ThinkPad

User Guide

ThinkPad Helix

Notes: Before using this information and the product it supports, be sure to read the following:

• *Safety, Warranty, and Setup Guide*

• *Regulatory Notice*

• "Important safety and handling information" on page iii

• Appendix E "Notices" on page 75

The *Safety, Warranty, and Setup Guide* and the *Regulatory Notice* have been uploaded to the Web site. To refer to them, go to http://www.lenovo.com/ThinkPadUserGuides.

Contents

Read this first

Be sure to follow the important tips given here to get the most use and enjoyment out of the tablet. Failure to do so might lead to discomfort or injury, or cause the tablet to fail.

Important safety and handling information

⚠️	To avoid personal injury, property damage, or accidental damage to your ThinkPad® Helix (hereafter referred to as the tablet), read all of the information in this section before using it. For detailed operating instructions, refer to the *ThinkPad Helix User Guide* (this publication). You can access the *ThinkPad Helix User Guide* by using one of the following methods: • Go to http://www.lenovo.com/ThinkPadUserGuides and follow the instructions on the screen. • Start the tablet. Tap **Lenovo Support** on the Start screen. Then tap **User Guide**. • Open Windows® Help and Support. Then tap **Lenovo User Guide**. For additional tips to help you operate the tablet safely, go to: http://www.lenovo.com/safety

Handle your tablet with care:

Do not drop, bend, puncture, insert foreign objects, or place heavy objects on your tablet. Sensitive components inside might become damaged.

Your tablet screen is made of glass. The glass might break if the tablet is dropped on a hard surface, is the subject of a high impact, or is crushed by a heavy object. If the glass chips or cracks, do not touch the broken glass or attempt to remove it from the tablet. Stop using the tablet immediately and contact Lenovo® technical support for repair, replacement, or disposal information.

Do not disassemble or modify your tablet:

Your tablet is a sealed unit. There are no end-user serviceable parts inside. All internal repairs must be done by a Lenovo-authorized repair facility or a Lenovo-authorized technician. Attempting to open or modify your tablet will void the warranty.

Do not attempt to replace the internal battery:

Replacement of the internal rechargeable battery must be done by a Lenovo-authorized repair facility or a Lenovo-authorized technician. Lenovo-authorized repair facilities or technicians recycle Lenovo batteries according to local laws and regulations.

Prevent your tablet and adapter from getting wet:

Do not immerse your tablet in water or leave it in a location where it can get saturated with water or other liquids.

Use approved charging methods only:

You can use any of the following charging methods to safely recharge the internal battery of your tablet and the Enhanced Keyboard Dock for ThinkPad Helix (hereafter referred to as the keyboard dock):

• Plug the ac power adapter into an ac power outlet, and then insert the jack into the tablet to charge the internal battery of the tablet.

• Plug the ac power adapter into an ac power outlet, and then insert the jack into the keyboard dock to charge the internal battery of the keyboard dock.

- Insert the tablet into the keyboard dock to establish the connection. Then, plug the ac power adapter into an ac power outlet, and then insert the jack into the keyboard dock to charge the tablet and the keyboard dock at the same time.
- Insert the tablet into the keyboard dock to establish the connection. If the internal battery of the tablet is not full and the internal battery of the keyboard dock does not run out of power, the keyboard dock will charge the tablet.

Note: Ensure that all power cord connectors are securely and completely plugged into receptacles.

Charging devices might become warm during normal use. Ensure that you have adequate ventilation around the charging device. Unplug the charging device if any of the following occurs:

- The charging device has been exposed to rain, liquid, or excessive moisture.
- The charging device shows signs of physical damage.
- You want to clean the charging device.

Lenovo is not responsible for the performance or safety of products not manufactured or approved by Lenovo.

Prevent hearing damage:

Your tablet has a headphone connector. Always use the headphone connector for headphones (also called a headset) or earphones.

CAUTION:
Excessive sound pressure from earphones and headphones can cause hearing loss. Adjustment of the equalizer to maximum increases the earphone and headphone output voltage and the sound pressure level. Therefore, to protect your hearing, adjust the equalizer to an appropriate level.

Excessive use of headphones or earphones for a long period of time at high volume can be dangerous if the output of the headphone or earphone connectors do not comply with specifications of EN 50332-2. The headphone output connector of your tablet complies with EN 50332-2 Sub clause 7. This specification limits the tablet's maximum wide band true RMS output voltage to 150 mV. To help protect against hearing loss, ensure that the headphones or earphones you use also comply with EN 50332-2 (Clause 7 limits) for a wide band characteristic voltage of 75 mV. Using headphones that do not comply with EN 50332-2 can be dangerous due to excessive sound pressure levels.

If your tablet came with headphones or earphones in the package, as a set, the combination of the headphones or earphones and the tablet already complies with the specifications of EN 50332-1. If different headphones or earphones are used, ensure that they comply with EN 50332-1 (Clause 6.5 Limitation Values). Using headphones that do not comply with EN 50332-1 can be dangerous due to excessive sound pressure levels.

Take care when using your tablet in a motor vehicle or on a bicycle:

Always prioritize your safety and the safety of others. Follow the law. Local laws and regulations might govern how you can use mobile electronic devices, such as your tablet, while you drive a motor vehicle or ride a bicycle.

Dispose according to local laws and regulations:

When your tablet reaches the end of its useful life, do not crush, incinerate, immerse in water, or dispose of your tablet in any manner contrary to local laws and regulations. Some internal parts contain substances that can explode, leak, or have an adverse environmental affect if disposed of incorrectly.

See Appendix B "Environmental, recycling, and disposal information" on page 67 for additional information.

Keep your tablet and accessories away from small children:

Your tablet contains small parts that can be a choking hazard to small children. Additionally, the glass screen can break or crack if dropped on or thrown against a hard surface.

Protect your data and software:

Do not delete unknown files or change the name of files or directories that were not created by you; otherwise, your tablet software might fail to work.

Be aware that accessing network resources can leave your tablet vulnerable to viruses, hackers, spyware, and other malicious activities that might damage your tablet, software, or data. It is your responsibility to ensure that you have adequate protection in the form of firewalls, antivirus software, and anti-spyware software and keep this software up to date.

Keep electrical appliances such as an electric fan, radio, high-powered speakers, air conditioner, and microwave oven away from your tablet because the strong magnetic fields generated by these appliances can damage the screen and the data on the tablet.

Be aware of heat generated by your tablet:

When your tablet is turned on or the battery is charging, some parts might become hot. The temperature that they reach depends on the amount of system activity and the level of charge in the battery. Extended contact with your body, even through clothing, could cause discomfort or even a skin burn. Avoid keeping your hands, your lap, or any other part of your body in contact with a hot section of the tablet for any extended time.

Polyvinyl Chloride (PVC) cable and cord notice

WARNING: Handling the cord on this product or cords associated with accessories sold with this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. ***Wash hands after handling.***

Chapter 1. Product overview

This chapter provides an overview of the tablet, including the locations of connectors and controls, tablet features, accessories, specifications, and operating environment.

Product layout

This topic introduces the product hardware features to give you the basic information you will need to start using the product.

Front view

Figure 1. Front view

1 Tablet		**5** Touch pad	
2 Keyboard dock		**6** Fn key	
3 Status indicator		**7** Eject button	
4 TrackPoint® pointing stick			

1 Tablet

The tablet is the main unit of the product. For more information, see "Tablet layout" on page 3.

2 Keyboard dock

The keyboard dock is designed specifically for the ThinkPad Helix. It provides the function of a port replicator and holds the tablet in an upright position to provide a typing experience similar to that of a notebook computer.

For more information about how to use the keyboard dock, see "Using the keyboard dock" on page 15.

3 Status indicator

The illuminated ThinkPad logo on the palm rest functions as a system status indicator.

- **Blink three times**: The tablet or the keyboard dock is connected to an ac power source.
- **On**: The tablet is on and in use.
- **Off**: The tablet is off or in hibernation mode.
- **Slow blinking**: The tablet is in sleep mode.
- **Fast blinking**: The tablet is entering hibernation mode or sleep mode.

ThinkPad pointing device

  4 TrackPoint pointing stick

  5 Touch pad

The keyboard dock contains the Lenovo unique ThinkPad pointing device. Pointing, selecting, and dragging are all part of a single process that you can perform without moving your fingers from a typing position. For more information, see "Using the ThinkPad pointing device" on page 19.

6 Fn key

Use the Fn key to take advantage of ThinkPad function keys. For more information, see "Using the function keys" on page 17.

7 Eject button

Use the eject button to release the tablet from the keyboard dock. For more information, see "Using the keyboard dock" on page 15.

Rear view
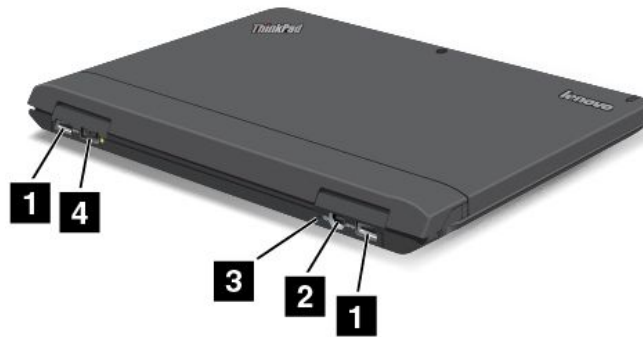
Figure 2. Rear view

1 USB 3.0 connectors	**3** Emergency reset hole
2 Mini DisplayPort connector	**4** Power connector

1 USB 3.0 connectors

The Universal Serial Bus (USB) 3.0 connectors are used for connecting devices compatible with a USB interface, such as a USB printer or a digital camera.

Attention: When you attach a USB cable to the connector, ensure that the USB mark is facing upward. Otherwise the connector might be damaged.

2 **Mini DisplayPort connector**

Use the mini DisplayPort connector to connect the tablet to a compatible projector, external monitor, or high-definition television.

3 **Emergency reset hole**

If the tablet stops responding and you cannot turn it off or turn it on by pressing the power button, remove the ac power adapter and reset the tablet by inserting a needle or a straightened paper clip into the emergency reset hole to turn off the tablet.

4 **Power connector**

Connect the ac power adapter to the power connector to provide ac power to the tablet and the keyboard dock and charge the batteries. See "Charging the battery" on page 19.

Tablet layout

This topic introduces the tablet hardware features to give you the basic information you will need to start using the tablet.

Front and side view
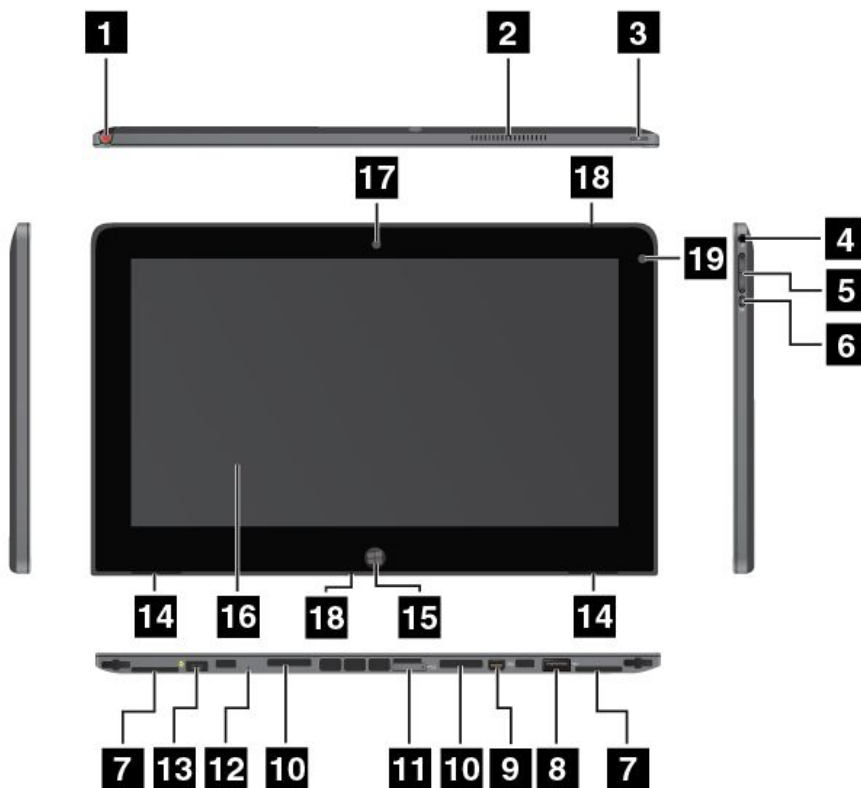
Figure 3. ThinkPad Helix front and side view

1 Tablet Digitizer Pen storage		**11** SIM card tray	
2 Fan louvers		**12** Emergency reset hole	
3 Power button		**13** Power connector	
4 Combo audio jack		**14** Built-in stereo speakers	
5 Volume control buttons		**15** Windows button	
6 Screen rotation lock button		**16** Multi-touch screen	
7 Label trays		**17** Front-facing camera	
8 USB 2.0 connector		**18** Microphones	
9 Mini DisplayPort connector		**19** Ambient light sensor	
10 Keyboard dock connectors			

1 Tablet Digitizer Pen storage

If the tablet is shipped with a Tablet Digitizer Pen or you have purchased one, use the storage to store it.

2 Fan louvers

The internal fan and louvers enable air to circulate in the tablet and cool the central processor.

Note: To avoid impeding airflow, do not place any obstacle in front of the fan.

3 **Power button**

Press the power button to turn on the tablet.

To turn off the tablet, swipe in from the right edge of the screen to display the charms. Then tap **Settings ➙ Power ➙ Shut down**.

If the tablet stops responding and you cannot turn it off, press and hold the power button for four seconds or more. If the tablet still is not responding, remove the ac power adapter and use the emergency reset hole to reset the tablet.

You also can program the power button so that by pressing the power button you can shut down the tablet or put it into sleep or hibernation mode. To achieve this, you need to change your power plan settings. To access power plan settings, do the following:

1. From the desktop, tap the battery status icon in the Windows notification area.
2. Tap **More power options**.
3. In the navigation panel, tap **Choose what the power buttons do**.
4. Follow the onscreen instructions to configure settings.

4 **Combo audio jack**

To listen to the sound from your tablet, connect a headphone or a headset that has a 3.5 mm 4-pole plug to the combo audio jack.

Notes:

• If you are using a headset with a function switch, for example, a headset for an iPhone mobile digital device, do not press this switch while using the headset. If you press it, the headset microphone will be disabled, and the integrated microphones on the tablet will be enabled instead.

• The combo audio jack does not support a conventional microphone.

5 **Volume control buttons**

Press the volume up or down button to adjust the tablet volume.

6 **Screen rotation lock button**

Press the button to disable the screen auto-rotation function. Press again to enable it.

7 **Label trays**

Pull the label trays out to view product labels.

8 **USB 2.0 connector**

The USB 2.0 connector is used for connecting devices compatible with a USB interface, such as a USB mouse, USB keyboard, or USB memory key.

