



ThinkCentre Hardware Maintenance Manual



ThinkThink**ThinkCentre**Think

Machine Types: 6136, 6139, 7187, 7345, 7348, 7356, 7359, 7479,
7626, 7629, 7637, 8338, 8820, and 9961



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Note: Before using this information and the product it supports, be sure to read and understand the Chapter 2 “Safety information” on page 3 and Appendix A “Notices” on page 279.

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Chapter 1. About this manual

This manual contains service and reference information for ThinkCentre® computer machine types listed on the front cover. This manual is intended only for trained Service Providers who are familiar with Lenovo® computer products.

Note: Be sure to read and understand the Chapter 2 “Safety information” on page 3 before using the information in this manual.

The “Symptom-to-FRU Index” chapter and the “Additional service information” chapter apply to all ThinkCentre computers.

This manual includes a complete FRU part number list for each machine type listed on the front cover. If you have internet access, the FRU part numbers are also available at:
<http://www.lenovo.com/support>

Important safety information

Be sure to read all caution and danger statements in this manual before performing any of the instructions.

Veuillez lire toutes les consignes de type DANGER et ATTENTION du présent document avant d'exécuter les instructions.

Lesen Sie unbedingt alle Hinweise vom Typ "ACHTUNG" oder "VORSICHT" in dieser Dokumentation, bevor Sie irgendwelche Vorgänge durchführen

Leggere le istruzioni introdotte da ATTENZIONE e PERICOLO presenti nel manuale prima di eseguire una qualsiasi delle istruzioni

Certifique-se de ler todas as instruções de cuidado e perigo neste manual antes de executar qualquer uma das instruções

Es importante que lea todas las declaraciones de precaución y de peligro de este manual antes de seguir las instrucciones.

تأكد من قراءة كل التحذيرات الموجودة في هذا الكتاب قبل اتباع هذه التعليمات .

执行任何说明之前，请确保已阅读本书中的所有警告和危险声明。

執行任何指示前，請確實閱讀本書中的所有警告及危險聲明。

ודאו שקראתם את כל הודעות האזהרה והסכנה במסמך זה לפני שתבצעו פעולה כלשהי.

본 사용 설명서에 기재된 내용을 실행하기 전에 모든 주의사항 및 위험사항을 숙지하십시오.

Important information about replacing RoHS compliant FRUs

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

be noncompliant, but in all cases, if the parts are compliant, the replacement parts must also be compliant.

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

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

RoHS compliant ThinkCentre parts have unique FRU part numbers. Before or after June, 2006, failed RoHS compliant parts must always be replaced using RoHS compliant FRUs, so only the FRUs identified as compliant in the system HMM or direct substitutions for those FRUs can be used.

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

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

Chapter 2. Safety information

This chapter contains the safety information that you need to be familiar with before servicing a computer.

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. Ensure 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 objects that weigh more than 16 kg (35 lb) or objects that you think are 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, ensure that other service representatives 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 tool case 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. Ensure 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, approximately 8 centimeters (3 inches) from the end.
- Do not wear jewelry, chains, metal-frame eyeglasses, or metal fasteners for your clothing.
Remember: 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.

Electrical safety



CAUTION:

Electrical current from power, telephone, and communication cables can be hazardous. To avoid personal injury or equipment damage, disconnect the attached power cords, telecommunication systems, networks, and modems before you open the server/workstation covers, unless instructed otherwise in the installation and configuration procedures.

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 Field Replaceable 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.
Remember: 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.
Remember: There must be a complete circuit to cause electrical shock. 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; these instructions 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, nongrounded power extension cables, power surges, and missing safety grounds.
- Do not touch live electrical circuits with the reflective surface of a plastic dental mirror. The surface is conductive; such touching can cause personal injury and machine damage.
- Do not service the following parts with the power on when they are removed from their normal operating places in a machine:
 - Power supply units
 - Pumps
 - Blowers and fans
 - Motor generatorsand similar units. (This practice ensures correct grounding of the units.)
- If an electrical accident occurs:
 - Use caution; do not become a victim yourself.
 - Switch off power.
 - Send another person to get medical aid.

Voltage-selection switch

Some computers are equipped with a voltage-selection switch located near the power-cord connection point on the computer. If your computer has a voltage-selection switch, ensure that you set the switch to match the voltage available at your electrical outlet. Setting the voltage-selection switch incorrectly can cause permanent damage to the computer.

If your computer does not have a voltage-selection switch, your computer is designed to operate only at the voltage provided in the country or region where the computer was originally purchased.

If you relocate your computer to another country, be aware of the following:

- If your computer does not have a voltage-selection switch, do not connect the computer to an electrical outlet until you have verified that the voltage provided is the same as it was in the country or region where the computer was originally purchased.
- If your computer has a voltage-selection switch, do not connect the computer to an electrical outlet until you have verified that the voltage-selection switch is set to match the voltage provided in that country or region.

If you are not sure of the voltage provided at your electrical outlet, contact your local electric company or refer to official Web sites or other literature for travelers to the country or region where you are located.

Safety inspection guide

The intent of this inspection guide is to assist you in identifying potentially unsafe conditions on these products. Each machine, as it was designed and built, had required safety items installed to protect users and service personnel from injury. This guide addresses only those items. However, good judgment should be used to identify potential safety hazards due to attachment of 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 bulging capacitor
- Mechanical hazards, such as loose or missing hardware

The guide consists of a series of steps presented in a checklist. 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 frame ground.
 - b. The power cord should be the appropriate type as specified in the parts listings.
 - c. Insulation must not be frayed or worn.
4. Remove the cover.

5. Check for any obvious alterations. Use good judgment as to the safety of any alterations.
6. 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.
7. Check for worn, frayed, or pinched cables.
8. Check that the power-supply cover fasteners (screws or rivets) have not been removed or tampered with.

Handling electrostatic discharge-sensitive devices

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 while handling the part.
- Wear a grounded wrist strap against your skin to eliminate static on your body.
- Prevent the part from touching your clothing. Most clothing is insulative and retains a charge even when you are wearing a wrist strap.
- Use the black side of a grounded work mat to provide a static-free work surface. The mat is especially useful when handling ESD-sensitive devices.
- Select a grounding system, such as those listed below, to provide protection that meets the specific service requirement.

Note: The use of a grounding system is desirable but not required to protect against ESD damage.

- Attach the ESD ground clip to any frame ground, ground braid, or green-wire ground.
- Use an ESD common ground or reference point when working on a double-insulated or battery-operated system. 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 (multi-lingual translations)

The caution and danger safety notices in this section are provided in the following languages:

- English
- Arabic
- Brazilian/Portuguese
- Chinese (simplified)
- Chinese (traditional)

- French
- German
- Hebrew
- Italian
- Korean
- Spanish



DANGER

Electrical current from power, telephone and communication cables is hazardous.

To avoid a shock hazard:

- **Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.**
- **Connect all power cords to a properly wired and grounded electrical outlet.**
- **Connect to properly wired outlets any equipment that will be attached to this product.**
- **When possible, use one hand only to connect or disconnect signal cables.**
- **Never turn on any equipment when there is evidence of fire, water, or structural damage.**
- **Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.**
- **Connect and disconnect cables as described in the following tables when installing, moving, or opening covers on this product or attached devices.**

To Connect	To Disconnect
1. Turn everything OFF. 2. First, attach all cables to devices. 3. Attach signal cables to connectors. 4. Attach power cords to outlet. 5. Turn device ON.	1. Turn everything OFF. 2. First, remove power cords from outlet. 3. Remove signal cables from connectors. 4. Remove all cables from devices.



CAUTION:

When replacing the lithium battery, use only Part Number 45C1566 or an equivalent type battery recommended by the manufacturer. If your system has a module containing a lithium battery, replace it only with the same module type made by the same manufacturer. The battery contains lithium and can explode if not properly used, handled, or disposed of. *Do not:*

- **Throw or immerse into water**
- **Heat to more than 100°C (212°F)**
- **Repair or disassemble**

Dispose of the battery as required by local ordinances or regulations.



CAUTION:

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

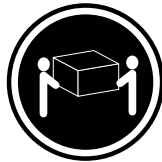
- Do not remove the covers. Removing the covers of the laser product could result in exposure to hazardous laser radiation. There are no serviceable parts inside the device.
- Use of controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation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



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

CAUTION:

Use safe practices when lifting.



CAUTION:

The power control button on the device and the power switch on the power supply do not turn off the electrical current supplied to the device. The device also might have more than one power cord. To remove all electrical current from the device, ensure that all power cords are disconnected from the power source.



خطر

التيار الكهربائي الموجود بمصدر الطاقة أو أجهزة التلفزيون أو أسلاك الاتصالات يشكل خطورة. لتفادي مخاطر الصدمات الكهربائية: لا تحاول توصيل أو فصل أي أسلاك أو القيام بعمليات تركيب أو صيانة أو إعادة توصيف لهذا المنتج أثناء وجود عاصفة كهربائية. يجب توصيل كل أسلاك الكهرباء في مخارج كهرباء ذات توصيلات أسلاك وتوصيلات أرضية صحيحة يجب توصيل أي جهاز سيتم الحاقه بهذا المنتج في مخارج كهرباء ذات توصيلات أسلاك صحيحة. وإن أمكن يجب استخدام يد واحدة فقط في توصيل أو فصل أسلاك الإشارة. لا تحاول تشغيل أي جهاز إذا كان هناك أثر لحرق أو مياه أو تلف بالمكونات يجب فصل أسلاك الكهرباء وأنظمة الاتصالات وشبكات الاتصال وأجهزة المودم الملحقة قبل فتح أغطية الجهاز، مالم يتم طلب خلاف ذلك في التعليمات الخاصة بالتركيب والتوصيف. قم بتوصيل وفصل الأسلاك كما هو موضح في الجدول التالي وذلك عند القيام بعمليات التركيب أو النقل أو فتح أغطية هذا المنتج أو الأجهزة الملحقة.	
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للتوصيل:	للفصل:
قم بإيقاف كل شيء.	قم بإيقاف كل شيء.
أولاً، قم بتوصيل كل الأسلاك بالأجهزة.	أولاً، قم بفصل كل أسلاك الكهرباء من المخرج.
قم بتوصيل أسلاك الإشارة في لموصلات.	قم بفصل أسلاك الإشارة من الموصلات.
قم بتوصيل أسلاك الكهرباء في المخارج.	قم بفصل كل الأسلاك من الأجهزة.
قم بتشغيل الجهاز.	



تنبيه :

عند استبدال البطارية الليثيوم، استخدم فقط رقم الجزء الخاص **Part Number 33F8354** أو نوع آخر يكون على نفس مستوى الكفاءة يحدده لك المصنع.

إذا كان النظام الخاص يستخدم معه بطارية ليثيوم قم باستبدالها بنفس النوع الذي تم صناعته من خلال نفس المصنع. تحتوي البطارية على مادة الليثيوم ويمكن أن تنفجر في حالة عدم استخدامها أو التعامل معها بطريقة صحيحة أو عند التخلص منها بطريقة خطأ.

لا تقم بـ:

- القاء البطارية أو غمرها في الماء
- تسخينها أعلى من ١٠٠ درجة مئوية (٢١٢ ° فهرنهايت)
- بتصليحها أو فكها

تخلص من البطارية طبقاً للقانون أو النظام المحلي .



تنبيه :

أثناء تركيب منتجات ليزر (مثل CD-ROMs أو وحدة تشغيل DVD أو أجهزة Fiber Optic أو وحدات الإرسال) يجب مراعاة الآتي:

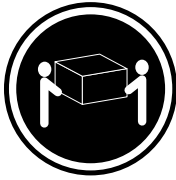
لا تنزع الأغطية. قد ينتج عن نزع أغطية منتج الليزر انفجار أشعة الليزر شديدة الخطورة.
لا يوجد أجزاء يمكن تغييرها داخل الجهاز. قد ينتج عن استخدام تحكمات أو تعديلات أو عمل أي تصرفات أخرى تخالف ما هو محدد هنا إلى انفجار أشعة شديدة الخطورة.



خطر

تحتوي بعض منتجات الليزر على الفئة دايود ليزر مدمج من الفئة Class 3A أو Class 3B. يجب مراعاة الآتي .

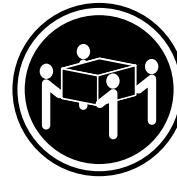
أشعة الليزر عند الفتح. لا تحقق إلى الإشعاع و لا تنظر إليه مباشرة بواسطة أي أجهزة مرئية وتجنب التعرض المباشر للإشعاع .



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

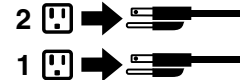
تنبيه :

يجب استخدام ممارسات آمنة عند الرفع



تنبيه :

لا يقيم زر التحكم في التشغيل الموجود على الجهاز والمفتاح الكهربائي الموجود على لوحة التحكم بإيقاف التيار الكهربائي المار بالجهاز. قد يكون للجهاز أكثر من سلك كهربائي واحد. لإيقاف التيار الكهربائي المار بالجهاز، تأكد من فصل جميع أسلاك الكهرباء من مصدر الكهرباء .



PERIGO

A corrente elétrica proveniente de cabos de alimentação, de telefone e de comunicações é perigosa.

Para evitar risco de choque elétrico:

- Não conecte nem desconecte nenhum cabo ou execute instalação, manutenção ou reconfiguração deste produto durante uma tempestade com raios.
- Conecte todos os cabos de alimentação a tomadas elétricas corretamente instaladas e aterradas.
- Todo equipamento que for conectado a este produto deve ser conectado a tomadas corretamente instaladas.
- Quando possível, utilize apenas uma das mãos para conectar ou desconectar cabos de sinal.
- Nunca ligue nenhum equipamento quando houver evidência de fogo, água ou danos estruturais.
- Antes de abrir tampas de dispositivos, desconecte cabos de alimentação, sistemas de telecomunicação, redes e modems conectados, a menos que especificado de maneira diferente nos procedimentos de instalação e configuração.
- Conecte e desconecte os cabos conforme descrito na tabela apresentada a seguir ao instalar, mover ou abrir tampas deste produto ou de dispositivos conectados.

Para Conectar:	Para Desconectar:
1. DESLIGUE Tudo. 2. Primeiramente, conecte todos os cabos aos dispositivos. 3. Conecte os cabos de sinal aos conectores. 4. Conecte os cabos de alimentação às tomadas. 5. LIGUE os dispositivos.	1. DESLIGUE Tudo. 2. Primeiramente, remova os cabos de alimentação das tomadas. 3. Remova os cabos de sinal dos conectores. 4. Remova todos os cabos dos dispositivos.



CUIDADO:

Ao substituir a bateria de lítio, utilize apenas uma bateria com Número de Peça 45C1566 ou um tipo de bateria equivalente recomendado pelo Se o seu sistema possui um módulo com uma bateria de lítio, substitua-o apenas por um módulo do mesmo tipo e do mesmo fabricante. A bateria contém lítio e pode explodir se não for utilizada, manuseada ou descartada de maneira correta.

Não:

- Jogue ou coloque na água
- Aqueça a mais de 100°C (212°F)
- Conserte nem desmonte

Descarte a bateria conforme requerido pelas leis ou regulamentos locais.



PRECAUCIÓN:

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

- Não remova as tampas. A remoção das tampas de um produto a laser pode resultar em exposição prejudicial à radiação de laser. Não existem peças que podem ser consertadas no interior do dispositivo.
- A utilização de controles ou ajustes ou a execução de procedimentos diferentes dos especificados aqui pode resultar em exposição prejudicial à radiação.

PERIGO

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

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



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

CUIDADO:

Utilize procedimentos de segurança para levantar equipamentos.



CUIDADO:

O botão de controle de alimentação do dispositivo e o botão para ligar/desligar da fonte de alimentação não desligam a corrente elétrica fornecida ao dispositivo. O dispositivo também pode ter mais de um cabo de alimentação. Para remover toda a corrente elétrica do dispositivo, assegure que todos os cabos de alimentação estejam desconectados da fonte de alimentação.



危险

电源、电话和通信电缆中的电流是危险的。

为避免电击危险：

- 请勿在雷电期间连接或断开任何电缆的连接，或者对本产品进行安装、维护或重新配置。
- 将所有电源线连接到正确连线和妥善接地的电源插座。
- 将所有要连接到该产品的设备连接到正确连线的插座。
- 如果可能，请仅使用一只手来连接或断开信号电缆的连接。
- 切勿在有火、水、结构损坏迹象的情况下开启任何设备。
- 在打开设备外盖之前请断开已连接的电源线、远程通信系统、网络和调制解调器，除非在安装和配置过程中另有说明。
- 当安装、移动或打开该产品或连接设备的外盖时，请按照下表所述来连接或断开电缆的连接。

要连接	要断开连接
1. 切断所有电源。 2. 首先将所有电缆连接到设备。 3. 将信号电缆连接到接口。 4. 将电源线连接到插座。 5. 开启设备。	1. 切断所有电源。 2. 首先从插座上拔出电源线。 3. 从接口上拔出信号电缆。 4. 从设备上拔出所有电缆。



警告：
更换锂电池时，请仅使用部件号为 33F8354 的电池或制造商推荐的同类电池。如果您的系统有包含锂电池的模块，请仅使用同一制造商生产的相同模块类型来替换该模块。该电池中含有锂，如果使用、操作或处理不当，可能会发生爆炸。

切勿：

- 投入或浸入水中
- 加热到 100 °C (212 °F) 以上
- 维修或拆卸

请按照当地法令或条例的要求处理电池。



警告：
安装激光产品（例如 CD-ROM、DVD-ROM 驱动器、光纤设备或发射设备）时，请注意以下声明：

- 请勿卸下外盖。卸下激光产品的外盖可能导致遭受激光辐射的危险。该设备内没有可维修的部件。
- 如果不按照此处指定的过程进行控制、调整或操作，则有可能导致遭受辐射的危险。



危险

某些激光产品包含嵌入式 3A 类或 3B 类激光二极管。请注意以下声明：

打开后有激光辐射。请勿注视光束，请勿直接用光学仪器查看，并请避免直接暴露在光束中。



≥18 千克 (37 磅)



≥32 千克 (70.5 磅)



≥55 千克 (121.2 磅)

警告：

抬起时请采取安全措施。



警告：

设备上的电源控制按钮和电源上的电源开关不会切断供给该设备的电流。该设备还可能有多条电源线。要切断该设备的所有电流，请确保所有电源线都与电源断开连接。



危險

電源、電話及通訊纜線上的電流都具有危險性。

若要避免觸電危險：

- 請勿在雷雨期間，連接或拔除纜線、執行安裝、維護或重新配置本產品。
- 將所有電源線連接到正確配線及接地的電源插座。
- 任何與本產品連接的設備都必須連接到配線妥當的電源插座。
- 請盡可能用單手連接或拔除信號線。
- 發生火災、水災或結構損害時，絕對不要開啟任何設備。
- 除非在安裝及配置程序中另有指示，否則在開啟裝置機蓋之前，請拔掉連接的電源線、電信系統、網路及數據機。
- 安裝、移動或開啟本產品或附屬裝置的機蓋時，請遵循下列說明連接及拔掉纜線。

連線	切斷連線
1. 關閉所有開關。 2. 首先，連接所有接線到裝置。 3. 連接信號線到接頭。 4. 連接電源線到插座。 5. 開啟裝置。	1. 關閉所有開關。 2. 首先，拔掉插座上的電源線。 3. 拔掉接頭上的信號線。 4. 拔掉裝置上所有接線。



警告：

更換鋰電池時，請僅使用產品編號 **33F8354** 或製造商所建議的同類型電池。

如果您的系統中含有鋰電池模組，請僅使用同一家製造商所生產的相同模組進行更換。

如果未以正確方式使用、處理或棄置含鋰的電池，會有爆炸的危險。

請勿：

- 沾溼或浸入水中
- 置於 **100C (212F)** 以上的高溫環境
- 修理或拆開

請按照各地區有關廢棄電池的法令和規定處理舊電池。

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警告：

- 請勿移除機蓋。移除雷射產品的機蓋，可能會導致暴露在危險的雷射輻射中。裝置內部並無可自行維修的零件。
- 利用或執行非本文中所指定的控制、調整及執行程序，可能會導致危險的輻射外洩。

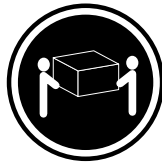


危險

部分雷射產品含有內嵌式 **Class 3A** 或 **Class 3B** 雷射二極體。請注意下列事項：

在開啟光碟機時，會發生雷射輻射。請勿直視光束或用光學儀器直接檢視，並避免直接暴露在光束中。

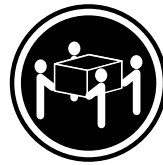




≥ 18 公斤 (37 磅)



≥ 32 公斤 (70.5 磅)



≥ 55 公斤 (121.2 磅)

警告：
搬運時請注意安全。



警告：
裝置上的電源控制按鈕及電源供應器上的電源開關，無法關閉裝置所產生的電流。
該裝置可能有多條電源線。若要除去裝置流出的所有電流，請確認已切斷所有電源線的電源。



DANGER

Le courant électrique provenant de l'alimentation, du téléphone et des câbles de transmission peut présenter un danger.

Pour éviter tout risque de choc électrique :

- Ne manipulez aucun câble et n'effectuez aucune opération d'installation, d'entretien ou de reconfiguration de ce produit au cours d'un orage.
- Branchez tous les cordons d'alimentation sur un socle de prise de courant correctement câblé et mis à la terre.
- Branchez sur des socles de prise de courant correctement câblés tout équipement connecté à ce produit.
- Lorsque cela est possible, n'utilisez qu'une seule main pour connecter ou déconnecter les câbles d'interface.
- Ne mettez jamais un équipement sous tension en cas d'incendie ou d'inondation, ou en présence de dommages matériels.
- Avant de retirer les carters de l'unité, mettez celle-ci hors tension et déconnectez ses cordons d'alimentation, ainsi que les câbles qui la relient aux réseaux, aux systèmes de télécommunication et aux modems (sauf instruction contraire mentionnée dans les procédures d'installation et de configuration).
- Lorsque vous installez, que vous déplacez, ou que vous manipulez le présent produit ou des périphériques qui lui sont raccordés, reportez-vous aux instructions ci-dessous pour connecter et déconnecter les différents cordons.

Connexion	Déconnexion
1. Mettez les unités HORS TENSION. 2. Commencez par brancher tous les cordons sur les unités. 3. Branchez les câbles d'interface sur des connecteurs. 4. Branchez les cordons d'alimentation sur des prises. 5. Mettez les unités SOUS TENSION.	1. Mettez les unités HORS TENSION. 2. Débranchez les cordons d'alimentation des prises. 3. Débranchez les câbles d'interface des connecteurs. 4. Débranchez tous les câbles des unités.



ATTENTION:

Remplacer la pile au lithium usagée par une pile de référence identique exclusivement, (référence 45C1566), ou suivre les instructions du fabricant qui en définit les équivalences. Si votre système est doté d'un module contenant une pile au lithium, vous devez le remplacer uniquement par un module identique, produit par le même fabricant. La pile contient du lithium et peut exploser en cas de mauvaise utilisation, de mauvaise manipulation ou de mise au rebut inappropriée.

Ne pas :

- la jeter à l'eau,
- l'exposer à des températures supérieures à 100°C,
- chercher à la réparer ou à la démonter.

Ne pas mettre la pile à la poubelle. Pour la mise au rebut, se reporter à la réglementation en vigueur.



ATTENTION:

Si des produits à laser (tels que des unités de CD-ROM, de DVD-ROM, des unités à fibres optiques, ou des émetteurs) sont installés, prenez connaissance des informations suivantes :

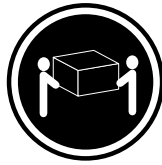
- Ne retirez pas le carter. En ouvrant l'unité de CD-ROM ou de DVD-ROM, vous vous exposez au rayonnement dangereux du laser. Aucune pièce de l'unité n'est réparable.
- Pour éviter tout risque d'exposition au rayon laser, respectez les consignes de réglage et d'utilisation des commandes, ainsi que les 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.



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

ATTENTION:

Soulevez la machine avec précaution.



ATTENTION:

L'interrupteur de contrôle d'alimentation de l'unité et l'interrupteur dubloc d'alimentation ne coupent pas le courant électrique alimentant l'unité. En outre, le système peut être équipé de plusieurs cordons d'alimentation. Pour mettre l'unité hors tension, vous devez déconnecter tous les cordons de la source d'alimentation.



VORSICHT

An Netz-, Telefon- und Datenleitungen können gefährliche Spannungen anliegen.

Aus Sicherheitsgründen:

- Bei Gewitter an diesem Gerät keine Kabel anschließen oder lösen. Ferner keine Installations-, Wartungs- oder Rekonfigurationsarbeiten durchführen.
- Gerät nur an eine Schutzkontaktsteckdose mit ordnungsgemäß geerdetem Schutzkontakt anschließen.
- Alle angeschlossenen Geräte ebenfalls an Schutzkontaktsteckdosen mit ordnungsgemäß geerdetem Schutzkontakt anschließen.
- Die Signalkabel nach Möglichkeit einhändig anschließen oder lösen, um einen Stromschlag durch Berühren von Oberflächen mit unterschiedlichem elektrischem Potenzial zu vermeiden.
- Geräte niemals einschalten, wenn Hinweise auf Feuer, Wasser oder Gebäudeschäden vorliegen.

