▪▪ Lenovo regulatory notice for wireless adapters ───

This manual contains regulatory information for the following Lenovo products.
• Lenovo S20-30/S20-30 Touch
The following wireless modules are supported on Lenovo S20-30/S20-30 Touch:
•RTL8723BE

■ Read first — regulatory information

Please read this document before you use the Lenovo computer. Lenovo computer complies with the radio frequency and safety standards of any country or region in which it has been approved for wireless use. You must install and use your computer in strict accordance with the instructions as described hereafter.

Veuillez lire ce document avant d'utiliser l'ordinateur Lenovo. L'ordinateur Lenovo est conforme aux normes de sécurité et de radiofréquence du pays ou de la région où son utilisation sans fil est agréée. Vous devez installer et utiliser votre ordinateur en respectant scrupuleusement les instructions décrites ci-après.

■ USA — Federal Communications Commission (FCC)

I. Factory preinstalled Wireless LAN + Bluetooth Combo module

• FCC ID: TX2-RTL8723BE (Model: RTL8723BE)

Wireless LAN + Bluetooth Combo Mini PCI Express Card marketed in the USA and Canada do not support nor function in the extended channels (12ch, 13ch).

i) The FCC RF Exposure compliance:
The radiated output power of the Wireless LAN + Bluetooth Combo Mini PCI Express Card authorized to use for the your Lenovo computer is far below the FCC radio frequency exposure limits. Nevertheless, it shall be used in such a manner that the potential for human contact during normal operation is minimized as follows:

Note: The transmission diversity function is implemented for this product. For WLAN cards (Model: RTL8723BE) using Main and Auxiliary antennas for transmission in the IEEE 802.11 b/g/n transmission mode, radio frequency energy is not emitted simultaneously from both Main and Auxiliary antennas. One of the antennas is selected automatically or manually (by users) to have good quality of radiocommunication (transmission diversity function). For WLAN cards RTL8723BE in the IEEE 802.11 b/g/n, or MIMO (Multiple In Multiple Out) transmission mode, the radio frequency energy is emitted from Main antenna.

ii) FCC ID of wireless module:
On the bottom side of your Lenovo computer, you will find an indicator label of the format "Contains Transmitter Module: FCC ID XXXX", where XXXX represents the FCC ID that corresponds to your preinstalled Wireless LAN + Bluetooth Combo module.

iii) Radio Frequency interference requirement:
Each device has been tested and found to comply with the limits for a Class B digital device pursuant to FCC Part 15 Subpart B. Refer to "Electronic emission notices" on page 5.

II. Simultaneous use of RF transmitters

Please make sure of the following conditions on use of wireless features:
1. When you use any other RF option device, all wireless features in your Lenovo computer are required to be turned off.
2. Users must follow the RF Safety instructions on wireless option devices that are included in the RF option device's user's manual.

■ **Canada — Industry Canada (IC)**

IC Certification number

I) Factory preinstalled Wireless LAN + Bluetooth Combo modules:

• IC: 6317A-RTL8723BE (Model: RTL8723BE/RTL8723BENF/RTL8723BE1T1R)

Wireless LAN + Bluetooth Combo Mini PCI Express Cards marketed in the USA and Canada do not support nor function in the extended channels (12ch, 13ch).

There is no certification number of Industry Canada for Mini PCI Express Card shown on the enclosure of your Lenovo computer. Instead you will find an indicator label pointing to the location of the IC Certification number on the bottom side of your Lenovo computer. This label will be of the format "Contains Transmitter Module: Canada IC: XXXX", where XXXX represents the IC ID that corresponds to your preinstalled WLAN module.

II) Low power license-exempt radiocommunication devices (RSS-210):
This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
1. This device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

The transmitter devices have been designed to operate with the antennas integrated in Lenovo computer, and having a maximum gain of within 5 dBi.

III) Exposure of humans to RF fields (RSS-102):
Lenovo computers employ low gain integral antennas that do not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's Web site at www.hc-sc.gc.ca/rpb

The radiated energy from the antennas connected to the wireless adapters conforms to the IC limit of the RF exposure requirement regarding IC RSS-102, Issue 2 clause 4.2.

Numéro d'homologation IC

I) Modules de réseaux local sans fil pré-installé à l'usine:

• IC: 6317A-RTL8723BE (Model: RTL8723BE/RTL8723BENF/RTL8723BE1T1R)

Les cartes de réseau local sans fil Express mini-PCI commercialisées aux Etats-Unis et au Canada ne prennent pas en charge les canaux étendus (12ch, 13ch) et ne fonctionnent donc pas sur de tels canaux.

