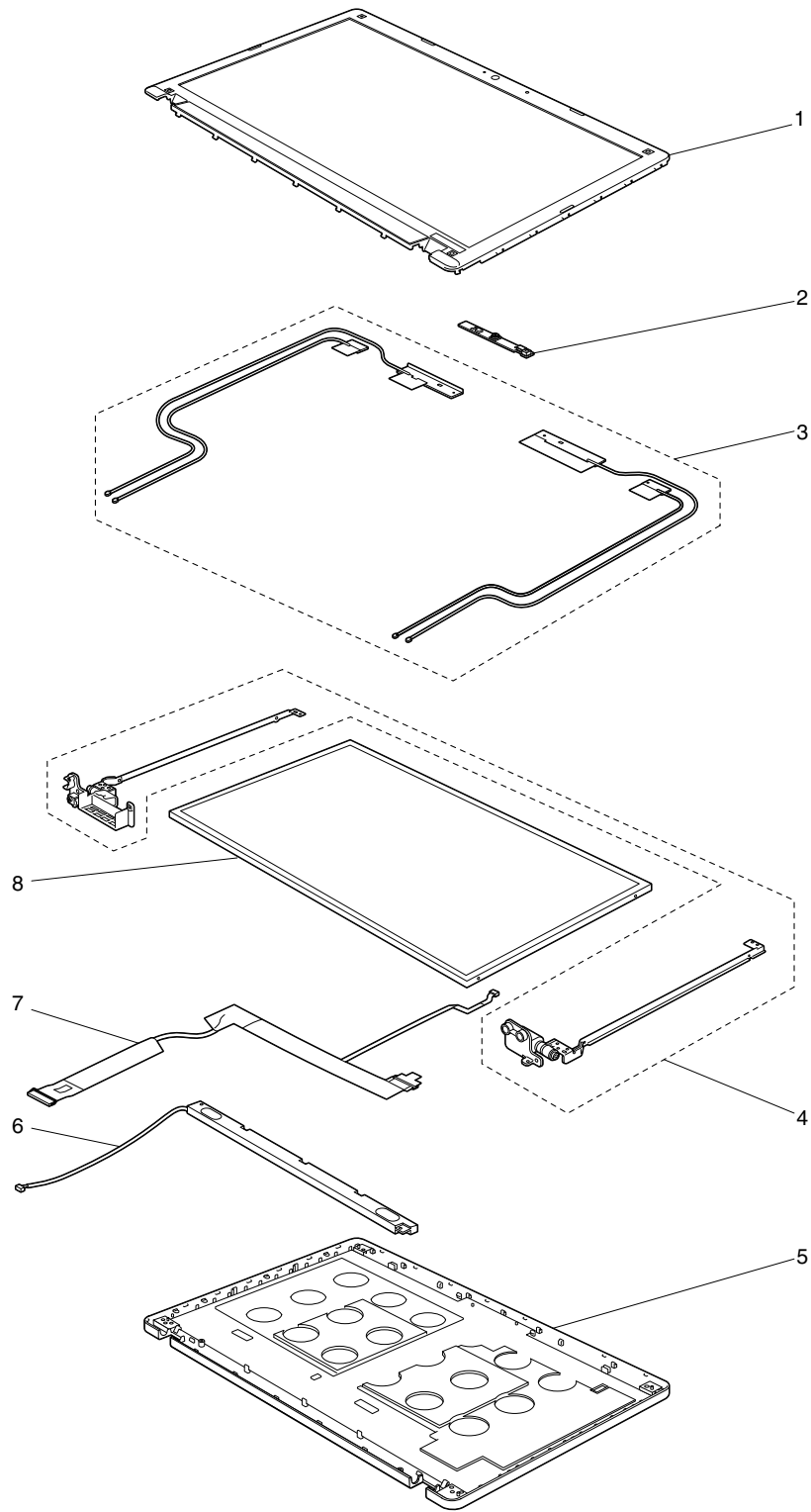


Table 9. Parts list—14.0-inch HD LCD

No.	FRU (14.0-inch HD LCD)	FRU No.	CRU ID
1	<p>LCD front bezel 14W, black</p> <ul style="list-style-type: none"> • 0199-CTO, 24x, 25x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Zx, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Ex, 3Fx, 3Gx, 3Hx, 3Lx, 3Wx, 3Xx, 43x, 44x, 45x • 0578-CTO, 22x, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Gx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Px, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 89x, 8Ax, 8Bx, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AUx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, B5x, B6x, B7x, BBx, BDx, BFx, BGx, BHx, BMx, BNx, BPx, BQx, BRx, BSx, BVx, 9Kx, 9Lx, 9Mx, 9Nx, 9Px, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, AQx, ARx, ASx, ATx, BTx, BUx, BWx, Bxx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CAX, CBx, CCx, CDx, CEx, CFx, CGx, CHx, CJx, CKx, CLx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, Cxx, CYx, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAX, DBx, DCx, DDx, DEx, Dfx, DGx, DHx, DJx, DKx, DLx, DMx, DNx, DQx, DRx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EBx, ECx, EDx, EEx, Efx, EGx, EHx, ELx, EMx, ENx, EPx, EQx, ERx, ESx, ETx, EUx, EVx, Ewx, EXx, EYx, EZx, F2x, F5x, F6x, F7x, F8x, F9x, FAx, FBx, FCx, FDx, FFx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, FQx, FSx, FTx, FUx, FVx, FWx, FXx, FYx, FZx, G2x, G3x, G4x, G5x, G6x, G7x, G8x, G9x, GBx, GCx, GDx, GEx, GFx, GGx, GHx, GJx, GKx, GLx, GMx, GZx, H2x, H3x, H4x, H5x, H6x, H7x, H8x, H9x, HAx, HBx, HCx, HDx, HEx, Hfx, HGx, HHx, HJx, HKx, HLx, HMx, HNx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, Hxx, HYx, HZx, J2x, J3x, J4x, J5x, J6x, J7x, J8x, J9x, JAx, JBx, JcX, JEx, JFx, JGx, JHx, JJx, JKx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, Kdx, KEx, Kfx, KGx, KHx, KJx, Kkx, KLx, KMx, KNx, KPx, KQx, KRx, KSx, KTx, JTx, JUx, JVx, JWx, Jxx, JYx, JZx, KUx, KVx, KWx, Kxx, KYx, KZx, L2x, L3x, L4x, L5x, L6x, L7x, L8x, L9x, LAX, LBx, LCx, LDx, LEx, Lfx, LGx, LHx, LJx, LKx, LLx, LMx, LNx, LPx, LQx, LRx, LSx, LTx, LUx, LVx, LWx, Lxx, LYx, LZx, M2x, M3x, M4x, M5x, M6x, M7x, M8x, M9x, MAx, MBx, MCx, MDx, MEx, Mfx, MGx, MHx, MJx, N2x, N3x, N4x, NTx, NUx, N5x, N6x, N8x, NAX, NBx, NCx, NEx, Nfx, NGx, NHx, NJx, NLx, NMx, NNx, NPx, NQx, NRx, NSx, NVx, NwX, P2x, P3x, P4x, P5x, P6x, P7x, P8x, P9x, PAX, PBx, PCx, PDx, PEx, Pfx, PGx, PHx, PJx, PKx, PLx, PMx, PNx, PPx, PQx, PRx, PSx, PTx, PUx, PVx, PWx, Q2x, Q3x, Q4x, Q6x, Q7x, Q8x, Q9x, QAx, QBx, QDx, QEx, Qfx, QGx, QHx, QJx, QKx, QLx • 0579-CTO 	75Y4723	No
1	<p>LCD front bezel 14W, glossy black</p> <ul style="list-style-type: none"> • 0199-CTO, 22x, 23x, 26x, 2Ex, 2Fx, 2Gx, 2Wx, 2Xx, 2Yx, 33x, 34x, 35x, 36x, 37x, 3Dx, 3Jx, 3Kx, 3Mx, 3Nx, 4Nx, 58x, 59x, 5Ax, 5Cx, 5Ex, 5Fx, 5Hx, 5Jx, 5Wx, 5Xx, 5Yx, 5Zx, RXx, RYx • 0578-CTO, EJx, EKx, F3x, F4x, FEx, GNx, GPx, GQx, GRx, GSx, GTx, GUx, GVx, GWx, GXx, GYx • 0579-CTO 	75Y4724	No

Table 9. Parts list—14.0-inch HD LCD (continued)

No.	FRU (14.0-inch HD LCD)	FRU No.	CRU ID
2	Integrated camera with microphone (0.3M) <ul style="list-style-type: none"> • 0199-CTO, 23x, 27x, 29x, 2Bx, 2Hx, 2Jx, 2Kx, 2Lx, 2Yx, 33x, 38x, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 42x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Mx, 4Px, 4Qx, 54x, 55x, 56x, 57x, 5Ax, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Wx, 5Xx, 5Yx, 5Zx, RYx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 62x, 63x, 68x, 69x, 6Bx, 6Cx, 6Dx, 6Ex, 6Hx, 6Jx, A2x, A3x, A4x, A5x, A7x, ACx, ADx, 6Px, 6Qx • 0578-CTO, 22x, 24x, 26x, 2Dx, 2Fx, 2Gx, 2Hx, 2Jx, 2Xx, 2Yx, 3Ex, 3Fx, 3Nx, 3Px, 43x, 44x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 7Px, 7Sx, 7Vx, 7Yx, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AUx, BSx, C8x, C9x, DJx, ECx, EDx, EEx, EFx, EGx, EHx, EJx, EKx, ELx, EMx, ENx, EPx, EQx, ERx, ESx, ETx, EUx, EVx, EWx, EXx, EYx, EZx, G7x, GEx, GMx, H2x, HJx, HKx, J2x, J3x, J8x, JEx, JFx, JNx, JPx, JQx, JRx, JSx, KAx, KKx, KLx, KRx, KSx, KUx, KVx, L2x, L3x, L4x, L5x, L6x, L7x, L8x, L9x, LAx, LBx, LCx, LDx, M4x, N2x, N4x, NTx, NUx, NEx, NFX, NGx, NHx, NLx, NMx, NQx, NRx, NSx, NVx, NWx, P2x, P3x, PCx, PDx, PEx, PSx, PTx, PUx, PVx, PWx, QDx, QEx, QGx • 0579-CTO, 6Ax, 66x, 65x, 64x, 5Ux, 5Tx, 5Sx, 5Ex, 5Dx, 5Cx, 5Bx, 5Ax, 59x, 58x, 57x, 56x, 55x, 54x, 53x 	60Y5756 63Y0172 63Y0173	No
2	Integrated camera with microphone (2.0M) <ul style="list-style-type: none"> • 0199-CTO, 22x, 25x, 26x, 28x, 2Ax, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Zx, 34x, 35x, 36x, 37x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Wx, 3Xx, 43x, 44x, 45x, 4Lx, 4Nx, 52x, 53x, 58x, 59x, 5Bx, 5Mx, 5Nx, RXx, 64x, 65x, 66x, 67x, 6Kx, 6Lx, 6Mx, 6Nx, AAx, ABx • 0578-CTO, 23x, 25x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Ex, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 45x, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 53x, 54x, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Gx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Qx, 7Rx, 7Tx, 7Ux, 7Wx, 7Xx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 89x, 8Ax, 8Bx, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, B5x, B6x, B7x, BBx, BDx, BFX, BGx, BHx, BMx, BNx, BPx, BQx, BRx, BVx, 9Kx, 9Lx, 9Mx, 9Nx, 9Px, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, AQx, ARx, ASx, ATx, BUx, BWx, BXx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, CAx, CBx, CCx, CDx, CEx, CFx, CGx, CHx, CJx, CKx, CLx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, Cx, CYx, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAx, DBx, DCx, DDx, DEx, Dfx, DGx, DHx, DKx, DLx, DMx, DNx, DQx, DRx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EBx, F2x, F3x, F4x, F5x, F6x, F7x, F8x, F9x, FAx, FBx, FCx, FDx, FEx, FFx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, FQx, FSx, FTx, FUx, FVx, FWx, Fx, FYx, FZx, G2x, G3x, G4x, G5x, G6x, G8x, G9x, GBx, GCx, GDx, GFx, GGx, GHx, GJx, GKx, GLx, GNx, GPx, GQx, GRx, GSx, GTx, GUx, GVx, GWx, GXx, GYx, GZx, H3x, H4x, H5x, H6x, H7x, H8x, H9x, HAx, HBx, HCx, HDx, HEx, Hfx, HGx, HHx, HLx, HMx, HNx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, HXx, HYx, HZx, J4x, J5x, J6x, J7x, J9x, JAx, JBx, Jcx, JGx, JHx, Jx, JKx, JLx, JMx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KBx, KCx, Kdx, KEx, KFx, KGx, KHx, KJx, KMx, KNx, KPx, KQx, KTx, JTx, JUx, JVx, JWx, JXx, JYx, JZx, KWx, KXx, KYx, KZx, LEx, Lfx, LGx, LHx, LJx, LKx, LLx, LMx, LNx, LPx, LQx, LRx, LSx, LTx, LUx, LVx, LWx, Lx, LYx, LZx, M2x, M3x, M5x, M6x, M7x, M8x, M9x, MAx, MBx, MCx, MDx, MEx, MFx, MGx, MHx, MJx, N3x, N6x, N8x, NAx, NBx, NCx, NJx, NNx, NPx, P4x, P5x, P6x, P7x, P8x, P9x, PAX, PBx, Pfx, PGx, PHx, PJx, PKx, PLx, PMx, PNx, PPx, Pq, PRx, Q2x, Q3x, Q4x, Q6x, Q7x, Q8x, Q9x, QAx, QBx, QFx, QHx, QJx, QKx, QLx • 0579-CTO 	60Y3327 63Y0159 63Y0161 63Y0163	No