Attention: When you attach a USB cable to the connector, ensure that the USB mark is facing upward. Otherwise the connector might be damaged.

9 **Mini DisplayPort connector**

Use the mini DisplayPort connector to connect the tablet to a compatible projector, external monitor, or high-definition television.

10 **Keyboard dock connectors**

Use these connectors to connect the keyboard dock.

11 **SIM card tray**

Place a Subscriber Identification Module (SIM) card into the SIM card tray to establish a wireless Wide Area Network (WAN) connection. For instructions on how to install and remove the SIM card, see "Installing and removing the SIM card" on page 23.

Note: The SIM card tray is not functional on Wi-Fi-only models.

12 **Emergency reset hole**

If the tablet stops responding and you cannot turn it off or turn it on by pressing the power button, remove the ac power adapter and reset the tablet by inserting a needle or a straightened paper clip into the emergency reset hole to turn off the tablet.

13 **Power connector**

Connect the ac power adapter to the power connector to provide ac power to the tablet and charge the battery. See "Charging the battery" on page 19.

14 **Built-in stereo speakers**

The integrated speakers provide audio output for video and music playback.

15 **Windows button**

Press the Windows button to go to the Start screen.

16 **Multi-touch screen**

Tap the screen to use the controls on the screen including icons, menu items, and the onscreen keyboard. For more information, see "Using the multi-touch screen" on page 13.

17 **Front-facing camera**

Your tablet has a 2-megapixel front-facing camera, which you can use to take pictures, create videos, or make video calls in collaboration with Web applications. When the camera is started, the green camera-in-use indicator turns on. For more information, see "Using the cameras" on page 22.

18 **Microphones**

The built-in microphones capture sound and voice when they are used with an application capable of handling audio.

19 **Ambient light sensor**

The ambient light sensor detects the brightness of the environment. The screen brightness automatically adjusts depending on the ambient light conditions detected by the built-in ambient light sensor.

Back-side view
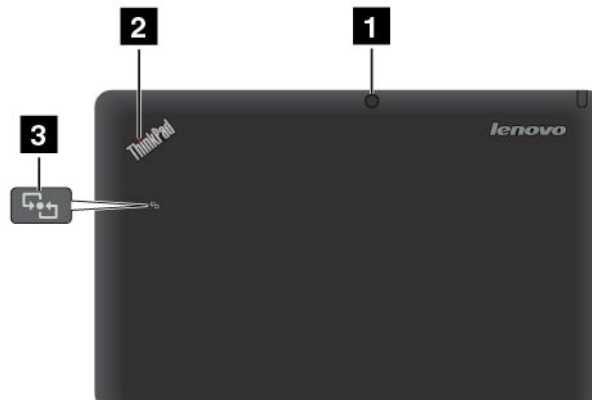
Figure 4. *ThinkPad Helix back-side view*

1 Rear-facing camera	**3** NFC logo (on some models)
2 Status indicator	

1 Rear-facing camera

Your tablet has a 5-megapixel rear-facing camera, which you can use to take pictures and create videos. When the camera is started, the green camera-in-use indicator turns on. For more information, see "Using the cameras" on page 22.

2 Status indicator

The illuminated dot in the ThinkPad logo on the backside of the tablet works as a system status indicator.

- **Blink three times**: The tablet or the keyboard dock is connected to an ac power source.
- **On**: The tablet is on and in use.
- **Off**: The tablet is off or in hibernation mode.
- **Slow blinking**: The tablet is in sleep mode.
- **Fast blinking**: The tablet is entering hibernation mode or sleep mode.

3 NFC logo (on some models)

If your tablet comes with the Near Field Communication (NFC) feature, the NFC logo is on the rear cover. For more information about NFC function, see "Using NFC" on page 27.

Accessories

Note: The power adapter and power cord might look different from the illustrations above.

Figure 5. Accessories

- **Power cord and ac power adapter**: Use the power cord together with the ac power adapter to provide ac power to your tablet and the keyboard dock and charge the batteries.

  Note: Ensure that all power cord connectors are securely and completely plugged into receptacles.
- **Tablet Digitizer Pen** (on some models): If your tablet is equipped with a Tablet Digitizer Pen, use it to input text or draw graphics in a natural manner and perform other operations without tapping the screen with your finger. For more information, see "Using the Tablet Digitizer Pen" on page 14.

Features

Processor
- Intel® Core™ i3, i5, or i7 ULV processor

Operating system
- Microsoft® Windows 8 (64-bit)

Memory
- 4 GB

Internal storage
- mSATA solid-state drive: 128GB, 180GB, 256 GB (depending on the model)

Display
- Infinity Glass
- Size: 294.64 mm (11.6 inches)
- Screen resolution: 1920 x 1080 pixels
- Automatic brightness control (ambient light sensor)
- Multi-touch technology
- Support for the ThinkPad Digitizer Pen input
- Built-in digital dual array microphones
- Built-in stereo speakers

Keyboard on keyboard dock

- 6-row full size keyboard
- ThinkPad pointing device (TrackPoint pointing device and touch pad)
- Fn key function
- Volume control buttons
- Speaker mute button
- Microphone mute button

Integrated cameras

- Front-facing camera, 2 megapixel
- Rear-facing camera, 5 megapixel

Connectors

- Tablet:
  - One USB 2.0 connector
  - One Mini DisplayPort connector
  - One ac power connector
  - Two keyboard dock connectors
  - One combo audio connector
- Keyboard dock:
  - Two USB 3.0 connectors
  - One Mini DisplayPort connector
  - One ac power connector

GPS and wireless features

- Global Positioning System (GPS) satellite receiver (on models with wireless WAN)
- Bluetooth 4.0 (on some models)
- NFC (on some models)
- Wireless LAN (802.11a/g/n)
- Wireless WAN (on some models)

Specifications

Size

- Tablet:
  - Width: 296.1 mm (11.66 inches)
  - Depth: 187.3 mm (7.37 inches)
  - Height: 11.1 mm (0.44 inches)
- Keyboard dock:
  - Width: 296.1 mm (11.66 inches)
  - Depth: 226 mm (8.90 inches)
  - Height: 8.5 mm (0.33 inches)

Battery

- Tablet: 42Wh Li-Polymer battery
- Keyboard dock: 28Wh Li-Polymer battery

Power source (ac power adapter)

- Sine-wave input at 50 to 60 Hz
- Input rating of the ac power adapter: 100 V ac to 240 V ac

Operating environment

- Maximum altitude without pressurization: 3048 m (10 000 ft)
- Temperature:
  - At altitudes up to 2438 m (8000 ft)

    Operating: 5.0°C to 35.0°C (41°F to 95°F)

    Storage: 5.0°C to 43.0°C (41°F to 109°F)
  - At altitudes above 2438 m (8000 ft)

    Maximum temperature when operating under unpressurized conditions: 31.3°C (88°F)
- Relative humidity:
  - Operating: 8% to 80%
  - Storage: 5% to 95%

If possible, place your tablet in a dry, well-ventilated area without direct exposure to sunshine. Do not use or store your tablet in dusty, dirty areas, or extreme hot or cold areas.

Lenovo programs

Your tablet comes with Lenovo programs to help you work more easily and securely.

To access Lenovo programs, swipe in from the right edge of the screen to display the charms. Then tap the **Search** charm to search for the desired program.

The following table provides a brief introduction to some Lenovo programs that might be preinstalled on your tablet.

Note: Preinstalled Lenovo programs vary by geographic locations and are subject to change.

Application	Description
Lenovo Cloud solution	Access, view, upload, or download massive resources, software, and information on a remote cloud server in a secured environment.
Lenovo Companion	Get the information about the accessories for your tablet, view blogs and articles about your tablet, and check for recommended programs.
Lenovo QuickSend	Transfer files from your tablet to another device even if your tablet is not connected to the network.
Lenovo Settings	Enhance your computing experience by turning your tablet into a portable hotspot, sharing your Internet connection using the NFC technology, configuring camera and microphone settings, optimizing your power settings, and creating and managing multiple network profiles.
Lenovo Mobile Access	Sign in with your account to register for service, purchase data plans, make payments online, and manage your mobile account.

Application	Description
Lenovo Solution Center	Troubleshoot and resolve tablet problems. It combines diagnostic tests, system information collection, security status, and support information, along with hints and tips for maximum system performance.
Lenovo Support	Register your tablet with Lenovo, check the tablet health condition and battery status, view user manuals for your tablet, get the warranty information for your tablet, and explore help and support information.
Lenovo ThinkVantage® Tools	Provide easy access to various Lenovo applications, such as System Update, Password manager, and so on.
System Update	Keep the software on your tablet up-to-date by downloading and installing software packages (ThinkVantage programs, device drivers, UEFI BIOS updates, and other programs).
Password Manager	Automatically capture and fill in authentication information for Windows applications and Web sites.

Chapter 2. Using your tablet

This chapter provides instructions on how to use some basic applications and many of your tablet's features.

Initial setup instructions

To use the tablet the first time after you take it out of the box, ensure that you follow the instructions below:

1. Use the supplied power cord and ac power adapter to connect the tablet to an electrical outlet.
2. Press the power button to turn on the tablet.
3. Follow the onscreen instructions to complete the initial setup.

Using the multi-touch screen

This topic provides instructions on how to use the multi-touch screen.

Tap

Tap gently on the screen with your fingertip to launch an application, select an item, open a menu, or input text using the onscreen keyboard.

Press and hold

Press and hold an object or a blank area on the screen until an action occurs.

Drag

To move an item such as an image and an icon on the screen, tap and hold your finger on the item, move your finger to the desired location, and then take your finger off the screen.

Swipe or slide

Move your finger in a vertical or horizontal direction on the screen to scroll through the Start screen, Web pages, lists, picture thumbnails, and so on.

Zoom

- **Zoom out**: Move two fingers close together on the screen as if you are picking something up to reduce the view of an image or a Web page.
- **Zoom in**: Move two fingers apart on the screen to enlarge the view of an image or a Web page.

Double-tap

For some applications, quickly tap twice on the screen to zoom in. Double-tap again to zoom out.

Rotate the screen

Your tablet has a built-in motion sensor that supports the screen auto-rotation feature. By default, this feature is enabled. When you rotate the tablet, the screen automatically rotates to landscape or portrait view.

To disable the screen auto-rotation feature, press the screen rotation lock button.

Note: Some applications do not support the screen auto-rotation feature.

Using the On-Screen Keyboard and the Touch Keyboard

Use the On-Screen Keyboard or the Touch Keyboard to type text, numbers, symbols, and other characters. When you rotate the tablet, the On-Screen Keyboard or the Touch Keyboard automatically rotates to the corresponding portrait or landscape view.

To open the On-Screen Keyboard, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap the **Search** charm to search for **On-Screen Keyboard**.
3. Tap **On-Screen Keyboard** in **Apps**.

To open the Touch Keyboard, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap the **Settings** charm.
3. Tap **Keyboard**.

To configure the input language, do the following:

1. From the desktop, swipe in from the right edge of the screen to display the charms.
2. Tap **Settings** ➙ **Control Panel**.
3. Tap **Change input methods**. The Language window opens.
4. Follow the onscreen instructions to configure the input language.

Using the Tablet Digitizer Pen

The Tablet Digitizer Pen enables you to input text in a natural manner, as well as taking notes, annotating PDF files, and drawing graphics together with applications capable of editing and sketching.

Some tablets are equipped with a Tablet Digitizer Pen as a standard feature.
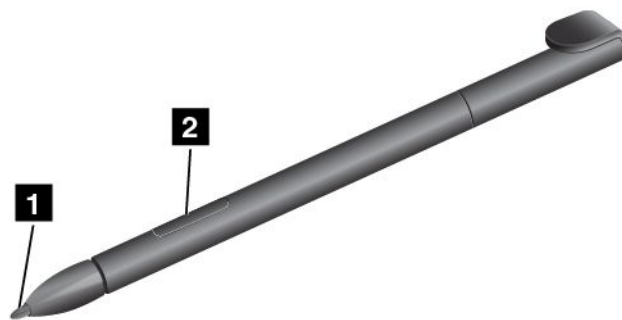
The Tablet Digitizer Pen consists of a tip **1** and a click button **2**. Hold the pen and point the tip at the display to move the cursor .

To make a selection (single-click), tap the display once with the pen. To double-click, tap twice without pausing. To do a right-click, tap the display and hold the tip of the pen on the display; the right-click icon appears.

Downloading games and applications

To extend the functionality of your tablet, download and install additional applications from the Windows Store and Lenovo App Store. Both Windows Store and Lenovo App Store provide an easy and quick way for you to shop for games and mobile applications.

To download or buy an application or a game from Windows Store, tap **Store** from the Start screen, and then follow the onscreen instructions.

To download or buy an application or a game from Lenovo App Store, do the following:

1. From the Start screen, tap **Lenovo App Store**.
2. Scroll and browse listed applications or games to locate the desired application or game.
3. Tap the application or game, and then follow the instructions on the screen to download and install it.

Using the keyboard dock

To use the keyboard dock, install the tablet into the keyboard dock first. Ensure that the tablet is secured in place.

Then, you can use the tablet as a notebook computer.

To release the tablet from the keyboard dock, do the following:

1. Press the eject button in the direction as shown.

2. Remove the tablet from the keyboard dock.

To use tablet mode when you move around with the tablet and the keyboard dock, do the following:

1. Position the tablet as shown. Then, insert the tablet into the keyboard dock until the tablet is secured in place.

2. Slowly and carefully close the tablet display.

Using the function keys

The keyboard dock has several function keys.

Volume and mute control

- Speaker mute

    Note: When the speakers are muted, the LED on the F1 key is on.

- Speaker volume down

- Speaker volume up

- Microphone mute

Note: When the microphones are muted, the LED on the F4 key is on.

Screen control

- ⬛ Brightness down

- ⬛ Brightness up

Application control

- ⬛ Open the **Settings** charm

- ⬛ Open the **Search** charm

- ⬛ View all applications that you have opened

- ⬛ View all applications

Other function keys

- ⬛ Switch a display output location

- ⬛ Enable or disable wireless features

Fn key control

- ⬛

  You can use the function keys in default mode or in legacy mode.

  In default mode, to initiate the special functions illustrated on each key, press the corresponding key directly. The LED on the Fn key is off in default mode. To switch to the legacy mode, press Fn + Esc.

  In legacy mode, to initiate the special functions illustrated on each key, press and hold the Fn key and then press the desired function key, then release both keys. The LED on the Fn key is on in legacy mode. To switch to the default mode, press Fn + Esc.

Using the ThinkPad pointing device

The keyboard dock comes with the ThinkPad pointing device. The ThinkPad pointing device consists of the TrackPoint pointing stick **1** and the touch pad **2**, each of which is itself a pointing device with both basic and extended functions.