Le boîtier de votre ordinateur Lenovo ne comporte pas de numéro d'homologation IC (Industry Canada) pour la carte mini-PCI Express ; mais sous votre Lenovo, vous trouverez une étiquette indicatrice pointant vers l'emplacement du numéro d'homologation IC. L'étiquette se présente sous la forme "Contains Transmitter Module: Canada IC: XXXX" où XXXX représente l'ID IC qui correspond au module WLAN préinstallé.

II) Remarque relative aux appareils de communication radio de faible puissance sans licence (CNR-210):
Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. Le fonctionnement de ce type d'appareil est soumis aux deux conditions suivantes:
1. Cet appareil ne doit pas perturber les communications radio, et
2. cet appareil doit supporter toute perturbation, y compris les perturbations qui pourraient provoquer son dysfonctionnement.

Les périphériques d'émission sont conçus pour fonctionner avec des antennes intégrées aux Lenovo et ayant un gain maximal de moins de 5 dBi.

III) Exposition des êtres humains aux champs radioélectriques (RF) (CNR-102):
L'ordinateur Lenovo utilise des antennes intégrales à faible gain qui n'émettent pas un champ électromagnétique supérieur aux normes imposées par le Ministére de la santé canadien pour la population. Consultez le Safety Code 6 sur le site Web du Ministére de la santé canadien à l'adresse "www.hc-sc.gc.ca/rpb".

L'énergie émise par les antennes reliées aux adaptateurs sans fil respecte la limite d'exposition aux radiofréquences telle que définie par Industrie Canada dans la clause 4.2 du document CNR-102.

Le gain d'antenne maximal autorisépour les appareils dans les bandes de fréquence 5250-5350 MHz, 5470-5725 MHz et 5725-5825 MHz est conforme àla limite p.i.r.e (puissance isotrope rayonnée équivalente) définie dans la section A9.2 du CNR-210.
Lorsque vous utilisez une carte de réseau local sans fil dans le mode de transmission 802.11 a/n:

• Les appareils destinés àla bande 5150-5250 MHz devront être exclusivement utillsés en intérieur afin de réduire les risques de perturbations électromagnétiques gênantes sur les systèmes de satellite mobile dans un même canal.

• Les radars àforte puissance sont désignés comme les utilisateurs principaux (c'est-à-dire qu'ils sont prioritaires) des bandes 5250-5350 MHz et.

5650-5850 MHz. lls peuvent provoquer des perturbations électromagnétiques sur les appareils de type LELAN (réseau de communication local sans licence) ou les endommager.

■ **Electronic emission notices**

Federal Communications Commission (FCC) Statement
•RTL8723BE

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, may 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 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 may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:
   Lenovo (United States) Incorporated
   1009 Think Place - Building One
   Morrisville, NC 27560
   Telephone: 1-919-294-5900

Industry Canada Class B Emission Compliance Statement
This Class B digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device has been tested and meets the FCC RF exposure guidelines.
The maximum SAR value reported is 0.00403w/kg.

Lenovo S20-30 / S20-30 Touch

User Guide

Read the safety notices and important tips in the included manuals before using your computer.

Notes
- Before using the product, be sure to read *Lenovo Safety and General Information Guide* first.

- Some instructions in this guide may assume that you are using Windows 8.1. If you are using other Windows operating systems, some operations may be slightly different. If you are using other operating systems, some operations may not apply to you.

- The features described in this guide are common to most models. Some features may not be available on your computer and/or your computer may include features that are not described in this user guide.

- The illustrations used in this manual are for Lenovo S20-30 unless otherwise stated.

- The illustrations in this manual may differ from the actual product. Please refer to the actual product.

Regulatory Notice
- For details, refer to **Guides & Manuals** at http://support.lenovo.com.