- Die Verbindung zu den angeschlossenen Netzkabeln, Telekommunikationssystemen, Netzwerken und Modems ist vor dem Öffnen des Gehäuses zu unterbrechen, sofern in den Installations- und Konfigurationsprozeduren keine anders lautenden Anweisungen enthalten sind.
- Zum Installieren, Transportieren und Öffnen der Abdeckungen des Computers oder der angeschlossenen Einheiten die Kabel gemäß der folgenden Tabelle anschließen und abziehen.

Zum Anschließen der Kabel gehen Sie wie folgt vor	Zum Abziehen der Kabel gehen Sie wie folgt vor
1. Schalten Sie alle Einheiten AUS. 2. Schließen Sie erst alle Kabel an die Einheiten an. 3. Schließen Sie die Signalkabel an die Buchsen an. 4. Schließen Sie die Netzkabel an die Steckdose an. 5. Schalten Sie die Einheit EIN.	1. Schalten Sie alle Einheiten AUS. 2. Ziehen Sie zuerst alle Netzkabel aus den Netzsteckdosen. 3. Ziehen Sie die Signalkabel aus den Buchsen. 4. Ziehen Sie alle Kabel von den Einheiten ab.



CAUTION:

Eine verbrauchte Lithiumbatterie nur durch eine Batterie mit der Teilenummer 45C1566 oder eine gleichwertige, vom Hersteller empfohlene Batterie ersetzen. Enthält das System ein Modul mit einer Lithiumbatterie, dieses nur durch ein Modul desselben Typs und von demselben Hersteller ersetzen. Die Batterie enthält Lithium und kann bei unsachgemäßer Verwendung, Handhabung oder Entsorgung explodieren.

Die Batterie nicht:

- mit Wasser in Berührung bringen.
- über 100 C erhitzen.
- reparieren oder zerlegen.

Die örtlichen Bestimmungen für die Entsorgung von Sondermüll beachten.



ACHTUNG:

Bei der Installation von Lasergeräten (wie CD-ROM-Laufwerken, DVD- aufwerken, 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.



VORSICHT

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.



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

ACHTUNG:

Arbeitsschutzrichtlinien beim Anheben der Maschine beachten.



ACHTUNG:

Mit dem Netzschalter an der Einheit und am Netzteil wird die Stromversorgung für die Einheit nicht unterbrochen. Die Einheit kann auch mit mehreren Netzkabeln ausgestattet sein. Um die Stromversorgung für die Einheit vollständig zu unterbrechen, müssen alle zum Gerät führenden Netzkabel vom Netz getrennt werden.



סכנה

זרם חשמלי המועבר בכבלי חשמל, טלפון ותקשורת הוא מסוכן.

כדי להימנע מסכנת התחשמלות:

- אל תחברו או תנתקו כבלים, ואל תבצעו פעולת התקנה, תחזוקה או שינוי תצורה במוצר זה במהלך סופת ברקים.
- חברו את כל כבלי החשמל לשקע חשמל מחווט ומוארק כהלכה.
- חברו כל ציוד שיחובר למוצר זה לשקעי חשמל מחוטים כהלכה.
- במידת האפשר, השתמשו ביד אחת בלבד לחיבור או לניתוק של כבלי אותות.
- לעולם אל תפעילו ציוד כלשהו כאשר יש עדות לנזק מבני או לנזק כתוצאה מאש או ממים.
- נתקו את כבלי החשמל, מערכות התקשורת, התקני הרשת והמודמים המחוברים לפני פתיחת כיסויי ההתקן, אלא אם הליכי ההתקנה וקביעת התצורה מורים אחרת.
- בעת התקנה, העברה או פתיחת כיסויים במוצר זה או בהתקנים המחוברים, חברו ונתקו את הכבלים כמתואר בטבלה שלהלן.

כדי לחבר	כדי לנתק
1. כבו הכל.	1. כבו הכל.
2. ראשית, חברו את כל הכבלים להתקנים.	2. ראשית, נתקו את כבלי החשמל מהשקעים.
3. חברו את כבלי האותות למחברים.	3. נתקו את כבלי האותות מהמחברים.
4. חברו את כבלי החשמל לשקעים.	4. הסירו את כל הכבלים מההתקנים.
5. הפעילו את ההתקן.	



זהירות:

בעת החלפת סוללת הליתיום, השתמשו רק בסוללה בעלת מק"ט 33F8354 או בסוג תואם שהומלץ על ידי היצרן. אם המערכת כוללת מודול המכיל סוללת ליתיום, החליפו אותו רק במודול מאותו סוג ומתוצרת אותו יצרן. הסוללה מכילה ליתיום, ועלולה להתפוצץ אם לא משתמשים ומטפלים בה או משליכים אותה כראוי.

לעולם:

- אל תטבלו במים
 - אל תחממו לטמפרטורה הגבוהה מ-100°C (212°F)
 - אל תתקנו או תפרקו
- השליכו את הסוללה כנדרש לפי התקנות והחוקים המקומיים.



זהירות:

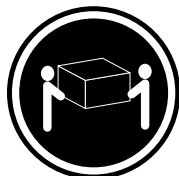
בעת התקנת מוצרי לייזר (כגון כונני תקליטורים ו-DVD, התקני סיב אופטי או משדרים), שימו לב לאזהרות הבאות:

- אל תסירו את הכיסויים. הסרת הכיסויים של מוצר הלייזר עלולה לגרום לחשיפה לקרינת לייזר מסוכנת. אין חלקים ברי טיפול בתוך ההתקן.
- שינויים, שימוש בבקורות או ביצוע הליכים אחרים מאלה המתוארים כאן, עלולים לגרום לחשיפה לקרינה מסוכנת.



סכנה

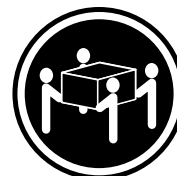
מוצרי ליזר מסוימים מכילים דיודת ליזר מסוג Class 3A או Class 3B. שימו לב לאזהרה הבאה:
כאשר הוא פתוח, המוצר פולט קרינת ליזר. אל תביטו ישירות בקרן, אל תביטו ישירות בעזרת ציוד אופטי, והימנעו מחשיפה לקרן.



$18 \leq$ ק"ג (37 ליב')



$32 \leq$ ק"ג (70.5 ליב')



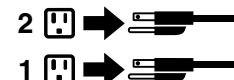
$55 \leq$ ק"ג (121.2 ליב')

זהירות:
השתמשו בהליכים
הנאותים בעת
הרמת הציוד.



זהירות:

לחצן ההפעלה של ההתקן ומתג ההפעלה של ספק החשמל אינם מפסיקים את זרם החשמל המסופק להתקן.
בנוסף, ההתקן עשוי לכלול יותר מכבל חשמל אחד. כדי לסלק את כל הזרם החשמלי מההתקן,
ודאו שכל כבלי החשמל מנותקים ממקור החשמל.



PERICOLO

La corrente elettrica proveniente dai cavi di alimentazione, del telefono e di comunicazione può essere pericolosa.

Per evitare il rischio di scosse elettriche:

- **Non collegare o scollegare qualsiasi cavo oppure effettuare l'installazione, la manutenzione o la riconfigurazione del prodotto durante un temporale.**
- **Collegare tutti i fili elettrici a una presa di alimentazione correttamente cablata e dotata di messa a terra.**
- **Collegare alle prese elettriche appropriate tutte le apparecchiature che verranno utilizzate per questo prodotto.**

- Se possibile, utilizzare solo una mano per collegare o scollegare i cavi di segnale.
- Non accendere assolutamente apparecchiature in presenza di incendi, perdite d'acqua o danno strutturale.
- Scollegare i cavi di alimentazione, i sistemi di telecomunicazione, le reti e il modem prima di aprire i coperchi del dispositivo, salvo istruzioni contrarie relative alle procedure di installazione e configurazione.
- Collegare e scollegare i cavi come descritto nella seguente tabella quando vengono effettuate operazioni di installazione, spostamento o apertura dei coperchi di questo prodotto o delle unità collegate.

Per collegarsi	Per scollegarsi
1. SPEGNERE le apparecchiature. 2. Innanzitutto, collegare tutti i cavi alle unità. 3. Collegare i cavi di segnale ai connettori. 4. Collegare i cavi di alimentazione alla presa. 5. Accendere l'unità.	1. SPEGNERE le apparecchiature. 2. Innanzitutto, rimuovere i cavi di alimentazione dalla presa. 3. Rimuovere i cavi di segnale dai connettori. 4. Rimuovere tutti i cavi dalle unità.



ATTENZIONE:

Quando si sostituisce la batteria al litio, utilizzare solo il Numero parte 45C1566 o un tipo di batteria equivalente consigliato dal produttore. Se sul sistema è presente un modulo che contiene una batteria al litio, sostituirlo solo con un tipo di modulo dello stesso tipo della stessa casa di produzione. La batteria contiene litio e può esplodere se usata, maneggiata o smaltita in modo non corretto.

Non:

- Gettare o immergere la batteria nell'acqua
- Riscaldarla ad una temperatura superiore ai 100 gradi C (212 gradi F)
- Smontarla, ricaricarla o tentare di ripararla

Le batterie usate vanno smaltite in accordo alla normativa in vigore (DPR 915/82 e successive disposizioni e disposizioni locali).



ATTENZIONE:

Quando vengono installati prodotti laser (quali CD-ROM, unità DVD-ROM, unità a fibre ottiche o trasmettenti), tener presente quanto segue:

- Non rimuovere gli sportelli. L'apertura di un'unità laser può determinare l'esposizione a radiazioni laser pericolose. All'interno dell'unità non vi sono parti su cui effettuare l'assistenza tecnica.
- L'utilizzo di controlli, regolazioni o l'esecuzione di procedure non descritti nel presente manuale possono provocare l'esposizione a radiazioni pericolose.



PERICOLO

Alcune unità laser contengono un diodo laser di Classe 3A o Classe 3B. Tener presente quanto segue:

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



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

ATTENZIONE:

Prestare attenzione nel sollevare l'apparecchiatura.



ATTENZIONE:

Il pulsante di controllo dell'alimentazione presente sull'unità e l'interruttore dell'alimentatore non disattivano l'alimentazione corrente fornita all'unità. E' possibile che l'unità disponga di più cavi di alimentazione. Per disattivare l'alimentazione dall'unità, accertarsi che tutti i cavi di alimentazione siano scollegati dalla fonte di alimentazione.



위험

전원, 전화, 통신 케이블의 전류는 위험합니다.

감전의 위험을 피하려면 다음과 같이 하십시오.

- 번개가 치는 날에는 케이블을 연결 또는 분리하거나 본 제품을 설치, 보수, 재구성하지 마십시오.
- 모든 전원 코드는 올바르게 접지된 전기 콘센트에 연결하십시오.
- 본 제품에 연결될 장치는 올바르게 배선된 콘센트에 연결하십시오.
- 신호 케이블을 연결 또는 분리할 때 가능하면 한 손만을 사용하십시오.
- 불 또는 물로 인한 손상이나 구조적인 손상이 있을 경우 장치의 전원을 절대 켜지 마십시오.
- 설치 및 구성 과정에 별도의 지시 사항이 없는 경우, 장치의 덮개를 열기 전에 연결된 전원 코드, 원격 통신 시스템, 네트워크, 모뎀을 분리하십시오.
- 본 제품이나 연결된 장치를 설치, 이동하거나 덮개를 열 때 다음 표와 같은 순서로 케이블을 연결하거나 분리하십시오.

연결할 때:	분리할 때:
1. 모든 장치의 전원을 끄십시오. 2. 먼저 모든 케이블을 장치에 연결하십시오. 3. 커넥터에 신호 케이블을 연결하십시오. 4. 콘센트에 전원 코드를 연결하십시오. 5. 장치의 전원을 켜십시오.	1. 모든 장치의 전원을 끄십시오. 2. 먼저 콘센트에서 전원 코드를 분리하십시오. 3. 커넥터에서 신호 케이블을 분리하십시오. 4. 장치에서 모든 케이블을 분리하십시오.



주의:

배터리를 교환할 때는 Part Number 33F8354 또는 제조업체에서 지정한 동일한 종류의 제품을 사용하십시오. 사용자의 시스템이 리튬 배터리를 포함하는 모듈일 경우, 동일한 제조업체에서 동일한 모듈 유형으로 생산된 제품으로 교체하십시오. 배터리에는 리튬이 함유되어 있어 잘못 사용, 취급 또는 폐기할 경우 폭발의 위험이 있습니다.

사고를 방지하려면 다음 사항을 준수하십시오.

- 배터리를 물 속에 던지거나 침수시키지 마십시오.
- 100°C (212°F) 이상 가열하지 마십시오.
- 수리하거나 분해하지 마십시오.

배터리를 폐기할 때는 법령 또는 회사의 안전 수칙에 따라 폐기하십시오.



주의:

CD-ROM, DVD-ROM 장치, 광섬유 장치 또는 송신 장치와 같은 레이저 제품을 설치할 때, 다음과 같은 취급 주의사항을 참고하십시오.

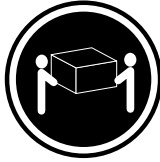
- 덮개를 열지 마십시오. 덮개를 열면 레이저 복사 에너지에 노출될 위험이 있습니다. 장치 내부에는 사용자가 조정하거나 수리할 수 있는 부품이 없습니다.
- 규정된 것 이외의 절차 수행, 제어 조정 등의 행위로 인해 해로운 레이저 복사에 노출될 수 있습니다.



위험

일부 장비에는 임베디드 클래스 3A 또는 클래스 3B 레이저 다이오드가 있습니다. 다음 주의사항에 유의하십시오.

드라이브가 열리면 레이저 복사 에너지가 방출됩니다. 광선이 눈에 직접 쏘이지 않도록 하십시오. 나안 또는 광학 기구를 착용한 상태에서 광선을 직접 바라보지 않도록 하십시오.



≥ 18 kg (37 lbs)



≥ 32 kg (70.5 lbs)



≥ 55 kg (121.2 lbs)

주의:
제품을 들어 올릴 때
안전 규제를 따르십시오.



주의:
장치의 전원 제어 버튼 및 전원 공급 장치의 전원 스위치를 사용하여 장치에 공급되는 전기를 차단하지 마십시오.
장치는 둘 이상의 코드를 가지고 있을 수 있습니다. 장치에서 모든 전원을 차단하려면 콘센트에서 코드가 모두
분리되어 있는지 확인하십시오.



PELIGRO

La corriente eléctrica procedente de cables de alimentación, teléfonos y cables de comunicación puede ser peligrosa.

Para evitar el riesgo de descarga eléctrica:

- No conecte ni desconecte los cables ni realice ninguna tarea de instalación, mantenimiento o reconfiguración de este producto durante una tormenta eléctrica.
- Conecte todos los cables de alimentación a tomas de corriente debidamente cableadas y conectadas a tierra.
- Cualquier equipo que se conecte a este producto también debe conectarse a tomas de corriente debidamente cableadas.
- Siempre que sea posible, utilice una sola mano para conectar o desconectar los cables de señal.
- No encienda nunca un equipo cuando hay señales de fuego, agua o daños estructurales.

- **Desconecte los cables de alimentación, los sistemas de telecomunicaciones, las redes y los módems conectados antes de abrir las cubiertas de los dispositivos, a menos que se indique lo contrario en los procedimientos de instalación y configuración.**
- **Conecte y desconecte los cables, como se describe en la tabla siguiente, cuando instale, mueva o abra las cubiertas de este producto o de los dispositivos conectados.**

Para conectar	Para desconectar
1. APÁGUELO todo. 2. En primer lugar, conecte todos los cables a los dispositivos. 3. Conecte los cables de señal a los conectores. 4. Enchufe los cables de alimentación a las tomas de corriente. 5. Encienda el dispositivo.	1. APÁGUELO todo. 2. En primer lugar, desenchufe los cables de alimentación de las tomas de corriente. 3. Desconecte los cables de señal de los conectores. 4. Desconecte todos los cables de los dispositivos.



PRECAUCIÓN:

Quando sustituya una batería de litio, utilice solamente una batería número de pieza 45C1566 u otra de tipo equivalente recomendada por el fabricante. Si su sistema dispone de un módulo que contiene una batería de litio, reemplácelo sólo con el mismo tipo de módulo, del mismo fabricante. La batería contiene litio y puede explotar si no se utiliza, manipula o desecha correctamente.

No debe:

- Arrojarla al agua o sumergirla en ella
- Exponerla a temperaturas superiores a 100°C (212°F)
- Repararla o desmontarla

Deshágase de la batería según especifiquen las leyes o normas locales.



PRECAUCIÓN:

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

- No quite las cubiertas. Si quita las cubiertas del producto láser, podría quedar expuesto a radiación láser peligrosa. Dentro del dispositivo no existe ninguna pieza que requiera servicio técnico.
- Si usa controles o ajustes o realiza procedimientos que no sean los especificados aquí, podría exponerse a radiaciones peligrosas.



PELIGRO

Algunos productos láser tienen incorporado un diodo láser de clase 3A o clase 3B. Tenga en cuenta lo siguiente:

Cuando se abre, queda expuesto a radiación láser. No mire directamente al rayo láser, ni siquiera con instrumentos ópticos, y evite exponerse directamente al rayo láser.



≥18 kg (37 lbs)



≥32 kg (70.5 lbs)



≥55 kg (121.2 lbs)

PRECAUCIÓN:

Adopte procedimientos seguros al levantar el equipo.



PRECAUCIÓN:

El botón de control de alimentación del dispositivo y el interruptor de alimentación de la fuente de alimentación no desconectan la corriente eléctrica suministrada al dispositivo. Además, el dispositivo podría tener más de un cable de alimentación. Para suprimir toda la corriente eléctrica del dispositivo, asegúrese de que todos los cables de alimentación estén desconectados de la toma de corriente.



Chapter 3. General information

This chapter provides general information that applies to all machine types supported by this manual.

Online Books folder

Note: The Online Books folder is only available on computers with an internal hard disk drive and preinstalled software programs from Lenovo.

The Online Books folder preinstalled on your computer contains the *ThinkCentre User Guide*, which provides information about your computer to help you set up, use, and maintain your computer. It requires no Internet access to view the publication.

To view the publication, click **Start** → **All Programs** → **Online Books** → **Online Books**, then double-click the publication for your computer. The publication is also available on the Lenovo Support Web site at: <http://www.lenovo.com/support>

Notes:

1. The publication is in Portable Document Format (PDF). To view the publication, you need to have the Adobe Reader program preinstalled on your computer. If the Adobe Reader program has not been installed on your computer, a message will be displayed when you attempt to view the PDF file and you will be guided through the Adobe Reader installation.
2. The publication is available in other languages on the Lenovo Support Web site at: <http://www.lenovo.com/support>
3. If you want to install a different language version of the Adobe Reader program rather than the version preinstalled on your computer, download the desired language version from the Adobe Web site at: <http://www.adobe.com>

Lenovo ThinkVantage Tools

Note: The Lenovo ThinkVantage® Tools program is only available on computers with an internal hard disk drive, the Microsoft® Windows® 7 operating system, and preinstalled software programs from Lenovo.

The Lenovo ThinkVantage Tools program helps you work more easily and securely by providing easy access to various tools, such as:

- Lenovo ThinkVantage Toolbox/Lenovo Solution Center
- Password Manager
- Power Manager
- Product Recovery
- Rescue and Recovery®
- ThinkVantage System Update
- SimpleTap

To access the Lenovo ThinkVantage Tools program, click **Start** → **All Programs** → **Lenovo ThinkVantage Tools**.

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. See “Lenovo Solution Center” on page 37 for detailed information.

SimpleTap

The SimpleTap program provides you with a quick way to customize some basic computer settings such as muting the speakers, adjusting the volume, locking the computer operating system, launching a program, opening a Web page, opening a file, and so on. You also can use the SimpleTap program to access the Lenovo App Shop, from which you can download various applications and computer software.

To start the SimpleTap program in a quick way, do any of the following:

- Click the red SimpleTap launch point on the desktop. The red launch point is available on the desktop after you have launched the SimpleTap program for the first time.
- Press the blue ThinkVantage button if your keyboard has one.

Note: The SimpleTap program is only available on certain models preinstalled with the Windows 7 operating system. If your Windows 7 model is not preinstalled with the SimpleTap program, you can download it from <http://www.lenovo.com/support>.

ThinkVantage Productivity Center

Note: The ThinkVantage Productivity Center program is only available on computers with an internal hard disk drive, the preinstalled Microsoft Windows Vista® operating system or the preinstalled Microsoft Windows XP operating system from Lenovo.

The ThinkVantage Productivity Center program contains information sources and tools designed to make computing easy and secure. It provides easy access to various technologies, such as:

- Client Security Solution or Password Manager
- Power Manager
- Product Recovery
- Rescue and Recovery

To access the ThinkVantage Productivity Center program, click **Start** → **All Programs** → **ThinkVantage** → **Productivity Center**.

Access Help

Note: The Access Help information system is only available on computers with an internal hard disk drive and preinstalled software programs from Lenovo.

The Access Help information system provides information about getting started, doing basic tasks, customizing settings for your personal preference, protecting data, expanding and upgrading, and troubleshooting.

- To open the Access Help information system on the Windows 7 operating system, click **Start** → **Help and Support** → **Lenovo Access Help**.
- To open the Access Help information system on the Windows Vista operating system or the Windows XP operating system, click **Start** → **All Programs** → **ThinkVantage** → **Access Help**.

After you have opened the Access Help information system, use the left panel to make a selection from the **Contents** tab or the **Index** tab, or use the **Search** tab to find a particular word or phrase.

Additional information resources

If you have Internet access, the most up-to-date information for your computer is available at:
<http://www.lenovo.com/support>

You can find the following information:

- Customer Replaceable Unit (CRU) installation or replacement instructions
- Downloads and drivers
- Parts information
- Publications
- Troubleshooting information
- Links to other useful sources of information

Specifications

This section lists the physical specifications for your computer.

Dimensions

Width: 275 mm (10.83 inches)

Height: 80 mm (3.15 inches)

Depth: 238 mm (9.37 inches)

Weight

Note: The weight does not include the power supply or any external cables.

Maximum configuration as shipped: 4.18 kg (9.22 lbs)

Environment

- Air temperature:
 - Operating: 10° to 35°C (50° to 95°F)
 - Non-operating: -40° to 60°C (-40° to 140°F)
- Humidity:
 - Operating: 10% to 80% (10% per hour, non condensing)
 - Non-operating: 10% to 90% (10% per hour)
- Maximum altitude:
 - Operating: -50 to 10,000 ft (-15.2 to 3048 m)
 - Non-operating: -50 to 35,000 ft (-15.2 to 10,668 m)

Electrical input

- Input voltage:
 - Low range:
 - Minimum: 100 V AC
 - Maximum: 127 V AC
 - Input frequency range: 50/60 Hz
 - Voltage-selection switch setting: 115 V AC
 - High range:
 - Minimum: 200 V AC

Maximum: 240 V AC

Input frequency range: 50/60 Hz

Voltage-selection switch setting: 230 V AC

Chapter 4. General checkout

Attention

The drives in the computer you are servicing might have been rearranged or the drive startup sequence changed. Be extremely careful during write operations such as copying, saving, or formatting. Data or programs can be overwritten if you select an incorrect drive.

General error messages appear if a problem or conflict is found by an application program, the operating system, or both. For the explanation of these messages, refer to the information supplied with that software package.

Before replacing any FRUs, ensure that the latest level of BIOS is installed on the system. A down-level BIOS might cause false errors and unnecessary replacement of the system board. For more information on how to determine and obtain the latest level BIOS, see “BIOS levels” on page 275.

Notes: For computer models that do not have an internal hard disk drive and use a remote hard disk drive accessed through the Secure Managed Client - Storage Array (SMC - Storage Array):

- You might receive the error message “No operating system found. Press F1 to repeat boot sequence.” In this case, press Ctrl+Alt+Delete instead of F1 to establish a connection to the storage area network where your operating system is stored. Verify that the user name is not logged on in another location.
- If the SMC login prompt disappears before you log in and then a black screen displays, contact your administrator.

Use the following procedure to help determine the cause of the problem:

1. Power-off the computer and all external devices.
2. Check all cables and power cords.
3. Set all display controls to the middle position.
4. Power-on all external devices.
5. Power-on the computer.
 - Look for displayed error codes
 - Listen for beep codes
 - Look for readable instructions or a main menu on the display.If you **did not** receive the correct response, proceed to step 6 on page 33.

If you **do** receive the correct response, run the diagnostics. See “Running the diagnostic program from the diagnostic disc” on page 39.

6. Look at the following conditions and follow the instructions:
 - If you hear beep codes during POST, go to “Beep symptoms” on page 63.
 - If the computer displays a POST error, go to “POST error codes” on page 63.
 - If the computer hangs and no error is displayed, go to “Power problems” on page 33.

Checking for power problems

If the computer does not turn on when the power switch is pressed, use the following procedure to help troubleshoot:

1. Press the power switch to turn on the computer. Check the power indicator LED next to the power switch.
 - If the LED is illuminated (on), the computer power is OK. Attempt to run the diagnostics. See “Running the diagnostic program from the diagnostic disc” on page 39.