To move the pointer **3** on the screen, do either of the following:

- Apply pressure to the nonslip cap on the pointing stick **1** in any direction parallel to the keyboard; the pointing stick itself does not move. The speed at which the pointer moves depends on the pressure you apply to the pointing stick.
- Slide your fingertip over the touch pad **2** in the direction in which you want the pointer to move.
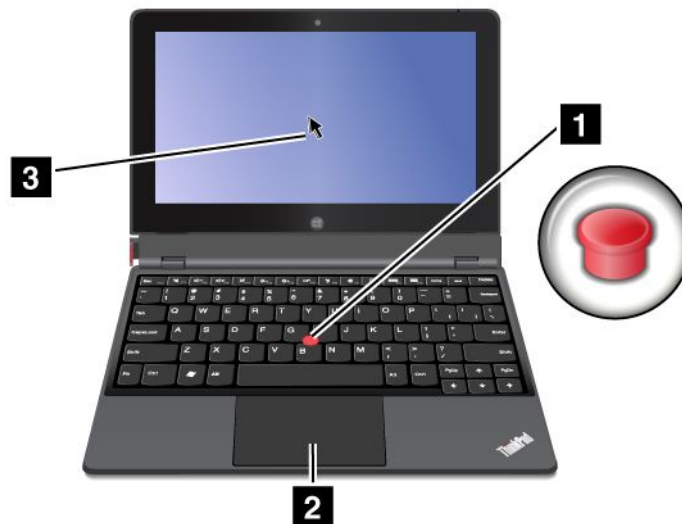
Using the multi-touch touch pad

The touch pad of the keyboard dock supports multi-touch with which you can zoom in, zoom out, or scroll on the touch pad while browsing the Internet or reading or editing a document.

Customizing the touch pad

To customize the touch pad, do the following:

1. From the desktop, swipe in from the right edge of the screen to display the charms.
2. Tap **Settings → Control Panel → Hardware and Sound → Mouse**.
3. In the Mouse Properties windows, tap the **ThinkPad** tab.
4. Follow the onscreen instructions to customize the touch pad.

Power management

This section provides instructions on how to charge the battery, how to extend the battery life between charges, and how to check the battery status.

Charging the battery

The tablet is shipped with an ac power adapter to charge the tablet from any standard ac power outlet.

Note: The battery is not fully charged when shipped.

To charge the battery, connect the power cord, ac power adapter, and the tablet as shown. Then, plug the ac power adapter into a standard ac power outlet.

To charge the battery, you also can connect the power cord, ac power adapter, and the keyboard dock as shown. Then, plug the ac power adapter into a standard ac power outlet.

Note: Ensure that all power cord connectors are securely and completely plugged into receptacles.

Disconnect the ac power adapter from your tablet when the battery power is full, or leave the ac power adapter connected to operate from ac power.

Alternatively, you can use any of the following charging methods to safely recharge the internal battery of the tablet or the keyboard dock:

• Plug the ac power adapter into an ac power outlet, and then insert the jack into the tablet to charge the internal battery of the tablet.

• Plug the ac power adapter into an ac power outlet, and then insert the jack into the keyboard dock to charge the internal battery of the keyboard dock.

• Insert the tablet into the keyboard dock to establish the connection. Then, plug the ac power adapter into an ac power outlet, and then insert the jack into the keyboard dock to charge the tablet and the keyboard dock at the same time.

• Insert the tablet into the keyboard dock to establish the connection. If the internal battery of the tablet is not full and the internal battery of the keyboard dock does not run out of power, the keyboard dock will charge the tablet.

Attention: Use only Lenovo-approved ac power adapters. Unauthorized adapters could cause severe damage to the tablet.

Extending the battery life between charges

When you are traveling outdoors with your tablet and ac power is not available, you can extend the battery life by doing the following:

- Turn off Wi-Fi, mobile data network, GPS, and Bluetooth when not in use.

    To turn off Wi-Fi, mobile data network, GPS, and Bluetooth, do the following:

    1. Swipe in from the right edge of the screen to display the charms.
    2. Tap **Settings** ➔ **Change PC settings**.
    3. In the navigation panel, tap **Wireless**.
    4. Slide to the right to turn on **Airplane mode** to disable all wireless devices.

- Turn off automatic synchronization if you do not need it.

    To turn off the automatic synchronization function, do the following:

    1. Swipe in from the right edge of the screen to display the charms.
    2. Tap **Settings** ➔ **Change PC settings**.
    3. In the navigation panel, tap **Sync your settings**.
    4. Switch off **Sync your settings**.

- Lower the brightness level of the screen.

    To lower the brightness level of the screen, do the following:

    1. Swipe in from the right edge of the screen to display the charms.
    2. Tap **Settings** ➔ **Brightness**.
    3. Slide down to lower the brightness.

- Enter sleep mode when the tablet is temporarily not in use.

    To enter sleep mode, do the following:

    1. Swipe in from the right edge of the screen to display the charms.
    2. Tap **Settings** ➔ **Power** ➔ **Sleep**.

- Turn off your tablet if you are not going to use it for a while.

    To turn off your tablet, do the following:

    1. Swipe in from the right edge of the screen to display the charms.
    2. Tap **Settings** ➔ **Power** ➔ **Shut down**.

Checking the battery status

Get the approximate status of your battery at any time by checking the desktop battery status icon in the Windows notification area.

To check for the accurate status and adjust your tablet power settings to achieve the best balance between performance and power saving, do the following:

1. From the Start screen, tap **Lenovo Settings** ➔ **Power**.
2. Check your battery status and configure settings.

To check the battery status in Lenovo Support, do the following:

1. From the Start screen, tap **Lenovo Support** ➔ **Battery Health**.
2. Check your battery status and configure settings.

Using the cameras

Your tablet has two cameras, a front-facing camera and a rear-facing camera. The rear-facing camera has an auto-focus feature that enables you to capture high-quality pictures and videos.

To launch a camera and configure the camera settings, do the following:

1. From the Start screen, tap **Lenovo Settings → Camera**.
2. Follow the onscreen instructions to configure settings and use the camera.

To switch between the front-facing camera and the rear-facing camera, do the following:

1. From the Start screen, tap **Lenovo Settings → Camera**.
2. In the **View** section, select **Front Panel** or **Back Panel** from the **Select view** drop-down list box to switch the cameras.

You also can use the camera with other applications that provide features such as photographing, video capturing, and video conferencing. To download other applications, tap **Lenovo App Store** or Windows **Store** from the Start screen. Then follow the onscreen instructions.

Using synchronization solutions

By using synchronization solutions, you can easily synchronize settings between your tablet and personal computer.

Synchronizing settings by using the Windows synchronization solution

To access Windows synchronization solution, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap **Settings → Change PC settings**.
3. In the navigation panel, tap **Sync your settings**.
4. Configure settings as desired.

Synchronizing files by using the Lenovo Cloud solution

The Lenovo Cloud solution enables you to access, view, upload, or download massive resources, software, and information on a remote cloud server in a secured environment.

For more information about the Lenovo Cloud solution, go to http://www.lenovo.com/cloud.

Using the GPS satellite receiver

Your tablet might have a global positioning system (GPS) satellite receiver that enables you to pinpoint your location down to the street level. Use location-based applications to find your current location, get directions to your destination, and find other location-based information.

Note: For longer battery life, disable the GPS satellite receiver when not in use.

Chapter 3. Wireless networks and devices

Your tablet can connect to a variety of networks and devices, including mobile networks (3G or 4G), Wi-Fi data networks, Bluetooth devices, and NFC-enabled devices.

Note: Some tablet models can connect to both mobile networks (3G or 4G) and Wi-Fi networks, while others can connect to Wi-Fi networks only. If your tablet supports Wi-Fi connection only, the information related to mobile networks does not apply to your tablet.

Installing and removing the SIM card

If the tablet supports mobile network connection, a SIM card might be required to connect to a mobile network. Depending on the country of delivery, the SIM card might be shipped with the tablet or you need to purchase one from the service carrier.

Attention: When installing or removing a SIM card, do not touch the SIM card metal connectors. As a precaution, always hold the tablet in your hand before you install or remove the SIM card to avoid electrostatic discharges.

To remove a SIM card, do the following:

1. Turn off the tablet.
2. Insert a straightened paper clip into the hole of the SIM card tray **1**. The tray ejects **2**. Slide the tray out.
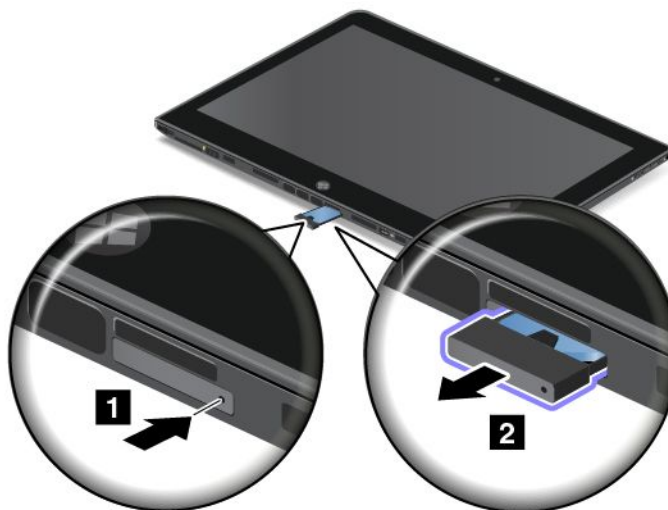
3. Remove the SIM card as shown.
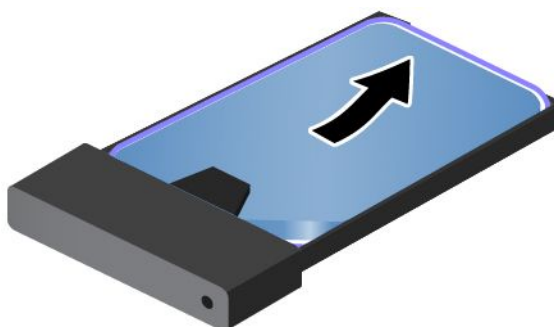
To install a SIM card, do the following:

1. Turn off the tablet.
2. Insert a straightened paper clip into the hole of the SIM card tray. The tray ejects. Slide the tray out.
3. Place the SIM card into the SIM card tray as shown until the SIM card is hooked.
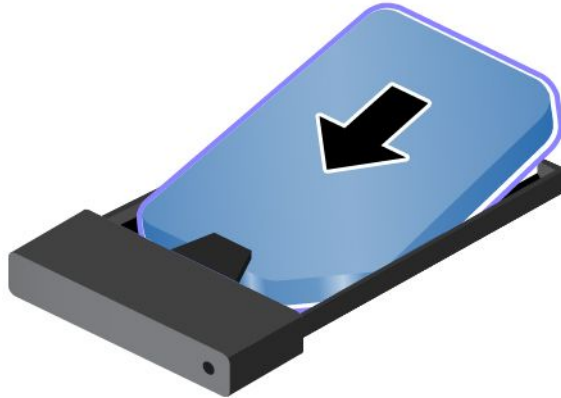
4. Insert the SIM card tray into the slot as shown. Then, restart the tablet.
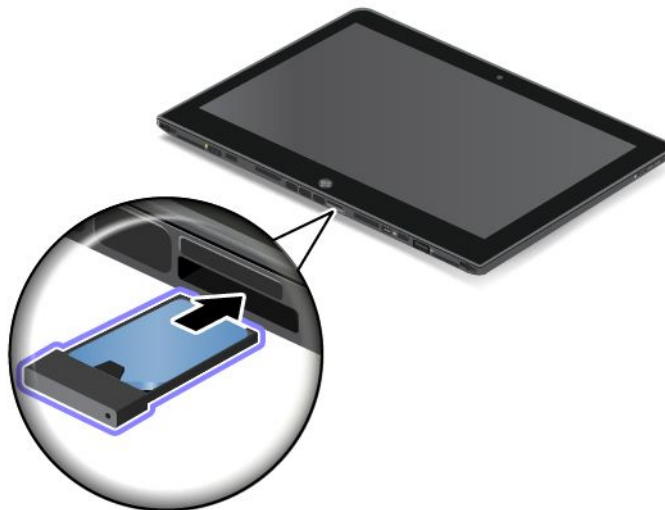
Determining which mobile network you are using

If you have connected to a network, you can check the network name to see which mobile network you are using.

To check the network name, do one of the following:

- Swipe in from the right edge of the screen to display the charms. Then tap the **Settings** charm. The network name is displayed under the network icon.
- On the desktop, move the cursor to the network icon in the Windows notification area. The network name is displayed.

Connecting to a mobile data network

A SIM card is required to connect to a mobile network. Refer to "Installing and removing the SIM card" on page 23 for instructions on how to install a SIM card.

Note: Some tablets support access to Wi-Fi networks only. See "Connecting to a Wi-Fi network" on page 25 for instructions on connecting to a Wi-Fi network.

If you use a mobile data network, you might have to sign up for a data plan with your service carrier in your area. The Lenovo Mobile Access program enables you to manage your mobile broadband connection. You can create an account, add money to the account, and purchase mobile broadband sessions using your account.

To use the Lenovo Mobile Access program, do the following:

1. Tap **Lenovo Mobile Access** on the Start screen. The Lenovo Mobile Access program opens.
2. Sign into your account and follow the onscreen instructions.

When you are connected to the mobile data network, set the active mobile network as metered connection to reduce the amount of data you send and receive.

To set the active mobile network as metered connection, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap the **Settings** charm.
3. Tap the network icon. A list of available networks is displayed.
4. Tap the network name and hold your finger on the screen for two seconds. Then take your finger off the screen. A menu is displayed.
5. Tap **Set as metered connection**.

After you set your mobile network as metered connection, you can disable the Download over metered connections feature to prevent extra charges.

To disable the Download over metered connections feature, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap **Settings** ➔ **Change PC settings**.
3. In the navigation panel, tap **Devices**.
4. In the **Download over metered connections** section, slide to the left to turn it off.

Connecting to a Wi-Fi network

Wi-Fi is a wireless networking technology that provides network access at distances of up to 100 meters (328 feet) depending on the Wi-Fi router and your surroundings. You can connect any ThinkPad Helix to a Wi-Fi network.

A Wi-Fi connection requires access to a functioning Wireless Access Point (WAP), also called a hotspot. Some hotspots are open to the public, but some others implement security features to limit access to specific groups or individuals.

Note: The range and quality of the Wi-Fi signal are affected by the number of connected devices, the infrastructure, and the objects through which the signal is transmitted.

Connecting to a Wi-Fi network

To establish a Wi-Fi network connection, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap the **Settings** charm.
3. Tap the network icon. A list of available Wi-Fi networks is displayed.
4. Tap the ID of the network you want to connect.
5. Follow the onscreen instructions to connect to the Wi-Fi network.

To view speed, security, address, and other information about the Wi-Fi network you are connected, tap its ID and hold your finger on the screen for two seconds. Then take your finger off the display. A menu is displayed. Select one of the menu items to view the information you need.

Your tablet supports the proxy feature for Wi-Fi connection. The proxy feature enables you to access more Web-based source and browse Internet more securely. If you want to configure the proxy settings when you are connecting to a Wi-Fi network, do the following:

1. Open the Internet options window. For information about how to open this window, see the Windows Help and Support program.
2. Tap the **Connections** tab.
3. Configure the proxy settings.