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Contents

Chapter 1. Getting to know your computer

■■ Top view ————————————————————————————————

■ S20-30 / S20-30 Touch
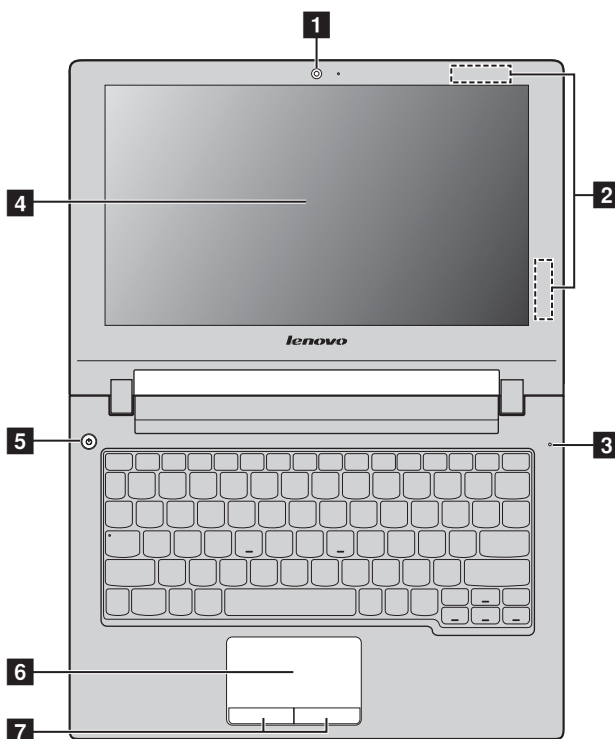
Note: The dashed areas indicate parts that are invisible from outside.

◉ **Attention:**

- Do *not* open the display panel beyond 130 degrees. When closing the display panel, be careful *not* to leave pens or any other objects in between the display panel and the keyboard. Otherwise, the display panel may be damaged.

1	**Integrated camera**	Use the camera for video communication.
2	**Wireless antennas**	Connect to the wireless adapter to receive and send wireless radio.
3	**Built-in microphone**	Captures sound which can be used for video conferencing, voice narration, or audio recording.
4	**Display**	Provides brilliant visual output.
5	**Power button**	Press this button to turn on the computer.
6	**Touchpad**	The touchpad functions as a conventional mouse. To move the cursor on the screen, slide your fingertip over the pad in the direction in which you want the cursor to move.
7	**Touchpad buttons**	The functions of the left and right buttons correspond to those of the left and right buttons on a conventional mouse.

Note: You can enable or disable the touchpad and the touchpad buttons by pressing $\boxed{\text{⊠}}_{\text{F6}}$.

■ **Hotkeys**

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

|			
◁ F1 **:**	Mutes/unmutes the sound.	✈ F7 **:**	Enables/disables airplane mode.
◁– F2 **:**	Decreases the volume level.	▭ F8 **:**	Switches the active program.
◁+ F3 **:**	Increases the volume level.	▢X F9 **:**	Turns on/off the backlight of the display.
⊠ F4 **:**	Closes the currently active window.	▯▤ F10 **:**	Projects to a connected display.
↺ F5 **:**	Refreshes the desktop or the currently active window.	☼– F11 **:**	Decreases display brightness.
▨ F6 **:**	Enables/disables the touchpad and the touchpad buttons.	☼+ F12 **:**	Increases display brightness.

Note: If you changed the **HotKey Mode** from **Enabled** to **Disabled** in the BIOS setup utility, you will need to press the Fn key in combination with the appropriate hotkey.

3

■■ **Left-side view** ————————————————————
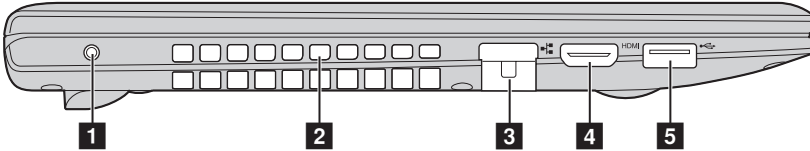
a **Novo button** When the computer is off, press this button to start the Lenovo OneKey Recovery system or the BIOS setup utility, or to enter the boot menu.

Note: For details, see "Chapter 3. Lenovo OneKey Recovery system" on page 18.

b **Ventilation slots** Dissipate internal heat.

⊙ **Attention:**
• Make sure that none of the ventilation slots are blocked or else overheating of the computer may occur.

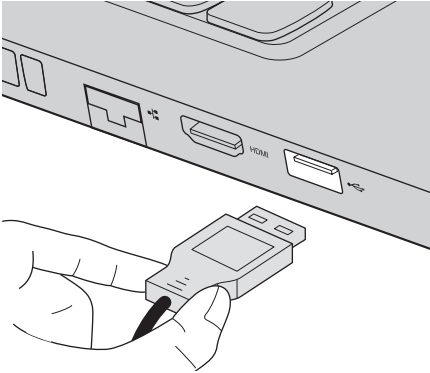c **RJ-45 port** Connects the computer to an Ethernet network.

d **HDMI port** Connects to devices with HDMI input such as a TV or a display.

e **USB 3.0 port** Connects to USB devices.