Table 9. Parts list—14.0-inch HD LCD (continued)

No.	FRU (14.0-inch HD LCD)	FRU No.	CRU ID
2	Microphone <ul style="list-style-type: none"> • 0199-CTO, 24x, RZx, 6Ax, AEx • 0578-CTO, 5Ux, N5x • 0579-CTO, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx 	60Y3329	No
3	Wireless LAN/WAN antenna set 14W <ul style="list-style-type: none"> • 0578-CTO, 22x, 2Ax, 2Bx, 3Rx, 3Tx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Vx, 4Yx, 72x, 75x, 7Ax, 7Dx, 7Fx, 7Gx, 7Hx, 7Lx, 84x, B5x, B6x, B7x, 9Lx, 9Qx, C4x, CBx, CDx, CGx, CHx, CJx, CKx, CLx, CXx, D2x, D7x, DAX, DCx, EAx, EBx, F8x, FGx, FJx, FTx, G2x, H6x, H7x, KNx, LGx, LJx, LLx, LSx, LTx, M3x, P4x, P5x • 0579-CTO 	63Y2201	No
3	Wireless LAN antenna set 14W <ul style="list-style-type: none"> • 0199-all • 0578-CTO, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Sx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Rx, 4Sx, 4Tx, 4Ux, 4Wx, 4Xx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 73x, 74x, 76x, 77x, 78x, 79x, 7Bx, 7Cx, 7Ex, 7Jx, 7Kx, 7Mx, 7Nx, 7Px, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 7Zx, 82x, 83x, 85x, 86x, 87x, 88x, 89x, 8Ax, 8Bx, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AUx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, BBx, BDx, BFx, BGx, BHx, BMx, BNx, BPx, BQx, BRx, BSx, BVx, 9Kx, 9Mx, 9Nx, 9Px, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, AQx, ARx, ASx, ATx, BTx, BUx, BWx, Bx, BYx, BZx, C2x, C3x, C5x, C6x, C7x, C8x, C9x, CAx, CCx, CEx, CFx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, CYx, CZx, D3x, D4x, D5x, D6x, D8x, D9x, DBx, DDx, DEx, Dfx, DGx, DHx, DJx, DKx, DLx, DMx, DNx, DQx, DRx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, ECx, EDx, EEx, EFx, EGx, EHx, EJx, EKx, ELx, EMx, ENx, EPx, EQx, ERx, ESx, ETx, EUx, EVx, EWx, EXx, EYx, EZx, F2x, F3x, F4x, F5x, F6x, F7x, F9x, FAx, FBx, FCx, FDx, FEx, FFx, FHx, FKx, FLx, FMx, FNx, FPx, FQx, FSx, FUx, FVx, FWx, Fx, FYx, FZx, G3x, G4x, G5x, G6x, G7x, G8x, G9x, GBx, GCx, GDx, GEx, GFx, GGx, GHx, GJx, GKx, GLx, GMx, GNx, GPx, GQx, GRx, GSx, GTx, GUx, GVx, GWx, GXx, GYx, GZx, H2x, H3x, H4x, H5x, H8x, H9x, HAx, HBx, HCx, HDx, HEx, HFx, HGx, HHx, HJx, HKx, HLx, HMx, HNx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, Hx, HYx, HZx, J2x, J3x, J4x, J5x, J6x, J7x, J8x, J9x, JAx, JBx, JCx, JEx, JFx, JGx, JHx, JJx, JKx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, KDx, KEx, KFx, KGx, KHx, KJx, KKx, KLx, KMx, KPx, KQx, KRx, KSx, KTx, JTx, JUx, JVx, JWx, JXx, JYx, JZx, KUX, KVx, KWx, KXx, KYx, KZx, L2x, L3x, L4x, L5x, L6x, L7x, L8x, L9x, LAx, LBx, LCx, LDx, LEx, Lfx, LHx, LKx, LMx, LNx, LPx, LQx, LRx, LUx, LVx, LWx, Lx, LYx, LZx, M2x, M4x, M5x, M6x, M7x, M8x, M9x, MAx, MBx, MCx, MDx, MEx, Mfx, MGx, MHx, MJx, N2x, N3x, N4x, NTx, NUx, N5x, N6x, N8x, NAx, NBx, NCx, NEx, NFx, NGx, NHx, NJx, NLx, NMx, NNx, NPx, NQx, NRx, NSx, NVx, NWx, P2x, P3x, P6x, P7x, P8x, P9x, PAX, PBx, PCx, PDx, PEx, Pfx, PGx, PHx, PJx, PKx, PLx, PMx, PNx, PPx, PQx, PRx, PSx, PTx, PUX, PVx, PWx, Q2x, Q3x, Q4x, Q6x, Q7x, Q8x, Q9x, QAx, QBx, QDx, QEx, QFx, QGx, QHx, QJx, QKx, QLx • 0579-all 	63Y2200	No

Table 9. Parts list—14.0-inch HD LCD (continued)

No.	FRU (14.0-inch HD LCD)	FRU No.	CRU ID
4	<p>Hinges 14W, black</p> <ul style="list-style-type: none"> • 0199-CTO, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Hx, 2Jx, 2Kx, 2Mx, 2Nx, 2Qx, 2Rx, 2Tx, 2Ux, 2Wx, 2Yx, 2Zx, 33x, 34x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Lx, 3Mx, 3Wx, 3Xx, 42x, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 52x, 53x, 54x, 55x, 57x, 58x, 5Bx, 5Cx, 5Dx, 5Ex, 5Gx, 5Hx, 5Kx, 5Lx, 5Mx, 5Nx, 5Wx, 5Xx, 5Yx, 5Zx, RYx, RZx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Bx, 6Cx, 6Dx, 6Ex, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, A2x, A3x, A4x, A5x, A7x, AAx, ABx, ACx, ADx, 6Px, 6Qx • 0578-CTO, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 36x, 37x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 43x, 44x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 52x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 64x, 65x, 67x, 68x, 69x, 6Ax, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Px, 6Qx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Zx, 72x, 74x, 75x, 77x, 79x, 7Ax, 7Cx, 7Dx, 7Fx, 7Hx, 7Kx, 7Lx, 7Mx, 7Nx, 7Px, 7Qx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 7Zx, 82x, 84x, 85x, 86x, 87x, 88x, 89x, 8Ax, 8Bx, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, A6x, A7x, A8x, ACx, ADx, AEx, AJx, AKx, ALx, AUx, AVx, AWx, AYx, B3x, B5x, B6x, B7x, BDx, BFx, BGx, BNx, BPx, BQx, BRx, BSx, 9Kx, 9Lx, 9Mx, 9Px, 9Qx, 9Tx, 9Ux, 9Wx, 9Xx, 9Zx, AQx, ASx, ATx, BUx, BWx, BYx, BZx, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CAx, CBx, CEx, CFx, CGx, CHx, CKx, CLx, CNx, CPx, CQx, CUx, CWx, CXx, CZx, D2x, D4x, D6x, D7x, D9x, DAx, DCx, DDx, DEx, DJx, DKx, DLx, DMx, DNx, DRx, DSx, DTx, DVx, DWx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, EAx, EBx, ECx, EDx, EFx, EGx, EJx, EPx, EQx, ERx, EVx, EWx, EXx, EZx, F3x, F5x, F6x, F7x, F8x, FBx, FEx, FFx, FHx, FKx, FLx, FMx, FNx, FPx, FQx, FSx, FTx, FUx, FVx, FWx, G2x, G3x, G5x, G6x, G7x, G8x, GBx, GCx, GEx, GFx, GGx, GJx, GKx, GMx, GNx, GPx, GRx, GTx, GVx, GXx, GZx, H2x, H3x, H5x, H6x, H7x, HAx, HBx, HEx, HFx, HHx, HJx, HKx, HLx, HMx, HNx, HSx, HTx, HUX, HVx, HWx, HXx, HYx, HZx, J2x, J3x, J4x, J5x, J6x, J7x, J8x, J9x, JAx, JBx, Jcx, JEx, JFx, JGx, JHx, JJx, JNx, JPx, JQx, JRx, JSx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, Kdx, KEx, KFx, KGx, KHx, KJx, KKx, KLx, KNx, KPx, KRx, KSx, KTx, JTx, JUx, JVx, JXx, JYx, JZx, KUx, KWx, KXx, KYx, KZx, L5x, L6x, L7x, LBx, LCx, LDx, LEx, LGx, LHx, LJx, LLx, LNx, LQx, LUx, LVx, LWx, LXx, LYx, LZx, M3x, M4x, M5x, M6x, M7x, M8x, M9x, MAx, MBx, MCx, MDx, MEx, Mfx, MHx, N2x, N3x, N4x, NTx, NUx, N5x, N6x, N8x, NAx, NBx, NCx, NEx, Nfx, NGx, NHx, NJx, NLx, NMx, NNx, NPx, NQx, NRx, NSx, NVx, NWx, P2x, P3x, P4x, P5x, P6x, PAX, PCx, PDx, PEx, PGx, PHx, PJx, PKx, PLx, PMx, PNx, PPx, PQx, PRx, PUx, PVx, Q2x, Q4x, Q7x, Q8x, QBx, QDx, QEx, QFx, QGx, QHx, QKx, QLx • 0579-CTO 	75Y4711 75Y4712	No
4	<p>Hinges 14W, silver</p> <ul style="list-style-type: none"> • 0199-CTO, 22x, 2Fx, 2Gx, 2Lx, 2Px, 2Sx, 2Vx, 2Xx, 35x, 36x, 37x, 2Fx, 2Gx, 3Kx, 3Nx, 4Hx, 56x, 59x, 5Ax, 5Fx, 5Jx, RXx, 6Ax, AEx • 0578-CTO, 22x, 2Px, 2Qx, 2Rx, 2Sx, 34x, 35x, 38x, 39x, 3Sx, 3Tx, 45x, 46x, 4Fx, 4Px, 4Zx, 53x, 5Bx, 5Cx, 5Dx, 5Tx, 62x, 63x, 66x, 6Bx, 6Cx, 6Dx, 6Ex, 6Mx, 6Nx, 6Rx, 6Sx, 6Yx, 73x, 76x, 78x, 7Bx, 7Ex, 7Gx, 7Jx, 7Rx, 83x, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, A3x, A4x, A5x, A9x, AAx, ABx, AFx, AGx, AHx, AMx, ANx, APx, AXx, AZx, B2x, B4x, BBx, BHx, BMx, BVx, 9Nx, 9Rx, 9Sx, 9Vx, 9Yx, ARx, BTx, Bxx, C2x, CCx, CDx, Cjx, CMx, CRx, CSx, CVx, CYx, D3x, D5x, D8x, DBx, Dfx, DGx, DHx, DQx, DUx, DXx, E8x, E9x, EEx, EHx, EKx, ELx, EMx, ENx, ESx, ETx, EUx, EYx, F2x, F4x, F9x, FAx, FCx, FDx, FGx, FJx, Fx, FYx, FZx, G4x, G9x, GDx, GHx, GLx, GQx, GSx, GUx, GWx, GYx, H4x, H8x, H9x, HCx, HDx, HGx, HPx, HQx, HRx, JKx, JLx, JMx, KMx, KQx, JWx, KVx, L2x, L3x, L4x, L8x, L9x, LAx, LFx, LKx, LMx, LPx, LRx, LSx, LTx, M2x, MGx, MJx, P7x, P8x, P9x, PBx, Pfx, PSx, PTx, PWx, Q3x, Q6x, Q9x, QAx, QJx • 0579-CTO 	75Y4713 75Y4714	No