Adding a Wi-Fi network

If you want to access a Wi-Fi network that does not broadcast its network name (also called a service set identifier or SSID), you must add that Wi-Fi network before you can connect to it.

To add a Wi-Fi network, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap the **Settings** charm.
3. Tap the network icon. A list of available Wi-Fi networks is displayed.
4. Tap **Hidden network**.
5. Follow the onscreen instructions to add a Wi-Fi network.

Adding a network profile

Each location profile stores all the network and Internet configuration settings needed for connecting to a network infrastructure from a specific location such as a home or an office. By switching between location profiles as you move your tablet from place to place, you can quickly and easily connect to a network with no need to reconfigure your settings manually and restart the tablet each time.

To add a network profile, do the following:

1. From the Start menu, tap **Lenovo Settings**.
2. Tap **Location Awareness**.
3. Follow the onscreen instructions to add a network profile.

Sharing your Internet connection

You can share your Internet connection with multiple devices by setting your tablet as a mobile hotspot.

To share your Internet connection by turning your tablet into a mobile hotspot, do the following:

1. From the Start screen, tap **Lenovo Settings** ➙ **Mobile Hotspot**.

2. In the **Set up hotspot** section, choose the network to share, create a name and a password for your mobile hotspot, and then select a security option.

3. Tap **Start Sharing** to turn your tablet into a mobile hotspot. Then other users can connect to your network by entering the correct mobile hotspot name and password.

4. In the **Manage Users** section, you can view users who are connected to your network in the drop-down list box.

Using Bluetooth devices

Bluetooth is a short-range wireless communications technology. Use Bluetooth to establish a wireless connection with another Bluetooth-enabled device over a distance of about 10 m (32.8 ft).

Pairing with a Bluetooth device

To connect and exchange data with another Bluetooth device, pair your tablet with the Bluetooth device by doing the following:

1. Swipe in from the right edge of the screen to display the charms.

2. Tap **Settings ➔ Change PC settings**.

3. In the navigation panel, tap **Devices**.

4. Tap **Add a device**.

5. When the Bluetooth device you want to pair is found, tap the ID of the Bluetooth device and follow the instructions on both devices to pair them.

Unpairing a Bluetooth device

To unpair a Bluetooth device, do the following:

1. Swipe in from the right edge of the screen to display the charms.

2. Tap **Settings ➔ Change PC settings**.

3. In the navigation panel, tap **Devices**.

4. Tap the ID of the Bluetooth device you want to unpair. A remove icon is displayed.

5. Tap the remove icon. A notification prompt is displayed.

6. Tap **Remove**.

Using NFC

NFC is a high-frequency and short-range wireless communications technology. Use the NFC function to establish radio communications with another NFC-enabled device over a distance no more than a few centimeters.

To connect and exchange data with another NFC-enabled device, do the following:

1. From the Start screen, tap **Lenovo Settings ➔ Mobile Hotspot**.

2. In the **Enable NFC** section, slide to the right to enable NFC.

3. Turn your tablet into a mobile hotspot. See "Sharing your Internet connection" on page 26.

4. Bring the two devices into very close proximity or touch them together.

5. If you want to direct the invited user to a Web site address when the user is connected to your hotspot, locate the **Tap to Share** section, select the check box next to the Web site address field, and fill in a Web site address into the field.

Note: The invited user will be directed to the defined Web site address when the user is connected to your hotspot.

6. In the **Tap to Share** section, tap the invitation message to send an invitation notification to the user you want to invite.

   Note: The invited user must tap the invitation notification prompt within one minute to connect to your hotspot. Otherwise, you have to tap the invitation message to send the invitation notification again.

Chapter 4. Security

This chapter provides information about the tablet security.

Attaching a mechanical lock

You can attach a mechanical lock to the keyboard dock to prevent the tablet from being removed without your permission.

To attach a mechanical lock to the keyboard dock, do the following:

1. Open the small cover of the keyboard dock **1**.
2. Pull out the keyhole **2**.
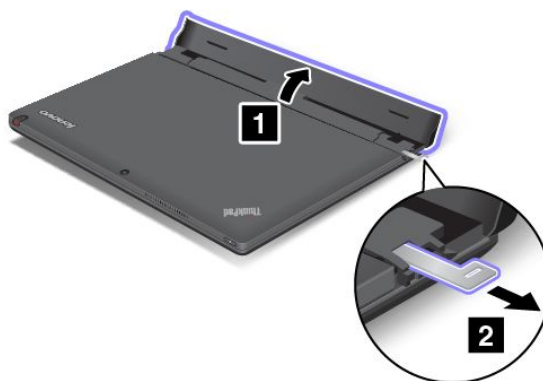
3. Secure the chain on the lock to a stationary object. Refer to the instructions shipped with the mechanical lock.

Note: You are responsible for evaluating, selecting, and implementing the locking device and security feature. Lenovo makes no comments, judgments, or warranties about the function, quality, or performance of the locking device and security feature.

Using passwords

By using passwords, you can prevent your tablet from being used by others. Once you set a password, a prompt is displayed on the screen each time you turn on the tablet. Enter your password at the prompt by using the onscreen keyboard. You cannot use the tablet unless you type the correct password.

Passwords and sleep mode

If you have set passwords and you put your tablet into sleep mode:

- You are not prompted to enter the password when resuming operation.
- If the mSATA solid-state drive has a hard disk password, it is unlocked automatically when you resume operation.

Note: If a Windows password has been set, you will be prompted to enter it.

Entering passwords

If this icon is displayed, enter a power-on password or a supervisor password.

If this icon is displayed, enter a user hard disk password.

If this icon is displayed, enter a supervisor password.

Power-on password

You can set a power-on password to protect your tablet against access by unauthorized users.

If you set a power-on password, the password prompt is displayed on the screen whenever you turn on the tablet. You must enter the correct password to start using the tablet.

Setting a power-on password

1. Print these instructions.
2. Save all open files, and exit all programs.
3. Turn your tablet off and then turn it on again.
4. When the logo screen is displayed, tap "To interrupt normal startup, press Enter". The Boot Menu window opens.
5. Tap the Application Menu tab. Tap Setup. The ThinkPad Setup program main menu opens.
6. Tap **Security**.
7. Tap **Password**.
8. Tap **Power-on Password**.
9. Tap the **Enter New Password** field, enter a desired password, and tap Enter by using the onscreen keyboard.
10. In the **Confirm New Password** field, reenter the password and tap Enter.

    Note: You might want to record your password and store it in a safe place. Otherwise, if you forget it, you have to take your tablet to a Lenovo reseller or a marketing representative to have the password canceled.
11. In the Setup Notice window that is displayed, tap Yes to continue.
12. Save configuration changes and exit.

Changing or removing the power-on password

To change the power-on password, follow steps 1 through 8. Enter your current password. When the **Enter New Password** field is displayed, enter a new password in the field and then reenter it to verify. To remove the password, follow steps 1 through 8. Enter your current password. When the **Enter New Password** field is displayed, leave it blank and tap Enter twice.

Hard disk passwords

Two types of hard disk passwords help protect the information stored on the mSATA solid-state drive:

• User hard disk password

• Master hard disk password, which requires a user hard disk password

If a user hard disk password has been set, but no master hard disk password has been, the user must enter the user hard disk password in order to gain access to files and programs on the mSATA solid-state drive.

The master password can be set and used only by a system administrator. Like a master key, it enables the administrator to get access to any hard disk drive in a system. The administrator sets the master password; no one else knows it. Then the administrator sets a user password for each computer in the network, and tells each user the password for his or her computer. The user can then change the user password as desired, but the administrator still can get access by using the master password.

Note: When a master hard disk password is set, only the administrator can remove the user hard disk password.

Setting a hard disk password

1. Print these instructions.
2. Save all open files, and exit all programs.
3. Turn your tablet off and then turn it on again.
4. When the logo screen is displayed, tap "To interrupt normal startup, press Enter". The Boot Menu window opens.
5. Tap the Application Menu tab. Tap Setup. The ThinkPad Setup program main menu opens.
6. Tap **Security**.
7. Tap **Password**.
8. Tap **Hard Disk *1* Password**.
9. A password window opens. You are prompted to select **User** or **User + Master**. Select **User** if you want to set only one hard disk password. If you are an administrator or supervisor, you can select **User + Master** to set two passwords. (The user can change the user password later.)

   - If you select **User + Master**, do the following:

     a. When a window for entering the new user hard disk password opens, enter your new password in the **Enter New Password** field. Tap Enter.

     b. In the **Confirm New Password** field, reenter the password you just entered to verify it. Tap Enter.

     c. A message window opens and prompts you to set the master hard disk password. Tap Enter to continue.

     d. A window for entering the new master hard disk password opens. Enter your new password in the **Enter New Password** field. Tap Enter.

     e. In the **Confirm New Password** field, reenter the password you just entered to verify it. Tap Enter.

   - If you select **User** only, do the following:

     a. When a window for entering the new password opens, enter your new password in the **Enter New Password** field. Tap Enter.

        Notes:

        - You can set the minimum length of a hard disk password through the **Security** menu.
        - If you set a hard disk password of over seven characters, the hard disk drive can be used only with a computer that can recognize a hard disk password of over seven characters. If you then install the hard disk drive in a computer that cannot recognize a hard disk password that contains more than seven characters, you cannot get access to the drive.

     b. In the **Confirm New Password** field, reenter the password you just entered to verify it. Tap Enter.

   Attention: You might want to note down your passwords and keep them in a safe place. Otherwise, if you forget the user password, or both user and master passwords, Lenovo cannot reset your passwords

or recover data from the mSATA solid-state drive. You must take your tablet to a Lenovo reseller or a marketing representative to have the mSATA solid-state drive replaced. Proof of purchase is required, and a fee will be charged for parts and service.

10. In the Setup Notice window that is displayed, tap Yes to continue.

11. Save configuration changes and exit.

The next time you turn on your tablet, you will have to enter the user or master hard disk password in order to start your tablet and get access to your operating system.

Changing or removing a hard disk password

Follow steps 1 through 8 in "Setting a hard disk password" on page 31, entering your password to get access to the ThinkPad Setup program.

To change or remove the user hard disk password, do the following:

- To change the hard disk password, enter the current password in the **Enter Current Password** field. Then enter the new password in the **Enter New Password** field, and reenter the password you just entered to verify it in the **Confirm New Password** field. Tap Enter, and a Setup Notice window is displayed. Tap Yes to exit from the Setup Notice window. The user hard disk password will be changed.

- To remove the hard disk password, enter the current password in the **Enter Current Password** field. Then leave the **Enter New Password** and **Confirm New Password** fields blank, and tap Enter. A Setup Notice window is displayed. Tap Yes to exit from the Setup Notice window. The user hard disk password will be removed.

To change or remove the **User + Master** hard disk passwords, select **User HDP** or **Master HDP**.

If you choose **User HDP**, do the following:

- To change the user hard disk password, enter the current user hard disk password or the current master hard disk password in the **Enter Current Password** field. Then enter the new user hard disk password in the **Enter New Password** field, and reenter the password you just entered to verify it in the **Confirm New Password** field. Tap Enter, and a Setup Notice window is displayed. Tap Yes to exit from the Setup Notice window. The user hard disk password is changed.

- To remove the user hard disk password, enter the current master hard disk password in the **Enter Current Password** field. Then leave the **Enter New Password** and **Confirm New Password** fields blank, and tap Enter. A Setup Notice window is displayed. Tap Yes to exit from the Setup Notice window. Both the user and master hard disk passwords will be removed.

If you choose **Master HDP**, do the following:

- To change the master hard disk password, enter the current master hard disk password in the **Enter Current Password** field. Then enter the new master hard disk password in the **Enter New Password** field, and reenter the password you just entered to verify it in the **Confirm New Password** field. Tap Enter, and a Setup Notice window is displayed. Tap Yes to exit from the Setup Notice window. The master hard disk password is changed.

- To remove the master hard disk password, enter the current master hard disk password in the **Enter Current Password** field. Then leave the **Enter New Password** and **Confirm New Password** fields blank, and tap Enter. A Setup Notice window is displayed. Tap Yes to exit from the Setup Notice window. Both the user and master hard disk passwords will be removed.

Supervisor password

The supervisor password protects the system information stored in ThinkPad Setup. Without it, no one can change the configuration of the tablet. It provides the following security features:

- If a supervisor password is set, a password prompt is displayed when you try to start the ThinkPad Setup program. Unauthorized users cannot get access to configuration data.
- The system administrator can use the supervisor password to get access to a computer even if the user of that computer has set a power-on password. The supervisor password overrides the power-on password.
- If both a supervisor password and a power-on password are set, you can do the following only if you have the supervisor password:
    - Deleting the power-on password
    - Changing or deleting the supervisor password
    - Changing date and time
    - Enabling or disabling the Lock UEFI BIOS Settings feature
    - Enabling or disabling the Password at unattended boot feature
    - Specifying the minimum length for power-on passwords and hard disk passwords
    - Changing the setting for the security chip
    - Enabling or disabling the Boot Device List F12 Option feature
    - Enabling or disabling the Boot Order Lock feature
    - Enabling or disabling the Flash BIOS Updating by End-Users feature
    - Enabling or disabling the internal wireless device
    - Enabling or disabling the internal Bluetooth device
    - Enabling or disabling the internal wireless WAN device
    - Enabling or disabling the Security mode

Notes:

- The system administrator can set the same supervisor password on many tablets to make administration easier.
- By enabling the Lock UEFI BIOS Settings feature on the **Password** menu when you set the supervisor password, you make it impossible for anyone but you to make changes.

Setting, changing, or removing a supervisor password

Only a system administrator can set, change, or remove a supervisor password.

To set, change, or remove a supervisor password, do the following:

1. Print these instructions.
2. Save all open files, and exit all programs.
3. Turn your tablet off and then turn it on again.
4. When the logo screen is displayed, tap "To interrupt normal startup, press Enter". The Boot Menu window opens.
5. Tap the Application Menu tab. Tap Setup. The ThinkPad Setup program main menu opens.
6. Tap **Security**.
7. Tap **Password**.
8. Tap **Supervisor Password**.
9. A window opens, prompting you to enter a new password. Depending on your needs, do one of the following:
    - To set a password, do the following:
        a. In the **Enter New Password** field, enter a desired password and tap Enter.

      b. In the **Confirm New Password** field, reenter the password and tap Enter.

- To change a password, do the following:

      a. In the **Enter Current Password** field, enter the current supervisor password and tap Enter.

      b. In the **Enter New Password** field, enter the new supervisor password; then reenter the password you just entered to verify it in the **Confirm New Password** field. Tap Enter.

- To remove a password, do the following:

      a. In the **Enter Current Password** field, enter the current supervisor password and tap Enter.

      b. Leave the **Enter New Password** and **Confirm New Password** fields blank. Tap Enter.

Attention: You might want to note down your password and keep it in a safe place. If you forget your supervisor password, Lenovo cannot reset your password. You must take your tablet to a Lenovo reseller or a Lenovo marketing representative to have the system board replaced. Proof of purchase is required, and a fee will be charged for parts and service.