- If the LED is not illuminated (off), go to step 2 on page 34
- 2. Check the status of the power indicator LED on the AC/DC power adapter.
 - If the LED is illuminated (on), go to step 7 on page 34.
 - If the LED is not illuminated (off), go to the next step 3 on page 34.
- 3. Verify that the power cord is properly connected to an AC power outlet.
- 4. Verify that you are using a good AC power outlet. Plug another device into the outlet or contact the power company or supplier to verify that the outlet is working correctly .
- 5. Check the power cord continuity.
- 6. Replace the AC/DC power adapter.
- 7. Verify that the power cord from the AC/DC power adapter to the computer is properly connected. See “Locating connectors on the rear of the computer” on page 68.
- 8. Open the cover. See “Opening the computer cover” on page 71.
- 9. Check the power switch/LED assembly connector on the system board. See “Locating parts on the system board” on page 70. Reseat the cable from the power switch/LED assembly to the system board.
- 10. Replace the power switch/LED assembly.
- 11. Replace the system board. See “Replacing the system board” on page 80.

Problem determination tips

Due to the variety of hardware and software combinations that can be encountered, use the following information to assist you in problem determination. If possible, have this information available when requesting assistance from Service Support and Engineering functions.

- Machine type and model
- Processor or hard disk upgrades
- Failure symptom
 - Do diagnostics indicate a failure?
 - What, when, where, single, or multiple systems?
 - Is the failure repeatable?
 - Has this configuration ever worked?
 - If it has been working, what changes were made prior to it failing?
 - Is this the original reported failure?
- Diagnostics version
 - Type and version level
- Hardware configuration
 - Print (print screen) configuration currently in use
 - BIOS level
- Operating system software
 - Type and version level

Notes: To eliminate confusion, identical systems are considered identical only if they:

1. Are the exact machine type and models
2. Have the same BIOS level
3. Have the same adapters/attachments in the same locations
4. Have the same address jumpers/terminators/cabling

5. Have the same software versions and levels
6. Have the same Diagnostic Diskettes (version)
7. Have the same configuration options set in the system
8. Have the same setup for the operating system control files

Comparing the configuration and software setup between “working and non-working” systems will often lead to problem resolution.

Chapter 5. Diagnostic programs

Diagnostic programs are used to test hardware components of your computer. Diagnostic programs can also report operating-system-controlled settings that interfere with the correct operation of your system. You can use the preinstalled diagnostic program to diagnose computer problems, if your computer is running in the Windows® operating system.

Notes:

1. Depending on the date when your computer was manufactured, your computer is preinstalled with either the Lenovo Solution Center program or the Lenovo ThinkVantage Toolbox program for diagnostic purposes. For more information about the Lenovo ThinkVantage Toolbox program, see “Lenovo ThinkVantage Toolbox” on page 37. For more information about the Lenovo Solution Center program, see “Lenovo Solution Center” on page 37.
2. You can also download the PC-Doctor for DOS diagnostic program from <http://www.lenovo.com/support>. See “PC-Doctor for DOS” on page 38 for detailed information.
3. If you are unable to isolate and repair the problem yourself after running the programs, save and print the log files created by the programs. You will need the log files when you speak to a Lenovo technical support representative.

Lenovo ThinkVantage Toolbox

Note: The Lenovo ThinkVantage Toolbox program is only available on computers preinstalled with the Windows 7 operating system from Lenovo.

The Lenovo ThinkVantage Toolbox program helps you maintain your computer, improve computing security, diagnose computer problems, get familiar with the innovative technologies provided by Lenovo, and get more information about your computer. You can use the diagnostics feature of the Lenovo ThinkVantage Toolbox program to test devices, diagnose computer problems, create bootable diagnostic media, update system drivers, and view system information.

To run the Lenovo ThinkVantage Toolbox program, click **Start** → **All Programs** → **Lenovo ThinkVantage Tools** → **System Health and Diagnostics**. Follow the instructions on the screen.

For additional information about running the Lenovo ThinkVantage Toolbox program, refer to the Lenovo ThinkVantage Toolbox help system.

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.

Notes:

- The Lenovo Solution Center program is available only on models preinstalled with the Windows 7 operating system. If your Windows 7 model is not preinstalled with the program, you can download it from <http://www.lenovo.com/diagnose>.
- If you are using the Windows Vista or Windows XP operating system, go to <http://www.lenovo.com/diagnose> for the latest information on diagnostics for your computer.

To run the Lenovo Solution Center program on the Windows 7 operating system, click **Start → All Programs → Lenovo ThinkVantage Tools → System Health and Diagnostics**. Follow the instructions on the screen.

For additional information, refer to the Lenovo Solution Center help system.

Note: If you are unable to isolate and repair the problem yourself after running the program, save and print the log files created by the program. You will need the log files when you speak to a Lenovo technical support representative.

Lenovo System Toolbox

Note: The Lenovo System Toolbox program is only available on computers preinstalled with the Windows Vista operating system or the Windows XP operating system from Lenovo.

The Lenovo System Toolbox program works through the Windows operating system to enable you to test devices, view symptoms and solutions for computer problems, update system drivers, and view system information.

To run the Lenovo System Toolbox program, click **Start → All Programs → Lenovo Services → Lenovo System Toolbox**. Follow the instructions on the screen.

For additional information about running the Lenovo System Toolbox program, refer to the Lenovo System Toolbox help system.

PC-Doctor for Rescue and Recovery

The PC-Doctor for Rescue and Recovery diagnostic program is part of the Rescue and Recovery workspace on your Lenovo computer. Use the PC-Doctor for Rescue and Recovery program if you are unable to start the Windows operating system.

To run the PC-Doctor for Rescue and Recovery program from the Rescue and Recovery workspace, do the following:

1. Turn off the computer.
2. Repeatedly press and release the F11 key when turning on the computer. When you hear beeps or see a logo screen, release the F11 key. The Rescue and Recovery workspace opens after a short delay.
3. From the Rescue and Recovery workspace, select **Launch advanced Rescue and Recovery → Diagnose hardware**. The PC-Doctor for Rescue and Recovery program opens.
4. Select the desired diagnostic test. Then, follow the instructions on the screen.

For additional information about running the PC-Doctor for Rescue and Recovery program, refer to the PC-Doctor for Rescue and Recovery help system.

Note: If you encounter failures that prevent you from gaining access to the Rescue and Recovery workspace, you can run the PC-Doctor for Rescue and Recovery program after using a rescue medium to recover the computer from failures and gaining access to the Rescue and Recovery workspace. Refer to the “Creating and using rescue media” section in your *ThinkCentre User Guide* for more information.

PC-Doctor for DOS

You can also download the latest version of the PC-Doctor for DOS diagnostic program from <http://www.lenovo.com/support>. The PC-Doctor for DOS diagnostic program runs independently of the Windows operating system. Use the PC-Doctor for DOS diagnostic program if you are unable to start the Windows operating system. You can run the PC-Doctor for DOS diagnostic program from a diagnostic disc that you created.

Creating a diagnostic disc

This section provides instructions on how to create a diagnostic disc.

To create a diagnostic disc, do the following:

1. Download a self-starting bootable disc image (known as an ISO image) of the diagnostic program from:
<http://www.lenovo.com/support>
2. Use any CD/DVD burning software to create a diagnostic disc with the ISO image.

Running the diagnostic program from the diagnostic disc

This section provides instructions on how to run the diagnostic program from the diagnostic disc that you created.

To run the diagnostic program from the diagnostic disc that you created, do the following:

1. Make sure that your computer is turned off.
2. Repeatedly press and release the F12 key when turning on the computer. When the **Startup Device Menu** opens, release the F12 key.
3. Insert the diagnostic disc into the optical drive.
4. Select the optical drive with the diagnostic disc as the startup device and press Enter. The diagnostic program opens.
5. Follow the instructions on the screen to run the desired diagnostic test. For additional help, press the F1 key.
6. Remove the diagnostic disc from the optical drive after completing the diagnostic test.

Navigating through the diagnostics programs

Use the cursor movement keys to navigate within the menus.

- The **Enter** key is used to select a menu item.
- The **Esc** key is used to back up to the previous menu.
- For online help select **F1**.

Running tests

There are four ways to run the diagnostic tests.

- Using the cursor movement keys, highlight **Run Normal Test** or **Run Quick Test** from the Diagnostics menu and then press **Enter**. This automatically runs a pre-defined group of tests from each test category. **Run Normal Test** runs a more extensive set of tests than does **Run Quick Test** and takes longer to complete.
- Press **F5** to automatically run all selected tests in all categories.
- From within a test category, press **Ctrl-Enter** to automatically run only the selected tests in that category.
- Using the cursor movement keys, highlight a single test within a test category, and then press **Enter**. This runs only that test.

Press **Esc** at any time to stop the testing process.

Test results (N/A, PASSED, FAILED, ABORTED) are displayed in the field beside the test description and in the test log. See “Viewing the test log” on page 41.

To select one or more tests, use the following procedure.

1. Open the corresponding test category.
2. Using the cursor movement keys, highlight the desired test.
3. Press the space bar.
A selected test is marked by >>. Pressing the space bar again de-selects a test and removes the >>.
4. Repeat steps 2 and 3 above to select all desired tests.

Test results

Diagnostics test results produce the following error code format:

Function Code	Failure Type	DeviceID	Date	ChkDigits	Text
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- **Function Code:**

Represents the feature or function within the PC.

- **Failure Type:**
Represents the type of error encountered.
- **DeviceID:**
Contains the component's unit-ID which corresponds to either a fixed disk drive, removable media drive, processor, specific RIMM, or a device on the PCI bus.
- **Date:**
Contains the date when the diagnostic test was run. The date is retrieved from CMOS and displayed using the YYYYMMDD format.
- **ChkDigits:**
Contains a 2-digit check-digit value to ensure the following:
 - Diagnostics were run on the specified date.
 - Diagnostics were run on the specified computer.
 - The diagnostic error code is recorded correctly.
- **Text:**
Description of the error.

Note: See “Diagnostic error codes” on page 47 for error code listings.

Quick and Full erase - hard drive

The diagnostics program offers two hard drive format utilities:

- Quick Erase Hard Drive
- Full Erase Hard Drive

The Quick Erase Hard Drive provides a DOS utility that performs the following:

- Destroys the Master Boot Record (MBR) on the hard drive.
- Destroys all copies of the FAT Table on all partitions (both the master and backup).
- Destroys the partition table.
- Provides messages that warn the user that this is a non-recoverable process.

The Full Erase Hard Drive provides a DOS utility that performs the following:

- Performs all the steps in Quick Erase.
- Provides a DOS utility that writes random data to all sectors of the hard drive.
- Provides an estimate of time to completion along with a visual representation of completion status.
- Provides messages that warn the user about non-recoverable process.

Important: Make sure that all data is backed up before using the Quick or Full Erase functions.

To select the Quick Erase or Full Erase Hard Drive utility, use the following procedure:

1. Select the UTILITY option on the toolbar and press **Enter**.
2. Select either the QUICK ERASE or FULL ERASE HARD DISK option and follow the instructions.

Viewing the test log

Errors reported by the diagnostic test will be displayed by the program as a failed test.

To view details of a failure or to view a list of test results, use the following procedure from any test category screen:

1. Press **F3** to activate the log file.
2. Press **F3** again to save the file to diskette or press **F2** to print the file.

Chapter 6. Using the Setup Utility program

The Setup Utility program is used to view and change the configuration settings of your computer, regardless of which operating system you are using. However, the operating-system settings might override any similar settings in the Setup Utility program.

Starting the Setup Utility program

To start the Setup Utility program, do the following:

1. If your computer is already on when you start this procedure, shut down the operating system and turn off the computer.
2. Repeatedly press and release the F1 key when turning on the computer. When you hear multiple beeps, release the F1 key. The Setup Utility program opens.

Note: If a Power-On Password or an Administrator Password has been set, the Setup Utility program menu is not displayed until you type the correct password. For more information, see “Using passwords” on page 43.

The Setup Utility program might start automatically when POST detects that hardware has been removed or new hardware has been installed in your computer.

Viewing and changing settings

The Setup Utility program menu lists items that identify system configuration topics. To view or change settings, see “Starting the Setup Utility program” on page 43.

When working with the Setup Utility program menu, you must use the keyboard. The keys used to perform various tasks are displayed at the bottom of each screen.

Using passwords

By using the Setup Utility program, you can set passwords to prevent unauthorized persons from gaining access to your computer and data. See “Starting the Setup Utility program” on page 43. The following types of passwords are available:

- Power-On Password
- Administrator Password
- Hard Disk User Password

You do not have to set any passwords to use your computer. However, if you decide to set any passwords, read the following sections.

Password considerations

A password can be any combination of up to 64 (1 to 64) alphabetic and numeric characters. For security reasons, it is recommended to use a strong password that cannot be easily compromised. A strong password should adhere to the following rules:

- Have at least eight characters in length and contain at least one alphabetic character and one numeric character
- Setup Utility program and hard disk drive passwords are not case sensitive

- Not be your name or your user name
- Not be a common word or a common name
- Be significantly different from your previous password

Power-On Password

When a Power-On Password is set, the computer cannot be used until a valid password is typed from the keyboard.

Administrator Password

When an Administrator Password is set, it deters unauthorized persons from changing configuration settings. If you are responsible for maintaining the settings of several computers, you might want to set an Administrator Password.

After you set an Administrator Password, a password prompt is displayed each time you try to access the Setup Utility program.

If both the Power-On Password and the Administrator Password are set, you can type either password. However, to change any configuration settings, you must use your Administrator Password.

Hard Disk User Password

When a Hard Disk User Password is set, it prevents unauthorized users from accessing the data on the hard disk drive.

For computer models that do not have an internal hard disk drive and use a remote hard disk drive accessed through the SMC - Storage Array, contact your network or storage administrator.

Setting, changing, and deleting a password

To set, change, or delete a password, do the following:

Note: A password can be any combination of up to 64 (1 to 64) alphabetic and numeric characters. For more information, see “Password considerations” on page 43.

1. Start the Setup Utility program. See Chapter 6 “Using the Setup Utility program” on page 43.
2. From the Setup Utility program, select **Security** → **Set Passwords**.
3. Read the information displayed on the right side of the screen.

Enabling or disabling a device

This section provides information on how to enable or disable user access to the following devices:

Serial ATA	When this feature is set to Disabled , all devices connected to the SATA connectors (such as hard disk drives or the optical drive) are disabled and will not be displayed in the system configuration.
External SATA Port	When this feature is set to Disabled , the device connected to the External SATA connector cannot be accessed.
Legacy Diskette A (some models)	When this feature is set to Disabled , the diskette drive cannot be accessed.

To enable or disable a device, do the following:

1. Start the Setup Utility program. See “Starting the Setup Utility program” on page 43.

2. From the Setup Utility program, select **Devices** or select **Devices** → **ATA Drive Setup**.
3. Select the desired devices and settings and press Enter.
4. Return to the Setup Utility program menu and select **Exit** and then **Save Settings** or **Save and exit the Setup Utility**.

Note: If you do not want to save the settings, select **Exit the Setup Utility without saving**.

Selecting a startup device

If your computer does not start up from a device such as the disc, diskette, or hard disk drive as expected, use one of the following procedures to select a startup device.

Selecting a temporary startup device

Use this procedure to startup from any start device.

Note: Not all discs, hard disk drives, and diskettes are bootable.

1. Turn off your computer.
2. Repeatedly press and release the F12 key when turning on the computer. When the **Startup Device** menu opens, release the F12 key.
3. Select the desired startup device from the **Startup Device** Menu and press Enter to begin.

Note: Selecting a startup device from the **Startup Device** menu does not permanently change the startup sequence.

Selecting or changing the startup device sequence

To view or permanently change the configured startup device sequence, do the following:

1. Start the Setup Utility program. See “Starting the Setup Utility program” on page 43.
2. Select **Startup** → **Startup Sequence**. See the information displayed on the right side of the screen.
3. Select the devices for the Primary Startup Sequence, the Automatic Startup Sequence, and the Error Startup Sequence.
4. Select **Exit** from the Setup Utility menu and then **Save Settings** or **Save and exit the Setup Utility**.

If you have changed these settings and want to return to the default settings, select **Load Default Settings** on the **Exit** menu.

Exiting the Setup Utility program

After you finish viewing or changing settings, press Esc to return to the Setup Utility program menu (you might have to press Esc several times). If you want to save the new settings, select **Save Settings** or **Save and exit the Setup Utility**. Otherwise, your changes will not be saved.

Chapter 7. Symptom-to-FRU index

The Symptom-to-FRU index lists error symptoms and possible causes. The most likely cause is listed first. Always begin with the Chapter 4 “General checkout” on page 33. You can use this index to help you decide which FRUs are needed when servicing a computer. If you are unable to correct the problem using this index, go to “Undetermined problems” on page 66.

Notes:

1. If you have both an error message and an incorrect audio response, diagnose the error message first.
2. If you cannot run the diagnostic tests or you get a diagnostic error code when running a test, but did receive a POST error message, diagnose the POST error message first.
3. If you did not receive any error message, look for a description of your error symptoms in the first part of this index.
4. For computer models that do not have an internal hard disk drive and use a remote hard disk drive accessed through the SMC - Storage Array:
 - You might receive the error message “No operating system found. Press F1 to repeat boot sequence.” In this case, press Ctrl+Alt+Delete instead of F1 to establish a connection to the storage area network where your operating system is stored. Verify that the user name is not logged on in another location.
 - If the SMC login prompt disappears before you log in and then a black screen displays, contact the administrator.

Hard disk drive boot error

A hard disk drive boot error (error codes 1962 and I999030X) can have the following causes.

Note: For computer models that do not have an internal hard disk drive and use a remote hard disk drive accessed through the SMC - Storage Array, contact the network or storage administrator.

Error	FRU/Action
The start-up drive is not in the boot sequence in configuration.	Check the configuration and ensure the start-up drive is in the boot sequence.
No operating system installed on the boot drive.	Install an operating system on the boot drive.
The boot sector on the start-up drive is corrupted.	The drive must be formatted, do the following: 1. Attempt to back-up the data on the failing hard disk drive. 2. Using the operating systems programs, format the hard disk drive.
The drive is defective.	Replace the hard disk drive.

Diagnostic error codes

Refer to the following diagnostic error codes when using the diagnostic tests. See “Running tests” on page 39 for the specific type for information about the Diagnostic programs.

In the following index, X can represent any number.

Diagnostic Error Code	FRU/Action
000-000-XXX BIOS Test Passed	No action
000-002-XXX BIOS Timeout	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
000-024-XXX BIOS Addressing test failure	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
000-025-XXX BIOS Checksum Value error	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
000-026-XXX FLASH data error	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
000-027-XXX BIOS Configuration/Setup error	1. Run Setup 2. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 3. System board
000-034-XXX BIOS Buffer Allocation failure	1. Reboot the system 2. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 3. Run memory test 4. System board
000-035-XXX BIOS Reset Condition detected	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
000-036-XXX BIOS Register error	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
000-038-XXX BIOS Extension failure	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. Adapter card 3. System board
000-039-XXX BIOS DMI data error	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
000-195-XXX BIOS Test aborted by user	Information only Re-start the test, if necessary
000-196-XXX BIOS test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
000-197-XXX BIOS test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test

Diagnostic Error Code	FRU/Action
000-198-XXX BIOS test aborted	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and retest. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
000-199-XXX BIOS test failed, cause unknown	1. Go to “Undetermined problems” on page 66 2. Flash the system and re-test 3. Replace component under function test
000-250-XXX BIOS APM failure	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
000-270-XXX BIOS ACPI failure	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
001-000-XXX System Test Passed	No action
001-00X-XXX System Error	System board
001-01X-XXX System Error	System board
001-024-XXX System Addressing test failure	System board
001-025-XXX System Checksum Value error	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
001-026-XXX System FLASH data error	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
001-027-XXX System Configuration/Setup error	1. Run Setup 2. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 3. System board
001-032-XXX System Device Controller failure	System board
001-034-XXX System Device Buffer Allocation failure	1. Reboot the system 2. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 3. Run memory test 4. System board
001-035-XXX System Device Reset condition detected	System board
001-036-XXX System Register error	System board
001-038-XXX System Extension failure	1. Adapter card 2. System board
001-039-XXX System DMI data structure error	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
001-040-XXX System IRQ failure	1. Power-off/on system and re-test 2. System board

Diagnostic Error Code	FRU/Action
001-041-XXX System DMA failure	1. Power-off/on system and re-test 2. System board
001-195-XXX System Test aborted by user	Information only Re-start the test, if necessary
001-196-XXX System test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
001-197-XXX System test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
001-198-XXX System test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and retest. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
001-199-XXX System test failed, cause unknown	1. Go to “Undetermined problems” on page 66 2. Flash the system and re-test 3. Replace component under function test
001-250-XXX System ECC error	System board
001-254-XXX 001-255-XXX 001-256-XXX 001-257-XXX System DMA error	System board
001-260-XXX 001-264-XXX System IRQ error	System board
001-268-XXX System IRQ1 failure	1. Device on IRQ1 2. System board
001-269-XXX System IRQ2 failure	1. Device on IRQ2 2. System board
001-270-XXX System IRQ3 failure	1. Device on IRQ3 2. System board
001-271-XXX System IRQ4 failure	1. Device on IRQ4 2. System board
001-272-XXX System IRQ5 failure	1. Device on IRQ5 2. System board
001-273-XXX System IRQ6 (diskette drive) failure	1. Diskette Cable 2. Diskette drive 3. System board
001-274-XXX System IRQ7 failure	1. Device on IRQ7 2. System board
001-275-XXX System IRQ8 failure	1. Device on IRQ8 2. System board

Diagnostic Error Code	FRU/Action
001-276-XXX System IRQ9 failure	1. Device on IRQ9 2. System board
001-277-XXX System IRQ10 failure	1. Device on IRQ10 2. System board
001-278-XXX System IRQ11 failure	1. Device on IRQ11 2. System board
001-279-XXX System IRQ12 failure	1. Device on IRQ12 2. System board
001-280-XXX System IRQ13 failure	1. Device on IRQ13 2. System board
001-281-XXX System IRQ14 (hard disk drive) failure	1. Hard disk drive cable 2. Hard disk drive 3. System board
001-282-XXX System IRQ15 failure	1. Device on IRQ15 2. System board
001-286-XXX 001-287-XXX 001-288-XXX System Timer failure	System board
001-292-XXX System CMOS RAM error	1. Run Setup and re-test 2. System board
001-293-XXX System CMOS Battery	1. CMOS Battery 2. System board
001-298-XXX System RTC date/time update failure	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
001-299-XXX System RTC periodic interrupt failure	System board
001-300-XXX System RTC Alarm failure	System board
001-301-XXX System RTC Century byte error	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
005-000-XXX Video Test Passed	No action
005-00X-XXX Video error	1. Video card, if installed 2. System board
005-010-XXX 005-011-XXX 005-012-XXX 005-013-XXX Video Signal failure	1. Video card, if installed 2. System board
005-016-XXX Video Simple Pattern test failure	1. Video Ram 2. Video card, if installed 3. System board
005-024-XXX Video Addressing test failure	1. Video card, if installed 2. System board
005-025-XXX Video Checksum Value error	1. Video card, if installed 2. System board

Diagnostic Error Code	FRU/Action
005-027-XXX Video Configuration/Setup error	1. Run Setup 2. Video drivers update 3. Video card, if installed 4. System board
005-031-XXX Video Device Cable failure	1. Video cable 2. Monitor 3. Video card, if installed 4. System board
005-032-XXX Video Device Controller failure	1. Video card, if installed 2. System board
005-036-XXX Video Register error	1. Video card, if installed 2. System board
005-038-XXX System BIOS extension failure	1. Video card, if installed 2. System board
005-040-XXX Video IRQ failure	1. Video card, if installed 2. System board
005-195-XXX Video Test aborted by user	Information only Re-start the test, if necessary
005-196-XXX Video test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
005-197-XXX Video test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component called out in warning statement 4. Replace the component under test
005-198-XXX Video test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
005-199-XXX Video test failed, cause unknown	1. Go to “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
005-2XX-XXX 005-3XX-XXX Video subsystem error	1. Video card, if installed 2. System board
006-000-XXX Diskette interface Test Passed	No action
006-0XX-XXX Diskette interface error	1. Diskette drive Cable 2. Diskette drive 3. System board
006-195-XXX Diskette interface Test aborted by user	Information only Re-start the test, if necessary

Diagnostic Error Code	FRU/Action
006-196-XXX Diskette interface test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
006-197-XXX Diskette interface test warning	1. If a component is called out, make sure it is connected and/or enabled 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
006-198-XXX Diskette interface test aborted	1. If a component is called out, make sure it is connected and/or enabled 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
006-199-XXX Diskette interface test failed, cause unknown	1. Go to “Undetermined problems” on page 66 2. Flash the system and re-test 3. Replace component under function test
006-25X-XXX Diskette interface Error	1. Diskette drive cable 2. Diskette drive 3. System board
015-000-XXX USB port Interface Test Passed	No action
015-001-XXX USB port Presence	1. Remove USB device(s) and re-test 2. System board
015-002-XXX USB port Timeout	1. Remove USB device(s) and re-test 2. System board
015-015-XXX USB port External Loopback failure	1. Remove USB device(s) and re-test 2. System board
015-027-XXX USB port Configuration/Setup error	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. System board
015-032-XXX USB port Device Controller failure	System board
015-034-XXX USB port buffer allocation failure	1. Reboot the system 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Run memory test 4. System board
015-035-XXX USB port Reset condition detected	1. Remove USB device(s) and re-test 2. System board
015-036-XXX USB port Register error	System board
015-040-XXX USB port IRQ failure	1. Run setup and check for conflicts 2. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 3. System board
015-195-XXX USB port Test aborted by user	Information only Re-start the test, if necessary