Table 9. Parts list—14.0-inch HD LCD (continued)

No.	FRU (14.0-inch HD LCD)	FRU No.	CRU ID
5	LCD cover kit 14W, glossy red <ul style="list-style-type: none"> • 0199-CTO, 2Lx, 2Px, 2Sx, 2Vx, 4Hx, 56x, 6Ax, AEx • 0578-CTO, 22x, 2Px, 2Qx, 2Rx, 2Sx, 34x, 35x, 38x, 39x, 3Sx, 3Tx, 45x, 46x, 4Fx, 4Px, 4Zx, 53x, 5Bx, 5Cx, 5Dx, 5Tx, 62x, 63x, 66x, 6Bx, 6Cx, 6Dx, 6Ex, 6Mx, 6Nx, 6Rx, 6Sx, 6Yx, 73x, 76x, 78x, 7Bx, 7Ex, 7Gx, 7Jx, 7Rx, 83x, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, 9Nx, 9Rx, 9Sx, 9Vx, 9Yx, A3x, A4x, A5x, A9x, AAx, ABx, AFx, AGx, AHx, AMx, ANx, APx, ARx, AXx, AZx, B2x, B4x, BBx, BHx, BMx, BTx, BVx, Bx, C2x, CCx, CDx, CJx, CMx, CRx, CSx, CVx, CYx, D3x, D5x, D8x, DBx, DFx, DGx, DHx, DQx, DXx, E8x, E9x, EEx, EHx, ELx, EMx, ENx, ESx, ETx, EUx, EYx, F2x, F9x, FAX, FCx, FDx, FGx, FJx, FXx, FYx, FZx, G4x, G9x, GDx, GHx, GLx, H4x, H8x, H9x, HCx, HDx, HGx, HPx, HQx, HRx, JKx, JLx, JMx, JWx, KMx, KQx, KVx, L2x, L3x, L4x, L8x, L9x, LAx, LFx, LKx, LMx, LPx, LRx, LSx, LTx, M2x, MGx, MJx, P7x, P8x, P9x, PBx, PFX, PSx, PTx, PWx, Q3x, Q6x, Q9x, QAx, QJx • 0579-CTO 	75Y5707	No
5	LCD cover kit 14W, glossy red (with glossy bezel) <ul style="list-style-type: none"> • 0199-CTO, 2Lx, 2Px, 2Sx, 2Vx, 2Fx, 2Gx, 3Kx, 3Nx, 4Hx, 56x, 6Ax, AEx • 0578-CTO, EKx, F4x, GQx, GSx, GUx, GWx, GYx • 0579-CTO 	75Y5708	No
5	LCD cover kit 14W, glossy black <ul style="list-style-type: none"> • 0199-CTO, 2Jx, 2Mx, 2Qx, 2Tx, 2Zx, 3Ex, 3Fx, 3Gx, 43x, 44x, 45x, 52x, 53x, 64x, 65x, 67x, 68x, 69x, 6Bx, 6Kx, 6Lx, 6Nx, A7x, AAx, ABx, ADx • 0578-CTO, 24x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 36x, 37x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Nx, 3Px, 3Qx, 3Rx, 43x, 44x, 47x, 49x, 4Bx, 4Dx, 4Qx, 4Wx, 4Xx, 4Yx, 52x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 64x, 65x, 67x, 68x, 69x, 6Ax, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Px, 6Qx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Zx, 72x, 74x, 75x, 77x, 79x, 7Ax, 7Cx, 7Dx, 7Hx, 7Kx, 7Qx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 84x, 87x, 88x, 89x, 8Ax, 8Bx, 8Cx, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, A6x, A7x, A8x, ACx, ADx, AEx, AJx, AKx, ALx, AUx, AWx, AYx, B3x, B5x, B6x, B7x, BDx, Bfx, BPx, BQx, BRx, 9Lx, 9Qx, 9Ux, 9Xx, AQx, ATx, BWx, BZx, C4x, C6x, C7x, C8x, C9x, CAx, CBx, CKx, CLx, CNx, CPx, CQx, CUx, CWx, CXx, CZx, D2x, D4x, D6x, D7x, D9x, DAx, DEx, DSx, DVx, DYx, EAx, EBx, ECx, EGx, EPx, EQx, ERx, FQx, FSx, FTx, FUx, FVx, FWx, G2x, G3x, G5x, GBx, GFx, GJx, H5x, H6x, H7x, HAx, HBx, HEX, Hfx, HHx, HLx, HMx, HNx, HSx, HVx, HWx, HXx, HZx, JBx, JCx, JGx, JHx, JJx, JNx, JPx, JQx, JRx, JSx, KKx, KLx, KNx, KPx, JTx, JUx, JVx, KUx, KWx, KXx, KYx, KZx, LVx, LWx, LXx, LYx, LZx, M3x, M4x, N2x, N4x, Nfx, NLx, NMx, NQx, P4x, P5x, PJx, PRx, PUx, PVx • 0579-CTO 	75Y4701	No
5	LCD cover kit 14W, matte black <ul style="list-style-type: none"> • 0199-CTO, 24x, 25x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Hx, 2Kx, 2Nx, 2Rx, 2Ux, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Hx, 3Lx, 3Wx, 3Xx, 42x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Jx, 4Kx, 4Lx, 4Mx, 4Px, 4Qx, 54x, 55x, 57x, 5Bx, 5Dx, 5Gx, 5Kx, 5Lx, 5Mx, 5Nx, RZx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 62x, 63x, 66x, 6Cx, 6Dx, 6Ex, 6Hx, 6Jx, 6Mx, A2x, A3x, A4x, A5x, ACx, 6Px, 6Qx • 0578-CTO, 23x, 25x, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 48x, 4Ax, 4Cx, 4Ex, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 7Fx, 7Lx, 7Mx, 7Nx, 7Px, 7Sx, 7Tx, 7Zx, 82x, 85x, 86x, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, AVx, BGx, BNx, BSx, 9Kx, 9Mx, 9Px, 9Tx, 9Wx, 9Zx, ASx, BUx, BYx, C3x, C5x, CEx, CFx, CGx, CHx, DCx, DDx, DJx, DKx, DLx, DMx, DNx, DRx, DTx, DWx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, EDx, Efx, EVx, EWx, EXx, EZx, F5x, F6x, F7x, F8x, FBx, FFx, FHx, FKx, FLx, FMx, FNx, FPx, G6x, G7x, G8x, GCx, GEx, GGx, GKx, GMx, GZx, H2x, H3x, HJx, HKx, HTx, HUx, HYx, J2x, J3x, J4x, J5x, J6x, J7x, J8x, J9x, JAx, JEx, JFx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, KDx, KEx, Kfx, KGx, KHx, KJx, KRx, KSx, KTx, JXx, JYx, JZx, L5x, L6x, L7x, LBx, LCx, LDx, LEx, LGx, LHx, LJx, LLx, LNx, LQx, LUx, M5x, M6x, M7x, M8x, M9x, MAx, MBx, MCx, MDx, MEx, Mfx, MHx, N3x, NTx, NUx, N5x, N6x, N8x, NAx, NBx, NCx, NEx, NGx, NHx, NJx, 	75Y4702	No

Table 9. Parts list—14.0-inch HD LCD (continued)

No.	FRU (14.0-inch HD LCD)	FRU No.	CRU ID
	NNx, NPx, NRx, NSx, NVx, NWx, P2x, P3x, P6x, PAX, PCx, PDx, PEx, PGx, PHx, PKx, PLx, PMx, PNx, PPx, PQx, Q2x, Q4x, Q7x, Q8x, QBx, QDx, QEx, QFx, QGx, QHx, QKx, QLx • 0579-CTO		
5	LCD cover kit 14W, glossy black (with glossy bezel) • 0199-CTO, 23x, 26x, 2Ex, 2Wx, 2Yx, 33x, 34x, 3Dx, 3Jx, 3Mx, 4Nx, 58x, 5Cx, 5Ex, 5Hx, 5Wx, 5Xx, 5Yx, 5Zx, RYx • 0578-CTO, EJx, F3x, FEx, GNx, GPx, GRx, GTx, GVx, GXx • 0579-CTO	75Y4704	No
5	LCD cover kit 14W, glossy white • 0578-CTO • 0579-CTO	04W0475	No
6	Speaker assembly for 0199, 0578, and 0597	60Y5759	No
7	LCD cable, HD, Teflon 14W • 0199-all • 0578-CTO, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Sx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Rx, 4Sx, 4Tx, 4Ux, 4Wx, 4Xx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 73x, 74x, 76x, 77x, 78x, 79x, 7Bx, 7Cx, 7Ex, 7Jx, 7Kx, 7Mx, 7Nx, 7Px, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 7Zx, 82x, 83x, 85x, 86x, 87x, 88x, 89x, 8Ax, 8Bx, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AUx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, BBx, BDx, BFx, BGx, BHx, BMx, BNx, BPx, BQx, BRx, BSx, BVx, 9Kx, 9Mx, 9Nx, 9Px, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, AQx, ARx, ASx, ATx, BTx, BUx, BWx, BXx, BYx, BZx, C2x, C3x, C5x, C6x, C7x, C8x, C9x, CAx, CCx, CEx, CFx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, CYx, CZx, D3x, D4x, D5x, D6x, D8x, D9x, DBx, DDx, DEx, DFx, DGx, DHx, DJx, DKx, DLx, DMx, DNx, DQx, DRx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, ECx, EDx, EEx, EFx, EGx, EHx, EJx, EKx, ELx, EMx, ENx, EPx, EQx, ERx, ESx, ETx, EUx, EVx, EWx, EXx, EYx, EZx, F2x, F3x, F4x, F5x, F6x, F7x, F9x, FAx, FBx, FCx, Fdx, FEx, FFx, FHx, FKx, FLx, FMx, FNx, FPx, FQx, FSx, FUx, FVx, FWx, FXx, FYx, FZx, G3x, G4x, G5x, G6x, G7x, G8x, G9x, GBx, GCx, GDx, GEx, GFx, GGx, GHx, GJx, GKx, GLx, GMx, GNx, GPx, GQx, GRx, GSx, GTx, GUx, GVx, GWx, GXx, GYx, GZx, H2x, H3x, H4x, H5x, H8x, H9x, HAX, HBx, HCx, HDx, HEx, Hfx, HGx, HHx, HJx, HKx, HLx, HMx, HNx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, HXx, HYx, HZx, J2x, J3x, J4x, J5x, J6x, J7x, J8x, J9x, JAx, JBx, JcX, JEx, JFx, JGx, JHx, JJx, JKx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, Kdx, KEx, KFx, KGx, KHx, KJx, KKx, KLx, KMx, KPx, KQx, KRx, KSx, KTx, JTx, JUx, JVx, JWx, JXx, JYx, JZx, KUX, KVx, KWx, KXx, KYx, KZx, L2x, L3x, L4x, L5x, L6x, L7x, L8x, L9x, LAx, LBx, LCx, LDx, LEx, Lfx, LHx, LKx, LMx, LNx, LPx, LQx, LRx, LUx, LVx, LWx, LXx, LYx, LZx, M2x, M4x, M5x, M6x, M7x, M8x, M9x, MAx, MBx, MCx, MDx, MEx, MFx, MGx, MHx, MJx, N2x, N3x, N4x, NTx, NUx, N5x, N6x, N8x, NAX, NBx, NCx, NEx, Nfx, NGx, NHx, NJx, NLx, NMx, NNx, NPx, NQx, NRx, NSx, NVx, NWx, P2x, P3x, P6x, P7x, P8x, P9x, PAX, PBx, PCx, PDx, PEx, Pfx, PGx, PHx, PJx, PKx, PLx, PMx, PNx, PPx, PQx, PRx, PSx, PTx, PUx, PVx, PWx, Q2x, Q3x, Q4x, Q6x, Q7x, Q8x, Q9x, QAx, QBx, QDx, QEx, QFx, QGx, QHx, QJx, QKx, QLx • 0579-all	63Y2204	No

Table 9. Parts list— 14.0-inch HD LCD (continued)