10. In the Setup Notice window that is displayed, tap Yes to continue.

11. Save configuration changes and exit.

The next time you open the ThinkPad Setup program, you will be prompted to enter your password to proceed.

Setting the security chip

Strict security requirements are imposed on network client computers that transfer confidential information electronically. Depending on the options you ordered, your tablet might have an embedded security chip, a cryptographic microprocessor.

Setting the security chip

The choices offered on the **Security Chip** submenu under the **Security** menu of the ThinkPad Setup program are the following:

- **Security Chip Selection**: select he security chip you want to use.
- **Security Chip**: activate, inactivate, or disable the security chip.
- **Security Reporting Options**: enable or disable each security reporting option.
- **Clear Security Chip**: clear the encryption key.
- **Physical Presence for Provisioning** : enables or disables the confirmation message when you change the settings of the security chip.
- **Physical Presence for Clear**: enables or disables the confirmation message when you clear the security chip.

Notes:

1. Ensure that the supervisor password has been set in the ThinkPad Setup program. Otherwise anyone can change the settings for the security chip.

2. If the security chip is removed or replaced, or a new one has been added, the tablet will not start. You will hear four cycles of four beeps each.

3. If the security chip is inactive or disabled, the **Clear Security Chip** option will not be displayed.

4. When you clear the security chip, be sure to turn your tablet off and then turn it on again after you set the security chip to **Active**. Otherwise, the **Clear Security Chip** option is not displayed.

To set an item on the **Security Chip** submenu, do the following:

1. Print these instructions.

2. Save all open files, and exit all applications.

3. Turn your tablet off and then turn it on again.

4. When the logo screen is displayed, tap "To interrupt normal startup, press Enter". The Boot Menu window opens.

5. Tap the Application Menu tab. Tap Setup. The ThinkPad Setup program main menu opens.

6. Tap **Security**. The **Security** menu opens.

7. Tap **Security Chip**. The **Security Chip** submenu opens.

8. Tap an item you want to set. When the item is highlighted, tap the item.

9. Set other items that you want to set.

10. Save configuration changes and exit.

Notice on deleting data from your mSATA solid-state drive

As computers spread into every corner of life, they process more and more information. The data on your tablet, some of which is sensitive, is stored on the mSATA solid-state drive. Before you dispose of, sell, or hand over your tablet, be sure to delete data stored on it.

Handing your tablet over to someone else without deleting the loaded software, such as operating systems and application software, might even violate license agreements. You are advised to check the terms and conditions of those license agreements.

There are methods that seem to delete the data:

- Move the data to the recycle bin, and then empty the recycle bin.
- Use the **Delete** option.
- Format your mSATA solid-state drive, using the software for initializing it.
- Set the mSATA solid-state drive back to the factory default settings using the recovery program provided by Lenovo.

These operations, however, only change the file allocation of the data; they do not delete the data itself. In other words, the data retrieval processing is disabled under an operating system such as Windows. The data is still there, even though it seems to be lost. Thus, it is sometimes possible to read the data by use of special software for data recovery. There is a risk that this data can be retrieved and used for unexpected purposes.

To prevent leakage of data, it becomes very important that you take responsibility for deleting all the data from the mSATA solid-state drive when you dispose of, sell, or hand over your tablet. You can destroy the data physically by smashing the mSATA solid-state drive with a hammer, or magnetically by means of strong magnetic power, thus making the data unreadable. But we recommend that you make use of the software (payware) or service (pay service) specifically developed for the purpose.

For disposing of data on the mSATA solid-state drive, Lenovo provides the Secure Data Disposal tool. To download the tool, go to: http://www.lenovo.com/support .

Note: Running either application will take a couple of hours.

If a mSATA solid-state drive equipped with encryption features is supported and installed in your tablet, you can logically dispose of all the data on the drive in a very short time by erasing the cryptographic key. The data encrypted with the old key is not physically erased but remains on the drive; however, it cannot be decrypted without the old key. This feature is enabled by ThinkPad Setup Menu Extension Utility and is available as a menu item in ThinkPad Setup.

Using firewalls

If your system is preinstalled with a firewall program, it protects against computer Internet security threats, unauthorized access, intrusions, and Internet attacks. It also protects your privacy.

For more information about how to use the firewall program, refer to the online help that comes with the program.

Protecting data against viruses

Your tablet is preinstalled with an antivirus program so you can detect and eliminate viruses. The antivirus program is designed to help you detect and eliminate viruses.

Lenovo provides a full version of antivirus software on your tablet with a free 30-day subscription. After 30 days, you must renew the license to continue receiving the antivirus software updates.

For more information about how to use your antivirus software, refer to the help system of your antivirus software.

Chapter 5. Recovery overview

This section provides information about the recovery solutions.

Refreshing your tablet

If your tablet does not perform well and the problem might be caused by a recently installed program, you can refresh your tablet without losing your personal files or changing your settings.

Attention: If you refresh your tablet, the programs that came with your tablet and the programs that you installed from Windows Store will be reinstalled, but all other programs will be removed.

To refresh your tablet, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap **Settings ➞ Change PC settings**.
3. In the navigation panel, tap **General**.
4. In the **Refresh your PC without affecting your files** section, click **Get started**.

Resetting your tablet to the factory default settings

You can reset your tablet to the factory default settings. Resetting the tablet will reinstall the operating system, and reinstall all the programs and settings that came with your tablet.

Attention: If you reset your tablet, all your personal files and settings will be deleted. To avoid data loss, make a backup copy of all the data that you want to keep.

To reset your tablet, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap **Settings ➞ Change PC settings**.
3. In the navigation panel, tap **General**.
4. In the **Remove everything and reinstall Windows** section, tap **Get started**.

For more information, see the Windows Help and Support program.

Advanced startup options

Advanced startup options enable you to change the startup settings of your Windows operating system, start the tablet from an external device, or restore the Windows operating system from a system image.

To use the advanced startup options, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap **Settings ➞ Change PC settings**.
3. In the navigation panel, tap **General**.
4. In the Advanced startup section, tap **Restart now ➞ Troubleshoot ➞ Advanced options**.
5. Restart your tablet following the instructions on the screen.

For more details about the recovery solutions provided on tablets preinstalled with the Windows 8 operating system, refer to the help information system of the Windows 8 operating system.

Chapter 6. Advanced configuration

If you need to update your system UEFI BIOS, install new device drivers, this information will help you handle your tablet with proper care and keep it in top working shape.

- "Installing device drivers" on page 39
- "ThinkPad Setup" on page 39
- "Using system management" on page 49

Installing device drivers

The device drivers are available at http://www.lenovo.com/ThinkPadDrivers. Click your tablet product name to view all the device drivers for your tablet.

Attention: Always go to http://www.lenovo.com/ThinkPadDrivers for the latest device drivers. Do not download them from the Windows Update Web site.

ThinkPad Setup

Your tablet comes with the ThinkPad Setup program to enable you to select various setup parameters.

To start the ThinkPad Setup program, do the following:

1. Turn on the tablet. When the logo screen is displayed, tap "To interrupt normal startup, press Enter". The Boot Menu window opens.
2. Tap the Application Menu tab.
3. Tap Setup. The ThinkPad Setup program main menu opens.

   Note: If you have set a supervisor password, the ThinkPad Setup program main menu will be displayed after you enter the password on the onscreen keyboard. You can start the ThinkPad Setup program by tapping Enter instead of entering the supervisor password on the onscreen keyboard. However, you cannot change the parameters that are protected by the supervisor password. For more information, refer to "Using passwords" on page 29.
4. Tap the item you want to change. A submenu is displayed.
5. Tap **Restart**. Tap the option you want for restarting your tablet.

Note: You can also install the tablet into the keyboard dock or attach an external keyboard to the tablet first. Then, turn on the tablet. When the logo screen is displayed, press the F1 key. The ThinkPad Setup program main menu opens. Use the keyboard to change the settings conveniently.

Main menu

The **Main** menu is the first interface you see after you enter the ThinkPad Setup program. It displays the following configuration of your tablet:

- **UEFI BIOS Version**
- **UEFI BIOS Date (Year-Month-Day)**
- **Embedded Controller Version**
- **MPU Firmware Version**
- **Machine Type Model**
- **System-unit serial number**

- **System board serial number**
- **Asset Tag**
- **CPU Type**
- **CPU Speed**
- **Installed memory**
- **UUID**
- **Preinstalled operating system license**
- **UEFI secure boot**

Config menu

If you need to change the configuration of your tablet, tap **Config** from the ThinkPad Setup program main menu.

The following table lists the **Config** menu items.

Notes:

- Default values are in **boldface**.
- On each submenu, tap the default value to show selectable options and tap a desired option.
- Some items are displayed on the menu only if the tablet supports the corresponding features.

Table 1. Config menu items

Menu item	Submenu item	Selection	Comments
USB	USB UEFI BIOS Support	• Disabled • **Enabled**	Enables or disables boot support for USB diskette, USB memory key, and USB optical drive.
	USB 3.0 Mode	• Disabled • Enabled • **Auto**	Set the USB 3.0 controller mode for the ports shared between USB 2.0 and USB 3.0 controllers. If you select **Auto**, it enables you to connect and route appropriate USB 3.0 or USB 2.0 connectors. If you select **Enabled**, it enables USB 3.0 mode and allows USB 3.0 to be supported in the operating system. If you select **Disabled**, it disables and hides the USB 3.0 controller, and USB 3.0 connectors will work as USB 2.0 connectors.

Table 1. Config menu items (continued)

Menu item	Submenu item	Selection	Comments
Keyboard/Mouse	Fn and Ctrl Key swap	• **Disabled** • Enabled	If you select **Enabled**, the Fn key works as the Ctrl key, and the Ctrl key works as the Fn key. **Note:** Even when **Enabled** is selected, you need to press the Fn key to resume the tablet from sleep mode to normal operation.
Display	Boot Display Device	• **ThinkPad LCD** • Digital on ThinkPad • Digital on dock	Select the display device that is to be activated at boot time. This selection is effective for boot time, password prompt, and ThinkPad Setup. **Digital on ThinkPad** is the Mini DisplayPort on your tablet. **Digital on dock** is DisplayPort or DVI connector on a docking station.
Power	Intel (R) SpeedStep® technology (Intel SpeedStep mounted models only)	• Disabled • **Enabled** Mode for AC • **Maximum Performance** • Battery Optimized Mode for Battery • Maximum Performance • **Battery Optimized**	Select the mode of Intel SpeedStep technology at runtime. • **Maximum Performance**: Always highest speed • **Battery Optimized**: Always lowest speed • **Disabled**: No runtime support, lowest speed
	Adaptive Thermal Management	Scheme for AC • **Maximize Performance** • Balanced Scheme for Battery • Maximize Performance • **Balanced**	Select a thermal management scheme to use. **Maximize Performance**: Reduces CPU throttling **Balanced**: Balances sound, temperature and performance **Note**: Each scheme affects fan sound, temperature, and performance.
	Optical Drive Speed	• High Performance • **Normal** • Silent	Set the speed of the optical drive to the desired performance.

Table 1. Config menu items (continued)

Menu item	Submenu item	Selection	Comments
	CPU Power Management	• **Enabled** • Disabled	Enables or disables the power saving feature that stops the microprocessor clock automatically when there are no system activities. Normally, it is not necessary to change the setting.
	PCI Express Power Management	• **Enabled** • Disabled	Enable or disable a feature that automatically adjusts power management when there is no PCI Express activity. Normally, it is not necessary to change the setting.
	Power On with AC Attach	• Enabled • **Disabled**	Enable or disable a feature that powers on the system when the ac power adapter is attached. If you select **Enabled**, the system is powered on when the ac power adapter is attached. When the system is in hibernate state, the system resumes. If you select **Disabled**, the system is not powered on nor resumed when the ac power adapter is attached.
	Intel (R) Rapid Start Technology	• **Enabled** • Disabled Enter after: • Immediately • 1 minute • 2 minutes • 5 minutes • 10 minutes • 15 minutes • 30 minutes • 1 hour • 2 hours • **3 hours**	**Note:** To use this feature, a special partition on the mSATA solid-state drive is required. When enabled, the tablet enters a lower power state after the specified time in sleep state. And it takes only seconds to resume normal operation.
	Disable Built-in Battery	• **Yes** • No	Temporarily disable battery for servicing the system. After selecting this item, the system will be automatically powered off. The system is then ready to be serviced. **Note:** The ac power adapter must be disconnected from the system to perform this operation. The battery will

Table 1. Config menu items (continued)

Menu item	Submenu item	Selection	Comments
			be automatically re-enabled when the ac power adapter is reconnected to the system.
Beep and Alarm	Password Beep	• **Disabled** • Enabled	Enable this option to have a beep sound when the system is waiting for a power-on, hard disk, or supervisor password. Different beeps will sound when the entered password matches or does not match the configured password.
	Keyboard Beep	• Disabled • **Enabled**	Enables or disables the keyboard beep when unmanageable key combinations are pressed.
Serial ATA (SATA)	SATA Controller Mode Option	• Compatibility • **AHCI**	Selects SATA controller operation mode.
CPU	Core Multi-Processing	• Disabled • **Enabled**	Enable or disable additional execution core units within a CPU. **Note:** If you are using a tablet with a single-core processor, this item is not available.
	Intel (R) Hyper-Threading Technology	• Disabled • **Enabled**	Enable or disable additional logical processors within a processor core.
Intel (R) AMT	Intel (R) AMT Control	• Disabled • **Enabled** • Permanently Disabled	If you select **Enabled**, Intel AMT (Active Management Technology) is configured and additional setup items are provided in MEBx (Management Engine BIOS Extension) Setup. If you select **Permanently Disabled**, you will never be able to enable it again. Be cautious when you want to use this option. **Note:** You can enter the MEBx Setup menu by pressing the Ctrl+P key combination in the Startup Interrupt Menu window. To display the Startup Interrupt Menu window, press the Enter key during the power-on self-test (POST).

Table 1. Config menu items (continued)

Menu item	Submenu item	Selection	Comments
	CIRA Timeout	0–255 **Note:** The default value is 60 seconds.	Set the timeout option for CIRA connection to be established. 1 though 254 seconds are selectable. If you select **0**, use 60 seconds as the default timeout value. If you select **255**, the waiting time for establishing a connection is unlimited.
	Console Type	• PC-ANSI • VT 100 • **VT 100+** • VT-UTF8	Select the console type for AMT. **Note:** This console type should match the Intel AMT remote console.

Date and Time menu

If you need to set the current date and time of your tablet, tap **Date/Time** from the ThinkPad Setup menu. The following submenu is displayed:

• System Date

• System Time

To change the date and time, do the following:

1. Tap to select the item to change the date or time.

2. Tap to select a field.

3. Input the date or time by using the onscreen keyboard.

Security menu

If you need to set the security features of your tablet, tap **Security** from the ThinkPad Setup menu.

The following table lists the **Security** menu items.

Notes:

• Default values are in **boldface**. The default settings are already optimized for you. If you consider changing the tablet configuration, proceed with extreme caution. Setting the configuration incorrectly might cause unexpected results.