Diagnostic Error Code	FRU/Action
015-196-XXX USB port test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
015-197-XXX USB port test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
015-198-XXX USB port test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
015-199-XXX USB port test failed, cause unknown	1. Go to “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
018-000-XXX PCI Card Test Passed	No action
018-0XX-XXX PCI Card Failure	1. Riser card, if installed 2. System board
018-195-XXX PCI Card Test aborted by user	1. PCI card 2. Information only Re-start the test, if necessary
018-196-XXX PCI Card test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
018-197-XXX PCI Card test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
018-198-XXX PCI Card test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
018-199-XXX PCI Card test failed, cause unknown	1. Go to “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test

Diagnostic Error Code	FRU/Action
018-250-XXX PCI Card Services error	1. PCI card 2. Riser card, if installed 3. System board
020-000-XXX PCI Interface Test Passed	No action
020-0XX-XXX PCI Interface error	1. PCI card 2. Riser card, if installed 3. System board
020-195-XXX PCI Test aborted by user	Information only Re-start the test, if necessary
020-196-XXX PCI test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
020-197-XXX PCI test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
020-198-XXX PCI test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
020-199-XXX PCI test failed, cause unknown	1. Go to “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
020-262-XXX PCI system error	1. PCI card 2. Riser card, if installed 3. System board
025-000-XXX IDE interface Test Passed	No action
025-00X-XXX 025-01X-XXX IDE interface failure	1. IDE signal cable 2. Check power supply voltages 3. Reseat IDE signal cable 4. IDE device 5. System board
025-027-XXX IDE interface Configuration/Setup error	1. IDE signal cable 2. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 3. Reseat IDE signal cable 4. IDE device 5. System board

Diagnostic Error Code	FRU/Action
025-02X-XXX 025-03X-XXX 025-04X-XXX IDE Interface failure	1. IDE signal cable 2. Check AC/DC power adapter 3. Reseat IDE signal cable 4. IDE device 5. System board
025-195-XXX IDE interface Test aborted by user	Information only Re-start the test, if necessary
025-196-XXX IDE interface test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
025-197-XXX IDE interface test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
025-198-XXX IDE interface test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
025-199-XXX IDE interface test failed, cause unknown	1. Go to “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
030-000-XXX SCSI interface Test Passed	No action
030-00X-XXX 030-01X-XXX SCSI interface failure	1. SCSI signal cable 2. Check AC/DC power adapter 3. SCSI device 4. SCSI adapter card, if installed 5. System board
030-027-XXX SCSI interface Configuration/Setup error	1. SCSI signal cable 2. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 3. SCSI device 4. SCSI adapter card, if installed 5. System board
030-03X-XXX 030-04X-XXX SCSI interface error	1. SCSI signal cable 2. Check AC/DC power adapter 3. SCSI device 4. SCSI adapter card, if installed 5. System board
030-195-XXX SCSI interface Test aborted by user	Information only Re-start the test, if necessary

Diagnostic Error Code	FRU/Action
030-196-XXX SCSI interface test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
030-197-XXX SCSI interface test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
030-198-XXX SCSI interface test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
030-199-XXX SCSI interface test failed, cause unknown	1. Go to “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
035-000-XXX RAID interface Test Passed	No action
035-0XX-XXX RAID interface Failure	1. RAID signal cable 2. RAID device 3. RAID adapter card, if installed 4. System board
035-195-XXX RAID interface Test aborted by user	Information only Re-start the test, if necessary
035-196-XXX RAID interface test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
035-197-XXX RAID interface test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
035-198-XXX RAID interface test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
035-199-XXX RAID interface test failed, cause unknown	1. See “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
071-000-XXX Audio port Interface Test Passed	No action

Diagnostic Error Code	FRU/Action
071-00X-XXX 071-01X-XXX 071-02X-XXX Audio port error	1. Run Setup 2. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 3. System board
071-03X-XXX Audio port failure	1. Speakers 2. Microphone 3. Audio card, if installed 4. System board
071-04X-XXX Audio port failure	1. Run Setup 2. Audio card, if installed 3. System board
071-195-XXX Audio port Test aborted by user	Information only Re-start the test, if necessary
071-196-XXX Audio port test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
071-197-XXX Audio port test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
071-198-XXX Audio port test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
071-199-XXX Audio port test failed, cause unknown	1. See “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
071-25X-XXX Audio port failure	1. Speakers 2. Audio card, if installed 3. System board
080-000-XXX Game Port interface Test Passed	No action
080-XXX-XXX Game Port interface Error	1. Remove the game port device and re-test the system
080-195-XXX Game Port interface Test aborted by user	Information only Re-start the test, if necessary
080-196-XXX Game Port interface test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file

Diagnostic Error Code	FRU/Action
080-197-XXX Game Port interface test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
080-198-XXX Game Port interface test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
080-199-XXX Game Port interface test failed, cause unknown	1. See “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
086-000-XXX Mouse Port interface Test Passed	No action
086-001-XXX Mouse Port interface Presence	1. Mouse 2. System board
086-032-XXX Mouse Port interface Device controller failure	1. Mouse 2. System board
086-035-XXX Mouse Port interface Reset	1. Mouse 2. System board
086-040-XXX Mouse Port interface IRQ failure	1. Run Setup 2. Mouse 3. System board
086-195-XXX Mouse Port interface Test aborted by user	Information only Re-start the test, if necessary
086-196-XXX Mouse Port interface test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
086-197-XXX Mouse Port interface test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
086-198-XXX Mouse Port interface test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66

Diagnostic Error Code	FRU/Action
086-199-XXX Mouse Port interface test failed, cause unknown	1. See “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
089-000-XXX Microprocessor Test Passed	No action
089-XXX-XXX Microprocessor failure	1. Microprocessor(s) 2. System board
089-195-XXX Microprocessor Test aborted by user	Information only Re-start the test, if necessary
089-196-XXX Microprocessor test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
089-197-XXX Microprocessor test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
089-198-XXX Microprocessor test aborted	1. Flash the system. See “Updating (flashing) BIOS from a disc” on page 276 2. Go to “Undetermined problems” on page 66
089-199-XXX Microprocessor test failed, cause unknown	1. See “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
170-000-XXX Voltage Sensor(s) Test Passed	No action
170-0XX-XXX Voltage Sensor(s) failure	1. Flash system 2. System board
170-195-XXX Voltage Sensor(s) Test aborted by user	Information only Re-start the test, if necessary
170-196-XXX Voltage Sensor(s) test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
170-197-XXX Voltage Sensor(s) test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
170-198-XXX Voltage Sensor(s) test aborted	1. If a component is called out, make sure it is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66

Diagnostic Error Code	FRU/Action
170-199-XXX Voltage Sensor(s) test failed, cause unknown	1. See “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
170-250-XXX 170-251-XXX Voltage Sensor(s) Voltage limit error	1. AC/DC power adapter 2. System board
170-254-XXX Voltage Sensor(s) Voltage Regulator Module error	1. Voltage Regulator Module (VRM) 2. Microprocessor 3. System board
175-000-XXX Thermal Sensor(s) Test Passed	No action
175-0XX-XXX Thermal Sensor(s) failure	1. Flash system 2. System board
175-195-XXX Thermal Sensor(s) Test aborted by user	Information only Re-start the test, if necessary
175-196-XXX Thermal Sensor(s) test halt, error threshold exceeded	1. Press F3 to review the log file 2. Re-start the test to reset the log file
175-197-XXX Thermal Sensor(s) test warning	1. Make sure the component that is called out is connected and/or enabled. See Chapter 6 “Using the Setup Utility program” on page 43 2. Re-run test 3. Replace the component that is called out in warning statement 4. Replace the component under test
175-198-XXX Thermal Sensor(s) test aborted	1. If a component is called out, make sure it is connected and/or enabled 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Go to “Undetermined problems” on page 66
175-199-XXX Thermal Sensor(s) test failed, cause unknown	1. See “Undetermined problems” on page 66 2. Flash the system and re-test. See “Updating (flashing) BIOS from a disc” on page 276 3. Replace component under function test
175-250-XXX 175-251-XXX Thermal Sensor(s) limit error	1. Check fans 2. Check AC/DC power adapter voltages 3. Microprocessor 4. System board
185-000-XXX Asset Security Test Passed	No action
185-XXX-XXX Asset Security failure	1. Flash system 2. System board
185-278-XXX Asset Security Chassis Intrusion	1. Assure Asset Security Enabled 2. C2 Cover Switch 3. System board
201-000-XXX System Memory Test Passed	No action

Diagnostic Error Code	FRU/Action
201-XXX-XXX System Memory error	1. Replace the memory module called out by the test 2. System board
202-000-XXX System Cache Test Passed	No action
202-XXX-XXX System Cache error	1. Cache, if removable 2. System board 3. Microprocessor
206-000-XXX Diskette Drive Test Passed	No action
206-XXX-XXX Diskette Drive error	1. Diskette Drive Cable 2. Check AC/DC power adapter voltages 3. Diskette drive 4. System board
215-000-XXX CD-ROM Drive Test Passed	No action
215-XXX-XXX CD-ROM Drive error	1. CD-ROM Drive Cable 2. Check AC/DC power adapter voltages 3. CD-ROM drive 4. System board
217-000-XXX Hard Disk Drive Test Passed	No action
217-25X-XXX 217-26X-XXX Hard Disk Drive (IDE) error	1. Hard Disk Drive Cable 2. Check AC/DC power adapter voltages 3. Reseat the hard disk drive cable 4. Hard Disk drive (IDE) 5. System board
217-28X-XXX 217-29X-XXX Hard Disk Drive (SCSI) error	1. Hard Disk Drive Cable 2. Check AC/DC power adapter voltages 3. Reseat the hard disk drive cable 4. Hard Disk drive (SCSI) 5. SCSI adapter card 6. System board
220-000-XXX Hi-Capacity Cartridge Drive Test Passed	No action
220-XXX-XXX Hi-Capacity Cartridge Drive error	1. Remove the Hi-Capacity Cartridge Drive and re-test the system
301-XXX-XXX Keyboard error	1. Keyboard 2. Check and test mouse 3. System board
301-000-XXX Keyboard Test Passed	No action
302-000-XXX Mouse Test Passed	No action
302-XXX-XXX Mouse error	1. Mouse 2. Check and test Keyboard 3. System board
303-000-XXX Joystick Test Passed	No action
303-XXX-XXX Joystick error	Remove the Joystick and re-test the system

Diagnostic Error Code	FRU/Action
305-000-XXX Monitor DDC Test Passed	No action
305-250-XXX Monitor DDC self test failure	1. Run Setup to enable DDC 2. Cable 3. Monitor 4. Video card 5. System board
415-000-XXX Modem Test Passed	No action
415-XXX-XXX Modem error	Remove the Modem and re-test the system

Beep symptoms

Beep symptoms are tones or a series of tones separated by pauses (intervals without sound) during POST.

The following tables describes beep symptoms.

Beep Symptom	FRU/Action
Four sets of three beeps	Reseat the memory modules. If the error persists, replace the memory modules one at a time until the failing module is determined.
4, 5, 6, or 7 beeps9, 10, or 11 beeps	Before replacing the system board, remove any optional adapters (Express card, Modem card, Media reader) and retry. If the problem persists, replace the system board. Otherwise, reinstall the optional adapters one at a time until the failing adapter is determined.
8 beeps	Replace the system board.

POST error codes

Each time you power-on the system, it performs a series of tests that check the operation of the system and some options. This series of tests is called the *Power-On Self-Test*, or *POST*. POST does the following operations.

- Checks some basic system-board operations
- Checks the memory operation
- Starts the video operation
- Verifies that the boot drive is working

If the POST detects a problem, an error message appears on the screen. A single problem can cause several error messages to appear. When you correct the cause of the first error message, the other error messages probably will not appear on the screen the next time you turn on the system.

POST Error Message	Description/Action
CMOS battery failed	The CMOS battery is no longer functional. Replace the battery.
CMOS checksum error - defaults loaded	Checksum of CMOS is incorrect. The computer loads the default configuration settings. This error might indicate that CMOS has become corrupt due to a weak CMOS battery.
CPU at nnnn	nnnn is the running speed of the microprocessor.
Press Esc to skip memory test	Pressing Esc skips the full memory test
HARD DISK INSTALL FAILURE	Cannot find or initialize the hard disk drive controller or the drive. Make sure the hard disk drive is correctly installed. If no hard disk drives are installed, make sure the hard disk drive selection in Setup is set to NONE.
Keyboard error or no keyboard present	Cannot initialize the keyboard. Make sure the keyboard is properly connected to the computer and that no keys are held pressed during POST. To purposely configure the computer without a keyboard, set the error halt condition in Setup to HALT ON ALL, BUT KEYBOARD. The BIOS then ignores the missing keyboard during POST.
Memory Test:	This message displays during a full memory test, counting down the memory areas being tested.
Memory test fail	If POST detects an error during memory testing, additional information appears. This information gives specifics about the type and location of the memory error.
Press TAB to show POST screen	Pressing the TAB key permits the user to toggle between the default POST display screen and a custom POST display screen.
Error: Non-System disk or disk error Replace and press any key when ready	The BIOS was unable to find a suitable boot device. Make sure the boot drive is properly connected to the computer. Make sure you have bootable media.

Miscellaneous error messages

Message/Symptom	FRU/Action
Changing display colors	Display/Monitor
Computer will <i>not</i> power-off. See "Power problems" on page 33.	Power Switch - System Board - Riser card, if installed

Message/Symptom	FRU/Action
Computer will <i>not</i> PXE from server	1. Ensure that network is in startup sequence as first device or first device after diskette 2. Ensure that network adapter is enabled for PXE 3. Network adapter (Advise network administrator of new MAC address)
Computer will <i>not</i> perform a Wake on LAN® (if applicable)	1. Check power supply and signal cable connections to network adapter 2. Ensure that the operating system settings are set to enable Wake on LAN 3. Ensure Wake on LAN feature is enabled in Setup/Configuration (see "Starting the Setup Utility program" on page 43) 4. Ensure network administrator is using correct MAC address 5. Ensure no interrupt or I/O address conflicts 6. Network adapter (advise network administrator of new MAC address)
Dead computer. See "Power problems" on page 33.	1. AC/DC Power Adapter 2. System Board
Diskette drive in-use light remains on or does not light when drive is active.	1. Diskette Drive 2. System Board 3. Diskette Drive Cable
Flashing cursor with an otherwise blank display.	1. System Board 2. Primary Hard Disk Drive 3. Hard Disk Drive Cable
Incorrect memory size during POST	1. Run the Memory tests 2. Memory Module 3. System Board
"Insert a Diskette" icon appears with a known-good diagnostics diskette in the first 3.5-inch diskette drive.	1. System Board 2. Diskette Drive Cable 3. Network Adapter
Intensity or color varies from left to right of characters and color bars	1. Display 2. Video adapter (if present) 3. System Board
No power or fan not running	1. See "Power problems" on page 33.
Non-system disk or disk error-type message with a known-good diagnostic diskette.	1. Diskette Drive 2. System Board 3. Diskette Drive Cable
Other display symptoms not listed above (including blank or illegible display)	1. Display 2. System Board
Power-on indicator or hard disk drive in-use light not on, but computer works correctly	1. Power switch/LED assembly 2. System Board
Printer problems	1. Printer 2. System Board

Message/Symptom	FRU/Action
Program loads from the hard disk with a known-good diagnostics diskette in the first 3.5-inch diskette drive	1. Run Setup and check Startup sequence. 2. Diskette Drive 3. Diskette Drive Cable 4. System Board 5. AC/DC power adapter
PXE computer cannot access programs from its own hard disk.	Replace the hard disk drive
PXE computer does not PXE from server	1. Check startup sequence 2. Check the network adapter LED status
Some or all keys on the keyboard do not work	1. Keyboard 2. Keyboard Cable 3. System Board

Undetermined problems

If you encounter undetermined problems, do the following:

1. Turn off the computer and the power.
2. Remove or disconnect the following components (if installed) one at a time.
 - a. External devices (modem, printer, or mouse)
 - b. Any adapter cards
 - c. Memory modules
 - d. Extended video memory
 - e. External Cache
 - f. External Cache RAM
 - g. Hard disk drive
 - h. Diskette drive
3. Turn on the power and the computer to re-test the system.
4. Repeat steps 1 through 3 until you find the failing device or adapter cards.

If all devices and adapter cards have been removed, and the problem continues, replace the system board. See "Replacing the system board" on page 80.

Chapter 8. Replacing FRUs

This chapter provides step-by-step instructions for replacing major FRUs.

Important

Be sure to read and understand the Chapter 2 “Safety information” on page 3 before replacing any FRU. These precautions and guidelines will help you work safely.

FRU replacements are to be done only by trained service technicians.

Locations

This section provides illustrations to help you locate the various connectors and components of your computer.

Locating connectors on the front of the computer

The following illustration shows the location of the connectors on the front of your computer.

Note: Not all computer models have the following connectors.

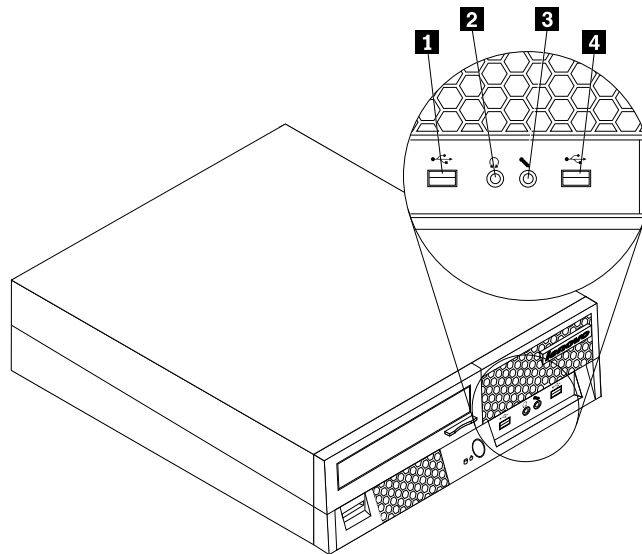


Figure 1. Front connector locations

1 USB connector

2 Headphone connector

3 Microphone connector

4 USB connector

Locating connectors on the rear of the computer

The following illustration shows the locations of the connectors on the rear of the computer.

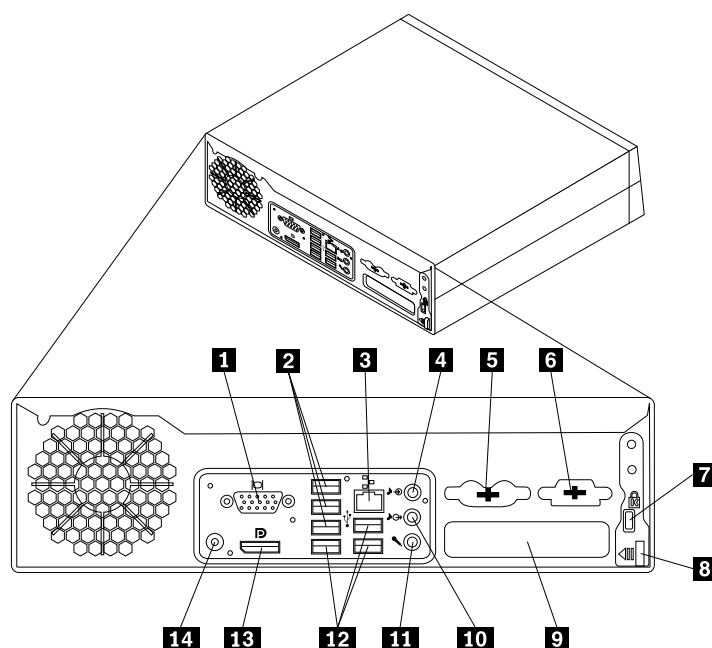


Figure 2. Rear connector locations

- | | |
|---|--------------------------------------|
| 1 VGA (Video Graphics Array) monitor connector | 8 Cover-release button |
| 2 USB connectors (3) | 9 Adapter card slot |
| 3 Ethernet connector | 10 Audio line-out connector |
| 4 Audio line-in connector | 11 Microphone connector |
| 5 Standard mouse and keyboard connectors (some models) | 12 USB connectors (3) |
| 6 Serial port (some models) | 13 DisplayPort connector |
| 7 Cable lock connector | 14 AC power adapter connector |

Locating components

The following illustration shows the locations of the various components in the computer.

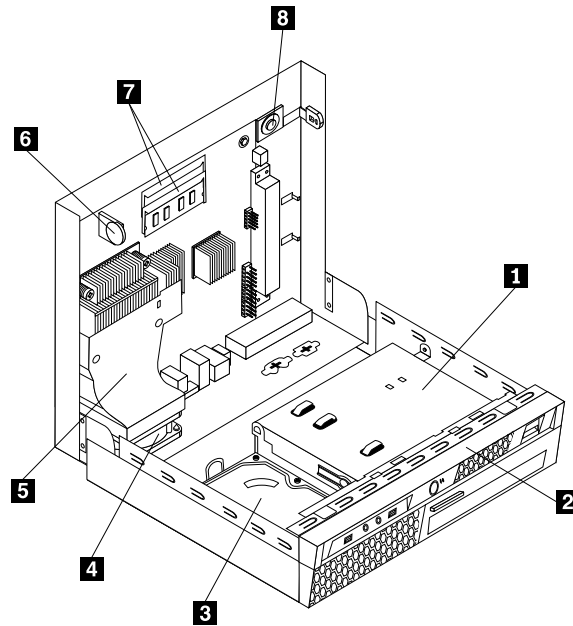


Figure 3. Component locations

- | | |
|------------------------------|---------------------------|
| 1 Optical drive | 5 Heat sink |
| 2 Front bezel | 6 Battery |
| 3 Hard disk drive | 7 Memory slots (2) |
| 4 System fan assembly | 8 Internal speaker |

Locating parts on the system board

The following illustration shows the locations of parts on the system board.

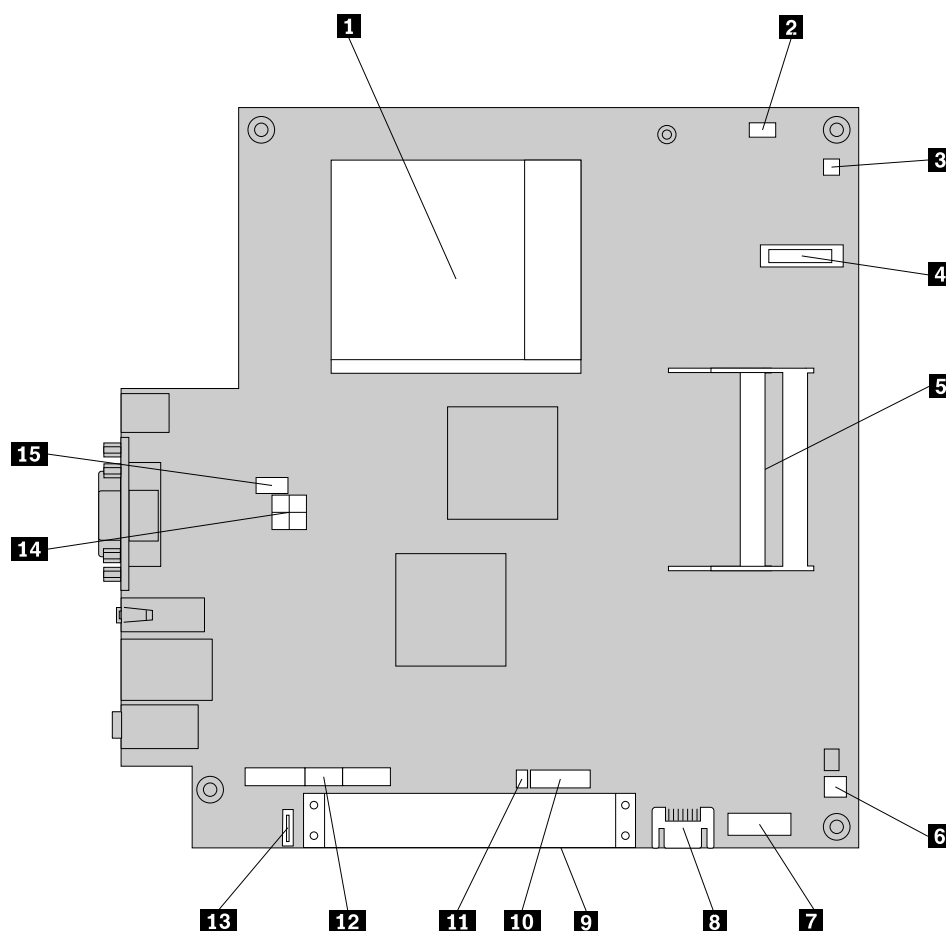


Figure 4. System board parts locations

- | | |
|-------------------------------------|--|
| 1 Microprocessor | 9 PCI slot |
| 2 Clear CMOS/Recovery jumper | 10 Front USB connector 2 |
| 3 Thermal sensor connector | 11 Intrusion switch connector/Cover presence switch connector |
| 4 Battery | 12 Front I/O and LED/Switch header |
| 5 Memory slots (2) | 13 eSATA connector |
| 6 Internal speaker connector | 14 Internal power distribution connector |
| 7 Serial (COM) connector | 15 System fan connector |
| 8 SATA connectors (2) | |

Opening the computer cover

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to open the computer cover.