Note: For details, see "Connecting USB devices" on page 5.

■ **Connecting USB devices**

You can connect a USB device to your computer by inserting its USB plug (Type A) into the USB port on your computer.

The first time you plug a USB device into a particular USB port on your computer, Windows automatically installs a driver for that device. After the driver is installed, you can disconnect and reconnect the device without performing any additional steps.

Note: Typically, Windows detects a new device after connecting it, and then installs the driver automatically. However, some devices may require you to install the driver before connecting. Check the documentation provided by the device's manufacturer before connecting the device.

Before disconnecting a USB storage device, make sure your computer has finished transferring data by that device. Click the **Safely Remove Hardware and Eject Media** icon in the notification area of the Windows desktop screen to remove the device before disconnecting.
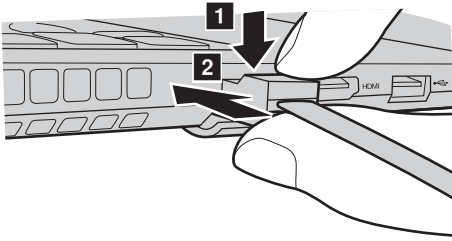
Notes:
• If your USB device uses a power cord, connect the device to a power source before connecting it. Otherwise, the device may not be recognized.
• When in sleep mode, you can only use keyboard instead of mouse to wake up the computer.

■ **Connecting network cables**
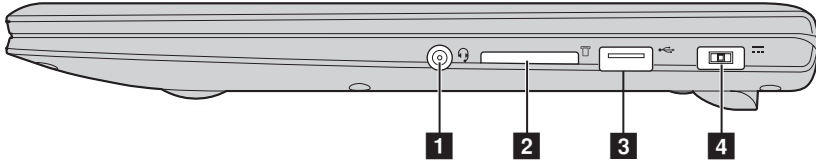
To insert a network cable, do the following:

❶ Hold one connector of the network cable to press the RJ-45 cover down gently **1** .

❷ Insert the connector into the RJ-45 port **2** .

■ **Software configuration**

Consult your Internet Service Provider (ISP) for details on how to configure your computer.

Right-side view

a **Combo audio jack**   Connects to headsets.

> **Notes:**
> • The combo audio jack does not support conventional microphones.
> • The recording function may not be supported if third-party headphones or headsets are connected, due to different industry standards.

b **Memory card slot**   Insert memory cards (not supplied) here. For details, see "Using memory cards (not supplied)" on page 8.

c **USB ports**   Connect to USB devices. For details, see "Connecting USB devices" on page 5.

d **Power**   Connect the AC power adapter here.

■ **Using memory cards (not supplied)**

Your computer supports the following types of memory card:
• Secure Digital (SD) card
• MultiMediaCard (MMC)

⊛ **Attention:**
- Insert *only* one card in the slot at a time.
- This card reader does not support SDIO devices (e.g., SDIO Bluetooth, etc.).

Inserting a memory card

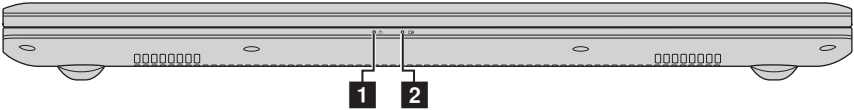Insert the memory card until it touches the bottom of the slot.

Removing a memory card

Gently pull the memory card out of the memory card slot.

⊛ **Attention:**
- Before removing a memory card, disable it through **Safely Remove Hardware and Eject Media** to avoid data corruption.

Front view ————————————————————

1 **Power indicator**

2 **Battery indicator**

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

◼◼ **Bottom view**
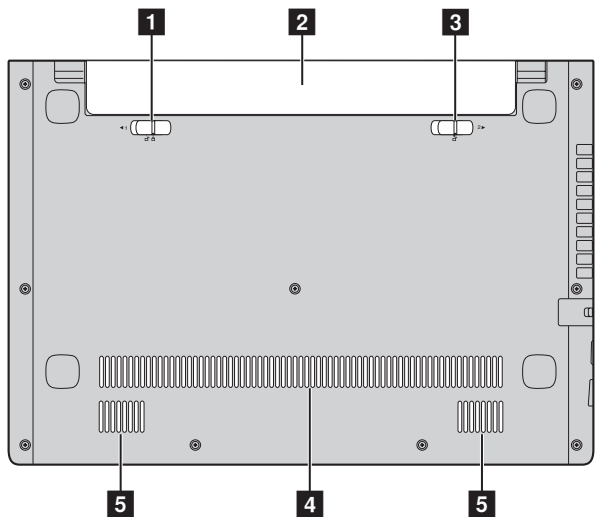
a **Battery latch - manual**   Keeps the battery pack secured in place.

b **Battery pack**

c **Battery latch - spring loaded**   Keeps the battery pack secured in place.

d **Ventilation slots**   Allow air to enter the computer for cooling.

e **Speakers**   Provide audio output.