• In each submenu, tap the default value to show selectable options and tap a desired option.

• Some items are displayed on the menu only if the tablet supports the corresponding features.

Table 2. Security menu items

Menu item	Submenu item	Value	Comments
Password	Hardware Password Manager	• Disabled • **Enabled**	Managing your power-on password, supervisor password, and your hard disk passwords by the management server.
	Supervisor Password	• **Disabled** • Enabled	See "Supervisor password" on page 32.
	Lock UEFI BIOS Settings	• **Disabled** • Enabled	Enable or disable the function that protects items in ThinkPad Setup program from being changed by a user who does not have the supervisor password. By default, this is set to **Disabled**. If you set the supervisor password and enable this function, no one but you can change any items in ThinkPad Setup.
	Password at unattended boot	• Disabled • **Enabled**	If you select and enable **Password at unattended boot**, a password prompt is displayed when the tablet is turned on, from either a power-off state or hibernation state. If you select **Disabled**, no password prompt is displayed; the tablet goes ahead and loads the operating system. To prevent unauthorized access, set the user authentication on the operating system.
	Password at restart	• **Disabled** • Enabled	If you select and enable **Password at restart**, a password prompt is displayed when you restart the tablet. If you select **Disabled**, no password prompt is displayed; the tablet goes ahead and loads the operating system. To prevent unauthorized access, set the user authentication on the operating system.
	Set Minimum Length	• **Disabled** • x characters (4≤x≤12)	Specify a minimum length for power-on passwords and hard disk passwords. If you set the supervisor password and specify a minimum length for passwords, no one but you can change the length.
	Power-On Password	• **Disabled** • Enabled	See "Power-on password" on page 30.
	Hard Disk 1 Password	• **Disabled** • Enabled	See "Hard disk passwords" on page 30.
Security Chip	Security Chip	• Active • **Inactive** • Disabled	If you select **Active**, the security chip is functional. If you select **Inactive**, the **Security Chip** option is visible, but the security chip is not functional. If you select **Disabled**, the **Security Chip** option is hidden and the security chip is not functional.
	Security Reporting Options	• **Disabled** • Enabled	Enable or disable the following Security Reporting Options: • **BIOS ROM String Reporting**: BIOS text string • **CMOS Reporting**: CMOS data
	Clear Security Chip	• **Enter**	Clear the encryption key. **Note:** This item is displayed only if you have selected **Active** for the **Security Chip** option.

Table 2. Security menu items (continued)

Menu item	Submenu item	Value	Comments
	Intel (R) TXT Feature	• **Disabled** • Enabled	Enable or disable Intel Trusted Execution Technology.
	Physical Presence for Provisioning	• **Disabled** • Enabled	This option enables or disables the confirmation message when you change the settings of the security chip.
	Physical Presence for Clear	• Disabled • **Enabled**	This option enables or disables the confirmation message when you clear the security chip.
UEFI BIOS Update Option	Flash BIOS Updating by End-Users	• Disabled • **Enabled**	If you select **Enabled**, all users can update the UEFI BIOS. If you select **Disabled**, only the person who knows the supervisor password can update the UEFI BIOS.
	Secure RollBack Prevention	• **Disabled** • Enabled	If you select **Disabled**, you can flash to the previous version of UEFI BIOS. If you select **Enabled**, you can not flash to the previous version of UEFI BIOS.
Memory Protection	Execution Prevention	• Disabled • **Enabled**	Some computer viruses and worms cause memory buffers to overflow by running code where only data is allowed. If the Data Execution Prevention feature can be used with your operating system, then by selecting **Enabled** you can protect your tablet against attacks by such viruses and worms. If after choosing **Enabled** you find that an program does not run correctly, select Disabled and reset the setting.
Virtualization	Intel (R) Virtualization Technology	• **Disabled** • Enabled	If you select **Enabled**, a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Virtualization Technology.
	Intel (R) VT-d Feature	• **Disabled** • Enabled	Intel VT-d is Intel Virtualization Technology for Directed I/O. When enabled, a VMM can utilize the platform infrastructure for I/O virtualization.
I/O Port Access	Wireless LAN	• Disabled • **Enabled**	If you select **Enabled**, you can use the Wireless LAN device.
	Wireless WAN	• Disabled • **Enabled**	If you select **Enabled**, you can use the Wireless WAN device.
	Bluetooth	• Disabled • **Enabled**	If you select **Enabled**, you can use Bluetooth devices.
	USB Port	• Disabled • **Enabled**	If you select **Enabled**, you can use USB connectors.
	Memory Card Slot	• Disabled • **Enabled**	If you select **Enabled**, you can use the memory card slots.
	Integrated Camera	• Disabled • **Enabled**	If you select **Enabled**, you can use the integrated camera.
	Microphone	• Disabled • **Enabled**	If you select **Enabled**, you can use the microphones (internal, external, or line-in).
	NFC	• Disabled • **Enabled**	If you select **Enabled**, you can use the NFC.

Table 2. Security menu items (continued)

Menu item	Submenu item	Value	Comments
	Sensor Hub	• Disabled • **Enabled**	If you select **Enabled**, you can use the sensor hub.
Anti-Theft	Intel AT Module Activation	• Disabled • **Enabled** • Permanently Disabled	Enable or disable the UEFI BIOS interface to activate the Intel AT module, which is an optional Anti-Theft service from Intel. **Note:** If you set the Intel AT module activation to **Permanently Disabled**, you will be unable to enable this setting again.
	Intel AT Suspend	• **Enter**	This option is displayed only when the anti-theft function is activated. The Intel anti-theft suspend screen will be displayed at next boot to enter the suspend mode.
	Computrace Module Activation	• Disabled • **Enabled** • Permanently Disabled	Enables or disables the UEFI BIOS interface to activate the computrace module. Computrace is an optional monitoring service from Absolute Software. **Note:** If you set the computrace module activation to **Permanently Disabled**, you will be unable to enable this setting again.
Secure Boot	Secure Boot	• **Disabled** • Enabled	Enable or disable UEFI Secure Boot feature. Windows 8 operating system requires this feature to be enabled.
	Platform Mode	• **User Mode** • Setup Mode	Specify the system operating mode.
	Secure Boot Mode	• **Standard Mode** • Custom Mode	Indicates Secure Boot mode is standard mode or custom mode.
	Reset to Setup Mode	• **Enter**	This option is used to clear the current platform key and put the system into setup mode. You can install your own platform key and customize the Secure Boot signature databases in setup mode. Secure Boot mode will be set to custom mode.
	Restore Factory Keys	• **Enter**	This option is used to restore all keys and certificates in Secure Boot databases to factory defaults. Any customized Secure Boot settings will be erased, and the default platform key will be re-established along with the original signature databases including certificate for Windows 8 operating system.

Startup menu

You might need to change the tablet startup settings. To do so, tap **Startup** from the ThinkPad Setup menu.

Attention:

• After you change your startup sequence, you must be extremely careful not to specify a wrong device during a copy, a save, or a format operation. If you specify a wrong device, your data and programs might be erased or overwritten.

- If you are using the BitLocker® drive encryption, you should not change the startup sequence. BitLocker drive encryption detects the change of startup sequence and locks the tablet from booting.

Changing the startup sequence

To change the startup sequence, do the following:

1. Tap **Boot**. The default boot list is displayed, showing the order in which devices will be started up, even devices that are not attached to or installed on your tablet are listed.

2. In the **Boot** submenu, tap the menu item to specify the startup sequence that runs when you turn on the power.

3. Save the changes and restart the system.

The following table lists the **Startup** menu items.

Notes:

- Default values are in **boldface**.

- In each submenu, tap the default value to show selectable options and select a desired option.

- Some items are displayed on the menu only if the tablet supports the corresponding features.

Table 3. Startup menu items

Menu item	Value	Comments
Boot		See "Changing the startup sequence" on page 48.
Network Boot		Select the boot device when the system wakes from LAN. If **Wake On LAN** is enabled, the network administrator can turn on all of the computers in a LAN remotely by use of network management software.

UEFI/Legacy Boot	• **Both**
	  – UEFI/Legacy Boot Priority
	    – UEFI first
	    – **Legacy first**
	• UEFI Only
	• Legacy Only
	
	CSM Support (for UEFI Only)
	• **Yes**
	• No
		Select system boot capability.
		
		• **Both**: Select priority of boot options between UEFI and Legacy.
		• **UEFI Only**: The system will boot from the UEFI enabled operating system.
		• **Legacy Only**: The system will boot from any operating system other than the UEFI enabled one.
		
		Note: If you select **UEFI Only**, the system cannot boot from the bootable devices that do not have the UEFI enabled operating system.
		
		Compatibility Support Module (CSM) is required for booting the legacy operating system. If you select **UEFI Only**, **CSM Support** is selectable. For **Both** or **Legacy Only** mode, **CSM Support** is not selectable.

Table 3. Startup menu items (continued)

Menu item	Value	Comments
Boot Mode	• **Quick** • Diagnostics	Screen during POST: • **Quick**: The ThinkPad Logo screen is displayed. • **Diagnostics**: Test messages are displayed.
Option Key Display	• Disabled • **Enabled**	If you select **Disabled**, then the message "To interrupt normal startup, press Enter." is not displayed during the POST.
Boot Device List F12 Option	• Disabled • **Enabled**	If you select **Enabled**, the F12 key is recognized and the **Boot** Menu is displayed.
Boot Order Lock	• **Disabled** • Enabled	If you select **Enabled**, the boot priority order is locked for your future use.

Restart menu

If you need to close the ThinkPad Setup and restart the system, tap **Restart** from the ThinkPad Setup main menu. The following submenu is displayed:

• **Exit Saving Changes**: Restart the system after saving the changes.

• **Exit Discarding Changes**: Restart the system without saving the changes.

• **Load Setup Defaults**: Load the default setting that was in effect at the time of purchase.

• **Discard Changes**: Discard the changes.

• **Save Changes**: Save the changes.

Updating your system UEFI BIOS

The Unified Extensible Firmware Interface (UEFI) BIOS is a part of the system programs that make up the basic layer of software built into your tablet. The UEFI BIOS translates the instructions from other software layers.

Your tablet system board has a module called EEPROM, also referred to as flash memory. You can update the UEFI BIOS and the ThinkPad Setup program by starting your tablet with a flash update optical disc or flash update application running in the Windows environment.

In some instances when you add software, hardware, or a device driver, you might be informed that you need to update your UEFI BIOS in order for the new addition to work properly.

To update your UEFI BIOS, go to the following Web site and follow the instructions on the screen: http://www.lenovo.com/ThinkPadDrivers

Using system management

This section is intended primarily for network administrators.

Your tablet is designed for manageability, so that you can redirect more of your resources to better meet your business objectives.

This manageability, or "Total Cost of Ownership" (TCO), enables you to remotely operate client tablets in the same way as you operate your own tablet, such as turning on a client tablet, formatting hard disk drive, and installing software.

Once the tablet is configured and operational, you can manage it by use of software and manageability features already integrated into the client system and the network.

System management

Read this topic to learn more about features of system management.

Desktop Management Interface

The system UEFI BIOS of your tablet supports an interface called System Management BIOS Reference Specification (SMBIOS) V2.6.1 SMBIOS provides information about the hardware components of your system. It is the responsibility of the BIOS to supply this database with information about itself and the devices on the system board. This specification documents the standards for getting access to this BIOS information.

Preboot eXecution Environment

Preboot eXecution Environment (PXE) technology makes your tablet more manageable (it is PXE 2.1-compliant) by enabling it to boot (load an operating system or another executable image) from a server. Your tablet supports the personal tablet functions that PXE requires. For example, with the appropriate LAN card, your tablet can be booted from the PXE server.

Note: Remote Program Load (RPL) cannot be used with your tablet.

Asset ID EEPROM

The Asset ID EEPROM contains information about the system, including its configuration and the serial numbers of key components. It also includes a number of blank fields in which you can record information about the end users in your network.

Setting management feature

Your network administrator can remotely update the system programs on your tablet from a management console. The following requirements must be met:

• Your tablet must be started over the LAN.

• Your tablet must be engaged in a Preboot eXecution Environment.

• Network-management software must be installed on the remote administrator's computer.

Chapter 7. You and your tablet

This chapter provides the accessibility information about your tablet, and instructions on traveling with the tablet and maintaining the tablet.

Comfort and accessibility

Read this topic to learn how to use your tablet more comfortably and how to use the accessibility features.

Using your tablet more comfortably

With the help of all the conveniences and powerful features of your tablet, you can carry your tablet all day long for work or entertainment at many places. Therefore it is important that you remain attentive to good posture, good lighting, and proper seating to achieve greater comfort with your tablet.

Active sitting and rest breaks: The longer you sit and work with your tablet the more important it is to observe your working posture. Make minor voluntary postural changes and take frequent, short breaks when you use the tablet for a long time. Your tablet is a light and mobile system; remember that it can easily be repositioned to accommodate many posture modifications you might wish to make.

Work area setup options: Familiarize yourself with all of your office furniture so that you know how to adjust your work surface, seat, and other work tools to accommodate your preferences for comfort. If your work area is not in an office setting, be sure to take special note of employing active sitting and utilizing work breaks. Note that there are many ThinkPad product solutions available to help you modify and expand your tablet to best suit your needs. Access the Web site http://www.lenovo.com/accessories/services/index.html to view some of these options. Explore your options for docking solutions and external products that can provide the adjustability and features that you want.

Accessibility information

Accessibility technologies enable users that have hearing, vision, and mobility limitations to access information in the most appropriate way and get the most out of their tablet experience.

Zoom

Zoom in to enlarge the text size. To zoom in, tap the screen with two fingers and then slide them apart.

To reduce the text size, zoom out by dragging your fingers together.

Screen brightness

To set a screen brightness level that works for you, adjust the screen brightness.

Screen reader applications

Screen reader applications can read out software application interfaces, help systems, and a variety of online documents. If you need this feature, go to Windows Store or Lenovo App Store to download a screen reader application.

Getting updates

Your tablet enables you to update the Windows operating system and Lenovo applications.

Getting updates from Lenovo

Your tablet is preinstalled with System Update. This program enables you to keep the Lenovo software on your tablet up-to-date by downloading and installing software updates.

To start System Update, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap the **Search** charm to search for **System Update**.
3. Tap **System Update** in **Apps**.
4. Follow the onscreen instructions.

Getting updates from Microsoft

To check and keep your Windows, programs, or device drivers up-to-date, see the Windows Help and Support for more information.

Traveling with your tablet

This topic provides information to help you work with and transport your tablet while you traveling.

Travel tips

Use the following travel tips to travel more confidently and efficiently with your tablet:

1. While it is safe to allow your tablet to go through the x ray machines at airport security stations, it is important to keep your eyes on the tablet at all times to prevent theft.
2. Put your tablet in a protective case when not in use to prevent damage or scratching.