No.	FRU (14.0-inch HD LCD)	FRU No.	CRU ID
7	LCD cable, HD, Coaxial 14W <ul style="list-style-type: none"> • 0578-CTO, 22x, 2Ax, 2Bx, 3Rx, 3Tx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Vx, 4Yx, 72x, 75x, 7Ax, 7Dx, 7Fx, 7Gx, 7Hx, 7Lx, 84x, B5x, B6x, B7x, 9Lx, 9Qx, C4x, CBx, CDx, CGx, CHx, CJx, CKx, CLx, CXx, D2x, D7x, DAx, DCx, EAx, EBx, F8x, FGx, FJx, FTx, G2x, H6x, H7x, KNx, LGx, LJx, LLx, LSx, LTx, M3x, P4x, P5x • 0579-CTO 	63Y2205	No
8	LCD module, 14.0-inch HD glare <ul style="list-style-type: none"> • 0199-CTO, 22x, 23x, 25x, 26x, 2Ex, 2Fx, 2Gx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Mx, 4Nx, 52x, 53x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Lx, 5Wx, 5Xx, 5Yx, 5Zx, RXx, RYx, RZx, 5Ux, 5Vx, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Kx, 6Lx, 6Mx, 6Nx, A4x, A5x, A7x, AAX, ABx, ACx, ADx, AEx, 6Px, 6Qx • 0578-CTO, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 43x, 44x, 45x, 46x, 47x, 49x, 4Bx, 4Dx, 4Fx, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Nx, 7Px, 7Qx, 7Rx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 89x, 8Ax, 8Bx, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAX, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AUx, AWx, AXx, B2x, B4x, BPx, BQx, BRx, 9Kx, C4x, C5x, C6x, C7x, C8x, C9x, CAX, CBx, CCx, CDx, CLx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, CXx, CYx, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAX, DBx, DEX, DFX, DGx, DHx, DJx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, ECx, EDx, EEX, EGx, EHx, EJx, EKx, ELx, EMx, ENx, EPx, EQx, ERx, ESx, ETx, EUx, EVx, EWx, EXx, EYx, EZx, F2x, F3x, F4x, F5x, F6x, F7x, F8x, F9x, FDx, FEX, FFx, FQx, FSx, FTx, FUx, FVx, FWx, FXx, FYx, FZx, G2x, G3x, G4x, G5x, G6x, G7x, G8x, G9x, GBx, GCx, GDx, GEX, GFx, GGx, GHx, GJx, GKx, GLx, GMx, GNx, GPx, GQx, GRx, GSx, GTx, GUx, GVx, GWx, GXx, GYx, GZx, H2x, HAX, HBx, HEX, HFX, HHx, HLx, HMx, HNX, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, HXx, HYx, HZx, J8x, JGx, JHx, JJx, JKx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, KAX, KKx, KLx, KMx, KNx, KPx, KQx, JTx, JUx, JVx, JWx, L2x, L3x, L4x, L5x, L6x, L7x, L8x, L9x, LAX, LBx, LCx, LDx, LVx, LWx, LXx, LYx, LZx, M4x, M5x, M6x, M7x, M8x, M9x, MAX, MBx, MCx, MDx, MEX, MFx, , N2x, NUx, N6x, N8x, NAX, NBx, NHx, NJx, NLx, NMx, NSx, NWx, P3x, P4x, P5x, P6x, P7x, P8x, P9x, PAX, PBx, PSx, PTx, PUx, PVx, PWx, QDx, QEX, QGx, QHx, QJx, QKx • 0579-CTO, 63x, 62x, 5Zx, 5Yx, 5Xx, 5Wx, 5Qx, 5Px, 5Nx, 5Mx, 5Lx, 5Kx, 5Jx, 5Hx 	27R2433 27R2497 42T0670 42T0648 93P5499 93P5647 93P5707 93P5727 04W0412 93P5731 93P5723	No
8	LCD module, 14.0-inch HD anti-glare <ul style="list-style-type: none"> • 0199-CTO, 24x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Hx, 2Zx, 3Bx, 3Wx, 3Xx, 42x, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Px, 4Qx, 54x, 55x, 56x, 5Dx, 5Kx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 62x, 63x, 6Hx, 6Jx, A2x, A3x • 0578-CTO, 22x, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 48x, 4Ax, 4Cx, 4Ex, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 53x, 54x, 7Fx, 7Gx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, AVx, AYx, AZx, B3x, B5x, B6x, B7x, BBx, BDx, BFX, BGx, BHx, BMx, BNx, BSx, BVx, 9Lx, 9Mx, 9Nx, 9Px, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, AQx, ARx, ASx, ATx, BTx, BUx, BWx, Bx, BYx, BZx, C2x, C3x, CEx, CFx, CGx, CHx, CJx, CKx, DCx, DDx, DKx, DLx, DMx, DNx, DQx, DRx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EBx, EFx, FAX, FBx, FCx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, H3x, H4x, H5x, H6x, H7x, H8x, H9x, HCx, HDx, HGx, HJx, HKx, J2x, J3x, J4x, J5x, J6x, J7x, J9x, JAx, JBx, JCx, JEX, JFx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KBx, KCx, KDx, KEX, KFx, KGx, KHx, KJx, KRx, KSx, KTx, JXx, JYx, JZx, KUx, KVx, KWx, KXx, KYx, KZx, LEX, LFX, LGx, LHx, LJx, LKx, LLx, LMx, 	27R2431 27R2465 42T0668 42T0646 93P5497 93P5705 93P5725 04W0411 93P5729 93P5721	No

Table 9. Parts list—14.0-inch HD LCD (continued)

No.	FRU (14.0-inch HD LCD)	FRU No.	CRU ID
	LNx, LPx, LQx, LRx, LSx, LTx, LUX, M2x, M3x, MGx, MHx, MJx, N3x, N4x, NTx, N5x, NCx, NEx, NFx, NGx, NNx, NPx, NQx, NRx, NVx, P2x, PCx, PDx, PEx, PFx, PGx, PHx, PJx, PKx, PLx, PMx, PNx, PPx, PQx, PRx, Q2x, Q3x, Q4x, Q6x, Q7x, Q8x, Q9x, QAx, QBx, QFx, QLx • 0579-CTO, 6Ax, 66x, 65x, 64x, 5Ux, 5Tx, 5Sx, 5Ex, 5Dx, 5Cx, 5Bx, 5Ax, 59x, 58x, 57x, 56x, 55x, 54x, 53x		

Table 10. Parts list—15.6-inch HD LCD

No.	FRU (15.6-inch HD LCD)	FRU No.	CRU ID
1	LCD front bezel 15W, black • 0301-CTO, 22x, 23x, 24x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Px, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Yx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 9Ax, 9Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, 9Kx, 9Lx, 9Mx, 9Nx, 9Px, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, A2x, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AQx, ARx, ASx, ATx, AUx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, B5x, B6x, B7x, B8x, B9x, Bfx, BGx, BHx, BJx, BKx, BMx, BNx, BPx, BQx, BRx, BSx, BTx, BUx, BVx, BWx, BXx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CAx, CBx, CCx, CDx, CEx, CFx, CGx, CHx, CJx, CKx, CLx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, CXx, CYx, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAx, DBx, DCx, DDx, DEx, DFx, DGx, DHx, DJx, DKx, DLx, DMx, DNx, DPx, DQx, DRx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EBx, ECx, EDx, EEx, EFx, EGx, EHx, EJx, EKx, ELx, EMx, F2x, F3x, F4x, F5x, F7x, F8x, F9x, FAx, FBx, FCx, FDx, FEx, FFx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, ENx, EPx, EQx, HLx, HMx, HNx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, HXx, HYx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, KDx, KEx, KFx, KGx, KHx, KJx, KKx, KLx, KMx, KNx, KPx, Q2x, JHx, JJx, JKx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, JTx • 0302-CTO, 24x, 26x, 27x, 28x, 29x, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 42x, 44x, 45x, 46x, 47x, AWx, AXx, AYx, AZx, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 52x, 53x, 54x, 55x • 0319-all	75Y4725	No
1	LCD front bezel 15W, glossy black • 0301-CTO, BEx • 0302-CTO, 22x, 23x, 25x, 2Ax, 2Hx, 2Jx, 2Kx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 3Ex, 43x • 0319-CTO	75Y4726	No

Table 10. Parts list—15.6-inch HD LCD (continued)

No.	FRU (15.6-inch HD LCD)	FRU No.	CRU ID
2	Integrated camera with microphone (0.3M) <ul style="list-style-type: none"> • 0301-CTO, 22x, 24x, 2Cx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 3Ex, 3Fx, 3Ux, 3Vx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 57x, 58x, 59x, 7Kx, 7Lx, 7Mx, 7Nx, 7Yx, 8Qx, 93x, 95x, 9Ex, 9Fx, 9Gx, DPx, DQx, DRx, DSx, DTx, E3x, E4x, EAx, EBx, F2x, F7x, F8x, F9x, GJx, GKx, H8x, H9x, RVx, RWx, RXx, RYx, RZx, HTx, HUx, HVx, HWx, K2x, KCx, KKx, KLx, KMx, KNx • 0302-CTO, 23x, 26x, 2Nx, 2Px, 2Qx, 2Ux, 2Wx, 2Yx, 3Cx, 3Jx, 3Kx, 3Lx, 3Ux, 3Vx, 3Wx, 42x, 46x, 47x, AWx, AXx, AYx, AZx, 4Lx • 0319-CTO, 49x, 48x, 47x, 46x, 45x, 44x, 43x, 42x, 3Zx, 3Yx, 3Vx, 3Ux, 3Tx, 3Sx, 3Rx, 3Qx, 3Px 	60Y5756 63Y0171	No
2	Integrated camera with microphone (2.0M) <ul style="list-style-type: none"> • 0301-CTO, 23x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Dx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Xx, 4Yx, 4Zx, 52x, 53x, 54x, 55x, 56x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Px, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Hx, 7Jx, 7Px, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Xx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 94x, 96x, 97x, 98x, 99x, 9Ax, 89x, 8Ax, 8Bx, 9Bx, 9Cx, 9Dx, 9Hx, 9Jx, 9Kx, 9Lx, 9Mx, 9Nx, 9Px, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, A2x, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AQx, ARx, ASx, ATx, AUx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, B5x, B6x, B7x, B8x, B9x, BEx, BFx, BGx, BHx, BJx, BKx, BMx, BNx, BPx, BQx, BRx, BSx, BTx, BUx, BVx, BWx, BXx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CAx, CBx, CCx, CDx, CEx, CFx, CGx, CHx, CJx, CKx, CLx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, Cx, Cy, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAx, DBx, DCx, DDx, DEx, Dfx, DGx, DHx, DJx, DKx, DLx, DMx, DNx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E5x, E6x, E7x, E8x, E9x, ECx, EDx, EEx, Efx, EGx, EHx, EJx, EKx, ELx, EMx, F3x, F4x, F5x, FAx, FBx, FCx, FDx, FEx, FFx, FGx, GBx, GCx, GDx, GEx, GFx, GGx, GHx, GLx, GMx, GNx, GPx, GQx, GRx, GTx, GUx, H2x, H3x, H4x, H5x, H6x, H7x, HAx, HBx, HCx, HDx, HEX, Hfx, HGx, HHx, HJx, HKx, ENx, EPx, EQx, HLx, HMx, HNx, HPx, HQx, HRx, HSx, Hx, Hy, G2x, G3x, G4x, G5x, G6x, G7x, G8x, GVx, GWx, GXx, Gy, GZx, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KDx, KEx, KFx, KGx, KHx, KJx, KPx, Q2x, JHx, JJx, JKx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, JTx • 0302-CTO, 22x, 25x, 27x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Lx, 2Mx, 2Rx, 2Sx, 2Tx, 2Vx, 2Xx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 43x, 44x, 45x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 52x, 53x, 54x, 55x • 0319-CTO 	60Y3327 63Y0159 63Y0161 63Y0163	No
2	Microphone <ul style="list-style-type: none"> • 0301-CTO, 5Gx, FJx, FKx, FNx, FPx, FHx, FLx, FMx, GSx • 0302-CTO, 24x, 28x • 0319-CTO, 2Ux, 2Vx, 2Zx 	60Y3329	No
3	Wireless LAN/WAN antenna set 15W <ul style="list-style-type: none"> • 0301-CTO, 22x, 27x, 2Ax, 2Bx, 2Kx, 3Zx, 44x, 5Px, 6Nx, 6Rx, 6Tx, 6Vx, 6Zx, 74x, 76x, 78x, 7Cx, 7Fx, 7Xx, 9Ax, 9Bx, 9Lx, 9Px, A3x, A6x, A8x, AAx, AEx, AHx, AKx, AMx, ARx, AUx, B5x, DDx, DMx, BHx, BNx, BPx, CHx, CMx, CVx, EMx, EQx • 0319-CTO 	63Y2203	No