Chapter 2. Starting to use Windows

■■ Configuring the operating system for the first time ——

You need to configure the operating system when it is first used. The configuration process may include the procedures below:
- Accepting the end user license agreement
- Configuring the Internet connection
- Registering the operating system
- Creating a user account

■■ Operating system interfaces ——————————

This guide only takes Windows 8.1 as an example for your reference.

■ Start screen and Desktop

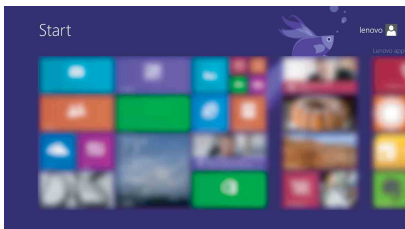Windows 8.1 comes with two main user interfaces: the Start screen and the Windows desktop.
To switch from the Start screen to the Windows desktop, do one of the following:
- Select the Desktop tile on the Start screen.
- Press the Windows key $\boxed{\text{■}}$ + D.

To switch from the desktop to the Start screen, do one of the following:
- Select **Start** $\boxed{\text{■}}$ from the charms bar.
- Press the Windows key $\boxed{\text{■}}$.
- Move the cursor to the lower-left corner, then select the Start screen button.

Start screen   **Desktop**

■   **Charms and the charms bar**

Charms are navigation buttons that let you access basic tasks quickly. Charms include: Search, Share, Start, Devices, and Settings. The **charms bar** is the menu that contains the charms. To display the charms bar, do one of the following:

• Move the cursor to the upper-right or lower-right corner until the charms bar is displayed.

• Press the Windows key ▨ + C.
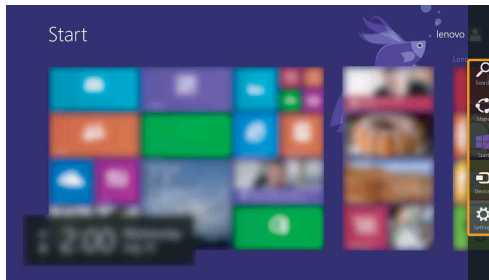
Search charm

The **Search** charm is a powerful new way to find what you are looking for, including settings, files, Web images, Web videos, etc.
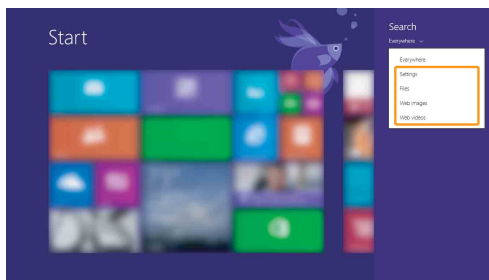
Share charm

The **Share** charm lets you send links, photos, and more to your friends and social networks without leaving the app you are in.

Start charm

The **Start** charm is a fast way to go to the Start screen.

Devices charm

The **Devices** charm allows you to connect or send files to connected external devices, including the devices to play, print, and project.

Settings charm

The **Settings** charm lets you perform basic tasks, such as setting the volume or shutting down the computer. Also, you can get to the Control Panel through the **Settings** charm when on the Desktop screen.

13
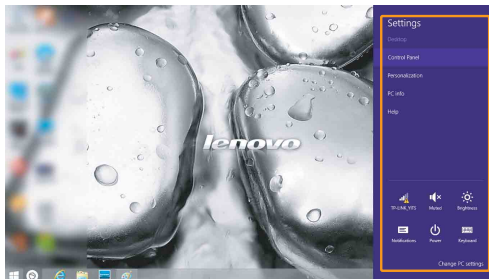
Putting the computer to sleep or shutting it down

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

■ Putting your computer to sleep

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

• Close the display panel.

• Press the power button.

• Open the charms bar, then select **Settings** ⚙ → **Power** ⏻ → **Sleep**.

◉ **Attention:**

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

To wake the computer, do one of the following:

• Press any key on the keyboard.