CAUTION:



Turn off the computer and wait three to five minutes to let the computer cool before opening the computer cover.

To open the computer cover:

1. Remove any media from the drives, shut down your operating system, and turn off all attached devices and the computer.
2. Unplug all power cords from electrical outlets.
3. Disconnect the cables attached to the computer. This includes power cords, Input/Output (I/O) cables, and any other cables that are connected to the computer. See “Locating connectors on the front of the computer” on page 67 and “Locating connectors on the rear of the computer” on page 68.
4. Remove any locking devices, such as a cable lock that secures the computer cover.
5. Carefully lift and position the computer upside down as shown in .
6. Pivot the cover-release button **1** on the rear of the computer and then open the computer cover as shown.

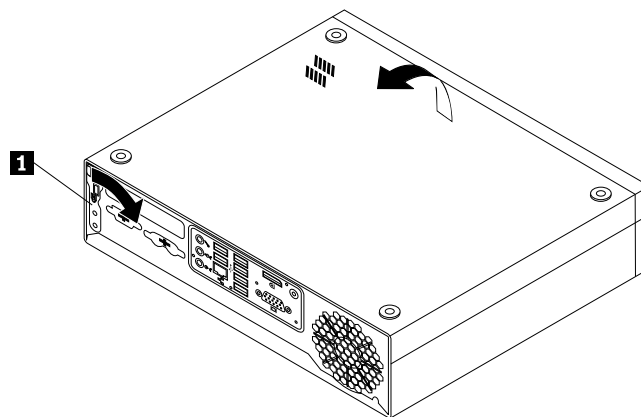


Figure 5. Opening the computer cover

Replacing the battery

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the battery.

Your computer has a special type of memory that maintains the date, time, and settings for built-in features, such as the parallel-port assignments (configuration). A battery keeps these information active when you turn off the computer.

The battery normally requires no charging or maintenance throughout its life; however, no battery lasts forever. If the battery fails, the date, time, and configuration information (including passwords) are lost. An error message is displayed when you turn on the computer.

Refer to the “Lithium battery notice” in the *ThinkCentre Safety and Warranty Guide* for information about replacing and disposing of the battery.

To replace the battery:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Locate the battery. See “Locating parts on the system board” on page 70.
3. Remove the old battery.

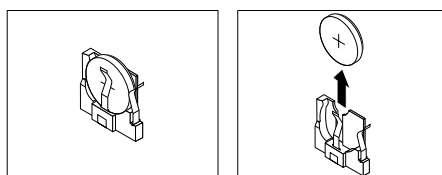


Figure 6. Removing the old battery

4. Install a new battery by pushing the new battery straight down until it snaps into position.

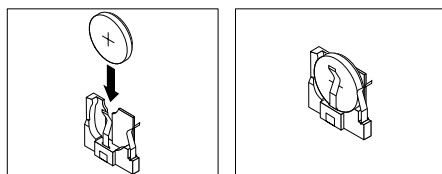


Figure 7. Installing a new battery

5. Reconnect all the cables to the system board and close the computer. See “Completing the FRU replacement” on page 89.

Note: When the computer is turned on for the first time after replacing the battery, an error message might be displayed. This is normal after replacing the battery.

6. Turn on the computer and all attached devices.
7. Use the Setup Utility program to set the date, time, and any passwords. See Chapter 6 “Using the Setup Utility program” on page 43.

Replacing a memory module

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace a memory module.

Your computer has two slots for installing or replacing SODIMMs (small outline dual inline memory modules) that provide up to a maximum of 4 GB of system memory.

When installing or replacing a memory module, use the following guidelines:

- Use 1.8 V, 200-pin DDR3 SDRAM (double data rate 3 synchronous dynamic random access memory).
- Use 1 GB or 2 GB memory modules in any combination up to a maximum of 4 GB.

To replace a memory module:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Locate the memory slot. See “Locating parts on the system board” on page 70.
3. Remove the memory module being replaced by opening the retaining clips as shown.

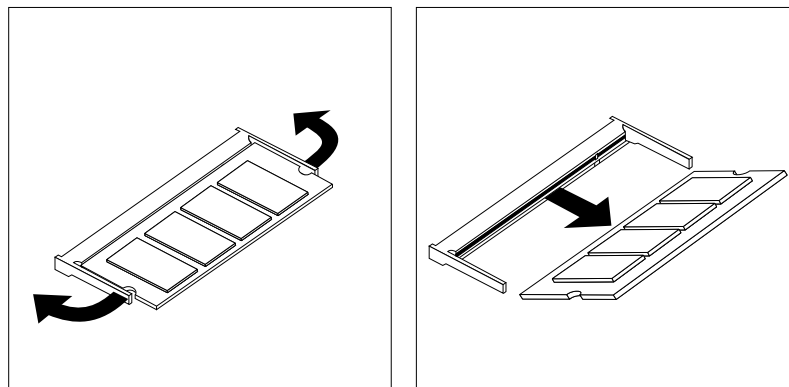


Figure 8. Removing the memory module

4. Insert the notched end **2** of the new memory module into the socket **1**. Press the memory module firmly, and pivot the memory module until it snaps into place. Make sure that the memory module is firmly fixed in the slot and does not move easily.

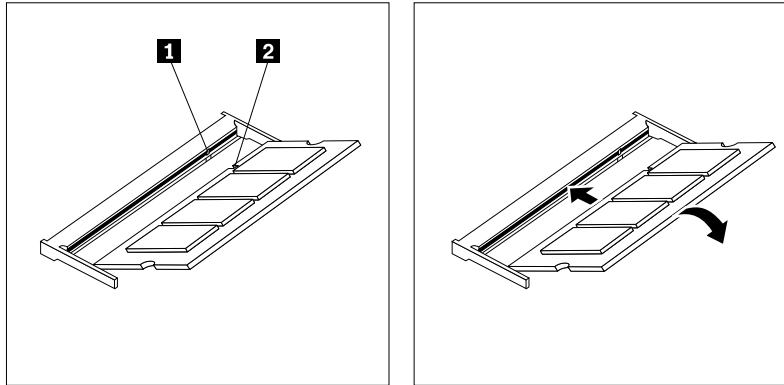


Figure 9. Installing the new memory module

5. Go to “Completing the FRU replacement” on page 89.

Replacing the adapter card

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the adapter card.

Note: You need to remove the system board in order to replace the adapter card.

To replace the adapter card:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Locate the system board and disconnect all cables connected to the system board. See “Locating parts on the system board” on page 70.
3. Press the two side tabs inward and then pivot the system board as shown to release it from the chassis.

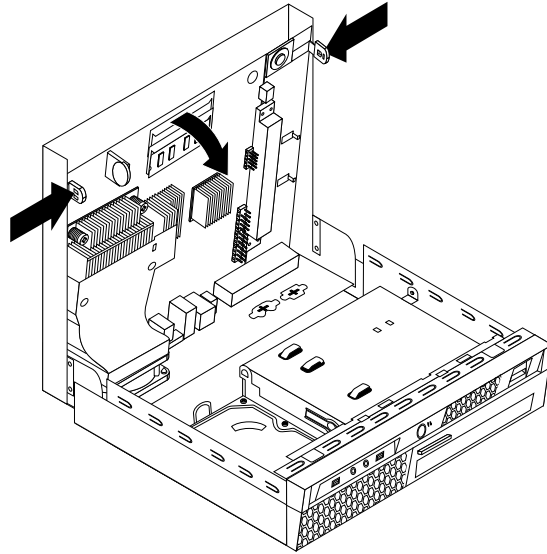


Figure 10. Releasing the system board

4. Place the system board on a clean and flat surface.
5. Locate the adapter card slot. See “Locating parts on the system board” on page 70.
6. Rotate the adapter card retainer to the open position and remove the adapter card being replaced by pulling it out of the adapter card slot.

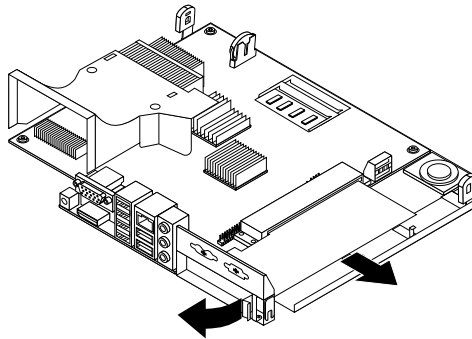


Figure 11. Removing the adapter card

7. Remove the new adapter card from its static-protective package.
8. Install the new adapter card into the adapter card slot. Make sure that the adapter card is firmly fixed in the slot and does not move easily.
9. Close the adapter card retainer.
10. Slide the system board to the rear of the chassis and then pivot the system board until it is locked by the mounting stud on each side of the cover.
11. Reconnect all cables that were disconnected from the system board.
12. Go to “Completing the FRU replacement” on page 89.

Replacing the front audio and USB assembly

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the front audio and USB assembly.

To replace the front audio and USB assembly:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Remove the front bezel by releasing the two tabs and pivoting the front bezel forward to remove completely.

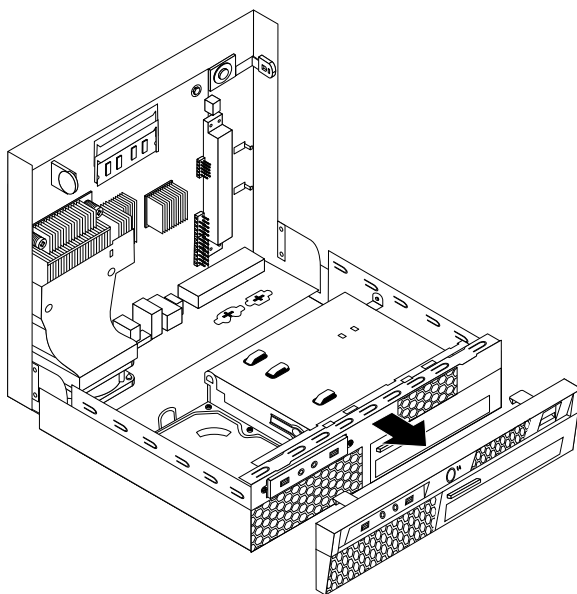


Figure 12. Removing the front bezel

3. Disconnect the front audio and USB assembly cables from the system board. See “Locating parts on the system board” on page 70.
4. Note the front audio and USB assembly cables routing and remove the screw that secures the assembly to the chassis.

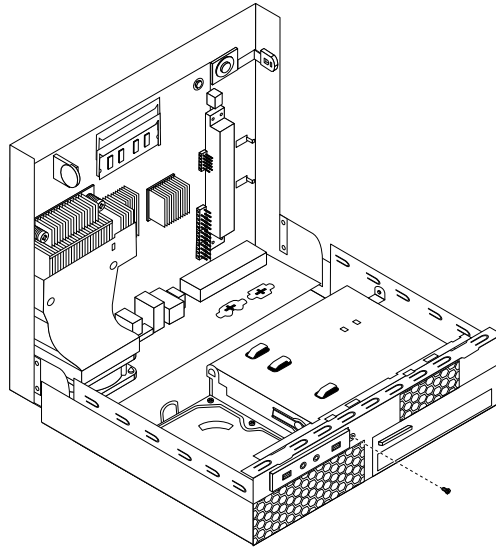


Figure 13. Removing the front audio and USB assembly

5. Remove the failing front audio and USB assembly from the chassis.
6. Install the new front audio and USB assembly into the chassis and secure it with the screw.
7. Connect the front audio and USB assembly cables to the system board.
8. To reinstall the front bezel, align the plastic tabs on the bottom of the bezel with the corresponding holes in the chassis, then pivot the bezel inward until it snaps into position.
9. Go to “Completing the FRU replacement” on page 89.

Replacing the heat sink

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the heat sink.

CAUTION:



The heat sink might be very hot. Turn off the computer and wait three to five minutes to let the computer cool before opening the computer cover.

To replace the heat sink:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Locate the heat sink. See “Locating components” on page 69.
3. Remove the four screws that secure the heat sink to the system board.

Note: Carefully remove the four screws from the system board to avoid any possible damage. The four screws cannot be removed from the heat sink.

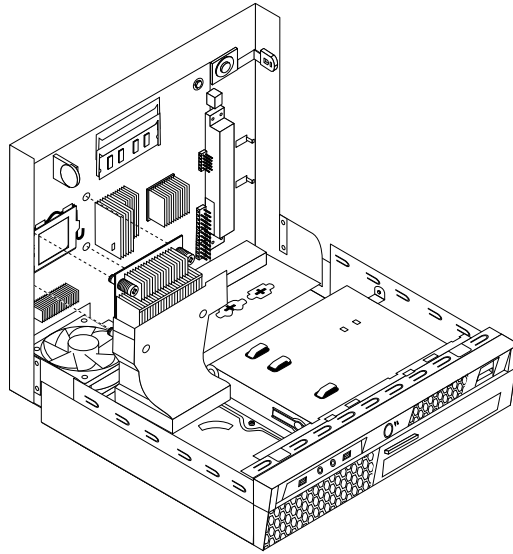


Figure 14. Removing the heat sink

4. Lift the failing heat sink off the system board.

Notes:

- a. You might have to gently twist the heat sink to free it from the microprocessor.
- b. Do not touch the thermal grease while handling the heat sink.
5. Position the new heat sink on the system board so that the four screws are aligned with the holes on the system board.
6. Alternate tightening each screw a small and equal amount until the heat sink is secured to the system board. Do not over-tighten the screws.
7. Go to “Completing the FRU replacement” on page 89.

Replacing the microprocessor

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the microprocessor.

CAUTION:



The heat sink and microprocessor might be very hot. Turn off the computer and wait three to five minutes to let the computer cool before opening the computer cover.

To replace the microprocessor:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Remove any parts or cables that may prevent your access to the system board.

3. Locate the heat sink and remove it from the system board. See “Locating components” on page 69 and “Replacing the heat sink” on page 77.
4. Place the heat sink on its side so that the thermal grease does not come in contact with anything.
5. Lift the small handle **3** and open the retainer **1** to access the microprocessor **2**.

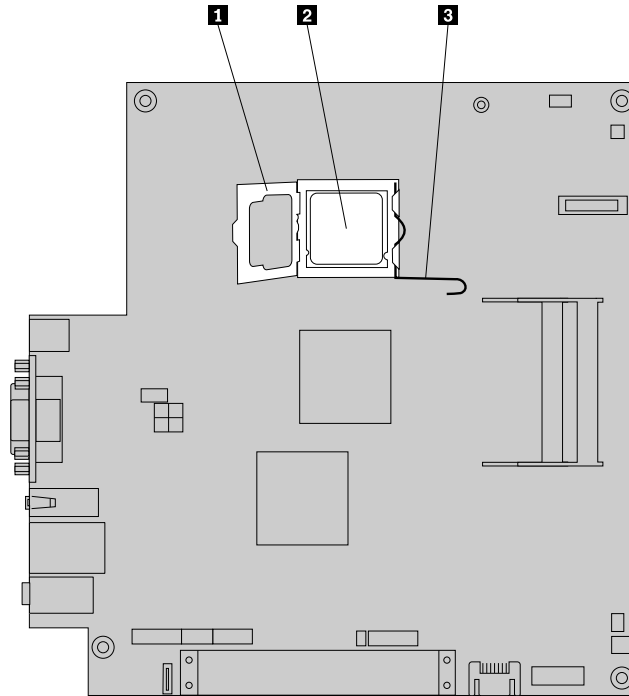
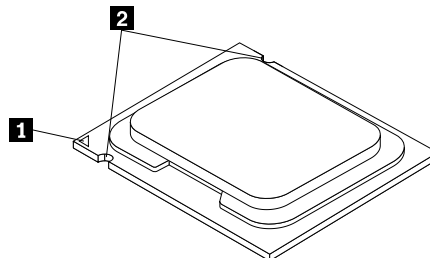


Figure 15. Accessing the microprocessor

6. Lift the microprocessor straight up and out of the socket.

Notes:

- a. Your microprocessor and socket might look different from the one illustrated.
- b. Note the orientation of the microprocessor in the socket. You can either look for the small triangle **1** on one corner of the microprocessor or note the orientation of the notches **2** on the microprocessor. This is important when installing the new microprocessor on the system board.



- c. Touch only the sides of the microprocessor. Do not touch the gold contacts on the bottom.
- d. Do not drop anything onto the microprocessor socket while it is exposed. The socket pins must be kept as clean as possible.

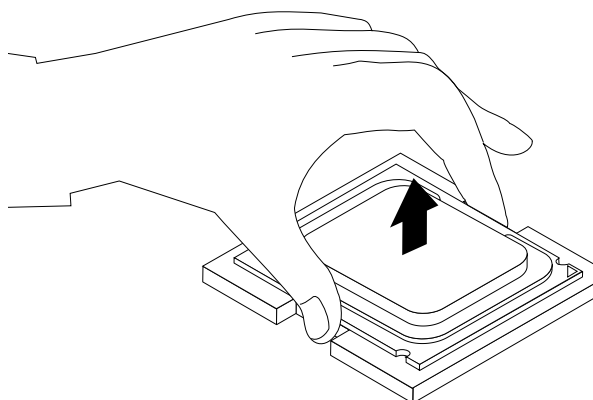
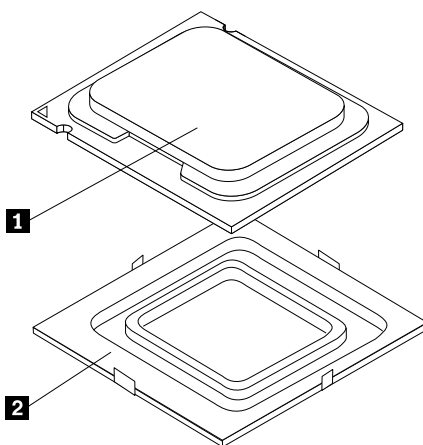


Figure 16. Removing the microprocessor

7. Make sure that the small handle is in the raised position and the microprocessor retainer is fully open.
8. Remove the protective cover **2** that protects the gold contacts on the new microprocessor **1**.



9. Hold the new microprocessor and align the notches on it with the tabs in the microprocessor socket, or align the small triangle on one corner with the corresponding beveled corner of the microprocessor socket.
10. Lower the new microprocessor straight down into the microprocessor socket on the system board.
11. Close the microprocessor retainer and lock it into position with the small handle to secure the new microprocessor in the socket.
12. Reinstall the heat sink on the system board. See “Replacing the heat sink” on page 77.
13. Reinstall any other parts or reconnect any other cables you removed.
14. Go to “Completing the FRU replacement” on page 89.

Replacing the system board

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the system board.

CAUTION:



The heat sink and microprocessor might be very hot. Turn off the computer and wait three to five minutes to let the computer cool before opening the computer cover.

To replace the system board:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Take notes of the location of all the cable connectors on the system board and then disconnect all the cables. See “Locating parts on the system board” on page 70.
3. Press the two side tabs inward and then pivot the system board as shown to release the system board from the chassis.

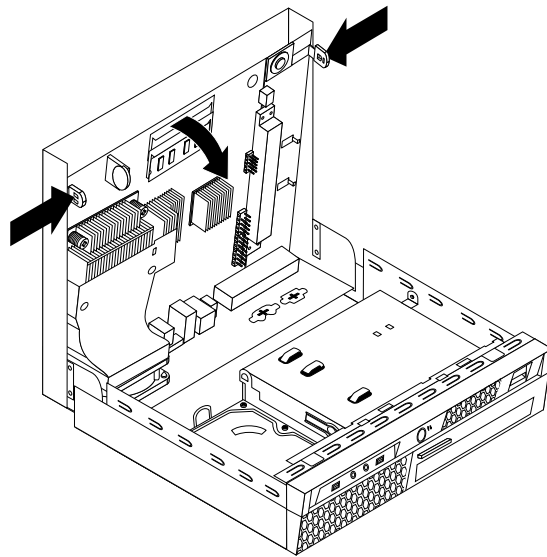


Figure 17. Releasing the system board

4. Place the system board on a clean and flat surface.
5. Remove the heat sink from the system board. See “Replacing the heat sink” on page 77.
6. Remove the memory modules from the failing system board. See “Replacing a memory module” on page 73.
7. Remove the adapter card from the failing system board. See “Replacing the adapter card” on page 74.
8. Remove the battery from the failing system board. See “Replacing the battery” on page 72.
9. Remove the microprocessor from the failing system board. See “Replacing the microprocessor” on page 78.
10. Remove the screws that secure the failing system board to the protective cover.
11. Lift the failing system board off the cover.
12. Position the new system board so that the screw holes are aligned with the mounting studs on the cover.
13. Install the screws to secure the new system board to the protective cover.
14. Install the memory modules, adapter card, battery, and microprocessor that you removed from the failing system board to the new system board.

15. Slide the new system board to the rear of the chassis and then pivot it inward until it is locked into position.
16. Connect all the cables to the new system board. See “Locating parts on the system board” on page 70.
17. Install the heat sink to the new system board. See “Replacing the heat sink” on page 77.
18. Go to “Completing the FRU replacement” on page 89.

The failing system board must be returned with a microprocessor socket cover to protect the pins during shipping and handling.

To install the microprocessor socket cover:

1. Remove the microprocessor from the microprocessor socket. See “Replacing the microprocessor” on page 78.
2. Close the microprocessor retainer and lock it into position with the small handle.
3. Insert the tabs **1** of the socket cover into the hinged side of the socket, and then press the other side of the socket cover downward until the tabs **2** snap into position.

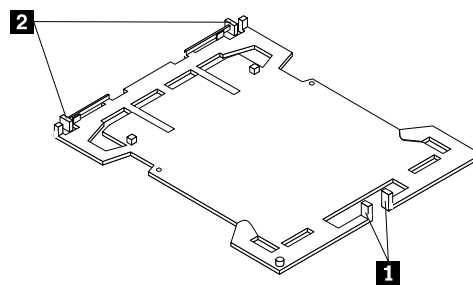


Figure 18. Tabs on the microprocessor socket cover (bottom view)

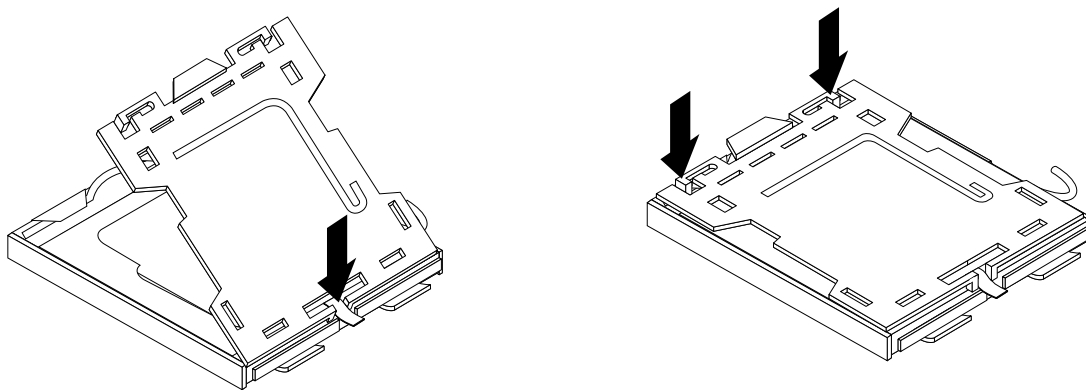


Figure 19. Installing the microprocessor socket cover

Replacing the system fan

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the system fan.

To replace the system fan:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Disconnect the system fan cable from the system fan connector on the system board. See “Locating parts on the system board” on page 70.
3. Remove the heat sink to gain access to the system fan. See “Replacing the heat sink” on page 77.
4. Locate the two rubber mounts that secure the system fan to the chassis. Remove the rubber mounts by breaking them or cutting them with scissors.

Note: When you receive the new system fan, you will also receive new rubber mounts.

5. Lift the system fan out of the chassis.

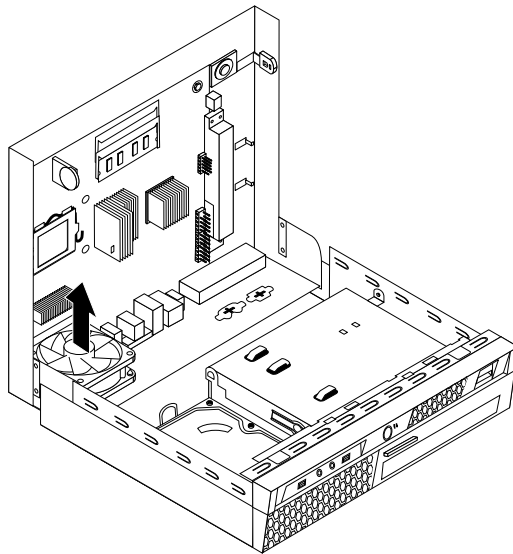


Figure 20. Removing the system fan

6. Install the two short rubber mounts in the new system fan as shown.

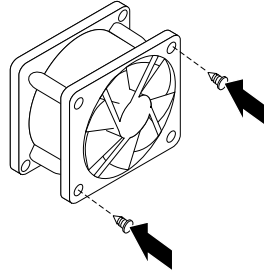


Figure 21. Installing the short rubber mounts

7. Install the two long rubber mounts into the rear of the chassis. Push the mounts through the holes of the chassis. If necessary, pull the mounts through the holes from inside the chassis.
8. To install the new system fan assembly into the chassis, align the open holes in the system fan assembly with the long rubber mounts in the chassis. Pull the rubber mounts through the holes in the system fan assembly until the fan is in place.