Table 10. Parts list—15.6-inch HD LCD (continued)

No.	FRU (15.6-inch HD LCD)	FRU No.	CRU ID
3	<p>Wireless LAN antenna set 15W</p> <ul style="list-style-type: none"> • 0301-CTO, 23x, 24x, 25x, 26x, 28x, 29x, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 42x, 43x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Px, 6Qx, 6Sx, 6Ux, 6Wx, 6Xx, 6Yx, 72x, 73x, 75x, 77x, 79x, 7Ax, 7Bx, 7Dx, 7Ex, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Px, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Yx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 89x, 8Ax, 8Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, 9Kx, 9Mx, 9Nx, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, A2x, A4x, A5x, A7x, A9x, ABx, ACx, ADx, AFx, AGx, AJx, ALx, ANx, APx, AQx, ASx, ATx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, B6x, B7x, B8x, B9x, BEx, BFx, BGx, BJx, BKx, BMx, BQx, BRx, BSx, BTx, BUx, BVx, BWx, BXx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CAX, CBx, CCx, CDx, CEx, CFx, CGx, CJx, CKx, CLx, CNx, CPx, CQx, CRx, CSx, CUx, CWx, CXx, CYx, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAx, DBx, DCx, DEx, DFx, DGx, DHx, DJx, DKx, DLx, DNx, DPx, DQx, DRx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EBx, ECx, EDx, EEx, EFx, EGx, EHx, EJx, EKx, ELx, F2x, F3x, F4x, F5x, F7x, F8x, F9x, FAx, FBx, FCx, FDx, FEx, FFx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, ENx, EPx, HLx, HMx, HNx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, HXx, HYx, G2x, G3x, G4x, G5x, G6x, G7x, G8x, GVx, GWx, GXx, GYx, GZx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, K Dx, KEx, KFx, KGx, KHx, KJx, KKx, KLx, KMx, KNx, KPx, Q2x, JHx, JJx, JKx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, JTx • 0302-all • 0319-all 	63Y2202	No
4	<p>Hinges 15W, black</p> <ul style="list-style-type: none"> • 0301-CTO, 22x, 23x, 25x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Lx, 3Mx, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Yx, 3Zx, 43x, 44x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 53x, 55x, 56x, 57x, 58x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Nx, 5Px, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 63x, 64x, 65x, 66x, 67x, 68x, 6Bx, 6Cx, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Mx, 6Nx, 6Qx, 6Rx, 6Ux, 6Vx, 6Wx, 6Yx, 6Zx, 73x, 74x, 77x, 78x, 79x, 7Bx, 7Cx, 7Ex, 7Fx, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Px, 7Qx, 7Rx, 7Tx, 7Vx, 7Xx, 7Yx, 7Zx, 82x, 83x, 85x, 87x, 88x, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Tx, 8Ux, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 9Ax, 89x, 8Ax, 8Bx, 9Bx, 9Cx, 9Dx, 9Fx, 9Gx, 9Hx, 9Kx, 9Lx, 9Nx, 9Px, 9Rx, 9Sx, 9Tx, 9Ux, 9Wx, 9Yx, A2x, A3x, A5x, A6x, A9x, AAx, ABx, ADx, AEx, AGx, AHx, ALx, AMx, ANx, AQx, ARx, ATx, AUx, AVx, AWx, AXx, AZx, B3x, B5x, B6x, B7x, B8x, BEx, BGx, BHx, BJx, BKx, BNx, BRx, BSx, BTx, BUx, BVx, BWx, Bx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CAX, CBx, CCx, CDx, CFx, CGx, CMx, CNx, CPx, CQx, CRx, CVx, CWx, CXx, CYx, CZx, D3x, D5x, D7x, D9x, DAx, DBx, DCx, DDx, DFx, DJx, DLx, DMx, DNx, DPx, DRx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EBx, ECx, EDx, EEx, EFx, EHx, EJx, EKx, ELx, EMx, F2x, F3x, F4x, F5x, F7x, F8x, F9x, FDx, FEx, FFx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, GBx, GDx, GEx, GFx, GGx, GHx, GJx, GKx, GLx, GMx, GNx, GPx, GQx, GSx, GTx, GUx, H2x, H3x, H4x, H5x, H6x, H7x, H8x, H9x, HAX, HBx, HCx, HDx, HEx, HGx, HHx, HJx, HKx, RVx, RWx, RXx, RYx, RZx, ENx, EPx, EQx, HNx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, HXx, HYx, G6x, G7x, G8x, GVx, GXX, GYx, GZx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, K Dx, KEx, KFx, KGx, KHx, KJx, KKx, KLx, KMx, KNx, KPx, Q2x, JHx, JJx, JKx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, JTx • 0302-CTO, 23x, 24x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Lx, 2Mx, 2Nx, 2Qx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 3Cx, 3Dx, 	75Y4717 75Y4718	No

Table 10. Parts list—15.6-inch HD LCD (continued)

No.	FRU (15.6-inch HD LCD)	FRU No.	CRU ID
	3Ex, 3Fx, 3Gx, 3Jx, 3Kx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Gx, 4Hx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Yx, 52x, 53x, 54x, 55x • 0319-all		
4	Hinges 15W, silver • 0301-CTO, 24x, 2Lx, 36x, 37x, 38x, 39x, 3Jx, 3Kx, 3Nx, 3Px, 3Xx, 42x, 45x, 4Kx, 4Vx, 54x, 59x, 5Fx, 5Mx, 5Qx, 5Rx, 5Xx, 5Yx, 5Zx, 62x, 69x, 6Ax, 6Dx, 6Ex, 6Lx, 6Px, 6Sx, 6Tx, 6Xx, 72x, 75x, 76x, 7Ax, 7Dx, 7Sx, 7Ux, 7Wx, 84x, 86x, 8Rx, 8Sx, 8Vx, 8Wx, 98x, 99x, 9Ex, 9Jx, 9Mx, 9Qx, 9Vx, 9Xx, 9Zx, A4x, A7x, A8x, ACx, AFx, AJx, AKx, APx, ASx, AYx, B2x, B4x, B9x, BFx, BMx, BPx, BQx, CEx, CHx, CJx, CKx, CLx, CSx, CUx, D2x, D4x, D6x, D8x, DEx, DGx, DHx, DKx, DQx, EGx, FAX, FBx, FCx, GCx, GRx, Hfx, HLx, HMx, G2x, G3x, G4x, G5x, GWx • 0302-CTO, 22x, 25x, 2Jx, 2Kx, 2Px, 2Rx, 2Sx, 2Tx, 39x, 3Ax, 3Bx, 3Hx, 3Lx, 46x, 4Dx, 4Ex, 4Fx, 4Jx, 4Kx, 4Wx, 4Xx • 0319-CTO	75Y4719 75Y4720	No
5	LCD cover kit 15W, glossy black • 0301-CTO, 22x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Zx, 33x, 34x, 35x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Lx, 3Mx, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Yx, 3Zx, 43x, 44x, 4Hx, 4Jx, 4Lx, 4Mx, 4Px, 4Rx, 4Tx, 53x, 55x, 56x, 57x, 58x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Px, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 63x, 64x, 65x, 66x, 67x, 68x, 6Bx, 6Cx, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Mx, 6Nx, 6Qx, 6Rx, 6Wx, 6Yx, 6Zx, 73x, 74x, 79x, 7Bx, 7Cx, 7Lx, 7Px, 7Yx, 7Zx, 83x, 85x, 87x, 88x, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Tx, 8Ux, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 9Ax, 89x, 8Bx, 9Bx, 9Dx, 9Fx, 9Gx, 9Hx, 9Kx, 9Lx, 9Nx, 9Px, 9Ux, 9Wx, 9Yx, A2x, A3x, A5x, A6x, ABx, ADx, AEx, AGx, AHx, ANx, AQx, ARx, BRx, BSx, BTx, BUx, BVx, BWx, Bx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, CFx, CGx, CMx, CNx, CPx, CQx, CVx, CWx, Cx, DPx, DTx, E5x, E6x, EDx, EEx, Efx, EHx, EJx, ELx, EMx, F2x, Fdx, FEx, FFx, GBx, GDx, GEx, GFx, GPx, HAx, HBx, HCx, HDx, HEx, RVx, RWx, Rxx, RYx, RZx, G7x, G8x, GVx, KJx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, JTx • 0302-CTO, 26x, 2Nx, 2Xx, 35x, 36x, 37x, 38x, 3Jx, 3Kx, AWx, AXx, AYx, AZx, 4Ax, 4Bx, 4Cx, 4Hx, 4Lx, 4Mx, 4Xx, 4Yx • 0319-CTO	75Y4706	No
5	LCD cover kit 15W, matte black • 0301-CTO, 23x, 25x, 2Hx, 2Jx, 2Kx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Nx, 4Qx, 4Sx, 4Ux, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 5Nx, 6Ux, 6Vx, 77x, 78x, 7Ex, 7Fx, 7Hx, 7Jx, 7Kx, 7Mx, 7Nx, 7Qx, 7Rx, 7Tx, 7Vx, 7Xx, 82x, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Ax, 9Cx, 9Rx, 9Sx, 9Tx, A9x, AAx, ALx, AMx, ATx, AUx, AWx, AXx, AZx, B3x, B5x, B6x, B7x, B8x, BGx, BHx, BJx, BKx, BNx, C9x, CAx, CBx, CCx, CDx, CRx, CYx, CZx, D3x, D5x, D7x, D9x, DAx, DBx, DCx, DDx, DFx, DJx, DLx, DMx, DNx, DRx, DSx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E7x, E8x, E9x, EAx, EBx, ECx, EKx, F3x, F4x, F5x, F7x, F8x, F9x, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, GGx, GHx, GJx, GKx, GLx, GMx, GNx, GQx, GSx, GTx, GUx, H2x, H3x, H4x, H5x, H6x, H7x, H8x, H9x, HGx, HHx, HJx, HKx, ENx, EPx, EQx, HNx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, Hx, HYx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, Kdx, KEx, KFx, KGx, KHx, Kx, KLx, KMx, KNx, KPx, Q2x, JHx, Jx, JKx • 0302-CTO, 24x, 27x, 28x, 29x, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Lx, 2Mx, 2Qx, 2Yx, 2Zx, 33x, 34x, 3Cx, 3Dx, 3Fx, 3Gx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 42x, 44x, 45x, 47x, 48x, 49x, 4Gx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 52x, 53x, 54x, 55x • 0319-all	75Y4707	No
5	LCD cover kit 15W, glossy black (with glossy bezel) • 0301-CTO, BEx • 0302-CTO, 23x, 2Ax, 2Hx, 2Ux, 2Vx, 2Wx, 3Ex, 43x • 0319-CTO	75Y4709	No

Table 10. Parts list—15.6-inch HD LCD (continued)