• Press the power button.

■ **Shutting down the computer**

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

❶ Open the charms bar, then select **Settings** ⚙ .

❷ Select **Power** ⏻ → **Shut down**.

15
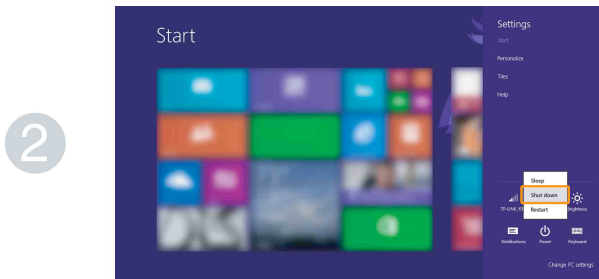
■■ Connecting to a wireless network ————————

To connect to a wireless network, do the following:

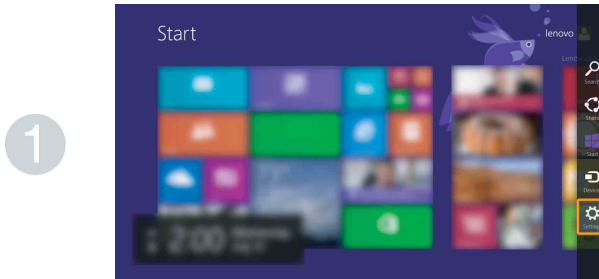❶ Ensure the airplane mode is turned off. If the airplane mode is turned on, press the hotkey ($\boxed{\ast_{F7}}$) to turn it off.

❷ Open the charms bar and select **Settings** ⚙ → ▮▮▮ . A list of available wireless networks will be displayed.

❸ Click a network name in the list, and then click **Connect**.

> **Note:** Some networks require a network security key or passphrase for connection. To connect to one of those networks, ask the network administrator or the Internet service provider (ISP) for the security key or passphrase.

■■ Help and support

If you have questions about using the Windows operating system, refer to Windows Help and Support. To access Windows Help and Support, do one of the following:

• Open the charms bar and select **Settings**; select **Help** on the Settings menu.

• Press **Windows key** ⊞ **+ Fn + F1**.

You can read the Windows Help and Support file on your computer. You can also get online help and support by clicking on one of the two links listed under **More to explore**.

> **Note:** Windows 8.1 also provides an app, **Help+Tips**. You can find it on the Start screen, to learn more information on new features of Windows 8.1.

Chapter 3. Lenovo OneKey Recovery system

The Lenovo OneKey Recovery system is software designed to back up and restore your computer. You can use it to restore the system partition to its original status in case of a system failure. You can also create user backups for easy restoration as required.

Notes:
- The OneKey Recovery system is not installed on some models. Please refer to the actual product.
- If your computer is preinstalled with a GNU/Linux operating system, Onekey Recovery system is not available.
- To utilize the features of the OneKey Recovery system, your hard disk already includes a hidden partition by default to store the system image file and the OneKey Recovery system program files. This default partition is hidden for security reasons, which explains why the available disk space is less than the stated capacity.

■ Backing up the system partition

You can back up the system partition to an image file. To back up the system partition:

❶ Press the Novo button to start the Lenovo OneKey Recovery system.

❷ Click **System Backup**.

❸ Select a back-up location and click **Next** to start the backup.

Notes:
- You can choose a back-up location on the local hard disk drive or an external storage device.
- The back-up process may take a while.
- The back-up process is only available when Windows can be started normally.

■ Restoring

You can choose to restore the system partition to its original status or to a previously created back-up point. To restore the system partition:

❶ Press the Novo button to start the Lenovo OneKey Recovery system.

❷ Click **System Recovery**. The computer will restart to the recovery environment.

❸ Follow the on-screen instructions to restore the system partition to its original status or to a previously created back-up point.

Notes:
- The recovery process is irreversible. Make sure to back up any data you wish to save on the system partition before starting the recovery process.
- The recovery process may take a while. So be sure to connect the AC power adapter to your computer during the recovery process.
- The above instructions should be followed when Windows can be started normally.

If Windows cannot be started, follow the steps below to start the Lenovo OneKey Recovery system:

❶ Shut down the computer.

❷ Press the Novo button. From the **Novo button menu**, select **System recovery** and press Enter.

Chapter 4. Troubleshooting

■■ Frequently asked questions ────────────

This section lists frequently asked questions by category.

■ Finding information

What safety precautions should I follow when using my computer?