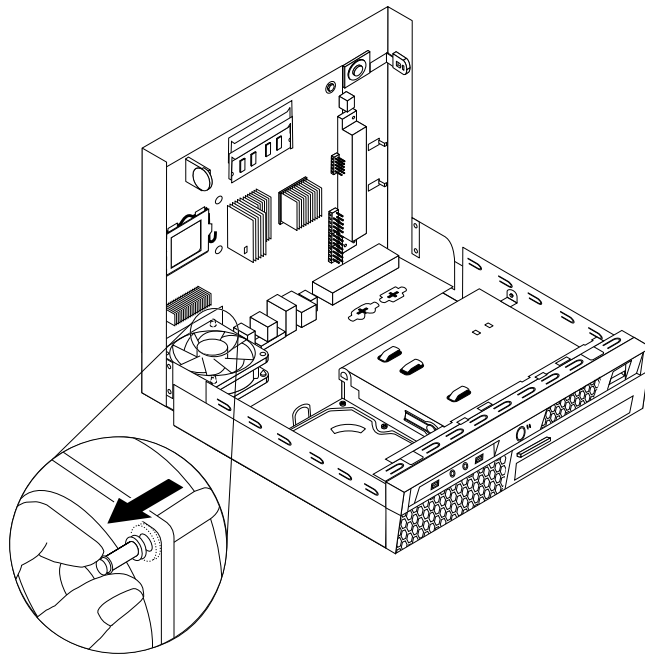


Figure 22. Replacing the system fan assembly

9. Once the system fan assembly is secure, you should remove the extra rubber from the mounts.
10. Connect the system fan assembly cable to the fan connector on the system board.
11. Replace the heat sink. See “Replacing the heat sink” on page 77.
12. Go to “Completing the FRU replacement” on page 89.

Replacing the hard disk drive

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the hard disk drive if your computer has one. For computer models that do not have an internal hard disk drive installed and use a remote hard disk drive accessed through the SMC - Storage Array, contact your network or storage administrator.

Important

When you receive a new hard disk drive, you also receive a set of *Product Recovery discs*. The set of *Product Recovery discs* will enable you to restore the contents of the hard disk to the same state as when your computer was originally shipped from the factory. For more information on recovering factory-installed software, refer to “Recovering software” in your *ThinkCentre User Guide*.

To replace the hard disk drive:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Disconnect the power cable from the optical drive.
3. Place your finger on the tab located on the front of the hard disk drive and push upward. Then press inward on the side tabs and pivot the hard disk drive upward to remove.

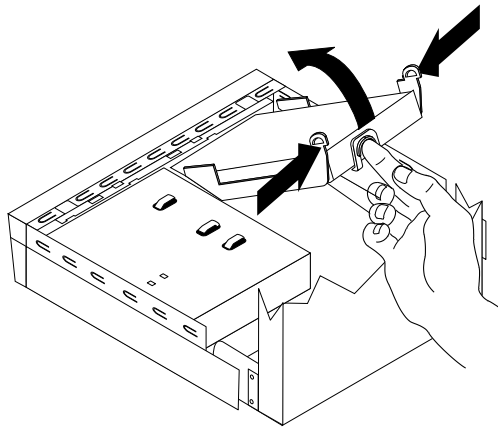


Figure 23. Removing the hard disk drive

4. Remove the failing hard disk drive from the chassis.
5. Disconnect the signal and power cables from the hard disk drive.
6. Remove the hard disk drive from the plastic bracket by flexing the sides of the bracket enough to slide it free of the hard disk drive.
7. To install the new hard disk drive into the plastic bracket, flex the bracket and align pin **1**, pin **2**, pin **3**, and pin **4** on the bracket with the holes in the hard disk drive. Do not touch the circuit board **5** on the bottom of the hard disk drive.

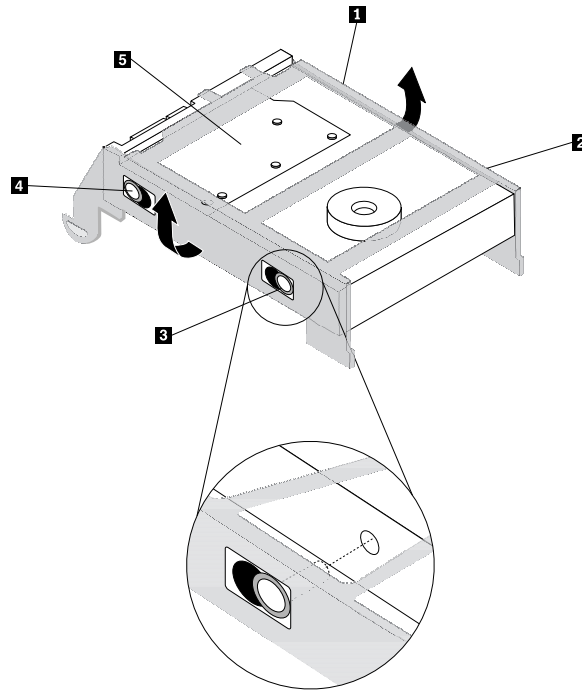


Figure 24. Installing the hard disk drive into the bracket

8. Connect the signal and power cables to the rear of the new hard disk drive.
9. Slide the new hard disk drive into the drive bay until it snaps into position.
10. Reconnect the power cable to the optical drive.
11. Go to “Completing the FRU replacement” on page 89.

Replacing the optical drive

Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the optical drive.

To replace the optical drive:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Remove the front bezel by releasing the two tabs and pivoting the bezel forward to remove completely.

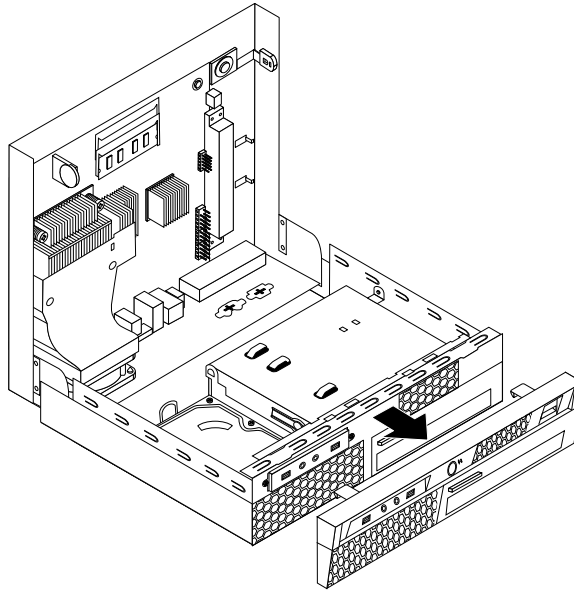


Figure 25. Removing the front bezel

3. Disconnect the signal and power cables from the rear of the optical drive.
4. Press the optical drive lock button to remove the optical drive out the front of the computer.

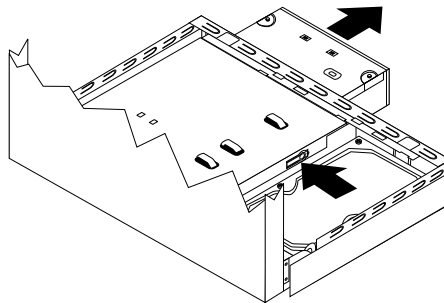


Figure 26. Removing the optical drive

5. Remove the retainer bracket from the failing drive and install it on the new optical drive.

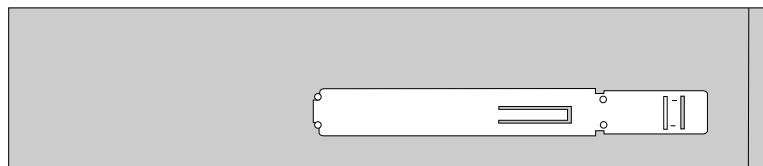


Figure 27. Retainer bracket for optical drive

6. Slide the new optical drive into the drive bay until it snaps into position.

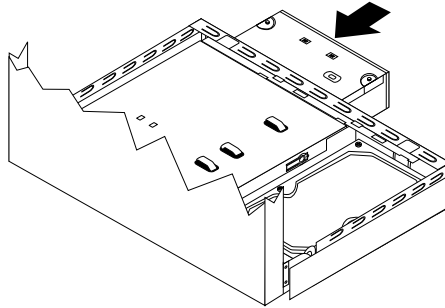


Figure 28. Replacing the optical drive

7. Connect the signal and power cables to the drive.
8. To reinstall the front bezel, align the plastic tabs on the bottom of the bezel with the corresponding holes in the chassis, then pivot the bezel inward until it snaps into position.
9. Go to “Completing the FRU replacement” on page 89.

Replacing the internal speaker

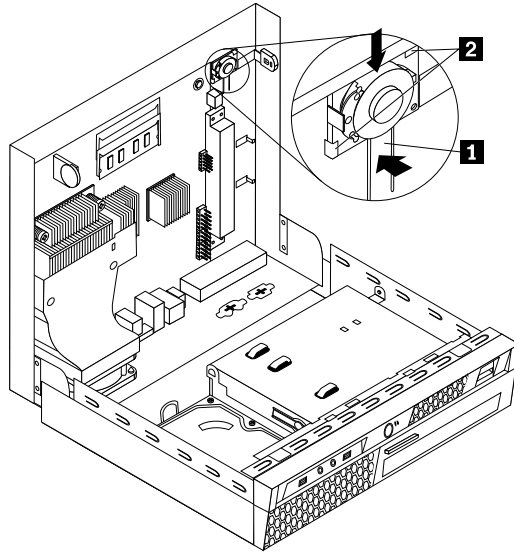
Attention

Do not open your computer or attempt any repair before reading and understanding the “Important safety information” in the *ThinkCentre Safety and Warranty Guide* that came with your computer. To obtain a copy of the *ThinkCentre Safety and Warranty Guide*, go to:
<http://www.lenovo.com/support>

This section provides instructions on how to replace the internal speaker.

To replace the internal speaker:

1. Open the computer cover. See “Opening the computer cover” on page 71.
2. Locate the internal speaker. See “Locating components” on page 69.
3. Disconnect the internal speaker cable from the system board. See “Locating parts on the system board” on page 70.
4. Press the internal speaker lock latch **1**, slide the internal speaker downwards and remove it from the chassis.



;

Figure 29. Removing the internal speaker

5. Position the new internal speaker into the metal clips **2** and push the internal speaker upwards until it is secured by the lock latch **1**.
6. Connect the new internal speaker cable to the system board.
7. Go to “Completing the FRU replacement” on page 89.

Completing the FRU replacement

This section provides instructions on how to complete the parts replacement.

After completing all parts replacement, you need to close the cover and reconnect cables, such as power cords. Depending on the parts replaced, you might need to confirm the updated information in the Setup Utility program. See Chapter 6 “Using the Setup Utility program” on page 43.

To complete the parts replacement:

1. Ensure that all components have been reassembled correctly and that no tools or loose screws are left inside your computer. See “Locating components” on page 69 for the location of various components.
2. Make sure that the cables are routed correctly before closing the computer cover.

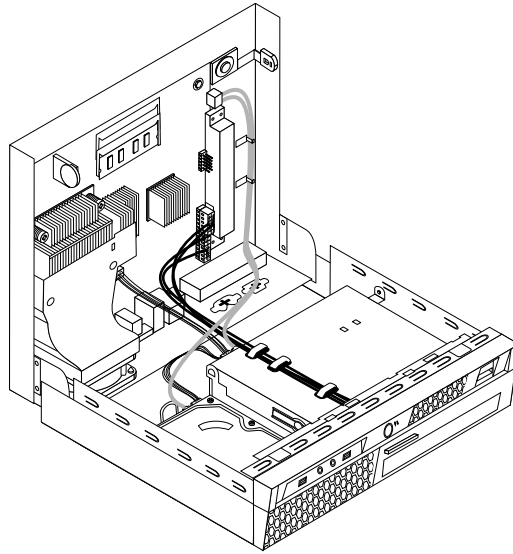


Figure 30. Routing the cables

Important

Correctly route all power supply cables to avoid interference when closing the computer cover. Keep cables clear of the hinges and sides of the computer chassis.

3. Close the computer cover.

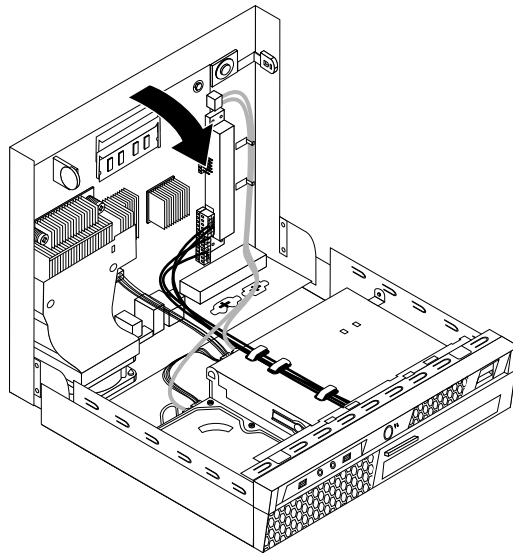


Figure 31. Closing the computer cover

4. If a cover lock is installed, lock the cover.
5. Reconnect the external cables and power cords to the computer. See “Locating connectors on the rear of the computer” on page 68.
6. To update your configuration, see Chapter 6 “Using the Setup Utility program” on page 43.

Chapter 9. FRU lists

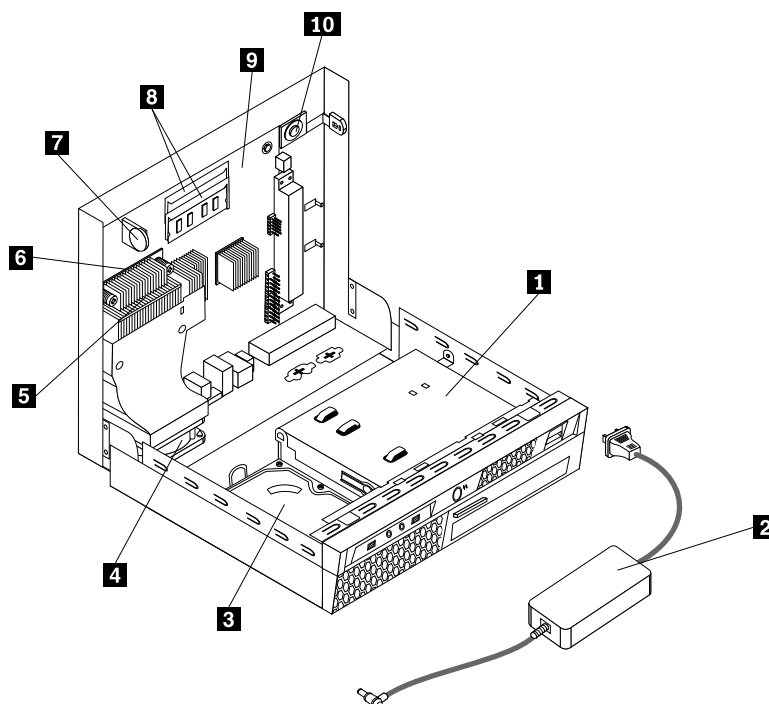
This chapter lists the information on the field replaceable units (FRUs).

Attention: Be sure to read and understand all the safety information before replacing any FRUs.

Note: In the following tables, a customer replaceable unit (CRU) is identified as either "1", "2", or "N" in the **CRU** column. "N" means that the part is not a CRU, "1" means that the part is a Self-service CRU, and "2" means that the part is an Optional-service CRU.

Overall: MT 6136, 6139, 7187, 7345, 7348, 7356, 7359, 7479, 7626, 7629, 7637, 8338, 8820, and 9961

The following replaceable components are available for the 6136, 6139, 7187, 7345, 7348, 7356, 7359, 7479, 7626, 7629, 7637, 8338, 8820, and 9961 machine type models.



Item #	FRUs	FRU #	CRU
1	Optical drive, DVD-ROM 16X Max SATA • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: D6M D8M DGJ DKJ DQJ DUU DUF F2J F3J F9J FKJ • MT 7479: AMM B1J B4J BBJ C2J • MT 7637:	41N3325	1

Item #	FRUs	FRU #	CRU
	- MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB		
1	Optical drive, DVD Recordable SATA/CD-RW Rambo 8 - SATA Vista & non-Vista - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: A2G - MT 7187: AKG - MT 7345: A6G - MT 7348: A1G A2G A3G A4G A5G - MT 7356: A2G - MT 7359: B9A B9T D3M D4M D5M D7M D7A D7T D9M DDJ DFJ DHJ DJJ DNJ DPJ DVU DVF DWU DWF F1J F4J F6G F7U F7F F7L F8J FAJ FBM FCJ FDM FFM FGJ FHJ FLJ - MT 7479: B5A B5T ANM APM AQM ARM ASM AUM AVJ AWJ B2J B3J ALM B9U B9F BAJ BDM BEU BEF C1J C3J - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: AJG AKG ALG AMG APG ARS ARD ARY ASG - MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB	43C1042	1
1	Optical drive, DVD Recorder Rambo 8 - SATA 12XRAM write - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: B9A B9T D3M D4M D5M D7M D7A D7T D9M DDJ DFJ DHJ DJJ DNJ DPJ DVU DVF DWU DWF F1J F4J F6G F7U F7F F7L F8J FAJ FBM FCJ FDM FFM FGJ FHJ FLJ - MT 7479: B5A B5T ANM APM AQM ARM ASM AUM AVJ AWJ B2J B3J ALM B9U B9F BAJ BDM BEU BEF C1J C3J - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: ARS ARD ARY ASG - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	71Y5545	1

Item #	FRUs	FRU #	CRU
2	Power supply, 130W AC/DC pwer adapter (for G model) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	54Y8856	1
2	Power supply, 130W AC/DC power adapter (no G model) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	54Y8857	1
2	Power supply, 130W AC/DC power adapter (for G model) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	41A9767	1

Item #	FRUs	FRU #	CRU
3	Hard disk drive, SATA 160GB 7200RPM/3Gb/8MB - MT 6139: - MT 6175: - MT 7187: AKG - MT 7345: A6G - MT 7348: - MT 7356: - MT 7359: F4J - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	40Y9035	1
3	Hard disk drive, 160 GB 7200rpm SATA - MT 6139: - MT 6175: - MT 7187: AKG - MT 7345: A6G - MT 7348: - MT 7356: - MT 7359: F4J - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	53Y6837	1
3	Hard disk drive, SATA 250GB 7200RPM/3Gb/8MB - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: A1G A4G - MT 7356: A2G - MT 7359: B9A B9T D3M D4M D6M D7M D7A D7T DNJ DPJ DQJ DUU DUF DVU DVF DWU DWF F1J F2J F3J F6G F7U F7F F7L F8J F9J FHJ FKJ - MT 7479: AMM ANM APM AQM ALM B9U B9F BDM BEU BEF - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: AnU AnF AnS AnP AnD AnY AQU AQF AQS - MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB	40Y9036	1

Item #	FRUs	FRU #	CRU
3	Hard disk drive, 250 GB 7200rpm SATA - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: A4G - MT 7356: A2G - MT 7359: B9A B9T D3M D4M D6M D7M D7A D7T DNJ DPJ DQJ DUU DUF DVU DVF DWU DWF F1J F2J F3J F6G F7U F7F F7L F8J F9J FHJ FKJ - MT 7479: AMM ANM APM AQM ALM B9U B9F BDM BEU BEF - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: AQU AQF AQS - MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB	45K0408	1
3	Hard disk drive, SATA 320GB 7200rpm SATA/8MB - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: - MT 7187: - MT 7345: - MT 7348: A2G A3G A5G - MT 7356: - MT 7359: D5M D8M D9M DDJ DFJ DGJ DHJ DJJ DKJ FAJ FBM FCJ FDM FFM FHJ FKJ - MT 7479: B5A B5T ARM ASM AUM AVJ AWJ B1J B2J B3J B4J BAJ BBJ C1J C2J C3J - MT 7637: - MT 8820: AJG AKG ALG AMG APG ARS ARD ARY - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	87H4891	1
3	Hard disk drive, 320 GB 7200rpm SATA - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: - MT 7187: - MT 7345: - MT 7348: A2G A3G A5G - MT 7356: - MT 7359: D5M D8M D9M DDJ DFJ DGJ DHJ DJJ DKJ FAJ FBM FCJ FDM FFM FHJ FKJ - MT 7479: B5A B5T ARM ASM AUM AVJ AWJ B1J B2J B3J B4J BAJ BBJ C1J C2J C3J - MT 7637: - MT 8820: AJG AKG ALG AMG APG ARS ARD ARY	45K0409	1

Item #	FRUs	FRU #	CRU
	- MT 9961: - MT 6136, 7626, 7629, and 8338_SB		
3	Hard disk drive, SATA 500GB 7200RPM/3Gb/s/8MB - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	41X5582	1
3	Hard disk drive, 500GB 7200rpm SATA - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: ASG - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	45K0410	1
3	Hard disk drive, SATA 1TB 7200RPM/3Gb/8MB - MT 6139: 91Z - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: 91Z - MT 7479: 91Z - MT 7637: 91Z - MT 8820: 91Z - MT 9961: 91Z - MT 6136, 7626, 7629, and 8338_SB	45C5973	1

Item #	FRUs	FRU #	CRU
3	Hard disk drive, 1TB 7200rpm SATA • MT 6139: 91Z • MT 6175: • MT 7187: • MT 7345: • MT 7348: 91Z • MT 7356: • MT 7359: 91Z • MT 7479: 91Z • MT 7637: 91Z • MT 8820: 91Z • MT 9961: 91Z • MT 6136, 7626, 7629, and 8338_SB	45K0412	1
3	Hard disk drive, 500G HDD with cache size 8M -> 16M • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	45X5582	1
4	FRU, system fan assembly • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9655	2

Item #	FRUs	FRU #	CRU
5	FRU, 65W Heatsink kit • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9427	2
6	Microprocessor, E4700 Conroe 2.60GHz 800MHz FSB 2M • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	45R5786	2
6	Microprocessor, E8600 Wolfdale,3.33GHZ,1333M FSB 6M E-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	46R8640	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, Core 2 Duo E8500 Processor 3.16GHz 1333MHz FSB 6M L2 65W C-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: ASM BEU BEF • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	45C7735	2
6	Microprocessor, Core 2 Duo E8400 processor 3.00GHz 1333MHz FSB 6M L2 65W C-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: A6G • MT 7348: • MT 7356: A2G • MT 7359: • MT 7479: AMM ANM APM AQM ARM AVJ AWJ B1J B2J B3J B4J ALM B9U B9F BAJ BBJ BDM C1J C2J C3J • MT 7637: • MT 8820: • MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS • MT 6136, 7626, 7629, and 8338_SB	45C7736	2
6	Microprocessor, Core 2 Duo E8300 processor 2.83GHz 1333MHz FSB 6M L2 65W C-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	45C7737	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, E7200 Wolfdale 2.53GHZ 1066MHZFSB 3MB M-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	45R8337	2
6	Microprocessor, E7300 Wolfdale 2.66GHZ 1066FSB FSB 3MB M-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	46R1622	2
6	Microprocessor, E2200 Conroe-L 2.20GHz 800MHz FSB 1M • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	45C5349	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, E2220 Conroe-L 2.40GHz 800MHz FSB 1M • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	45C1774	2
6	Microprocessor, E5200 Wolfdale 2.50GHZ 800FSB 2M • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	46R9512	2
6	Microprocessor, 450 2.20GHZ 800MHz FSB 512K • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	46R9514	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, E1400 Conroe 2.00GHZ 800MHZFSB 512K - NPI M-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	45R8339	2
6	Microprocessor, Celeron 440 Processor 2.00GHz 800MHz FSB 512K L2 A-1 stepping level, value FMB • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	43C1965	2
6	Microprocessor, Q9400 Yorkfield 2.66GHZ 1333FSB 6MB VT, TXT R-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: B5A B5T AUM • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	46R8648	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, Q9550 Yorkfield 2.83GHz 1333FSB 12MB VT, TXT E-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	46R8646	2
6	Microprocessor, Q8200 Yorkfield 2.33GHz 1333FSB 4MB R-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y3946	2
6	Microprocessor, E7500 Wolfdale 2.93GHZ/1066FSB 3M ViiV,EIST,EM64T,EDB R-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A5G • MT 7356: • MT 7359: F6G FFM • MT 7479: • MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q • MT 8820: AJG AKG AnU AnF AnS AnP AnD AnY APG AQU AQF AQS ASG • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y6654	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, E7400 Wolfdale 2.8GHZ/1066FSB 3M ViiV,EIST,EM64T,EDB R-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y6653	2
6	Microprocessor, E1500 Conroe 2.2GHZ/800FSB 512KB EIST,EM64T,EDB M-0 • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y9051	2
6	Microprocessor, E5400 Wolfdale 2.7GHz/800FSB 2MB EIST,EM64T,EDB R-0 • MT 6139: A3G A4G • MT 6175: • MT 7187: • MT 7345: • MT 7348: A4G • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	64Y1075	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, E5200 Wolfdale 2.5GHZ 800FSB 2M R-0 stepping level • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	46R9512	2
6	Microprocessor, Intel Core 2 Duo E7600 3.06G/1066/3M/775 VT R0 65W QLUH • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: B9A B9T D6M D7M D7A D7T D8M D9M DDJ DFJ DGJ DHJ DJJ DKJ DNJ DPJ DQJ F8J F9J FAJ FCJ FGJ FHJ FKJ FLJ • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y3486	2
6	Microprocessor, Intel Core 2 Quad Q8400S 2.66/1333/4/775 VT R0 65W QLRY • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y3490	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, Intel Pentium Dual Core E6300 2.8G/1066/2M/775 VT R0 65W QLPZ • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: D3M D4M D5M DUU DUF DVU DVF DWU DWF • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y3484	2
6	Microprocessor, E5300 Wolfdale 2.6GHz/800FSB 2MB EIST, EM64T, EDB R-0 • MT 6139: A1G A2G • MT 6175: • MT 7187: A1G A2G • MT 7345: A1G A2G • MT 7348: A1G A2G • MT 7356: A1G A2G • MT 7359: A1G A2G • MT 7479: A1G A2G • MT 7637: • MT 8820: A1G A2G • MT 9961: A1G A2G • MT 6136, 7626, 7629, and 8338_SB	53Y9049	2
6	Microprocessor, Inte Celeron Dual Core E3400 2.6GHZ /800 MHz/1MB R-0 65W VT • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y0207	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, Inte Celeron Dual Core E3300 2.5GHZ /800 MHz/1MB R-0 65W VT • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y6252	2
6	Microprocessor, Intel Celeron Dual Core E3200 2.4GHZ /800 MHz/1MB R-0 65W VT • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y6251	2
6	Microprocessor, Intel Pentium Dual Core E6500 2.93GHZ /1066 MHz/2MB R-0 65W • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y6250	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, Intel Pentium Dual Core E6600 3.06GHZ /1066 MHz/2MB R-0 65W • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y0198	2
6	Microprocessor, Intel Pentium Dual Core E6700 3.20GHZ/1066MHZ/2M VT R0 65W • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: FBM FDM • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T6009	2
6	Microprocessor, E6800 Pentium Dual Core 3.3GHZ/1066MHZ/2M Wolfdale-2M R-0 stepping • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T6006	2