No.	FRU (15.6-inch HD LCD)	FRU No.	CRU ID
5	LCD cover kit 15W, glossy red <ul style="list-style-type: none"> • 0301-CTO, 24x, 2Lx, 36x, 37x, 38x, 39x, 3Jx, 3Kx, 3Nx, 3Px, 3Xx, 42x, 45x, 4Kx, 4Vx, 54x, 59x, 5Fx, 5Mx, 5Qx, 5Rx, 5Xx, 5Yx, 5Zx, 62x, 69x, 6Ax, 6Dx, 6Ex, 6Lx, 6Px, 6Sx, 6Tx, 6Xx, 72x, 75x, 76x, 7Ax, 7Dx, 7Sx, 7Ux, 7Wx, 84x, 86x, 8Rx, 8Sx, 8Vx, 8Wx, 98x, 99x, 9Ex, 9Jx, 9Mx, 9Qx, 9Vx, 9Xx, 9Zx, A4x, A7x, A8x, ACx, AFx, AJx, AKx, APx, ASx, AYx, B2x, B4x, B9x, Bfx, BMx, BPx, BQx, CEx, CHx, CJx, CKx, CLx, CSx, CUx, D2x, D4x, D6x, D8x, DEx, DGx, DHx, DKx, DQx, EGx, FAx, FBx, FCx, G2x, G3x, G4x, G5x, GCx, GRx, GWx, Hfx, HLx, HMx, J2x, J5x • 0302-CTO, 2Px, 39x, 3Ax, 3Bx, 3Hx, 3Lx, 46x, 4Dx, 4Ex, 4Fx, 4Jx, 4Kx, 4Wx, 4Xx • 0319-CTO 	75Y5709	No
5	LCD cover kit 15W, glossy red (with glossy bezel) <ul style="list-style-type: none"> • 0301-CTO • 0302-CTO, 22x, 25x, 2Jx, 2Kx, 2Rx, 2Sx, 2Tx • 0319-CTO 	75Y5710	No
6	Speaker assembly for 0301, 0302, and 0319	60Y5760	No
7	LCD cable, HD, Teflon 15W <ul style="list-style-type: none"> • 0301-CTO, 23x, 24x, 25x, 26x, 28x, 29x, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Tx, 2Ux, 2Vx, 2Wx, 2Xx, 2Yx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 42x, 43x, 45x, 46x, 47x, 48x, 49x, 4Ax, 4Bx, 4Cx, 4Dx, 4Ex, 4Fx, 4Gx, 4Hx, 4Jx, 4Kx, 4Lx, 4Mx, 4Nx, 4Px, 4Qx, 4Rx, 4Sx, 4Tx, 4Ux, 4Vx, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 53x, 54x, 55x, 56x, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Qx, 5Rx, 5Sx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Px, 6Qx, 6Sx, 6Ux, 6Wx, 6Xx, 6Yx, 72x, 73x, 75x, 77x, 79x, 7Ax, 7Bx, 7Dx, 7Ex, 7Hx, 7Jx, 7Kx, 7Lx, 7Mx, 7Nx, 7Px, 7Qx, 7Rx, 7Sx, 7Tx, 7Ux, 7Vx, 7Wx, 7Yx, 7Zx, 82x, 83x, 84x, 85x, 86x, 87x, 88x, 8Cx, 8Dx, 8Ex, 8Fx, 8Gx, 8Hx, 8Jx, 8Kx, 8Lx, 8Mx, 8Nx, 8Px, 8Qx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Xx, 8Yx, 8Zx, 92x, 93x, 94x, 95x, 96x, 97x, 98x, 99x, 89x, 8Ax, 8Bx, 9Cx, 9Dx, 9Ex, 9Fx, 9Gx, 9Hx, 9Jx, 9Kx, 9Mx, 9Nx, 9Qx, 9Rx, 9Sx, 9Tx, 9Ux, 9Vx, 9Wx, 9Xx, 9Yx, 9Zx, A2x, A4x, A5x, A7x, A9x, ABx, ACx, ADx, AFx, AGx, AJx, ALx, ANx, APx, AQx, ASx, ATx, AVx, AWx, AXx, AYx, AZx, B2x, B3x, B4x, B6x, B7x, B8x, B9x, BEx, Bfx, BGx, BJx, BKx, BMx, BQx, BRx, BSx, BTx, BUx, BVx, BWx, Bxx, BYx, BZx, C2x, C3x, C4x, C5x, C6x, C7x, C8x, C9x, CAx, CBx, CCx, CDx, CEx, CFx, CGx, CJx, CKx, CLx, CNx, CPx, CQx, CRx, CSx, CUx, CWx, CXx, CYx, CZx, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAx, DBx, DCx, DEx, Dfx, DGx, DHx, DJx, DKx, DLx, DNx, DPx, DQx, DRx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, E2x, E3x, E4x, E5x, E6x, E7x, E8x, E9x, EAx, EBx, ECx, EDx, EEx, Efx, EGx, EHx, EJx, EKx, ELx, F2x, F3x, F4x, F5x, F7x, F8x, F9x, FAx, FBx, FCx, Fdx, FEx, FFx, FGx, FHx, FJx, FKx, FLx, FMx, FNx, FPx, ENx, EPx, HLx, HMx, HNx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, Hxx, HYx, G2x, G3x, G4x, G5x, G6x, G7x, G8x, GVx, GWx, GXx, GYx, GZx, K2x, K3x, K4x, K5x, K6x, K7x, K8x, K9x, KAx, KBx, KCx, KDx, KEx, Kfx, KGx, KHx, KJx, KKx, KLx, KMx, KNx, KPx, Q2x, JHx, JJx, JKx, JLx, JMx, JNx, JPx, JQx, JRx, JSx, JTx • 0302-all • 0319-all 	63Y2206	No
7	LCD cable, HD, Coaxial 15W <ul style="list-style-type: none"> • 0301-CTO, 22x, 27x, 2Ax, 2Bx, 2Kx, 3Zx, 44x, 5Px, 6Nx, 6Rx, 6Tx, 6Vx, 6Zx, 74x, 76x, 78x, 7Cx, 7Fx, 7Xx, 9Ax, 9Bx, 9Lx, 9Px, A3x, A6x, A8x, AAx, AEx, AHx, AKx, AMx, ARx, AUx, B5x, DDx, DMx, BHx, BNx, BPx, CHx, CMx, CVx, EMx, EQx • 0319-CTO 	63Y2207	No

Table 10. Parts list—15.6-inch HD LCD (continued)

No.	FRU (15.6-inch HD LCD)	FRU No.	CRU ID
8	LCD module, 15.6-inch HD glare, with wireless WAN <ul style="list-style-type: none"> • 0301-CTO, 23x, 25x, 28x, 29x, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ax, 3Bx, 3Cx, 3Dx, 3Ex, 3Fx, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Qx, 3Rx, 3Sx, 3Tx, 3Ux, 3Vx, 3Wx, 3Xx, 3Yx, 3Zx, 42x, 43x, 44x, 45x, 4Jx, 4Kx, 4Lx, 4Mx, 4Px, 4Rx, 4Tx, 4Vx, 57x, 58x, 59x, 5Ax, 5Bx, 5Cx, 5Dx, 5Ex, 5Fx, 5Gx, 5Hx, 5Jx, 5Kx, 5Lx, 5Mx, 5Nx, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 63x, 64x, 65x, 66x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Fx, 6Gx, 6Hx, 6Jx, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 6Tx, 6Ux, 6Vx, 6Wx, 6Xx, 6Yx, 6Zx, 72x, 73x, 74x, 75x, 76x, 77x, 78x, 79x, 7Ax, 7Bx, 7Cx, 7Dx, 7Ex, 7Fx, 7Kx, 7Mx, 7Px, 7Yx, 7Zx, 83x, 84x, 85x, 86x, 87x, 88x, 8Fx, 8Jx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 8Ax, 9Fx, 9Gx, 9Hx, 9Jx, 9Kx, 9Lx, 9Mx, 9Nx, 9Px, 9Qx, 9Wx, 9Xx, 9Yx, 9Zx, A2x, A3x, A4x, A5x, A6x, A7x, A8x, A9x, AAx, ABx, ACx, ADx, AEx, AFx, AGx, AHx, AJx, AKx, ALx, AMx, ANx, APx, AQx, ARx, ASx, ATx, AUx, BEx, BRx, BSx, BTx, BUx, BVx, BWx, BXx, BYx, BZx, C2x, C3x, C4x, CFx, CGx, CHx, CJx, CKx, CLx, CMx, CNx, CPx, CQx, CRx, CSx, CUx, CVx, CWx, CXx, CYx, DPx, DQx, DTx, E5x, E6x, ECx, F2x, FAx, FBx, FCx, FDx, FEx, FFx, FGx, GBx, GCx, GDx, GEx, GFx, GGx, HAx, HBx, HCx, HDx, HEX, RVx, RWx, RXx, RYx, RZx, G2x, G3x, G4x, G5x, G6x, G7x, G8x, KJx, KKx, KLx, KMx, KNx, JHx, JJx, JKx • 0302-CTO • 0319-CTO 	42T0662 27R2471 27R2407 27R2467 93P5701 93P5651 93P5711 93P5739 93P5715	No
8	LCD module, 15.6-inch HD anti-glare, without wireless WAN <ul style="list-style-type: none"> • 0301-CTO, HLx, 2Hx, 2Px, 2Qx, 47x, 4Bx, 4Dx, 4Fx, 4Wx, 4Xx, 4Yx, 4Zx, 52x, 55x, 56x, 7Hx, 82x, 8Ex, 93x, 95x, 99x, 8Bx, 9Cx, 9Dx, 9Ex, 9Tx, AWx, B8x, B9x, D2x, D3x, D4x, D5x, D6x, D7x, D8x, D9x, DAx, DBx, DCx, DEx, DFx, DGx, DHx, DJx, DKx, DLx, DNx, DRx, DSx, DUx, DVx, DWx, DXx, DYx, DZx, BFx, BGx, BKx, BMx, BQx, C5x, C7x, C9x, CAx, CBx, CCx, CDx, CEx, CZx, E2x, E3x, E4x, E7x, EAx, EBx, EDx, EEx, EFx, EGx, EHx, EJx, F3x, F4x, F5x, F7x, F8x, F9x, FHx, FLx, FMx, GHx, GJx, GKx, GLx, GMx, GNx, GPx, GQx, GRx, GSx, GTx, GUx, H2x, H3x, H4x, H5x, H6x, H7x, H8x, H9x, HFx, HGx, HHx, ENx, EPx, ERx, HMx, HPx, HQx, HRx, HSx, HTx, HUx, HVx, HWx, HXx, HYx, JGx, JFx, JEx, JDx, JCx, JBx, JAx, J9x, J8x, GZx, J7x, GYx, J6x, J5x, J4x, GXx, GWx, GVx, KPx, KHx, KGx, KFx, KEx, KDx, KCx, KBx, KAx, K9x, K8x, K7x, K6x, K5x, K4x, K3x, K2x, Q2x, JLx, JMx, JNx, JPx, JQx, JRx, JSx, JTx • 0302-CTO • 0319-CTO, 49x, 48x, 47x, 46x, 45x, 44x, 43x, 42x, 3Zx, 3Yx, 3Vx, 3Ux, 3Tx, 3Sx, 3Rx, 3Qx, 3Px 	04W0430 04W0424 04W0428	No
8	LCD module, 15.6-inch HD anti-glare, with wireless WAN <ul style="list-style-type: none"> • 0301-CTO, 22x, 27x, 2Ax, 2Bx, 2Kx, 5Px, 7Xx, 9Ax, 9Bx, B5x, DMx, BNx, BPx, EQx, DDx, BHx, EMx • 0302-CTO • 0319-CTO 	42T0660 27R2473 27R2405 27R2469 27R2483 93P5699 93P5653 93P5709 93P5737 93P5717	No

Keyboard

Table 11. Parts list—Keyboard

Language	FRU no.		CRU ID
Arabic	60Y9674	60Y9602	No
Belgian	60Y9675	60Y9603	
Brazilian Portuguese	60Y9673	60Y9601	
Bulgarian	60Y9676	60Y9604	
Canadian French (058)	60Y9671	60Y9599	
Canadian French (Acnor)	60Y9670	60Y9598	
Czech	60Y9677	60Y9605	
Danish	60Y9678	60Y9606	
Dutch	60Y9688	60Y9616	
Finnish, Swedish	60Y9695	60Y9623	
French	60Y9680	60Y9608	
German	60Y9681	60Y9609	
Greek (U.S. English and Greek layout)	60Y9682	60Y9610	
Hebrew	60Y9683	60Y9611	
Hungarian	60Y9684	60Y9612	
Icelandic	60Y9685	60Y9613	
Indian English	63Y0235	63Y0237	
Italian	60Y9686	60Y9614	
Japanese	60Y9700	60Y9628	
Kazakhstan	60Y9687	60Y9615	
Korean	60Y9701	60Y9629	
Latin American Spanish	60Y9672	60Y9600	
Norwegian	60Y9689	60Y9617	
Polish	60Y9690	60Y9618	
Portuguese	60Y9691	60Y9619	
Russian	60Y9692	60Y9620	
Slovak	60Y9693	60Y9621	
Slovenian	60Y9694	60Y9622	
Spanish	60Y9679	60Y9607	
Swiss	60Y9696	60Y9624	
Thai	60Y9703	60Y9631	
Traditional Chinese	60Y9702	60Y9630	
Turkish	60Y9697	60Y9625	
U.K. English	60Y9698	60Y9626	
U.S. English	60Y9669	60Y9597	
U.S. English (International, with a Euro symbol)	60Y9699	60Y9627	