The *Lenovo Safety and General Information Guide* which came with your computer contains safety precautions for using your computer. Read and follow all the precautions when using your computer.

Where can I find the hardware specifications for my computer?

You can find hardware specification for your computer from the printed flyers which came with your computer.

Where can I find warranty information?

For the warranty applicable to your computer, including the warranty period and type of warranty service, see the Lenovo limited warranty flyer that came with your computer.

■ Drivers and preinstalled software

Where are the installation discs for Lenovo preinstalled software (desktop software)?

Your computer did not come with installation discs for Lenovo preinstalled software. If you need to reinstall preinstalled software, you can find the installation program on the D partition of your hard disk. If you cannot find the installation program there, download it from the Lenovo consumer support Web site.

Where can I find drivers for the various hardware devices of my computer?

If your computer is preinstalled with a Windows operating system, Lenovo provides drivers for the hardware devices that you need on the D partition of your hard disk. You can also download the latest device drivers from the Lenovo consumer support Web site.

■ **Lenovo OneKey Recovery system**

Where are the recovery discs?

Your computer did not come with recovery discs. Use the Lenovo OneKey Recovery system if you need to restore the system to its factory status.

What can I do if the back-up process fails?

If you can start the backup but it fails during the back-up process, try the following steps:

❶ Close all open programs, and then restart the back-up process.

❷ Check to see if the destination media is damaged. Select another path and then try again.

When do I need to restore the system to its factory status?

Use this feature when the operating system fails to start up. If there is critical data on the system partition, back it up before starting recovery.

■ **BIOS setup utility**

What is the BIOS setup utility?

The BIOS setup utility is ROM-based software. It communicates basic computer information and provides options for setting boot devices, security, hardware mode, and other preferences.

How can I start the BIOS setup utility?

To start the BIOS setup utility:

❶ Shut down the computer.

❷ Press the Novo button and then select **BIOS Setup**.

How can I change the boot mode?

There are two boot modes: **UEFI** and **Legacy Support**. To change the boot mode, start the BIOS setup utility and set boot mode to **UEFI** or **Legacy Support** on the boot menu.

When do I need to change the boot mode?

The default boot mode for your computer is **UEFI** mode. If you need to install a legacy Windows operating system (that is, any operating system before Windows 8) on your computer, you must change the boot mode to **Legacy Support**. The legacy Windows operating system cannot be installed if you don't change the boot mode.

■ **Getting help**

How can I contact the customer support center?

See "Chapter 3. Getting help and service" of *Lenovo Safety and General Information Guide*.

■■ Troubleshooting ───────────────────────

Display problems

When I turn on the computer, nothing appears on the screen.	• If the screen is blank, make sure that: - The AC power adapter is connected to the computer, and the power cord is plugged into a working electrical outlet. - The computer power is on. (Press the power button again for confirmation.) - If you are using the AC power adapter or the battery, and the battery status indicator is on, press **F12** (⌨) to make the screen brighter. • If these items are properly set, and the screen remains blank, have the computer serviced.
When I turn on the computer, only a white cursor appears on a blank screen.	• Restore backed-up files to your Windows environment or the entire contents of your hard disk to its original factory contents using the Lenovo OneKey Recovery system. If you still see only the cursor on the screen, have the computer serviced.
My screen goes blank while the computer is on.	• Your screen saver or power management may be enabled. Do one of the following to exit from the screen saver or to resume from sleep mode: - Touch the touchpad. - Press any key on the keyboard. - Press the power button. - Press **F9** (⌨) to confirm whether the backlight for the LCD screen has been turned off. - If the problem persists, follow the solution in the next problem "The screen is unreadable or distorted."
The screen is unreadable or distorted.	• Make sure that: - The display device driver is installed correctly. - The screen resolution and color quality are correctly set. - The monitor type is correct.

Incorrect characters appear on the screen.	• Are the operating system or programs installed correctly? If they are installed and configured correctly, have the computer serviced.

BIOS password problems

I forgot my password.	• If you forget your user password, you must ask the system administrator to reset your user password.
	• If you forget your HDD password, a Lenovo authorized servicer cannot reset your password or recover data from the hard disk. You must take your computer to a Lenovo authorized servicer or a marketing representative to have the hard disk drive replaced. Proof of purchase is required, and a fee will be charged for parts and service.
	• If you forget your administrator password, a Lenovo authorized servicer cannot reset your password. You must take your computer to a Lenovo authorized servicer or a marketing representative to have the system board replaced. Proof of purchase is required, and a fee will be charged for parts and service.