Travel tips on airplanes

If you carry your tablet into an airplane, check the following travel tips:

1. If you are going to use the wireless service, check with the airline for any restrictions before boarding the airplane.
2. If there are restrictions on the use of tablets with the wireless feature on an airplane, enable the Airplane mode. To enable it, do the following:
   a. Swipe in from the right edge of the screen to display the charms.
   b. Tap **Settings ➜ Change PC settings**.
   c. In the navigation panel, tap **Wireless**.
   d. Slide to the right to turn on **Airplane mode**.
3. Be careful about the seat in front of you on the airplane. Place your tablet in a safe position so that it does not get caught when the person in front of you leans back.

Travel accessories

The following is a checklist of things to consider packing when you are going to be away from your office or home:

Travel essentials:

- The ThinkPad ac power adapter that comes with your tablet
- A quality carrying case that provides adequate cushion and protection

If you are traveling to another country or region, you might want to consider these items:

- A ThinkPad ac power adapter for the country to which you are traveling
- A SIM card for the local mobile services in that country or region

Other items you might want to consider:

- ThinkPad headphones
- Additional storage devices

Care and maintenance

Handle your tablet with care so that you can enjoy this product for a long time.

Cleaning your tablet

To clean your tablet, unplug all cables and turn off the tablet by pressing and holding the power button for a few seconds. Then wipe the tablet screen with a soft, lint-free, dry cloth to clear stains and smudges.

Note: Do not use screen cleaners, household cleaners, aerosol sprays, solvents, alcohol, ammonia, or abrasives to clean your tablet.

Protecting the screen with a replaceable film

You can purchase a replaceable film to protect the screen from scratching and extend the life of your tablet. To use a replaceable film, clean the screen first and then apply the replaceable film on the screen.

Storing the tablet for extended periods

If you are not going to use your tablet for an extended period of time, remove the SIM card from your tablet, and then pack your tablet with a protective case and store it in a well-ventilated and dry area without direct exposure to sunshine.

Chapter 8. Troubleshooting problems

This chapter describes on what to do if you experience a problem with your tablet.

Diagnosing problems

If you experience problems with your tablet, use the Lenovo Solution Center program as a starting point for solving them.

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

Note: The Lenovo Solution Center program can be downloaded from http://www.lenovo.com/diags.

To run the Lenovo Solution Center program, do the following:

1. Swipe in from the right edge of the screen to display the charms.
2. Tap the **Search** charm to search for **Lenovo Solution Center**.
3. Tap **Lenovo Solution Center** in **Apps**.

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. You will need the log files when you speak to a Lenovo technical support representative.

Troubleshooting

The problems and solutions described in this chapter are meant only as a guide. They are not definitive problem solving techniques. For some problems, you might need help from Lenovo, your reseller, or your service provider.

When you observe a problem, stop operation immediately, because taking further action might result in data loss or damage. Take a note of what the system is doing and what actions you performed before the problem occurred. Provide detailed information to Lenovo or your service provider for quicker problem resolution.

Internet problem

Problem: Unable to connect to the wireless network.

Suggested solution: Ensure that:

- The SIM card is valid and workable if you are using a mobile data network (3G or 4G).
- You are within the network's service range and the signal strength is good.
- Your tablet is not in Airplane mode.

If the problem persists, contact Lenovo for technical support.

Multi-touch screen problems

- **Problem**: The multi-touch screen responds slowly or improperly.

  Suggested solution: Do the following:

1. Ensure that your hands are clean and dry when touching the screen.
2. Restart your tablet to try again.

If the problem persists, contact Lenovo for technical support.

Battery problem

Problem: The battery does not charge correctly.

Suggested solution: Check if the ac power adapter is connected correctly. If the connection is good but the battery still does not charge, contact Lenovo to replace with a new battery.

System problems

- **Problem**: Unable to turn the tablet on.

  Suggested solution: Connect your tablet to an ac power outlet to see if the problem is caused by a drained battery. If the problem persists, insert a needle or a straightened paper clip into the emergency reset hole. To locate the emergency reset hole, see "Rear view" on page 2 and "Front and side view" on page 4. If the problem still persists, contact Lenovo for technical support.

Media problems

- **Problem**: The audio quality is poor or there is no sound output.

  Suggested solution: Check and ensure that:

  – The speaker is not covered.
  – The speaker mute function is disabled.
  – If you are using a headset, unplug it, then plug it in again.
  – The volume is not turned to the lowest level.

  If the problem persists, contact Lenovo for technical support.

- **Problem**: A song, video, or other media file cannot be played.

  Suggested solution: Check and ensure that the media file is not corrupted.

External device connection problems

- **Problem**: A connection is not established when you connect the tablet to a computer.

  Suggested solution: Ensure that the tablet USB cable you are using is the one that is shipped with your tablet.

- **Problem**: Bluetooth devices cannot be located.

  Suggested solution: Ensure that:

  – Your tablet Bluetooth is switched.
  – The Bluetooth feature is activated on the device to which you want to connect.
  – Your tablet and the Bluetooth device are within the maximum Bluetooth range (10 m).

  If the problem persists, contact Lenovo for technical support.

Recovering from a severe software problem

If your tablet stops responding and you cannot turn off the tablet by pressing and holding the power button, insert a needle or a straightened paper clip into the emergency reset hole to reset the tablet. Then restart your tablet. To locate the emergency reset hole, see "Rear view" on page 2 and "Front and side view" on page 4.

If you still encounter the same problem after you restart your tablet, reset your tablet and restart it again, you can perform a factory data reset operation. For more information, refer to "Resetting your tablet to the factory default settings" on page 37.

Error messages

Message: 0177: Bad SVP data, stop POST task.

Solution: Checksum of the supervisor password in the EEPROM is not correct. The system board should be replaced. Have the tablet serviced.

Message: 0183: Bad CRC of Security Settings in EFI Variable. Enter ThinkPad Setup.

Solution: Checksum of the Security settings in the EFI Variable is not correct. Enter ThinkPad Setup to check Security settings, and restart the system. If you still have a problem, have the tablet serviced.

Message: 0187: EAIA data access error

Solution: The access to EEPROM is failed. Have the tablet serviced.

Message: 0188: Invalid RFID Serialization Information Area.

Solution: The EEPROM checksum is not correct (block # 0 and 1). The system board should be replaced, and the box serial number needs to be reinstalled. Have the tablet serviced.

Message: 0189: Invalid RFID configuration information area

Solution: The EEPROM checksum is not correct (block # 4 and 5). The system board should be replaced, and the UUID needs to be reinstalled. Have the tablet serviced.

Message: 0190: Critical low-battery error

Solution: The tablet turned off, because the battery is low. Connect the ac power adapter to the tablet and charge the battery.

Message: 0191: System Security - Invalid remote change requested.

Solution: The system configuration change has failed. Confirm the operation and try again. To clear the error, enter the ThinkPad Setup.

Message: 0199: System Security - Security password retry count exceeded.

Solution: This message is displayed if you enter a wrong supervisor password more than three times. Confirm the supervisor password and try again. To clear the error, enter the ThinkPad Setup.

Message: 2200: Machine Type and Serial Number are invalid.

Solution: Machine Type and Serial Number are invalid. Have the tablet serviced.

Message: 2201: Machine UUID is invalid.

Solution: Machine UUID is invalid. Have the tablet serviced.

Errors without messages

- **Problem**: My screen keeps blanking when I do not want it to.

  Solution: You can disable any system timers, such as the LCD turn-off timer or the blank timer by doing the following:

    1. Start Power Manager.
    2. Tap the **Power plan** tab, and then select **Maximum Performance** from the predefined power plans.

- **Problem**: When I turn on the tablet, nothing is displayed on the screen and the tablet does not beep while starting up.

  Note: If you are not sure whether you heard any beeps, turn off the tablet by pressing and holding the power button for four seconds or more. Turn it on and listen again.

  Solution: Ensure that:

    – The ac power adapter is connected to the tablet and the power cord is plugged into a working electrical outlet.
    – The tablet is turned on. (Turn the power button on again for confirmation.)

  If a power-on password is set:

    – Press any key to display the prompt for the power-on password. If the brightness level of the screen is low, increase it by pressing Home.
    – Type the correct password and press Enter.

  If these items are correctly set, and the screen remains blank, have the tablet serviced.

- **Problem**: When I turn on the tablet, only a white cursor is displayed on a blank screen.

  Solution: If you have modified a partition on your mSATA solid-state drive by using partition software, information about that partition, or the master boot record might have been destroyed.

    1. Turn off the tablet, and then turn it on again.
    2. If you still see only the cursor on the screen, do the following:

        – If you have used the partition software, examine the partition on the mSATA solid-state drive by using the software, and recover the partition if required.
        – Use the recovery discs to restore the system to the factory state.

  If the problem persists, have the tablet serviced.

- **Problem**: My screen goes blank while the tablet is on.

  Solution: Your screen saver or power management might have been enabled. Do either of the following:

    – Tap the tablet screen to exit the screen saver.
    – Press the power button to resume from sleep or hibernation mode.

Chapter 9. Getting support

This chapter provides information about getting help and support from Lenovo.

Lenovo technical support

After you buy a ThinkPad Helix, register your tablet with Lenovo. Using the registered information, Lenovo can contact you in case of a recall or other severe problems. After you register your tablet with Lenovo, you will receive quicker service when you call Lenovo for help. In addition, some locations offer extended privileges and services to registered users.

To register your tablet with Lenovo, do either of the following:

- Go to http://www.lenovo.com/register and follow the instructions on the screen.
- Tap **Lenovo Support** from the Start screen. Then tap **Registration**.

Technical support information is available on the Lenovo Support Web site at http://www.lenovo.com/support.

This Web site is updated with the latest support information such as the following:

- Drivers and software
- Diagnostic solutions
- Product and service warranty
- Product and parts details
- Guides and manuals
- Knowledge base and frequently asked questions

If you need to call the Lenovo Customer Support Center, go to http://www.lenovo.com/support/phone for the latest telephone numbers and hours of operation.

During the warranty period, you can get the following services from the Customer Support Center:

- **Problem determination**: Trained personnel are available to assist you with determining if you have a hardware problem and deciding what action is necessary to fix the problem.
- **Lenovo hardware repair**: If the problem is determined to be caused by Lenovo hardware under warranty, trained service personnel are available to provide the applicable level of service.
- **Engineering change management**: Occasionally, there might be changes that are required after a product has been sold. Lenovo or your reseller, if authorized by Lenovo, will make selected Engineering Changes (ECs) that apply to your hardware available.

For the terms and conditions of the Lenovo Limited Warranty that applies to your tablet, refer to the *Safety, Warranty, and Setup Guide* that comes with your tablet.

Locating the machine type and model (MTM) number and the system serial number

When calling for technical assistance, you are requested to provide the MTM number and the system serial number of your tablet. To get the MTM number and the serial number, check the MTM label affixed on the label tray.
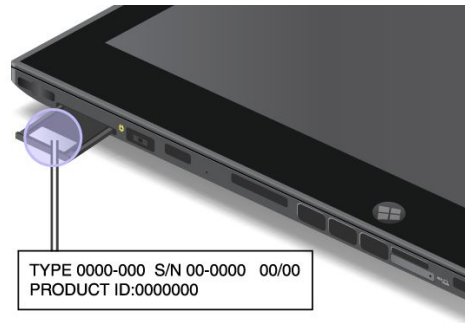
Figure 6. Location of the MTM label

Lenovo user forums

Lenovo provides user forums on the World Wide Web to provide you with a place to search the community knowledge base for information about your tablet, share information with other users, make suggestions to Lenovo, ask questions, and get technical support from Lenovo.

To go to Lenovo user forums, do one of the following:

- **Procedure 1**

    1. From the Start screen, tap **Lenovo Support**. Then tap **Registration**. Follow the onscreen instructions to create an account.

    2. From the Start screen, tap **Lenovo Support ➙ Community**.

- **Procedure 2**

    1. Go to http://www.lenovo.com/register and follow the onscreen instructions to create an account.

    2. Go to http://www.lenovo.com/support.

    3. Tap **Community Forums**.

Finding ThinkPad options

If you want to expand the capabilities of your tablet, Lenovo has a number of hardware accessories and upgrades to meet your needs.

You can shop at Lenovo 24 hours a day, 7 days a week directly over the World Wide Web. All you need is an Internet connection and a credit card.

To shop at Lenovo, go to:
http://www.lenovo.com/accessories/services/index.html

Appendix A. Regulatory information

This appendix provides regulatory information.

Wireless related information

Wireless interoperability

Wireless LAN PCI Express Mini Card is designed to be interoperable with any wireless LAN product that is based on Direct Sequence Spread Spectrum (DSSS), Complementary Code Keying (CCK), and/or Orthogonal Frequency Division Multiplexing (OFDM) radio technology, and is compliant to:

- The 802.11b/g Standard, 802.11a/b/g or 802.11n draft 2.0 on Wireless LANs, as defined and approved by the Institute of Electrical and Electronics Engineers.
- The Wireless Fidelity (Wi-Fi) certification as defined by the Wi-Fi Alliance.

The Bluetooth card in your tablet is designed to be interoperable with any Bluetooth product that is compliant to Bluetooth Specification 4.0 as defined by the Bluetooth SIG. The following profiles are supported by your Bluetooth card:

- A2DP
- AVRCP
- HFP
- HID
- DUN
- PAN
- HCRP
- SPP
- OPP
- GATT
- Proximity
- Find Me
- Immediate Alert
- Battery Status

Usage environment and your health

Integrated wireless cards emit radio frequency electromagnetic energy like other radio devices. However, the level of energy emitted is far much less than the electromagnetic energy emitted by wireless devices such as mobile phones.

Due to the fact that integrated wireless cards operate within the guidelines found in radio frequency safety standards and recommendations, Lenovo believes they are safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of integrated wireless cards might be restricted by the proprietor of the building or responsible representatives of the organization. These situations and areas might for example include:

- Using the integrated wireless cards onboard of airplanes, in hospitals or near petrol stations, blasting areas (with electro-explosive devices), medical implants or body-worn electronic medical devices.
- In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization, you are encouraged to ask for authorization to use integrated wireless cards prior to turning on the tablet.

Location of the UltraConnect wireless antennas

The ThinkPad Helix features an integrated diversity antenna system built into the display for optimal reception, enabling wireless communication wherever you are.

The following illustration shows the location of each built-in wireless antenna.
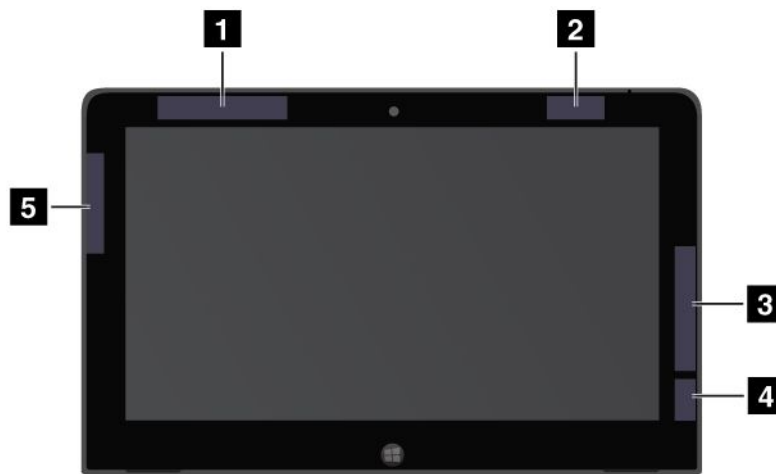
Figure 7. Location of the UltraConnect wireless antennas

1 Wireless WAN antenna (Main) (on some models)
2 Wireless LAN antenna (Main)
3 Wireless WAN antenna (Auxiliary) (on some models)
4 Wireless LAN antenna (Auxiliary)
5 GPS antenna (on some models)

Export classification notice

This product is subject to the United States Export Administration Regulations (EAR) and has an Export Classification Control Number (ECCN) of 5A992.c. It can be re-exported except to any of the embargoed countries in the EAR E1 country list.

