

# **Introduction to the Use and Care of the IBM ThinkPad R31**



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# IBM ThinkPad R31

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## Physical Specifications of IBM ThinkPad R31

Height:	36 mm/1.42 in
Width:	313 mm/12.3 in
Depth:	254 mm/10 in
Weight:	5.4 lbs with Optical drive 6.1
Battery life:	2.9 hrs
Battery type:	Lithium-Ion
Charge time - on/off:	2-3 hrs/1.5-2.5 hrs

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## Cleaning Instructions

Before you clean your computer turn it off, unplug it from the power source, and remove the battery.

Use a soft cloth moistened with a nonalkaline detergent to wipe the exterior of the computer. Gently wipe the LCD with a dry, soft cloth. Do not use alcohol or detergent to clean the LCD. Do not spray cleaner directly on the display or keyboard.

## Handling Instructions

Laptops are extremely delicate and should be handled with care. Dropping or damaging them, such as allowing them to get wet, can easily result in them ceasing to function properly. If this happens refer to Chapter 2 of the User's Reference. If the problem persists after referring to Chapter 2, call (304) 293-3631 for assistance.

When traveling do not check the computer as baggage. You can put your computer through an X-ray machine but never allow it to be put through a metal detector. If the computer is checked by hand make sure that you have a charged battery available to insure that you can turn it on for security personnel.

Protect your computer, battery, hard-disk drive, CD-RW / DVD drive and diskette drive from environmental hazards such as dirt, dust, food, liquids, temperature extremes, and overexposure to sunlight.

When you move your computer between environments with very different temperatures and/or humidity ranges, condensation may form on or within the computer. To avoid damaging the computer, allow sufficient time for the moisture to evaporate before using the computer.

When taking the computer from low-temperature conditions into a warmer environment or from a high-temperature condition into a cooler environment, allow the computer to acclimate to room temperature before turning on power.

## ThinkPad Don'ts:

- Do not subject your computer to physical punishment, such as dropping or bumping.
- Do not place heavy objects on your computer.

- Do not pour liquid onto your computer.
- Do not use your computer in or near water (to avoid the danger of electrical shock).
- Do not pack your computer in a tightly packed suitcase or bag. Your LCD might be damaged.
- Remove any media from the CD-RW / DVD drive or diskette drive before moving your computer.
- Keep the computer at least 13 cm (5 in.) away from any electrical appliance that generates a strong magnetic field such as a motor, magnet, TV, refrigerator, or large audio speaker.
- Use your computer when temperatures are between 5°C to 35°C (41°F to 95°F), between 1°C to 35°C (50°F to 95°F) when operating with diskettes.
- Do not disassemble the computer.
- Do not place any objects between the display and the keyboard or under the keyboard.
- Do not pick up or hold your computer by the display. When picking up your open computer, hold it by the bottom (keyboard) half.
- Do not scratch, twist, hit, or push the surface of the LCD (Liquid Crystal Display).
- Do not modify or tape the latches to keep the display open or closed.
- Do not turn your computer over while the ac adapter is plugged in. This could break the adapter plug.
- Do not put an operating cellular phone on the computer. The phone might cause a computer system to malfunction.
- Do not hard-mount your computer in a vehicle or anywhere that is subject to strong vibration.
- Do not crush, drop, or physically punish the external or removable hard disk, diskette, or CD-RW / DVD drive when it is outside your computer.
- Do not press on the middle part of the diskette drive or the CD-RW / DVD drive.
- Do not touch the lens on the CD-RW / DVD tray.
- Do not close the CD-RW / DVD tray until you hear the CD-RW / DVD click into the center pivot of the CD-RW / DVD drive.
- Do not write to a CD-RW / DVD if the computer is vibrating. Vibration may result in errors or damaged CD's.
- Do not touch the surface of a compact disc (CD-R, CD-RW); handle the disc only by its edges.
- Remove the battery pack and keep it in a cool place if you will not be using the computer for a long period of time.
- Insert a diskette straight into the diskette drive. Inserting it at an angle can damage the front of the diskette drive.

- Do not place more than one diskette label on a diskette. Two or more labels can cause a label to tear apart inside the drive and damage the diskette drive.
- Do not connect the modem to a PBX (private branch exchange) or other digital telephone extension line. **Your computer can use only a public-switched telephone network (PSTN).** Use of a phone line other than PSTN can damage your modem. If you are not sure which kind of phone line you are using, contact your telephone company. Many hotels or office buildings use digital telephone extension lines, so check before connecting the telephone cables in such places.
- Do not leave the base of your computer in contact with your lap or any part of your body for an extended period when the computer is functioning or the battery is charging. The heat generated by the normal functioning of the computer can cause discomfort or, eventually, skin burn.
- Do not open the display beyond 180 degrees, as this might damage the computer hinge.