Table 12. Parts list—Illuminated keyboard

Language	FRU no.		CRU ID
Arabic	60Y9820	60Y9748	No
Belgian	60Y9821	60Y9749	
Brazilian Portuguese	60Y9819	60Y9747	
Bulgarian	60Y9822	60Y9750	
Canadian French (058)	60Y9817	60Y9745	
Canadian French (Acnor)	60Y9816	60Y9744	
Czech	60Y9823	60Y9751	
Danish	60Y9824	60Y9752	
Dutch	60Y9834	60Y9762	
Finnish, Swedish	60Y9841	60Y9769	
French	60Y9826	60Y9754	
German	60Y9827	60Y9755	
Greek (U.S. English and Greek layout)	60Y9828	60Y9756	
Hebrew	60Y9829	60Y9757	
Hungarian	60Y9830	60Y9758	
Icelandic	60Y9831	60Y9759	
Italian	60Y9832	60Y9760	
Japanese	60Y9846	60Y9774	
Kazakhstan	60Y9833	60Y9761	
Korean	60Y9847	60Y9775	
Latin American Spanish	60Y9818	60Y9746	
Norwegian	60Y9835	60Y9763	
Polish	60Y9836	60Y9764	
Portuguese	60Y9837	60Y9765	
Russian	60Y9838	60Y9766	
Slovak	60Y9839	60Y9767	
Slovenian	60Y9840	60Y9768	
Spanish	60Y9825	60Y9753	
Swiss	60Y9842	60Y9770	
Thai	60Y9848	60Y9777	
Traditional Chinese	60Y9849	60Y9776	
Turkish	60Y9843	60Y9771	
U.K. English	60Y9844	60Y9772	
U.S. English	60Y9815	60Y9743	
U.S. English (International, with a Euro symbol)	60Y9845	60Y9773	

Miscellaneous parts

Table 13. Parts list—Miscellaneous parts

FRU	FRU no.	CRU ID
Screw kit (including nylon-coated screws): <ul style="list-style-type: none"> • M2 × 3 mm (silver), small head (35) • M2 × 4 mm (black), bind head (15) • M2 × 4 mm (black), small head (4) • M2 × 6 mm (black), bind head (25) • M2 × 3 mm tamper proof (4) • Shoulder screw M2 (4) • Hex stud (4) • Security screw M2 × 4 mm (2) 	75Y5996	No
Seal kit: <ul style="list-style-type: none"> • Tape for LCD cable (large) • Tape S (cable fix) • Tape L (cable fix) • Screw cap, thin • Screw cap, square 	60Y4344	No
LCD rubber	75Y4697	No
LCD rubber (glossy)	75Y4698	No
Rubber cap	75Y4699	No

AC adapters

Table 14. Parts list—2-pin ac adapters

FRU	FRU no.	CRU ID
2-pin (65 W, 20 V) adapter (models CTO, xxE, xxF, xxJ, xxL, xxP, xxS, xxU, xxY)	42T5282	*
2-pin (65 W, 20 V) adapter (models CTO, xxE, xxF, xxJ, xxL, xxP, xxS, xxU, xxY)	42T4423	
2-pin (65 W, 20 V) adapter (models CTO, xxE, xxF, xxJ, xxL, xxP, xxS, xxU, xxY)	42T4419	
2-pin (90 W, 20 V) adapter (models CTO, xxE, xxF, xxJ, xxL, xxP, xxS, xxU, xxY)	42T4427	
2-pin (90 W, 20 V) adapter (models CTO, xxE, xxF, xxJ, xxL, xxP, xxS, xxU, xxY)	42T4431	
2-pin (90 W, 20 V) adapter (models CTO, xxE, xxF, xxJ, xxL, xxP, xxS, xxU, xxY)	42T4435	
2-pin (90 W, 20 V) adapter (models CTO, xxE, xxF, xxJ, xxL, xxP, xxS, xxU, xxY)	42T4439	

Table 15. Parts list—3-pin ac adapters

FRU	FRU no.	CRU ID
3-pin (65 W, 20 V) adapter (models CTO, xxA, xxB, xxG, xxH, xxK, xxM, xxQ, xxT, xxV)	42T5283	*
3-pin (65 W, 20 V) adapter (models CTO, xxA, xxB, xxG, xxH, xxK, xxM, xxQ, xxT, xxV)	42T4421	
3-pin (65 W, 20 V) adapter (models CTO, xxA, xxB, xxG, xxH, xxK, xxM, xxQ, xxT, xxV)	42T4417	
3-pin (90 W, 20 V) adapter (models CTO, xxA, xxB, xxG, xxH, xxK, xxM, xxQ, xxT, xxV)	42T4425	
3-pin (90 W, 20 V) adapter (models CTO, xxA, xxB, xxG, xxH, xxK, xxM, xxQ, xxT, xxV)	42T4429	
3-pin (90 W, 20 V) adapter (models CTO, xxA, xxB, xxG, xxH, xxK, xxM, xxQ, xxT, xxV)	42T4433	
3-pin (90 W, 20 V) adapter (models CTO, xxA, xxB, xxG, xxH, xxK, xxM, xxQ, xxT, xxV)	45N0068	

Power cords

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

Table 16. Parts list—2-pin power cords

Country or region	FRU no.		CRU ID
Argentina • models -CTO, xxY	42T5020	42T5105	*
Brazil • models -CTO, xxP	42T5180	42T5183	
Canada, U.S. • models -CTO, xxF, xxL, xxS, xxU	42T5008	42T5093	
Japan • models -CTO, xxE, xxJ	42T5014	42T5099	

Table 17. Parts list—3-pin power cords

Country or region	FRU no.		CRU ID
Australia, New Zealand • models -CTO, xxM	42T5050	42T5135	*
Bangladesh, Sri Lanka, South Africa • models -CTO, xxG	42T5056	42T5141	
Canada, U.S. • models -CTO, xxG, xxT	42T5004	42T5089	
China (P.R.C.) (other than Hong Kong S.A.R.) • models -CTO, xxC	42T5065	42T5150	
Denmark • models -CTO, xxG	42T5041	42T5126	
European countries • models -CTO, xxG	42T5029	42T5114	
India • models -CTO, xxQ	42T5083	42T5168	
Israel • models -CTO, xxG	42T5062	42T5147	
Italy • models -CTO, xxG	42T5047	42T5132	
Korea • models -CTO, xxK	42T5077	42T5162	
Switzerland • models -CTO, xxG	42T5044	42T5129	
Taiwan • models -CTO, xxV	42T5071	42T5156	
U.K., China (Hong Kong S.A.R.) • models -CTO, xxB, xxG, xxH	42T5035	42T5120	

Recovery discs

Windows 7 Home Basic (32 bit) DVDs

Windows 7 Home Basic (32 bit) is preinstalled as the operating system in the following models:

- 0199-CTO, 63x, 62x, 5Vx, 5Ux, 5Tx, 68x, 6Cx, 6Bx, 6Ax, A4x, A5x, A7x, ACx, ADx, AEx, 6Hx, 6Jx
- 0301-CTO, 4Bx, 4Dx, 5Bx, 5Cx, 5Jx, DZx, E2x, E3x, E4x, E7x, F5x, F7x, GHx, GJx, GNx, H6x, H7x, H8x, H9x, HEx, ERx, HPx, HQx, HRx, HTx, HVx, HWx, HXx, HYx, JFx, KPx, KNx, JLx, JRx
- 0302-CTO
- 0319-CTO, 2Tx, 2Sx, 2Rx, 2Nx, 2Lx, 2Kx, 2Jx, 2Hx, 3Ex, 3Bx, 3Ax, 37x, 36x, 35x, 34x, 33x, 32x
- 0578-CTO, MDx, 5Nx, 5Px, 5Wx, 5Xx, 89x, 8Ax, 8Gx, 8Hx, 8Jx, 8Qx, 8Rx, 8Sx, 8Xx, 8Yx, 96x, 97x, 98x, 9Ex, 9Fx, 9Gx, BSx, DSx, DTx, DUx, DVx, DWx, DXx, DYx, DZx, F2x, F4x, G7x, G8x, G9x, GEx, GFx, GGx, GHx, GMx, GNx, GTx, GUx, GZx, H2x, HJx, HKx, JBx, JCx, KCx, KDx, KEx, KFx, KGx, KHx, KJx, M4x, M6x, M7x, M8x, M9x, MAx, MBx, MCx, MEx, MFx, NFx, NGx, NHx, NRx, NSx, NTx, NUX, NVx, NWx, PSx, PTx, PUX, PVx, PWx
- 0579-CTO, 34x, 33x, 2Yx, 2Xx, 2Wx, 2Vx, 2Sx, 2Rx, 2Nx, 2Mx, 2Lx, 2Kx, 2Gx, 2Fx, 2Ex, 2Dx, 2Cx, 2Bx, 3Wx, 3Vx, 3Ux, 3Tx, 3Px, 3Nx, 3Mx, 3Lx, 3Kx, 3Jx, 3Hx, 3Fx, 3Ex, 3Dx, 3Cx, 3Bx, 3Ax, 39x, 4Mx, 4Lx, 4Kx, 4Jx, 4Hx, 4Gx, 4Fx, 4Ex, 4Dx, 4Cx, 4Bx, 4Ax, 47x, 46x

Table 18. Parts list—Windows 7 Home Basic (32 bit) recovery DVDs

Language	P/N	CRU ID
Arabic	04T3035	*
Brazilian Portuguese	04T3036	
English (for India)	04T2570	
Russian	04T3038	
Russian (English-enabled)	04T3039	
Serbian-Latin	04T3042	
Simplified Chinese	04T3037	
Spanish	04T3041	
Turkish	04T3043	
US English	04T3044	

Windows 7 Home Premium (32 bit) DVDs

Windows 7 Home Premium (32 bit) is preinstalled as the operating system in the following models:

- 0199-CTO
- 0301-CTO, 2Dx, 4Yx, 7Px, 7Zx, 82x, DPx, DQx, DUx, DVx, DWx, DXx, C9x, CAx, CBx, CCx, CDx, CEx, KHx
- 0302-CTO
- 0319-CTO
- 0578-CTO, K4x, L3x, L6x, 2Fx, 4Jx, 56x, 7Rx, A7x, AAx, AKx, ANx, AVx, AXx, DFx, DKx, DLx, DMx, DNx, DRx, ECx, EDx, EEx, EMx, EQx, ETx, EWx, EZx, FKx, FLx, FMx, FNx, FPx, G6x, GBx, GCx, GDx, GJx, GKx, GLx, GPx, GQx, GRx, GSx, GVx, GWx, GXx, GYx, H3x, H4x, H5x, J4x, J5x, J6x, J7x, K2x, K3x, KAx, L9x, LCx, LQx, LRx, LUX, NBx, NCx, NNx, PPx, PQx
- 0579-CTO, 3Gx, 3Qx, 3Rx, 3Sx, 3Xx, 43x

Table 19. Parts list—Windows 7 Home Premium (32 bit) recovery DVDs

Language	P/N	CRU ID
Arabic	04T3045	*
Brazilian Portuguese	04T3046	
C&L Hong Kong S.A.R (Traditional Chinese/English/Simplified Chinese)	04T3050	
English, Finnish, and Swedish (in Sweden)	04T3054	
Korean	04T3051	
Indian English	04T2581	
Russian	76Y1568	
Russian (English-enabled)	76Y1567	
Simplified Chinese	04T3047	
Spanish	04T3052	
Traditional Chinese	04T3048	
US English	04T3053	

Windows 7 Home Premium (64 bit) DVDs

Windows 7 Home Premium (64 bit) is preinstalled as the operating system in the following models:

- 0199-CTO, 67x, 65x, AAx
- 0301-CTO, 24x, 25x, 29x, 2Lx, 3Qx, 3Rx, 3Sx, 3Tx, 3Yx, 3Zx, 42x, 46x, 48x, 49x, 4Gx, 5Rx, 6Fx, 6Gx, 6Hx, 6Jx, 6Mx, 6Nx, 6Px, 7Rx, 7Sx, 7Tx, 7Ux, 8Cx, 8Jx, 8Rx, 8Sx, 8Tx, 8Ux, 8Vx, 8Wx, 96x, 97x, 9Kx, 9Lx, 9Mx, 9Rx, 9Sx, A2x, A3x, A4x, AXx, AYx, AZx, B2x, B6x, 7Gx, AVx, F6x, 7Cx, ARx, HLx, 28x, 3Gx, 3Hx, 3Jx, 3Kx, 3Lx, 3Mx, 3Nx, 3Px, 3Vx, 47x, 5Nx, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 6Yx, 6Zx, 72x, 7Bx, 7Dx, 8Fx, 93x, 99x, 8Ax, 9Ex, ADx, AEx, AFx, AQx, ASx, DGx, DHx, DJx, DKx, DLx, DNx, CFx, CKx, CPx, EAx, EBx, ECx, EFx, EGx, F8x, F9x, FBx, FEx, FHx, GBx, GPx, GRx, GSx, Rxx, RYx, RZx, ENx, JGx, JEx, GZx, J5x, GWx, G7x, G4x, G2x, KJx, K3x, JJx
- 0302-CTO, 4Kx
- 0319-CTO, 3Kx, 3Nx, 2Cx, 28x, 24x, 23x, 22x, 3Hx, 3Gx
- 0578-CTO, P8x, 24x, 28x, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ex, 3Fx, 3Px, 3Vx, 42x, 6Kx, 6Lx, 6Mx, 6Nx, 6Px, 6Qx, 6Rx, 6Sx, 79x, 7Ax, 7Bx, 7Yx, 7Zx, 9Kx, BVx, CFx, D6x, D7x, D8x, FQx, FVx, FYx, HTx, HUX, HVx, HWx, J2x, J3x, JDx, JEx, JFx, JHx, JLx, JQx, JRx, JSx, JYx, MGx, MHx, NDx, NPx
- 0579-CTO, 54x

Table 20. Parts list—Windows 7 Home Premium (64 bit) recovery DVDs

Language	P/N	CRU ID
Czech	04T3087	*
Danish	04T3088	
English, Finnish, and Swedish (in Sweden)	04T3111	
English, French, German, and Dutch (in Belgium and Luxemburg)	04T3110	
English, French, German, and Italian (in Switzerland)	04T3112	
French	04T3090	
German	04T3092	
Greek	04T3091	
Hebrew	04T3093	
Hungarian	04T3095	

Table 20. Parts list—Windows 7 Home Premium (64 bit) recovery DVDs (continued)

Language	P/N	CRU ID
Indian English	04T3089	
Italian	04T3096	
Japanese	04T3097	
Norwegian	04T3098	
Polish	04T3099	
Portuguese	04T3100	
Romanian	04T3102	
Russian	04T3103	
Russian (English enabled)	04T3101	
Serbian-Latin	04T3107	
Simplified Chinese	04T3086	
Slovak	04T3104	
Slovenian	04T3105	
Spanish	04T3106	
Turkish	04T3108	
US English	04T3109	

Windows 7 Professional (32 bit) DVDs

Windows 7 Professional (32 bit) is preinstalled as the operating system in the following models:

- 0199-CTO
- 0301-CTO, 2Px, 2Qx, 2Zx, 33x, 34x, 35x, 36x, 37x, 38x, 39x, 3Ex, 3Fx, 4Wx, 4Xx, 52x, 56x, 5Tx, 5Ux, 5Vx, 5Wx, 5Xx, 5Yx, 5Zx, 62x, 95x, 9Tx, D2x, D5x, D6x, D9x, DRx, DSx, DTx, DYx, Bfx, BGx, BHx, BKx, BMx, BQx, BVx, BWx, BXx, BYx, C5x, C7x, EMx, FLx, FMx, GTx, HCx, HGx, HHx, KGx, Kdx, KBx, KAx, K9x, K8x, K7x, K6x, K5x, K4x
- 302-CTO
- 319-CTO, 3Lx, 3Mx, 2Zx, 2Vx, 2Ux
- 0578-CTO, JUx, JVx, K6x, L4x, L7x, LEx, Lfx, LMx, N4x, 2Cx, 2Kx, 2Lx, 2Mx, 2Nx, 2Px, 2Qx, 2Rx, 2Sx, 2Xx, 2Yx, 3Jx, 3Kx, 4Gx, 4Vx, 4Yx, 4Zx, 57x, 64x, 67x, 68x, 69x, 6Ax, 6Bx, 6Cx, 6Dx, 6Ex, 7Jx, 7Kx, 7Nx, 7Vx, 9Qx, 9Rx, 9Xx, 9Yx, 9Zx, A8x, ABx, ALx, APx, CLx, CMx, DJx, DQx, E3x, E5x, E7x, E9x, Efx, EGx, EHx, EJx, EKx, ENx, ERx, EUx, EXx, EYx, FAx, FGx, FHx, FJx, H9x, HBx, HDx, Hfx, HGx, HHx, HLx, HQx, JTx, JXx, K8x, K9x, KTx, KUx, KVx, KWx, KXx, KYx, LAx, LDx, LHx, LJx, LKx, M3x, NAx, PKx, PNx, PRx, Q4x, Q6x, Q7x, QAx, QBx
- 0579-CTO

Table 21. Parts list—Windows 7 Professional (32 bit) recovery DVDs

Language	P/N	CRU ID
Arabic	04T3004	*
Brazilian Portuguese	04T3005	
Czech	04T3008	
Danish	04T3009	
C&L Hong Kong (Hong Kong/English/Simplified Chinese)	04T3015	
English, Finnish, and Swedish (in Sweden)	04T3033	

Table 21. Parts list—Windows 7 Professional (32 bit) recovery DVDs (continued)

Language	P/N	CRU ID
English, French, German, and Dutch (in Belgium and Luxemburg)	04T3032	
English, French, German, and Italian (in Switzerland)	04T3034	
French	04T3011	
German	04T3013	
Greek	04T3012	
Hebrew	04T3014	
Hungarian	04T3016	
Indian English	04T3010	
Italian	04T3017	
Japanese	04T3018	
Korean	04T3019	
Norwegian	04T3020	
Polish	04T3021	
Portuguese	04T3022	
Romanian	04T3024	
Russian	04T3025	
Russian (English-enabled)	04T3023	
Serbian-Latin	04T3029	
Simplified Chinese	04T3006	
Slovak	04T3026	
Slovenian	04T3027	
Spanish	04T3028	
Traditional Chinese	04T3007	
Turkish	04T3030	
US English	04T3031	

Windows 7 Professional (64 bit) DVDs

Windows 7 Professional (64 bit) is preinstalled as the operating system in the following models:

- 0199-CTO, 22x, 26x, 27x, 28x, 29x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 3Dx, 3Ex, 43x, 4Gx, 4Hx, 4Jx, 4Nx, 4Qx, 5Dx, 5Yx, 5Zx, 66x, 6Mx, 6Px, 6Qx
- 0301-CTO, 22x, 26x, 2Ax, 2Bx, 2Gx, 2Jx, 3Qx, 3Rx, 3Sx, 3Tx, 65x, 74x, 75x, 76x, 7Sx, 7Tx, 86x, C9x, CAx, CBx, CCx, CDx, CZx, D2x, D3x, FEx, G2x, KNx, N2x, N3x, P6x, P7x, Q2x, QLx, 23x, 2Hx, 7Cx, 7Dx, 7Ex, C5x, C6x, C8x, D9x, DAx, DBx, DGx, DHx, F5x, F6x, F7x, F8x, F9x, FBx, FCx, FDx, FFx, FTx, FUx, FXx, G3x, G4x, G5x, HXx, HZx, JGx, JKx, JNx, JPx, JZx, KKx, KLx, KMx, KPx, KQx, KZx, M2x, MJx, N6x, N7x, N8x, N9x, NEx, NJx, NKx, NLx, NMx, NQx, P2x, P3x, P4x, P5x, PAx, PBx, PEx, QHx
- 0302-CTO, 22x, 26x, 27x, 28x, 2Ax, 2Bx, 2Cx, 2Dx, 2Ex, 2Fx, 2Gx, 2Hx, 2Jx, 2Kx, 2Mx, 2Qx, 35x, 36x, 39x, 3Ex, 3Hx, 42x, 43x, 44x, 45x, 47x, 4Ax, 4Dx, 4Gx, 4Jx, 4Ux, 4Xx, 4Yx, 52x, 53x, 54x, 55x, AYx, AZx
- 0319-CTO, 25x, 26x, 29x, 2Ax, 2Bx, 38x, 39x, 3Cx, 3Dx, 3Fx
- 0578-CTO, N2x, N3x, P6x, P7x, Q2x, QLx, 23x, 2Hx, 7Cx, 7Dx, 7Ex, C5x, C6x, C8x, D9x, DAx, DBx, DGx, DHx, F5x, F6x, F7x, F8x, F9x, FBx, FCx, FDx, FFx, FTx, FUx, FXx, G3x, G4x, G5x, HXx, HZx, JGx, JKx, JNx, JPx, JZx, KKx, KLx, KMx, KPx, KQx, KZx, M2x, MJx, N6x, N7x, N8x, N9x, NEx, NJx, NKx, NLx, NMx, NQx, P2x, P3x, P4x, P5x, PAx, PBx, PEx, QHx

- 0579-CTO, 22x, 25x, 36x, 37x, 38x, 4Yx

Table 22. Parts list—Windows 7 Professional (64 bit) recovery DVDs

Language	P/N	CRU ID
Arabic	04T3055	*
Brazilian Portuguese	04T3056	
Czech	04T3059	
Danish	04T2592	
English, Finnish, and Swedish (in Sweden)	04T3060	
English, French, German, and Dutch (in Belgium and Luxemburg)	04T3083	
English, French, German, and Italian (in Switzerland)	04T3085	
French	04T3062	
German	04T3064	
Greek	04T3063	
Hebrew	04T3065	
Hungarian	04T2599	
Indian English	04T3067	
Italian	04T2600	
Japanese	04T3068	
Korean	04T3070	
Norwegian	04T3071	
Polish	04T3072	
Portuguese	04T3073	
Romanian	04T3075	
Russian	04T3076	
Russian (English-enabled)	04T3074	
Serbian-Latin	04T3080	
Simplified Chinese	04T3057	
Slovak	04T2608	
Slovenian	04T3077	
Spanish	04T3079	
Traditional Chinese	04T2590	
Traditional Chinese (Hong Kong S.A.R.)	04T3058	
Turkish	04T3081	
US English	04T3082	

Common service tools

Table 23. Parts list—Common service tools

Tool	P/N
Screwdriver kit	95F3598
1/4" drive spinner handle	1650840
1/4" Sq. to 1/4" hex torx adapter	93F2838
TR7-TR-10 tamper resistant torx bits	00P6967
Removal tool antenna RF connector	08K7159
USB 2.0 CD-RW/DVD-ROM combo drive II	40Y8687
USB cable	40Y8704
USB floppy diskette drive for maintenance diskette	05K9283
USB floppy diskette drive tool kit	27L3452
Test card for integrated Smart Card	42W7820
LENOVO ThinkPad Hardware Maintenance Diskette Version 1.76 or later Note: Download the file from the following Web site: http://support.lenovo.com	—

Appendix A. Notices

Lenovo may not offer the products, services, or features discussed in this document in all countries. Consult your local Lenovo representative for information on the products and services currently available in your area. Any reference to a Lenovo product, program, or service is not intended to state or imply that only that Lenovo product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any Lenovo intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any other product, program, or service.

Lenovo may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

*Lenovo (United States), Inc.
1009 Think Place - Building One
Morrisville, NC 27560
U.S.A.
Attention: Lenovo Director of Licensing*

LENOVO PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. Lenovo may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

The products described in this document are not intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. The information contained in this document does not affect or change Lenovo product specifications or warranties. Nothing in this document shall operate as an express or implied license or indemnity under the intellectual property rights of Lenovo or third parties. All information contained in this document was obtained in specific environments and is presented as an illustration. The result obtained in other operating environments may vary.

Lenovo may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Any references in this publication to non-Lenovo Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this Lenovo product, and use of those Web sites is at your own risk.

Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Trademarks

The following terms are trademarks of Lenovo in the United States, other countries or both:

- Active Protection System
- Lenovo
- Rescue and Recovery
- ThinkPad
- ThinkVantage
- TrackPoint
- UltraNav

The following terms are trademarks of the Microsoft group of companies:

- Microsoft
- Windows

AMD is a trademark or registered trademark of Advanced Micro Devices, Inc.

The following terms are trademarks of Intel Corporation or its subsidiaries in the United States, other countries, or both:

- Intel
- Intel Celeron
- Intel Centrino
- Intel Core
- Intel Pentium

Other company, product, or service names may be the trademarks or service marks of others.

ThinkPad®

Part Number: 75Y4302_05

Printed in China

(1P) P/N: 75Y4302_05