Item #	FRUs	FRU #	CRU
6	Microprocessor, E5700 Pentium Dual Core 3.0GHz/800Mhz/2M,Wolfdale-2M R-0 stepping • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T6007	2
6	Microprocessor, E3500 Celeron Dual Core 2.7GHZ/800MHZ/1M Wolfdale-1M R-0 stepping • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T6008	2
8	Memory module, 1GB PC3-8500 1066MHz DDR3 SoDIMM • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: DNJ DPJ DQJ F1J F2J F3J F4J • MT 7479: B2J B3J B4J • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	46R3325	1

Item #	FRUs	FRU #	CRU
8	Memory module, 2GB PC3-8500 1066MHz DDR3 SoDIMM - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: - MT 7187: AKG - MT 7345: A6G - MT 7348: A1G A2G A3G A4G A5G - MT 7356: A2G - MT 7359: B9A B9T D3M D4M D5M D6M D7M D7A D7T D8M D9M DDJ DFJ DGJ DHJ DJJ DKJ DUU DUF DVU DVF DWU DWF F6G F7U F7F F7L F8J F9J FAJ FBM FCJ FDM FFM FGJ FHJ FKJ FLJ - MT 7479: B5A B5T AMM ANM APM AQM ARM ASM AUM AVJ AWJ B1J ALM B9U B9F BAJ BBJ BDM BEU BEF C1J C2J C3J - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: AJG AKG ALG AMG AnU AnF AnS AnP AnD AnY APG AQU AQF AQS ARS ARD ARY ASG - MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB	46R3326	1
8	Memory module, 4GB PC3-10600 1333MHz DDR3 SODIMM - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	89Y9225	1
9	System board, 504AT - swallow GA Intel Q45 non-AMT sub from 46R1518 - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: - MT 7187: AKG - MT 7345: A6G - MT 7348: A1G A2G A3G A4G A5G - MT 7356: A2G - MT 7359: F6G - MT 7479: B5A B5T AMM ANM APM AQM ARM ASM AUM AVJ AWJ B1J B2J B3J B4J ALM B9U B9F BAJ BBJ BDM BEU BEF C1J C2J C3J - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: AJG AKG ALG AMG AnU AnF AnS AnP AnD AnY APG AQU AQF AQS ARS ARD ARY ASG	64Y3057	N

Item #	FRUs	FRU #	CRU
	- MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB		
9	System board, 504AT - swallow Intel Q45 non-AMT (updated V1.1) - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: - MT 7187: AKG - MT 7345: A6G - MT 7348: A1G A2G A3G A4G A5G - MT 7356: A2G - MT 7359: F6G - MT 7479: B5A B5T AMM ANM APM AQM ARM ASM AUM AVJ AWJ B1J B2J B3J B4J ALM B9U B9F BAJ BBJ BDM BEU BEF C1J C2J C3J - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: AJG AKG ALG AMG AnU AnF AnS AnP AnD AnY APG AQU AQF AQS ARS ARD ARY ASG - MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB	64Y2679	N
9	System board, planar swallow Intel Q45 non-AMT (GIGA) GA Level (PCB 1.1) support Win7 - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: - MT 7187: AKG - MT 7345: A6G - MT 7348: A1G A2G A3G A4G A5G - MT 7356: A2G - MT 7359: B9A B9T D3M D4M D5M D6M D7M D7A D7T D8M D9M DDJ DFJ DGJ DHJ DJJ DKJ DNJ DPJ DQJ DUU DUF DVU DVF DWU DWF F1J F2J F3J F4J F6G F7U F7F F7L F8J F9J FAJ FBM FCJ FDM FFM FGJ FHJ FKJ FLJ - MT 7479: B5A B5T AMM ANM APM AQM ARM ASM AUM AVJ AWJ B1J B2J B3J B4J ALM B9U B9F BAJ BBJ BDM BEU BEF C1J C2J C3J - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: AJG AKG ALG AMG AnU AnF AnS AnP AnD AnY APG AQU AQF AQS ARS ARD ARY ASG - MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB	64Y9772	N

Item #	FRUs	FRU #	CRU
9	System board, Russian only system planar swallow Intel Q45(GIGA) TPM disable - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: 91G - MT 7356: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	64Y5548	N
9	System board, system planar swallow Intel Q45(GIGA) TPM disable (PCB1.1) support Win7 - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: A5G - MT 7356: - MT 7479: - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: ARS ARD ARY ASG - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	64Y9778	N
9	System board, system planar swallow Intel Q45 (GIGA) GA Level (PCB 1.1) EUP - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: - MT 7187: AKG - MT 7345: A6G - MT 7348: A1G A2G A3G A4G A5G - MT 7356: A2G - MT 7479: B5A B5T AMM ANM APM AQM ARM ASM AUM AVJ AWJ B1J B2J B3J B4J ALM B9U B9F BAJ BBJ BDM BEU BEF C1J C2J C3J - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: ARS ARD ARY ASG - MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB	71Y6986	N
10	FRU, C2 switch MT 6139: all models	43N9579	2

Item #	FRUs	FRU #	CRU
	• MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB		

Mechanical FRUs

The FRUs listed in the following tables are not illustrated.

FRUs	FRU #	CRU
FRU, mechanical kit • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9569	2
FRU, vertical stand • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9578	1

FRUs	FRU #	CRU
FRU, ODD bezel kit • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9580	1
FRU, non-ODD bezel kit • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9581	1
FRU, card reader bezel kit • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9582	1

FRUs	FRU #	CRU
FRU, non card reader bezel kit • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9583	1
FRU, Power cable for HDD.&.ODD • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9136	2
FRU, Power cable for ODD&HDD_R_150MM+150mm • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	45J9583	2

FRUs	FRU #	CRU
FRU, SATA cable - HDD 500mm • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9131	2
FRU, Internal speaker • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9092	1
FRU, Front I/O cable_R(4.5L_PCBA_A400_U400)+LED/switch • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9078	2

FRUs	FRU #	CRU
FRU, Serial port cable • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	41R6198	2
FRU, USB cable • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	42Y8006	2
FRU, E-SATA cable • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9143	2

FRUs	FRU #	CRU
FRU, PS2 cable (150mm) • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9149	2
FRU, SATA cable - optical 370mm • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9134	2
FRU, parallel to parallel dongle cable_210mm_R • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	45J9520	2

FRUs	FRU #	CRU
FRU, access cover assembly • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9656	2
FRU, base cover assembly • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9657	2
FRU, front bezel assembly • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9658	2

FRUs	FRU #	CRU
FRU, HDD tray assembly • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9659	2
FRU, I/O shielding assembly • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9660	2
FRU, MB tray assembly • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9661	2

FRUs	FRU #	CRU
FRU, universal adapter bracket 5.25 to 3.5 W/bezel • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9679	2
FRU, vertical stand • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9828	N
FRU, Deco-bezel for universal adapter, 607BT • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9584	N

FRUs	FRU #	CRU
FRU, 1.8 to 2.5 universal HDD bracket • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	43N9593	N
FRU, PCI parallel card • MT 6139: all models • MT 6175: • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	46R1519	N
FRU, thermal sense cable • MT 6139: all models • MT 6175: all models • MT 7187: all models • MT 7345: all models • MT 7348: all models • MT 7356: all models • MT 7359: all models • MT 7479: all models • MT 7637: all models • MT 8820: all models • MT 9961: all models • MT 6136, 7626, 7629, and 8338_SB	54Y8273	2

Keyboard and Mouse

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
US English • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: B9A D3M D4M D5M D6M D7M D7A D8M D9M DUU DVU DWU F6G F7U F7L FBM FDM FFM • MT 7479: B5A AMM ANM APM AQM ARM ASM AUM ALM F9U BDM BEU • MT 7637: A2U A2L A2G A2M A2A A2Q A2H A2R A2E A3Q • MT 8820: AJG AKG ALG AMG APG AQU • MT 9961: AkU ALU AMG • MT 6136, 7626, 7629, and 8338_SB	41A5289	1
Arabic • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5290	1
A/F • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: • MT 7479: • MT 7637: • MT 8820: AJG AKG ALG AMG APG • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	41A5291	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
B/F • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: • MT 7479: • MT 7637: A2G • MT 8820: ASG • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	41A5292	1
Belgium English • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5293	1
Brazilian Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2P • MT 8820: AnP • MT 9961: AkP • MT 6136, 7626, 7629, and 8338_SB	41A5294	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Bulgarian • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5295	1
Chinese/US • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2B A2V • MT 8820: ASG • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	41A5296	1
Czech (ABB) • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5297	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Danish • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5298	1
Dutch • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5299	1
French • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5300	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
French Canadian • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: DUF DVF DWF F7F • MT 7479: B9F BEF • MT 7637: A2F • MT 8820: AJG AKG ALG AMG APG AQF • MT 9961: AkF ALF • MT 6136, 7626, 7629, and 8338_SB	41A5301	1
French Canadian • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: DUF DVF DWF F7F • MT 7479: B9F BEF • MT 7637: A2F • MT 8820: AJG AKG ALG AMG APG • MT 9961: AkF ALF • MT 6136, 7626, 7629, and 8338_SB	41A5302	1
German • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5303	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Greek • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5304	1
Greek/US • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5305	1
Hebrew • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5306	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Hungarian • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5307	1
Iceland • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5308	1
Italy • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5309	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Japanese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: DNJ DPJ DQJ F1J F2J F3J F4J F8J F9J FAJ FGJ FHJ FKJ FLJ • MT 7479: B2J B3J B4J BAJ BBJ C1J C2J C3J • MT 7637: A2J • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	41A5310	1
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2K • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	41A5311	1
LA Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2S A2D A2Y • MT 8820: AnS AnD AnY AQS ARS ARD ARY • MT 9961: AkS AkD AkY ALS • MT 6136, 7626, 7629, and 8338_SB	41A5312	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Norwegian • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5313	1
Polish • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5314	1
Portuguese • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5315	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Romanian • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5317	1
Romanian • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5316	1
Russian/Cyrillic • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5318	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Serbian/Cyrillic • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5319	1
Slovak • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5320	1
Spanish • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5321	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Swedish/Finnish • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5322	1
SF/G • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5323	1
Thailand • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: B9T D7T • MT 7479: B5T • MT 7637: A2T • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	41A5324	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
Turkish • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5325	1
Turkish • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5326	1
UK English • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5327	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
US European • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5328	1
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	41A5329	1
Arabic (New) • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	45J4880	1
Lithuanian • MT 6139: • MT 6175:	45J4896	1

Keyboard (Lenovo Preferred Pro USB -- without hub)	FRU #	CRU
• MT 7187: • MT 7345: • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB		

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4780	1
Arabic • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4781	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
A/F • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4782	1
Belgium French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4783	1
Belgium English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4784	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
Brazilian Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4785	1
Bulgarian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4786	1
Chinese/US • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4787	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
Czech (ABB) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4788	1
Danish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4789	1
Dutch • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4790	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4791	1
French Canadian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4792	1
French Canadian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4793	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4794	1
Greek • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4795	1
Greek/US • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4796	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4797	1
Hungarian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4798	1
Iceland • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4799	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
Italy • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4800	1
Japanese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: DDJ DFJ DGJ DHJ DJJ DKJ FCJ • MT 7479: AVJ AWJ B1J • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4801	1
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4802	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
LA Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4803	1
Norwegian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4804	1
Polish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4805	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4806	1
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4808	1
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4806	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
Russian/Cyrillic • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4809	1
Serbian/Cyrillic • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4810	1
Slovak • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4811	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4812	1
Swedish/Finnish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4813	1
Swiss French/German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4814	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
Thailand • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4815	1
Turkish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4816	1
Turkish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4817	1

Keyboard (Lenovo Fingerprint Reader USB)	FRU #	CRU
UK English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4818	1
US European • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4819	1
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	57Y4820	1

Mice	FRU #	CRU
Optical wheel mouse (400 DPI), USB - red wheel (primary) - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: A2G - MT 7187: AKG - MT 7345: A6G - MT 7348: A1G A2G A3G A4G A5G - MT 7356: A2G - MT 7359: B9A B9T D3M D4M D5M D6M D7M D7A D7T D8M D9M DDJ DFJ DGJ DHJ DJJ DKJ DNJ DPJ DQJ DUU DUF DVU DVF DWU DWF F1J F2J F3J F4J F6G F7U F7F F7L F8J F9J FAJ FBM FCJ FFM FGJ FHJ FKJ FLJ - MT 7479: B5A B5T AMM ANM APM AQM ARM ASM AUM AVJ AWJ B1J B2J B3J B4J ALM B9U B9F BAJ BBJ BDM BEU BEF C1J C2J C3J - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: AJG AKG ALG AMG APG AQU AQF AQS ARS ARD ARY ASG - MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB	41U3013	1
Optical wheel mouse (400 DPI), USB - red wheel (secondary) - MT 6139: A1G A2G A3G A4G A5G A6G - MT 6175: A2G - MT 7187: AKG - MT 7345: A6G - MT 7348: A1G A2G A3G A4G A5G - MT 7356: A2G - MT 7359: B9A B9T D3M D4M D5M D6M D7M D7A D7T D8M D9M DDJ DFJ DGJ DHJ DJJ DKJ DNJ DPJ DQJ DUU DUF DVU DVF DWU DWF F1J F2J F3J F4J F6G F7U F7F F7L F8J F9J FAJ FBM FCJ FFM FGJ FHJ FKJ FLJ - MT 7479: B5A B5T AMM ANM APM AQM ARM ASM AUM AVJ AWJ B1J B2J B3J B4J ALM B9U B9F BAJ BBJ BDM BEU BEF C1J C2J C3J - MT 7637: A2U A2F A2S A2P A2L A2D A2Y A2M A2A A2Q A2T A2C A2B A2H A2V A2K A2R A2E A2J A3Q - MT 8820: AJG AKG ALG AMG APG AQU AQF AQS ARS ARD ARY ASG - MT 9961: AkU AkF AkS AkP AkD AkY ALU ALF ALS AMG - MT 6136, 7626, 7629, and 8338_SB	41U3030	1
(Tower only) PS/2 Three button ball mouse - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820:	41R0018	1

Mice	FRU #	CRU
• MT 9961: • MT 6136, 7626, 7629, and 8338_SB		
Primax LXB MO28UOA USB mouse • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1273	1
Logitech LXB M-U0022-O USB mouse • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1274	1
Liteon LXB SM-1065 USB mouse • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1275	1

Adapters and miscellaneous FRUs

Adapters & miscellaneous FRUs	FRU #	CRU
DP to DVI dongle 200mm • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: FCJ FGJ FHJ FKJ FLJ • MT 7479: C1J C2J C3J • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	43N9160	1
IEEE 1394 Firewire adapter (LP) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	41D2781	1
Speakers (2-piece) Lenovo Logo (secondary) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	41A5334	1

Adapters & miscellaneous FRUs	FRU #	CRU
Speaker power brick - US, Canada, LA low voltage, ASEAN (TOWER ROCKYS&LX-607) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: DUU DVU DWU • MT 7479: • MT 7637: A2U A2S A2A • MT 8820: AnU AnS AQU AQS • MT 9961: AkU AkS ALU ALS • MT 6136, 7626, 7629, and 8338_SB	89P8571	1
Modem phone cable • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	39K5120	1
Thermal grease Syringe • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	91P8835	2

Adapters & miscellaneous FRUs	FRU #	CRU
AC line cord for AC/DC power adapter - 1.0m/3 wire • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T5004	1
AC line cord for AC/DC power adapter - 1.0m/3 wire • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T5089	1
Display port to VGA dongle • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	45J9524	1
Soft modem V.90/V.44 - LP • MT 6139: • MT 6175:	46R4220	1

Adapters & miscellaneous FRUs	FRU #	CRU
• MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB		

Power Cords

Power Cords --primary	FRU #	CRU
Line Cord - US/Canada • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: • MT 7356: • MT 7359: B9A D7A DUU DUF DVU DVF DWU DWF F7U F7F F7L • MT 7479: B5A B9U B9F BEU BEF • MT 7637: A2U A2F A2S A2D A2L A2A A2T • MT 8820: AJG AKG ALG AMG APG AQU AQF AQS ARS ARD • MT 9961: AKU AKF AKS AKD ALU ALF ALS • MT 6136, 7626, 7629, and 8338_SB	42T5089	1
Line Cord - Japan • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: DDJ DFJ DGJ DHJ DJJ DKJ DNJ DPJ DQJ F1J F2J F3J F4J F8J F9J FAJ FGJ FHJ FKJ FLJ • MT 7479: AVJ AWJ B1J B2J B3J B4J BAJ BBJ C1J C2J C3J • MT 7637: A2E A2J • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T5096	1

Power Cords --primary	FRU #	CRU
Line Cord -Argentina • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: F7L • MT 7479: • MT 7637: • MT 8820: AnY ARY • MT 9961: AkY • MT 6136, 7626, 7629, and 8338_SB	42T5102	1
Line Cord - Brazil • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2P • MT 8820: AnP • MT 9961: AkP • MT 6136, 7626, 7629, and 8338_SB	42T5177	1
Line Cord - German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	42T5114	1

Power Cords --primary	FRU #	CRU
Line Cord - UK • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: B5A • MT 7479: B5A • MT 7637: A2B A2H A2G • MT 8820: AJG AKG ALG AMG APG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	42T5120	1
Line Cord - Denmark • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	42T5126	1
Line Cord - Switzerland • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	42T5129	1

Power Cords --primary	FRU #	CRU
Line Cord - Italy • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G F7L • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ARS ARY • MT 9961: AkS AkY ALS • MT 6136, 7626, 7629, and 8338_SB	42T5132	1
Line Cord-Australia / New Zealand • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: D3M D4M D5M D6M D7M D8M D9M FBM FDM FFM • MT 7479: AMM ANM APM AQM ARM ASM AUM ALM BDM • MT 7637: A2M • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T5135	1
Line Cord - South Africa • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: B5A AMM ANM APM AQM ARM ASM AUM ALM FBM FDM FFM • MT 7479: B5A AMM ANM APM AQM ARM ASM AUM ALM BDM • MT 7637: A2M • MT 8820: AJG AKG ALG AMG APG • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T5141	1

Power Cords --primary	FRU #	CRU
Line Cord - Israel • MT 6139: A1G A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A1G A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	42T5147	1
Line Cord - China • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2C • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T5150	1
Line Cord - Taiwan • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2V • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T5156	1

Power Cords --primary	FRU #	CRU
Line Cord - Korea • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2K A2R • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T5162	1
Line Cord - Thailand • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2T • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T4400	1
Line Cord - India • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: B5T • MT 7637: A2Q A3Q • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	42T5168	1

Recovery discs

Windows XP Professional Recovery CD

Note: The Windows XP Professional recovery DVDs are available only for models with a valid Microsoft Windows XP Professional certificate of authenticity (COA) affixed to the system. Due to a Microsoft licensing limitation, if a model came with Windows XP Professional preinstalled from the factory, but has either a Windows 7 or Windows Vista COA affixed to the system, that model is eligible only for recovery DVDs that match the operating system specified on the COA.

Windows XP Professional	FRU #	CRU
Arabic enabled • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8274	1
Brazilian Portuguese • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8275	1

Windows XP Professional	FRU #	CRU
Simplified Chinese • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8276	1
Traditional Chinese • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	89Y1619	1
Czech • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8278	1

Windows XP Professional	FRU #	CRU
Danish • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8279	1
Finland • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8280	1
French • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8281	1

Windows XP Professional	FRU #	CRU
Greek • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8282	1
German • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	89Y7347	1
Hebrew • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8284	1

Windows XP Professional	FRU #	CRU
Hong Kong • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8285	1
Hungarian • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8286	1
Italian • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8287	1

Windows XP Professional	FRU #	CRU
Japan • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8288	1
Korea • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8289	1
Dutch • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8290	1

Windows XP Professional	FRU #	CRU
Norway • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8291	1
Polish • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8292	1
Portuguese • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8293	1

Windows XP Professional	FRU #	CRU
Russian English • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8294	1
Russian • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8295	1
Slovenian • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8296	1

Windows XP Professional	FRU #	CRU
Spanish • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8297	1
Swedish • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8298	1
Turkish • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y8299	1

Windows XP Professional	FRU #	CRU
English • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	71Y9948	1
MUI Nordics EN-DK-FI-NO-SV • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	89Y7378	1
MUI Switz EN-FR-GR-IT • MT 6139: CTO • MT 6175: • MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB	89Y7379	1
MUI Bel-Lux EN-FR-GR-NL • MT 6139: CTO • MT 6175:	89Y7380	1

Windows XP Professional	FRU #	CRU
• MT 7187: • MT 7345: • MT 7348: CTO • MT 7356: CTO • MT 7359: CTO • MT 7479: CTO • MT 7637: CTO • MT 8820: CTO • MT 9961: CTO • MT 6136, 7626, 7629, and 8338_SB		

Windows Vista 32 Home Basic Recovery CD

Note: The Windows Vista recovery DVDs are available only for models with a valid Microsoft Windows Vista certificate of authenticity (COA) affixed to the system. Due to a Microsoft licensing limitation, if a model came with Windows Vista Business or Windows Vista Ultimate preinstalled from the factory, but has a Windows 7 COA affixed to the system, that model is eligible only for recovery DVDs that match the operating system specified on the COA.

Windows Vista 32 Home Basic	FRU #	CRU
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1969	1
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820:	89Y1949	1

Windows Vista 32 Home Basic	FRU #	CRU
• MT 9961: • MT 6136, 7626, 7629, and 8338_SB		
German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1951	1
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1966	1
Brazilian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1944	1

Windows Vista 32 Home Basic	FRU #	CRU
Italian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1955	1
Japanese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1956	1
Dutch • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1958	1

Windows Vista 32 Home Basic	FRU #	CRU
Czech • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1947	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1948	1
Polish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1959	1

Windows Vista 32 Home Basic	FRU #	CRU
Russian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1963	1
Turkish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1968	1
Hungarian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1954	1

Windows Vista 32 Home Basic	FRU #	CRU
Greek • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1950	1
Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1960	1
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1953	1

Windows Vista 32 Home Basic	FRU #	CRU
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1945	1
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1946	1
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1957	1

Windows Vista 32 Home Basic	FRU #	CRU
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1965	1
Russian English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1961	1
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1952	1

Windows Vista 32 Home Basic	FRU #	CRU
Arabic Localized • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1943	1
Slovakian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1964	1
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1962	1

Windows Vista 32 Home Basic	FRU #	CRU
Serbian-Latin • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1967	1
C&L1 Nordics (EN DK FI NO SV) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1970	1
C&L2 Switzerland (EN FR GR IT) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1972	1
C&L3 Bel Lux (EN FR GR NL) • MT 6139: • MT 6175:	89Y1971	1

Windows Vista 32 Home Basic	FRU #	CRU
• MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB		

Windows Vista Home Basic 32 SP2 Recovery CD

Note: The Windows Vista recovery DVDs are available only for models with a valid Microsoft Windows Vista certificate of authenticity (COA) affixed to the system. Due to a Microsoft licensing limitation, if a model came with Windows Vista Business or Windows Vista Ultimate preinstalled from the factory, but has a Windows 7 COA affixed to the system, that model is eligible only for recovery DVDs that match the operating system specified on the COA.