**NOTE:** Most of the text contained in the “Handling Instructions ” section was taken from the ThinkPad R31 Service and Troubleshooting Guide, pages 7-9.

## Turning on and shutting down the machine

Using the display latches on the corners of the display, open the laptop. Press the power button on the upper portion of the keyboard. This will turn the computer on and start Windows XP.

To shut down the computer, move the mouse pointer to the Start button in the lower left hand corner of the display. Click the left touch pad button and choose Shut Down. From the choices listed in the “Shut Down Windows” dialog box choose “Shut Down ” and click “OK”. The Windows XP operating system installed on the ThinkPad R31 is pre-set to automatically turn off the power to the computer when you go through the shut down procedure.

In the event that there is a fatal error and the laptop freezes completely you will need to manually reset the computer. In order to do this you must press the power button and hold it down until the computer shuts down. When you restart the machine you will receive an error that reads “Windows was not properly shutdown. One or more of your disk drives may have errors on it, and the ScanDisk program will automatically run on these drives....” Once the ScanDisk is complete, Windows XP will start normally.

## Notes on the CD-RW / DVD Drive

The CD-RW / DVD Drive for the ThinkPad R31 has a slightly different drive configuration than those found on desktop PCs. When using a desktop CD-RW / DVD drive the device will eject a platter that allows you to simply place a disk into the drive and then close it. However, laptops are slightly different. With a laptop CD-RW / DVD drive the disk rotor head is exposed at the bottom of the platen. When inserting a CD-RW / DVD it is necessary to firmly press the disk down on top of the rotor head until the three spring loaded disk stabilizers have been compressed and the CD-RW / DVD clicks into position.

CD-RW is a type of CD disk that enables users to write onto it in multiple sessions, whereas with CD-R disks they can only be written to once. With CD-RW drives and disks, they can be treated like a floppy

or hard disk, writing data onto it multiple times. In other words, CD-RW's can have their data erased and overwritten by new data.

## Using the Track Point

IBM ThinkPads have what they refer to as a TrackPoint instead of a touch pad, trackball or external mouse as the pointing device. You use a TrackPoint by placing your finger on the red toggle located between the letters “G”, “H” and “B” on the keyboard and moving your finger in the direction you wish the mouse pointer to go. The buttons below the spacebar correspond with the left and right mouse button found on a two-button mouse. The third button (blue), located in between the TrackPoint click buttons, is the scroll bar. It is used to scroll Web pages and documents in any direction without using the graphic scroll bars on the side of the window. Many people find the TrackPoint difficult to use and it does require some practice before you are accustomed to it. A USB mouse may be attached to the laptop and used as an alternative to the TrackPoint.

## Battery Care, Charging and Removal

ThinkPads like all laptops are battery powered and issues such as battery life and charging can make a huge difference in how useful your computer will be for you. Here are some tips to help you to monitor and conserve your battery's charge and preserve it for the long term.

IBM provides a program called the “Battery MaxMiser Gauge” which allows you to monitor how much of your battery's charge remains. This program displays a battery icon in the system tray, in the lower right corner of the screen. It displays the percentage of charge left in the battery.

### Battery and standby status

The computer has status indicators that show the mode the computer is in--standby, hibernation, or normal--and the status of the battery. The following shows the location and the meaning of the indicators:

#### 1. Battery status

- Green: The battery is fully charged.
- Blinking green: The battery is being charged though it still has enough power to operate. (At regular intervals, the indicator light turns off briefly.)
- Orange: The battery is being charged, but the battery power is still low.
- Blinking orange: The battery pack needs to be charged. When the indicator starts blinking orange, the computer beeps three times.



#### 2. Standby status

- Green: The computer is in standby mode.
- Blinking green: The computer is entering standby or hibernation mode, or is resuming normal operation.

**In order to maximize battery life you must follow the following three guidelines:**

1. **Do not charge the battery pack until all of its power is used.**
2. **Once you have started charging the battery pack, do not use it until it is fully charged.**
3. **Turn off the computer whenever it is not in use.**

## To Charge a Battery

1. If the computer is not Shut Down, do so, and if necessary (as outlined in the “Turning on and shutting down the machine” of this handout.) turn off the computer and close the monitor. To double-check whether the power is off look to see if the power indicator is dark.
2. Make sure that the battery is installed in the computer.
3. Connect the AC adapter to the computer.
4. Plug the AC adapter into the wall.