Sleep problems

The critical low-battery error message appears, and the computer immediately turns off.	• The battery power is getting low. Connect the AC power adapter to the computer, or replace the battery with a fully charged one.
The computer enters sleep mode immediately after Power-on self-test (POST).	• Make sure that: - The battery is charged. - The operating temperature is within the acceptable range. See "Chapter 2. Use and care Information" of *Lenovo Safety and General Information Guide*.

Note: If the battery is charged and the temperature is within range, have the computer serviced.

The computer does not return from sleep mode, and the computer does not work.	• If your computer is in sleep mode, connect the AC power adapter to the computer and then press any key or the power button.
	• If the system still does not return from sleep mode, stops responding, or cannot be turned off, reset the computer. Unsaved data may be lost. To reset the computer, press and hold the power button for 4 seconds or more.

Sound problems

| No sound can be heard from the speaker even when the volume is turned up. | • Make sure that:
- The mute function is off.
- The combo audio jack is not used.
- The speaker is selected as the playback device. |

Battery problems

| Your computer shuts down before the battery status indicator shows empty.
-or-
Your computer operates after the battery status indicator shows empty. | • Reset the battery gauge using Lenovo Energy Management. If the problem persists, replace with a new battery pack. |
| The computer does not operate with a fully charged battery. | • The surge protector in the battery might be active. Turn off the computer for one minute to reset the protector; then turn on the computer again. |

A hard disk drive problem

| The hard disk drive does not work. | • In the **Boot** menu in the BIOS setup utility, make sure that the hard disk drive is included in the **EFI** list. |

Other problems

Your computer does not respond.	• To turn off your computer, press and hold the power button for 4 seconds or more. If the computer still does not respond, remove the battery pack and the AC power adapter. • Your computer might lock when it enters sleep mode during a communication operation. Disable the sleep timer when you are working on the network.
I need to start the computer from a connected device, but the device does not appear on the boot device list.	• Check the boot mode setting in the BIOS setup utility. If **Boot Mode** is set to **UEFI**, make sure that the device or the medium in the device supports UEFI boot. If the device or the medium in the device does not support UEFI boot, set **Boot Mode** to **Legacy Support**. If the device still does not appear in the boot device list, replace with a new device or medium.
The connected external device does not work.	• Do not connect or disconnect any external device cables other than USB while the computer power is on; otherwise, you might damage your computer. • When using a high power consumption external device such as an external USB optical disk drive, use an external device power adapter. Otherwise, the device may not be recognized, or system shut down may result.

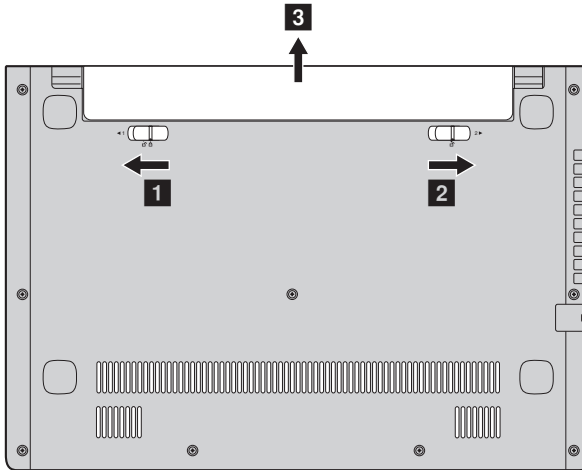# Appendix. CRU (Customer Replaceable Units) instructions

Note: Make sure the battery has been removed before replacing any devices.

■ ■ Replacing the battery ──────────────────────────────

Note: Use only the battery provided by Lenovo. Any other battery could ignite or explode.

To replace the battery, do the following:

❶ Turn off the computer. Disconnect the AC power adapter and all cables from the computer.

❷ Close the computer display, and turn the computer over.

❸ Unlock the manual battery latch **1** . Hold the spring-loaded battery latch in the unlocked position **2** , remove the battery pack in the direction shown by the arrow **3** .

❹ Install a fully charged battery.

❺ Slide the manual battery latch to the locked position.

❻ Turn the computer over again.

❼ Connect the AC power adapter and the cables to the computer.

Appendix. CRU (Customer Replaceable Units) instructions

The following table provides a list of CRUs (Customer Replaceable Units) for your computer, and informs you of where to find replacement instructions.

	Setup Poster	User Guide
AC power adapter	O	
Power cord for AC power adapter	O	
Battery pack		O

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