Vista Home Basic 32 SP2	FRU #	CRU
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2135	1
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820:	03T2115	1

Vista Home Basic 32 SP2	FRU #	CRU
• MT 9961: • MT 6136, 7626, 7629, and 8338_SB		
Greek • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2116	1
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2118	1
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2132	1

Vista Home Basic 32 SP2	FRU #	CRU
Brazilian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2111	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2122	1
Dutch • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2124	1

Vista Home Basic 32 SP2	FRU #	CRU
Czech • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2114	1
Polish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2125	1
Russian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2129	1

Vista Home Basic 32 SP2	FRU #	CRU
Turkish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2134	1
Italian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2121	1
German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2117	1

Vista Home Basic 32 SP2	FRU #	CRU
Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2126	1
Hungarian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2120	1
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2112	1

Vista Home Basic 32 SP2	FRU #	CRU
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2113	1
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2123	1
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2131	1

Vista Home Basic 32 SP2	FRU #	CRU
Russian English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2127	1
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2119	1
Arabic Localized • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2110	1

Vista Home Basic 32 SP2	FRU #	CRU
Slovakian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2130	1
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2128	1
Serbian-Latin • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2133	1

Vista Home Basic 32 SP2	FRU #	CRU
C&L1 Nordics (EN DK FI NO SV) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2136	1
C&L2 Switzerland (EN FR GR IT) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2138	1
C&L3 Bel Lux (EN FR GR NL) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2137	1
Japanese • MT 6139: • MT 6175:	03T2170	1

Vista Home Basic 32 SP2	FRU #	CRU
• MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB		

Windows Vista Business 32 Recovery CD

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Windows Vista Business 32	FRU #	CRU
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1939	1
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820:	89Y1918	1

Windows Vista Business 32	FRU #	CRU
• MT 9961: • MT 6136, 7626, 7629, and 8338_SB		
German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1920	1
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1936	1
B/P • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1914	1

Windows Vista Business 32	FRU #	CRU
Italy • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1925	1
Japanese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1926	1
Dutch • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1928	1

Windows Vista Business 32	FRU #	CRU
Czech • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1917	1
Polish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1929	1
Russian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1933	1

Windows Vista Business 32	FRU #	CRU
Turkish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1938	1
Hungarian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1923	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1924	1

Windows Vista Business 32	FRU #	CRU
Greek • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1919	1
Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1930	1
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1915	1

Windows Vista Business 32	FRU #	CRU
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1916	1
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1922	1
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1927	1

Windows Vista Business 32	FRU #	CRU
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1935	1
Russian English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1931	1
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1932	1

Windows Vista Business 32	FRU #	CRU
Serbian-Latin • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1937	1
Slovakian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1934	1
Arabic Localized • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1913	1

Windows Vista Business 32	FRU #	CRU
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1921	1
C&L1 Nordics (EN DK FI NO SV) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1940	1
C&L2 Switzerland (EN FR GR IT) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	89Y1942	1
C&L3 Bel Lux (EN FR GR NL) • MT 6139: • MT 6175:	89Y1941	1

Windows Vista Business 32	FRU #	CRU
• MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB		

Windows Vista Business 32 SP2 Recovery CD

Note: The Windows Vista recovery DVDs are available only for models with a valid Microsoft Windows Vista certificate of authenticity (COA) affixed to the system. Due to a Microsoft licensing limitation, if a model came with Windows Vista Business or Windows Vista Ultimate preinstalled from the factory, but has a Windows 7 COA affixed to the system, that model is eligible only for recovery DVDs that match the operating system specified on the COA.

Windows Vista Business 32 SP2	FRU #	CRU
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2164	1
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820:	03T2144	1

Windows Vista Business 32 SP2	FRU #	CRU
• MT 9961: • MT 6136, 7626, 7629, and 8338_SB		
German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2146	1
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2161	1
B/P • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2140	1

Windows Vista Business 32 SP2	FRU #	CRU
Italy • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2151	1
Dutch • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2153	1
Czech • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2143	1

Windows Vista Business 32 SP2	FRU #	CRU
Polish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2154	1
Russian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2158	1
Turkish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2163	1

Windows Vista Business 32 SP2	FRU #	CRU
Hungarian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2149	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2150	1
Greek • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2145	1

Windows Vista Business 32 SP2	FRU #	CRU
Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2155	1
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2141	1
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2142	1

Windows Vista Business 32 SP2	FRU #	CRU
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2148	1
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2152	1
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2160	1

Windows Vista Business 32 SP2	FRU #	CRU
Russian English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2156	1
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2157	1
Serbian-Latin • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2162	1

Windows Vista Business 32 SP2	FRU #	CRU
Slovakian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2159	1
Arabic Localized • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2139	1
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2147	1

Windows Vista Business 32 SP2	FRU #	CRU
C&L1 Nordics (EN DK FI NO SV) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2165	1
C&L2 Switzerland (EN FR GR IT) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2167	1
C&L3 Bel Lux (EN FR GR NL) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2166	1
Japanese • MT 6139: • MT 6175:	03T2169	1

Windows Vista Business 32 SP2	FRU #	CRU
• MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB		

Windows Vista Business 64 Recovery CD

Note: The Windows Vista recovery DVDs are available only for models with a valid Microsoft Windows Vista certificate of authenticity (COA) affixed to the system. Due to a Microsoft licensing limitation, if a model came with Windows Vista Business or Windows Vista Ultimate preinstalled from the factory, but has a Windows 7 COA affixed to the system, that model is eligible only for recovery DVDs that match the operating system specified on the COA.

Windows Vista Business 64	FRU #	CRU
Russian English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y7250	1
Russian French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820:	53Y7251	1

Windows Vista Business 64	FRU #	CRU
• MT 9961: • MT 6136, 7626, 7629, and 8338_SB		
German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y7252	1
Japanese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	64Y6262	1
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y7254	1

Windows Vista Business 64	FRU #	CRU
Brazil Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y7954	1
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y9870	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y9962	1

Windows Vista Ultimate 32 Recovery CD

Note: The Windows Vista recovery DVDs are available only for models with a valid Microsoft Windows Vista certificate of authenticity (COA) affixed to the system. Due to a Microsoft licensing limitation, if a model came with Windows Vista Business or Windows Vista Ultimate preinstalled from the factory, but has a Windows 7 COA affixed to the system, that model is eligible only for recovery DVDs that match the operating system specified on the COA.

Windows Vista Ultimate 32	FRU #	CRU
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y9930	1
Japanese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	64Y6261	1
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820:	53Y7242	1

Windows Vista Ultimate 32	FRU #	CRU
• MT 9961: • MT 6136, 7626, 7629, and 8338_SB		
German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y7243	1
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y7244	1
Italian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y9471	1

Windows Vista Ultimate 32	FRU #	CRU
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y7247	1
Arabic Localized • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y7248	1
C&L1 Nordics (EN DK FI NO SV) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	53Y7249	1

Windows Vista Starter SP2 Recovery CD

Note: The Windows Vista recovery DVDs are available only for models with a valid Microsoft Windows Vista certificate of authenticity (COA) affixed to the system. Due to a Microsoft licensing limitation, if a model came with Windows Vista Business or Windows Vista Ultimate preinstalled from the factory, but has a Windows 7 COA affixed to the system, that model is eligible only for recovery DVDs that match the operating system specified on the COA.

Windows Vista Starter SP2	FRU #	CRU
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2168	1

Windows 7 Home Basic 32 Recovery CD

Windows 7 Home Basic 32	FRU #	CRU
English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8340	1
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356:	71Y8337	1

Windows 7 Home Basic 32	FRU #	CRU
• MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB		
Russian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8336	1
Turkish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8339	1
Russian English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637:	71Y8335	1

Windows 7 Home Basic 32	FRU #	CRU
• MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB		
Serbian-Latin • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8338	1
Arabic Localized • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8332	1
Brazilian Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8333	1

Windows 7 Home Basic 32	FRU #	CRU
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8334	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8650	1

Windows 7 Home Basic 32 SP1 Recovery CD

Windows 7 Home Basic 32 SP1	FRU #	CRU
English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961:	03T1805	1

Windows 7 Home Basic 32 SP1	FRU #	CRU
MT 6136, 7626, 7629, and 8338_SB		
Spanish - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	03T1802	1
Russian - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	03T1801	1
Turkish - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	03T1804	1

Windows 7 Home Basic 32 SP1	FRU #	CRU
Russian English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1800	1
Sebian-Latin • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1803	1
Arabic Localized • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1796	1

Windows 7 Home Basic 32 SP1	FRU #	CRU
Brazilian Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1797	1
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1798	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1799	1

Windows 7 Home Premium 32 Recovery CD

Windows 7 Home Premium 32	FRU #	CRU
English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8353	1
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8344	1
German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8345	1

Windows 7 Home Premium 32	FRU #	CRU
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8352	1
Italian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8348	1
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8350	1

Windows 7 Home Premium 32	FRU #	CRU
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8347	1
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8351	1
Japan • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8349	1

Windows 7 Home Premium 32	FRU #	CRU
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8346	1
Brazilian Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8341	1
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8342	1

Windows 7 Home Premium 32	FRU #	CRU
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8343	1
C&L Bel Lux (EN FR GR NL) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8354	1
C&L Nordics (EN DK FI NO SV) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8355	1

Windows 7 Home Premium 32	FRU #	CRU
C&L Switzerland (EN FR GR IT) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8356	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8651	1

Windows 7 Home Premium 32 SP1 Recovery CD

Windows 7 Home Premium 32 SP1	FRU #	CRU
English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961:	03T1819	1

Windows 7 Home Premium 32 SP1	FRU #	CRU
MT 6136, 7626, 7629, and 8338_SB		
French - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	03T1810	1
German - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	03T1811	1
Spanish - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	03T1818	1

Windows 7 Home Premium 32 SP1	FRU #	CRU
Italian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1814	1
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1816	1
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1813	1

Windows 7 Home Premium 32 SP1	FRU #	CRU
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1817	1
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1812	1
Brazilian Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1806	1

Windows 7 Home Premium 32 SP1	FRU #	CRU
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1807	1
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1808	1
C&L Bel Lux (EN FR GR NL) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1820	1

Windows 7 Home Premium 32 SP1	FRU #	CRU
C&L Nordics (EN DK FI NO SV) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1821	1
C&L Switzerland (EN FR GR IT) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1822	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1809	1
Japanese • MT 6139: • MT 6175:	03T1815	1

Windows 7 Home Premium 32 SP1	FRU #	CRU
• MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB		

Windows 7 Professional 32 Recovery CD

Windows 7 Professional 32	FRU #	CRU
US English • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: B9A D3M D4M D5M D6M D7M D7A D8M D9M DUU DVU DWU F6G F7U F7L FFM • MT 7479: B5A AMM ANM APM AQM ARM ASM AUM ALM B9U BDM BEU BEF • MT 7637: A2U A2L A2G A2M A2A A2Q A2H A2R A2E A3Q • MT 8820: AJG AKG ALG AMG AnU APG AQU ASG • MT 9961: AkU ALU AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8328	1
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: DDJ DFJ DGJ DHJ DJJ DKJ DNJ DPJ DQJ F1J F2J F3J F4J F8J F9J FAJ FCJ FGJ FHJ FKJ FLJ • MT 7479: B9F • MT 7637: A2J • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8309	

Windows 7 Professional 32	FRU #	CRU
German • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: DUF DVF DWF F6G F7F • MT 7479: • MT 7637: A2F A2G • MT 8820: AJG AKG ALG AMG AnF APG AQF ASG • MT 9961: AkF ALF AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8311	1
Japanese • MT 6139: • MT 6175: • MT 7187: • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: AVJ AWJ B1J B2J B3J B4J BAJ BBJ C1J C2J C3J • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8316	1
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2S A2D A2Y • MT 8820: AJG AKG ALG AMG APG AQS ASG • MT 9961: AkS AkD AkY ALS • MT 6136, 7626, 7629, and 8338_SB	71Y8325	1

Windows 7 Professional 32	FRU #	CRU
Italian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8315	1
Czech • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8308	1
Polish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8318	1

Windows 7 Professional 32	FRU #	CRU
Russian • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8322	1
Turkish • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8327	1
Hungarian • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8314	1

Windows 7 Professional 32	FRU #	CRU
Greek • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8310	1
Brazilian Portuguese • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2P • MT 8820: AnP • MT 9961: AkP • MT 6136, 7626, 7629, and 8338_SB	71Y8305	1
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2K • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8317	1

Windows 7 Professional 32	FRU #	CRU
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8324	1
Russian English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8320	1
Romanian • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8321	1

Windows 7 Professional 32	FRU #	CRU
Serbian-Latin • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8326	1
Slovakian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8323	1
Arabic Localized • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8304	1

Windows 7 Professional 32	FRU #	CRU
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8312	1
Simplified Chinese • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2C • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8306	1
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2V • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8307	1

Windows 7 Professional 32	FRU #	CRU
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2B • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8313	1
Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8319	1
C&L Bel Lux (EN FR GR NL) • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8329	1

Windows 7 Professional 32	FRU #	CRU
C&L Nordics (EN DK FI NO SV) • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8330	1
C&L Switzerland (EN FR GR IT) • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	71Y8331	1
India English • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8649	1

Windows 7 Professional 32 SP1 Recovery CD

Windows 7 Professional 32 SP1	FRU #	CRU
US English • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: B9A D3M D4M D5M D6M D7M D7A D8M D9M DUU DVU DWU F6G F7U F7L FFM • MT 7479: B5A AMM ANM APM AQM ARM ASM AUM ALM B9U BDM BEU BEF • MT 7637: A2U A2L A2G A2M A2A A2Q A2H A2R A2E A3Q • MT 8820: AJG AKG ALG AMG AnU APG AQU ASG • MT 9961: AkU ALU AMG • MT 6136, 7626, 7629, and 8338_SB	03T1792	1
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: DUF DVF DWF F6G F7F • MT 7479: B9F • MT 7637: A2F A2G • MT 8820: AJG AKG ALG AMG AnF APG AQF ASG • MT 9961: AkF ALF AMG • MT 6136, 7626, 7629, and 8338_SB	03T1773	1
German • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1775	1

Windows 7 Professional 32 SP1	FRU #	CRU
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2S A2D A2Y • MT 8820: AJG AKG ALG AMG APG AQS ASG • MT 9961: AkS AkD AkY ALS • MT 6136, 7626, 7629, and 8338_SB	03T1789	1
Italian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1779	1
Czech • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1771	1

Windows 7 Professional 32 SP1	FRU #	CRU
Polish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1782	1
Russian • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1786	1
Turkish • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1791	1

Windows 7 Professional 32 SP1	FRU #	CRU
Hungarian • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1778	1
Greek • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1774	1
Brazilian Portuguese • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2P • MT 8820: AnP • MT 9961: AkP • MT 6136, 7626, 7629, and 8338_SB	03T1768	1

Windows 7 Professional 32 SP1	FRU #	CRU
Korean • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2K • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1781	1
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1788	1
Russian English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1784	1

Windows 7 Professional 32 SP1	FRU #	CRU
Romanian • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1785	1
Serbian-Latin • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1790	1
Slovakian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1787	1

Windows 7 Professional 32 SP1	FRU #	CRU
Arabic Localized • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1767	1
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1776	1
Simplified Chinese • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2C • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1769	1

Windows 7 Professional 32 SP1	FRU #	CRU
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2V • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1770	1
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: A2B • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1777	1
Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: ASG • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1783	1

Windows 7 Professional 32 SP1	FRU #	CRU
C&L Bel Lux (EN FR GR NL) • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1793	1
C&L Nordics (EN DK FI NO SV) • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1794	1
C&L Switzerland (EN FR GR IT) • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: A2G A3G A4G A5G • MT 7356: A2G • MT 7359: F6G • MT 7479: • MT 7637: A2G • MT 8820: • MT 9961: AMG • MT 6136, 7626, 7629, and 8338_SB	03T1795	1

Windows 7 Professional 32 SP1	FRU #	CRU
India English • MT 6139: A2G A3G A4G A5G A6G • MT 6175: • MT 7187: AKG • MT 7345: A6G • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: AJG AKG ALG AMG APG ASG • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1772	1
Japanese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1780	1

Windows 7 Professional 64 Recovery CD

Windows 7 Professional 64	FRU #	CRU
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: FBM FDM • MT 7479: • MT 7637: • MT 8820: • MT 9961:	71Y8366	1

Windows 7 Professional 64	FRU #	CRU
MT 6136, 7626, 7629, and 8338_SB		
French - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	71Y8360	1
German - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	71Y8361	1
Spanish - MT 6139: - MT 6175: - MT 7187: - MT 7345: - MT 7348: - MT 7356: - MT 7359: - MT 7479: - MT 7637: - MT 8820: - MT 9961: - MT 6136, 7626, 7629, and 8338_SB	71Y8365	1

Windows 7 Professional 64	FRU #	CRU
Italian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8363	1
Brazilian Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8357	1
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8358	1

Windows 7 Professional 64	FRU #	CRU
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8359	1
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8362	1
Japan • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8364	1

Windows 7 Professional 64	FRU #	CRU
C&L Nordics (EN DK FI NO SV) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8367	1
Switzerland (EN FR GR IT) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8368	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	71Y8652	1

Windows 7 Professional 64	FRU #	CRU
Arabic • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5963	1
Czech • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5964	1
Greek • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5965	1

Windows 7 Professional 64	FRU #	CRU
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5966	1
Polish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5967	1
Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5968	1

Windows 7 Professional 64	FRU #	CRU
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5969	1
Russian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T0491	1
Slovakian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5970	1

Windows 7 Professional 64	FRU #	CRU
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5971	1
Serbian-Latin • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5972	1
Turkish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T5973	1

Windows 7 Professional 64 SP1 Recovery CD

Windows 7 Professional 64 SP1	FRU #	CRU
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: FBM FDM • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1845	1
French • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1829	1
German • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1831	1

Windows 7 Professional 64 SP1	FRU #	CRU
Spanish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1842	1
Italian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1834	1
Brazilian Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1824	1

Windows 7 Professional 64 SP1	FRU #	CRU
Simplified Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1825	1
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1826	1
Hong Kong • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1832	1

Windows 7 Professional 64 SP1	FRU #	CRU
C&L Nordics (EN DK FI NO SV) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1846	1
Switzerland (EN FR GR IT) • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1847	1
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1828	1

Windows 7 Professional 64 SP1	FRU #	CRU
Arabic • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1823	1
Czech • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1827	1
Greek • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1830	1

Windows 7 Professional 64 SP1	FRU #	CRU
Hebrew • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1833	1
Polish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1836	1
Portuguese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1837	1

Windows 7 Professional 64 SP1	FRU #	CRU
Romanian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1838	1
Russian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1839	1
Slovakian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1840	1

Windows 7 Professional 64 SP1	FRU #	CRU
Slovenian • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1841	1
Serbian-Latin • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1843	1
Turkish • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1844	1
Japanese • MT 6139: • MT 6175:	03T1835	1

Windows 7 Professional 64 SP1	FRU #	CRU
• MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB		

Windows 7 Ultimate 32 SP1 Recovery CD

Windows 7 Ultimate 32 SP1	FRU #	CRU
Traditional Chinese • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1848	1
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1849	1

Windows 7 Ultimate 64 SP1 Recovery CD

Windows 7 Ultimate 64 SP1	FRU #	CRU
US English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T1850	1

Windows 7 Starter 32 SP1 Recovery CD

Windows 7 Starter X32 SP1	FRU #	CRU
India English • MT 6139: • MT 6175: • MT 7187: • MT 7345: • MT 7348: • MT 7356: • MT 7359: • MT 7479: • MT 7637: • MT 8820: • MT 9961: • MT 6136, 7626, 7629, and 8338_SB	03T2381	1

Chapter 10. Additional service information

This chapter provides additional information that the service representative might find helpful.

Security features

Security features in this section include the following:

- Passwords
- Vital Product Data
- Secure Managed Client (some models)

Hardware controlled passwords

Use the Setup Utility program to set the hardware controlled passwords. For more information about passwords, see “Using passwords ” on page 43.

Operating system password

Note: This section applies only to computer models that have an operating system preinstalled from Lenovo.

An operating system password is very similar to a power-on password and denies access to the computer by an unauthorized user when the password is activated. The computer is unusable until the correct password is entered and recognized by the computer.

Vital Product Data

Each computer has a unique Vital Product Data (VPD) code stored in the nonvolatile memory on the system board. After you replace the system board, the VPD must be updated. To update the VPD, see “Updating (flashing) BIOS from a disc” on page 276.

Secure Managed Client

The Secure Managed Client (SMC) is a storage-based, desktop computing solution that helps businesses reduce IT costs and improve security by turning off hard disk drives and storing all data in a non-server remote location while offering users the flexibility and performance of a traditional desktop computer. For computer models that do not have an internal hard disk drive and a preinstalled operating system, but use a remote hard disk drive accessed through the SMC - Storage Array, contact the network or storage administrator.

BIOS levels

An incorrect level of BIOS can cause false errors and unnecessary FRU replacement. Use the following information to determine the current level of BIOS installed in the computer, the latest BIOS available for the computer, and where to obtain the latest level of BIOS.

- To determine the current level of BIOS:
 - Start the Setup Utility.
 - See **BIOS Revision Level** on the Main setup screen.
- Sources for obtaining the latest level BIOS available
 1. Lenovo support web site: <http://www.lenovo.com/support/>
 2. Lenovo Customer Support Center

3. Levels 1 and 2 Support

To update (flash) the BIOS, see “Updating (flashing) BIOS from a disc” on page 276.

Updating (flashing) BIOS from a disc

This section provides instructions on how to update (flash) BIOS from a disc. System BIOS program updates are available at:

<http://www.lenovo.com/support>

To update (flash) BIOS from a disc:

1. Make sure the optical drive you want to use is set as the first boot device in the startup device sequence. See “Selecting a startup device” on page 45.
2. Make sure the computer is turned on. Then, insert the system program update (flash) disc into the optical drive.
3. Turn the computer off and back on again. The update begins.
4. When prompted to change the serial number, press Y.
5. Type in the twenty character serial number of your computer and then press Enter.
6. When prompted to change the machine type/model, press Y.
7. Type in the twenty character machine type/model of your computer and then press Enter.
8. Follow the instructions on the screen to complete the update.

Recovering from a POST/BIOS update failure

If the power to your computer is interrupted while POST/BIOS is being updated (flash update), your computer might not restart correctly. If this happens, perform the following procedure which is commonly called Boot-block Recovery.

1. Turn off the computer and any attached devices, such as printers, monitors, and external drives.
2. Unplug all power cords from electrical outlets, and open the computer cover. See “Opening the computer cover” on page 71.
3. Locate the Clear CMOS/Recovery jumper on the system board. See “Locating parts on the system board” on page 70.
4. Remove any cables that impede access to the Clear CMOS/Recovery jumper.
5. Move the jumper from the standard position (pin 1 and pin 2) to pins 2 and pin 3.
6. Reconnect any cables that were disconnected. See “Completing the FRU replacement” on page 89.
7. Close the computer cover and reconnect the power cords for the computer and monitor to electrical outlets.
8. Turn on the computer and the monitor, and then insert the POST/BIOS update (flash update) disc into the optical drive.
9. Turn the computer off and back on again.
10. The recovery session will take two to three minutes. During this time you will hear a series of beeps. After the update session is completed, there will be no video, the series of beeps will end, and the system will automatically turn off. Remove the disc from the optical drive before the system completely turns off.
11. Repeat steps 2 through 4.
12. Move the jumper back to the standard position (pin 1 and pin 2).
13. Reconnect any cables that were disconnected. See “Completing the FRU replacement” on page 89.
14. Close the computer cover and reconnect the power cords for the computer and monitor to electrical outlets.

15. Turn on the computer to restart the operating system.

Power management

Power management reduces the power consumption of certain components of the computer such as the system power supply, processor, hard disk drives, and some monitors.

Automatic configuration and power interface (ACPI) BIOS

Being an ACPI BIOS system, the operating system is allowed to control the power management features of the computer and the setting for Advanced Power Management (APM) BIOS mode is ignored. Not all operating systems support ACPI BIOS mode.

Automatic Power-On features

The Automatic Power-On features within the Power Management menu allow you to enable and disable features that turn on the computer automatically.

- **RTC resume:** You can specify a date and time at which the computer will be turned on automatically. This can be either a single event or a daily event.
- **Wake on LAN:** If the computer has a properly configured token-ring or Ethernet LAN adapter card that is Wake on LAN-enabled and there is remote network management software, you can use the Wake on LAN feature. When you set Wake on LAN to **Enabled**, the computer will turn on when it receives a specific signal from another computer on the local area network (LAN).

Appendix A. Notices

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- Rescue and Recovery
- The Lenovo logo
- ThinkCentre
- ThinkVantage

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