## To Remove a Battery

1. If the computer is not Shut Down, do so, and if necessary (as outlined in the “Turning on and shutting down the machine” section of this handout) turn off the computer and close the monitor. When removing the battery be sure that the power is off on the laptop, it could damage the machine if there is still current flowing when the device is removed. To double-check whether the power is off look to see if the power indicator is dark.
2. Turn the computer over so that you are looking at the bottom of the machine.
3. Locate the **battery lock switch**, slide and hold the switch to the unlock position.
4. Place your fingers in the notch located at the top of the battery and your thumb at the bottom of the battery.
5. Lift the battery out of the computer.

## Parts of a ThinkPad R31

### Front View

1. **Computer Display** - The **color LCD screen** displays computer output.
2. **Status Indicators** - The **battery and standby status indicators** display the status of the battery and the mode the computer is in—standby, hibernation, or normal.  
The **system status indicators** shows the current status of the computer such as data being read from one of the drives, numeric lock, caps lock, scroll lock, and power on.
3. **Power button** - The **Power switch** turns the computer on and off.
4. **Ultrabay (TM) Plus** – the Drive that comes with the computer, a CD-RW / DVD drive.



5. **Keyboard** – the computer offers special keys on the keyboard such as function keys and numeric keypad.
6. **TrackPoint (R)** - The **TrackPoint pointing stick** is a unique cursor-pointing device that provides a function similar to that of a mouse.
7. The **TrackPoint buttons** provide a function similar to that of the buttons on a mouse. The **scroll bar**, the blue button directly between the click buttons, allows the user to scroll Web pages or documents in any direction with no need to use the graphic scroll bars on the side of the window.
8. **Fn key** - The **Fn Key** is used with the function keys to activate the FN key functions. It enables you to change operational features instantly.
9. **ThinkPad (R) button** - The **ThinkPad button** opens the online help and information center, Access ThinkPad. It contains user information and documentation.
10. **Volume buttons** - The **Volume control buttons** are built into the computer keyboard. They allow for an increase, decrease, or muting of the sound.
11. **Wireless LAN antennas** –Some ThinkPad(R) models support the wireless LAN feature, which lets you connect to the network without wires or cables. Your ThinkPad has been configured with an 802.11b wireless PC card from Cisco Systems.
12. **ThinkLight (TM)** –the **ThinkLight** illuminates the keyboard so it can be used in low-level light conditions.

## Rear View

1. **Video connector** – An S-Video connector is used to attach the computer to a television.
2. **USB connector (rear)** The **universal serial bus (USB)** allows you to connect any device that conforms to the USB standard.
3. **Ethernet connector** - The **Ethernet connector** is used for connecting your computer to a LAN.
4. **Modem connector** - The **modem connector** is used for connecting your computer to a telephone line.
5. **Monitor connector (blue)** - The **external monitor connector** is used for attaching an external monitor.
6. **Parallel connector (burgundy)** - The **parallel connector** is where you connect a Centronics interface printer, or some other parallel device, and to transfer data between devices.
7. **AC power connector (yellow)** The **power jack** is where the AC Adapter cable is connected.
8. **Security keyhole** - The **security keyhole** is used with a mechanical lock.



## Bottom View

1. **Labels for identification** – the serial number label identifies your computer.
2. **Docking connector** - The **docking connector** allows you to dock your



computer to a ThinkPad Dock or a ThinkPad Port Replicator.

3. **Memory-upgrade slot** –you can increase the amount of memory in your computer by installing a dual inline memory module (DIMM).
4. **Fan louvers** –enable air to circulate in the computer and cool the central processor.
5. **PC Card slot** –support the following cards: **Physical characteristics:** PC Card Type I, II, or III. **Electrical characteristics:** 16-bit PC Card, CardBus Card.
6. **IEEE 1394 connector** –used for connecting any device that is compatible with the IEEE 1394 interface, such as digital video cameras, external Hard-disk drives, video conferencing cameras, Jaz and Zip drives and scanners.
7. **USB connector (left)** –used for connecting any devices that are USB compatible.
8. **Stereo headphone Jack (lime)** - The **stereo headphone jack** is used to connect stereo headphones or external speakers.
9. **Microphone jack (pink)** - The **built-in microphone** captures sound and voice when it is used with an application program capable of handling audio. The **microphone jack** is used to connect stereo microphones or an external audio device.
10. **Hard disk drive** - The **hard disk drive** has 20-gigabyte hard drive.
11. **Infrared port** - The **infrared port** enables the computer to communicate with other devices that have infrared data-transfer capability.
12. **Built-in speakers** - The **built-in stereo speakers** allow you to have sound capability.
13. **Battery** - The **battery pack** allows the user to operate the computer without an ac adapter.