Electronic emission notices

The following information refers to the ThinkPad Helix machine types 3697, 3698, 3700, 3701, and 3702.

Federal Communications Commission (FCC) Declaration of Conformity

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, might cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult an authorized dealer or service representative for help.

Lenovo is not responsible for any radio or television interference caused by using other than specified or recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device might not cause harmful interference, and (2) this device must accept any interference received, including interference that might cause undesired operation.

Responsible Party:

Lenovo (United States) Incorporated

1009 Think Place - Building One

Morrisville, NC 27560

Phone Number: 919-294-5900

Industry Canada Class B emission compliance statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

European Union - Compliance to the Electromagnetic Compatibility Directive

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. Lenovo cannot accept responsibility for any failure to satisfy the protection requirements resulting from a nonrecommended modification of the product, including the installation of option cards from other manufacturers.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

EU Contact: Lenovo, Einsteinova 21, 851 01 Bratislava, Slovakia

CE

German Class B compliance statement

Deutschsprachiger EU Hinweis:

Hinweis für Geräte der Klasse B EU-Richtlinie zur Elektromagnetischen Verträglichkeit
Dieses Produkt entspricht den Schutzanforderungen der EU-Richtlinie 2004/108/EG (früher 89/336/EWG) zur
Angleichung der Rechtsvorschriften über die elektromagnetische Verträglichkeit in den EU-Mitgliedsstaaten
und hält die Grenzwerte der EN 55022 Klasse B ein.

Um dieses sicherzustellen, sind die Geräte wie in den Handbüchern beschrieben zu installieren und zu
betreiben. Des Weiteren dürfen auch nur von der Lenovo empfohlene Kabel angeschlossen werden.
Lenovo übernimmt keine Verantwortung für die Einhaltung der Schutzanforderungen, wenn das Produkt
ohne Zustimmung der Lenovo verändert bzw. wenn Erweiterungskomponenten von Fremdherstellern ohne
Empfehlung der Lenovo gesteckt/eingebaut werden.

Deutschland:

Einhaltung des Gesetzes über die elektromagnetische Verträglichkeit von Betriebsmitteln
Dieses Produkt entspricht dem „Gesetz über die elektromagnetische Verträglichkeit von Betriebsmitteln"
EMVG (früher „Gesetz über die elektromagnetische Verträglichkeit von Geräten"). Dies ist die Umsetzung der
EU-Richtlinie 2004/108/EG (früher 89/336/EWG) in der Bundesrepublik Deutschland.

**Zulassungsbescheinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit
von Betriebsmitteln, EMVG vom 20. Juli 2007 (früher Gesetz über die elektromagnetische
Verträglichkeit von Geräten), bzw. der EMV EG Richtlinie 2004/108/EC (früher 89/336/EWG), für
Geräte der Klasse B.**

Dieses Gerät ist berechtigt, in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen
- CE - zu führen. Verantwortlich für die Konformitätserklärung nach Paragraf 5 des EMVG ist die Lenovo
(Deutschland) GmbH, Gropiusplatz 10, D-70563 Stuttgart.

Informationen in Hinsicht EMVG Paragraf 4 Abs. (1) 4:
Das Gerät erfüllt die Schutzanforderungen nach EN 55024 und EN 55022 Klasse B.

Korea Class B compliance statement

B급 기기(가정용 방송통신기자재)
이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다

Japanese VCCI Class B statement

この装置は，クラスB情報技術装置です。 この装置は，家庭環境で使用するこ
とを目的としていますが，この装置がラジオやテレビジョン受信機に近接して使
用されると，受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。　　　　　　VCCI-B

Japan compliance statement for products which connect to the power mains with rated current less than or equal to 20 A per phase

日本の定格電流が 20A/相 以下の機器に対する高調波電流規制
高調波電流規格 JIS C 61000-3-2 適合品

Lenovo product service information for Taiwan

台灣 Lenovo 產品服務資訊如下：
荷蘭商聯想股份有限公司台灣分公司
台北市信義區信義路五段七號十九樓之一
服務電話：0800-000-702

Additional regulatory information

For more information about the wireless regulatory notices, refer to the *Regulatory Notice* that came with your tablet.

If your tablet is shipped without the *Regulatory Notice*, you can obtain a PDF version from the Lenovo Web site at:
http://www.lenovo.com/ThinkPadUserGuides

Appendix B. Environmental, recycling, and disposal information

Lenovo recycling statement

Lenovo encourages owners of information technology (IT) equipment to responsibly recycle their equipment when it is no longer needed. Lenovo offers a variety of programs and services to assist equipment owners in recycling their IT products. For information on recycling Lenovo products, go to:
http://www.lenovo.com/recycling

Japan recycling statements

Collecting and recycling a disused Lenovo computer or monitor

If you are a company employee and need to dispose of a Lenovo computer or monitor that is the property of the company, you must do so in accordance with Waste Management and Public Cleansing Law. Computers and monitors are categorized as industrial waste and should be properly disposed of by an industrial waste disposal contractor certified by a local government. In accordance with Waste Management and Public Cleansing Law, Lenovo Japan provides, through its PC Collecting and Recycling Services, for the collecting, reuse, and recycling of disused computers and monitors. For details, visit the Lenovo Web site at:
http://www.lenovo.com/services_warranty/jp/ja/recycle/pcrecycle/.

Pursuant to Waste Management and Public Cleansing Law, the collecting and recycling of home-used computers and monitors by the manufacturer was begun on October 1, 2003. This service is provided free of charge for home-used computers sold after October 1, 2003. For details, go to
http://www.lenovo.com/services_warranty/jp/ja/recycle/personal/.

Disposing of Lenovo computer components

Some Lenovo computer products sold in Japan might have components that contain heavy metals or other environmental sensitive substances. To properly dispose of disused components, such as a printed circuit board or drive, use the methods described above for collecting and recycling a disused computer or monitor.

Disposing of disused lithium batteries from Lenovo computers

A button-shaped lithium battery is installed on the system board of your Lenovo computer to provide power to the computer clock while the computer is off or disconnected from the main power source. If you want to replace it with a new one, contact your place of purchase or ask for a repair service provided by Lenovo. If you have replaced it by yourself and want to dispose of the disused lithium battery, insulate it with vinyl tape, contact your place of purchase, and follow their instructions. If you use a Lenovo computer at home and need to dispose of a lithium battery, you must comply with local ordinances and regulations.

Disposing of a disused battery pack from Lenovo notebook computers

Your Lenovo notebook computer has a lithium ion battery pack or a nickel metal hydride battery pack. If you are a company employee who uses a Lenovo notebook computer and need to dispose of a battery pack, contact the proper person in Lenovo sales, service, or marketing, and follow that person's instructions. You also can refer to the instructions at http://www.lenovo.com/jp/ja/environment/recycle/battery/.

If you use a Lenovo notebook computer at home and need to dispose of a battery pack, you must comply with local ordinances and regulations. You also can refer to the instructions at http://www.lenovo.com/jp/ja/environment/recycle/battery/.

Recycling information for Brazil

Declarações de Reciclagem no Brasil

Descarte de um Produto Lenovo Fora de Uso

Equipamentos elétricos e eletrônicos não devem ser descartados em lixo comum, mas enviados à pontos de coleta, autorizados pelo fabricante do produto para que sejam encaminhados e processados por empresas especializadas no manuseio de resíduos industriais, devidamente certificadas pelos orgãos ambientais, de acordo com a legislação local.

A Lenovo possui um canal específico para auxiliá-lo no descarte desses produtos. Caso você possua um produto Lenovo em situação de descarte, ligue para o nosso SAC ou encaminhe um e-mail para: reciclar@lenovo.com, informando o modelo, número de série e cidade, a fim de enviarmos as instruções para o correto descarte do seu produto Lenovo.

Important WEEE information
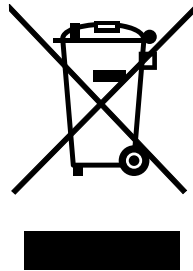
The WEEE marking on Lenovo products applies to countries with WEEE and e-waste regulations (for example, European Directive 2002/96/EC, India E-Waste Management & Handling Rules, 2011). Appliances are labeled in accordance with local regulations concerning waste electrical and electronic equipment (WEEE). These regulations determine the framework for the return and recycling of used appliances as applicable within each geography. This label is applied to various products to indicate that the product is not to be thrown away, but rather put in the established collective systems for reclaiming these end of life products.

Users of electrical and electronic equipment (EEE) with the WEEE marking must not dispose of end of life EEE as unsorted municipal waste, but use the collection framework available to them for the return, recycle, and recovery of WEEE and to minimize any potential effects of EEE on the environment and human health due to the presence of hazardous substances. For additional WEEE information go to: http://www.lenovo.com/recycling

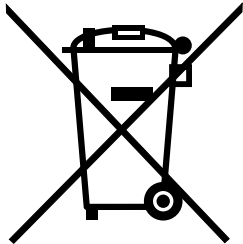# Battery recycling information for Taiwan

廢電池請回收

Battery recycling information for the United States and Canada

US & Canada Only

Battery recycling information for the European Union

EU

Notice: This mark applies only to countries within the European Union (EU).

Batteries or packaging for batteries are labeled in accordance with European Directive 2006/66/EC concerning batteries and accumulators and waste batteries and accumulators. The Directive determines the framework for the return and recycling of used batteries and accumulators as applicable throughout the European Union. This label is applied to various batteries to indicate that the battery is not to be thrown away, but rather reclaimed upon end of life per this Directive.

In accordance with the European Directive 2006/66/EC, batteries and accumulators are labeled to indicate that they are to be collected separately and recycled at end of life. The label on the battery may also include a chemical symbol for the metal concerned in the battery (Pb for lead, Hg for mercury, and Cd for cadmium). Users of batteries and accumulators must not dispose of batteries and accumulators as unsorted municipal waste, but use the collection framework available to customers for the return, recycling, and treatment of batteries and accumulators. Customer participation is important to minimize any potential effects of batteries and accumulators on the environment and human health due to the potential presence of hazardous substances. For proper collection and treatment, go to:
http://www.lenovo.com/recycling

China recycling information for Waste Electrical and Electronic Equipment (WEEE)

《废弃电器电子产品回收处理管理条例》提示性说明

联想鼓励拥有联想品牌产品的用户当不再需要此类产品时，遵守国家废弃电器电子产品回收处理相关法律法规，将其交给当地具有国家认可的回收处理资质的厂商进行回收处理。更多回收服务信息，请点击进入
http://support.lenovo.com.cn/activity/551.htm.

Appendix C. Restriction of Hazardous Substances Directive (RoHS)

China RoHS

<div align="center">产品中有毒有害物质或元素的名称及含量</div>

部件名称	有毒有害物质或元素					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬 (Cr(VI))	多溴连苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板组件*	X	O	O	O	O	O
硬盘	X	O	O	O	O	O
光驱	X	O	O	O	O	O
内存	X	O	O	O	O	O
电脑I/O 附件	X	O	O	O	O	O
电源	X	O	O	O	O	O
键盘	X	O	O	O	O	O
鼠标	X	O	O	O	O	O
机箱/ 附件	X	O	O	O	O	O

○:表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006
标准规定的限量要求以下
×:表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006
标准规定的限量要求
表中标有"×"的所有部件都符合欧盟RoHS 法规.

印刷电路板组件*:包括印刷电路板及其零部件、电容和连接器
根据型号的不同,可能不会含有以上的所有部件,请以实际购买机型为准

在中华人民共和国境内销售的电子信息产品必须标识此标志,标志内
的数字代表在正常使用状态下的产品的环保使用期限

Turkish RoHS

The Lenovo product meets the requirements of the Republic of Turkey Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (EEE).

Türkiye EEE Yönetmeliğine Uygunluk Beyanı

Bu Lenovo ürünü, T.C. Çevre ve Orman Bakanlığı'nın "Elektrik ve Elektronik Eşyalarda Bazı Zararlı Maddelerin Kullanımının Sınırlandırılmasına Dair Yönetmelik (EEE)" direktiflerine uygundur.

EEE Yönetmeliğine Uygundur.

Ukraine RoHS

Цим підтверджуємо, що продукція Леново відповідає вимогам нормативних актів України, які обмежують вміст небезпечних речовин

India RoHS

RoHS compliant as per E-Waste (Management & Handling) Rules, 2011.

Appendix D. ENERGY STAR model information

ENERGY STAR® is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy aimed at saving money and protecting the environment through energy efficient products and practices.

Lenovo is proud to offer our customers products with the ENERGY STAR qualified designation. Lenovo computers of the following machine types, if the ENERGY STAR mark is affixed, have been designed and tested to conform to the ENERGY STAR program requirements for computers.

3697, 3698, 3700, 3701, and 3702

By using ENERGY STAR qualified products and taking advantage of the power-management features of your computer, you can help reduce the consumption of electricity. Reduced electrical consumption can contribute to potential financial savings, a cleaner environment, and the reduction of greenhouse gas emissions.

For more information about ENERGY STAR, go to: http://www.energystar.gov

Lenovo encourages you to make efficient use of energy an integral part of your day-to-day operations. To help in this endeavor, Lenovo has preset the following power-management features to take effect when your computer has been inactive for a specified length of time:

Power plan: Energy Saver (settings when plugged into ac power)

- Turn off the display: After 10 minutes
- Put the tablet into sleep: After 20 minutes
- Advanced power settings:
    - Turn off hard disks: After 15 minutes
    - Hibernate: Never

To awaken your tablet from sleep mode, press the power button. For more information about these settings, see the Windows Help and Support information on your tablet.

The Wake on LAN function is enabled when your tablet is shipped from the factory, and the setting remains valid even when the tablet is in sleep mode. If you do not need to have Wake on LAN enabled while your tablet is in sleep mode, you can reduce the power consumption and prolong the time in sleep mode, by disabling the setting of Wake on LAN for sleep mode. To disable the setting of Wake on LAN for sleep mode, do the following:

1. From the desktop, swipe in from the right edge of the screen to display the charms.
2. Tap **Settings** ➙ **Control Panel** ➙ **Hardware and Sound** ➙ **Device Manager**.
3. In the Device Manager window, expand **Network adapters**.
4. Press and hold your network adapter device, and tap **Properties**.

5. Tap the **Power Management** tab.
6. Clear the **Allow this device to wake the computer** check box.
7. Tap **OK**.

Appendix E. Notices

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