

studio_{xps}[™]

SETUP GUIDE






YOURS IS HERE

studio_{XPS}[™]

SETUP GUIDE

Model PP35L

Notes, Notices, and Cautions

-  **NOTE:** A NOTE indicates important information that helps you make better use of your computer.
-  **NOTICE:** A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.
-  **CAUTION:** A CAUTION indicates a potential for property damage, personal injury, or death.

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Setting Up Your Studio XPS Laptop

This section provides information about setting up your Studio XPS 1640 and connecting peripherals.

Before Setting Up Your Computer

When positioning your computer, ensure that you allow easy access to a power source, adequate ventilation, and a level surface to place your computer.

Restricting airflow around your Studio XPS computer may cause it to overheat. To prevent overheating ensure that you leave at least 10.2 cm (4 in) at the back of the computer and a minimum of 5.1 cm (2 in) on all other sides. You should never put your computer in an enclosed space, such as a cabinet or drawer when it is powered on.

NOTICE: Placing or stacking heavy or sharp objects on the computer may result in permanent damage to the computer.

Connect the AC Adapter

Connect the AC adapter to the computer and then plug it into a wall outlet or surge protector.




CAUTION: The AC adapter works with electrical outlets worldwide. However, power connectors and power strips vary among countries. Using an incompatible cable or improperly connecting the cable to a power strip or electrical outlet may cause fire or equipment damage.

Check the Wireless Button

If you plan to use wireless connections, make sure the wireless button is turned on.

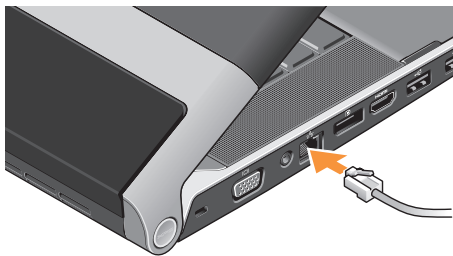


Using The Wireless Button

To turn on wireless, with the system turned on, lightly touch the wireless symbol  on the center control cover and then release.

Connect the Network Cable (optional)

If you plan to use a wired network connection, plug in the network cable.




Press the Power Button




Windows Vista® Setup

Your Dell computer is preconfigured with Windows Vista. To set up Windows Vista for the first time, follow the instructions on the screen. These steps are mandatory and may take up to 15 minutes to complete. The screens will take you through several procedures including accepting license agreements, setting preferences and setting up an Internet connection.

 **NOTICE:** Do not interrupt the operating system's setup process. Doing so may render your computer unusable.

Connect to the Internet (Optional)

 **NOTE:** ISPs and ISP offerings vary by country.

To connect to the Internet, you need an external modem or network connection and an Internet service provider (ISP).

 **NOTE:** If an external USB modem or WLAN adapter is not part of your original order you can purchase one from the Dell website at dell.com.


Setting Up a Wired Internet Connection

If you are using a dial-up connection, connect the telephone line to the external USB modem (optional) and to the telephone wall jack before you set up your Internet connection. If you are using a DSL or cable/satellite modem connection, contact your ISP or cellular telephone service for setup instructions.

Setting Up a Wireless Connection

Before you can use your wireless Internet connection, you need to connect to your wireless router.

To set up your connection to a wireless router:


1. Save and close any open files, and exit any open programs.
2. Click **Start**  → **Connect To**.
3. Follow the instructions on the screen to complete the setup.

Setting Up Your Internet Connection


To set up an Internet connection with a provided ISP desktop shortcut:


1. Save and close any open files, and exit any open programs.
2. Double-click the ISP icon on the Microsoft® Windows® desktop.
3. Follow the instructions on the screen to complete the setup.

If you do not have an ISP icon on your desktop or if you want to set up an Internet connection with a different ISP, perform the steps in the following section.


 **NOTE:** If you cannot connect to the Internet

but have successfully connected in the past, the ISP might have a service outage. Contact your ISP to check the service status, or try connecting again later.

 **NOTE:** Have your ISP information ready. If you do not have an ISP, the Connect to the Internet wizard can help you get one.

1. Save and close any open files, and exit any open programs.
2. Click **Start**  → **Control Panel**.
3. Under **Network and Sharing Center**, click **Connect to a Network**.
The **Connect to a Network** window appears.
4. Click either **Connect to the Internet** to connect to the network using a wireless or Broadband (PPPoE) or click **Set up a dial-up connection**, depending on how you want to connect:
 - a. Choose **Broadband** if you will use a DSL, satellite modem, cable TV modem, or wireless technology connection.

- b. Choose **Dial-up** if you will use an optional USB dial-up modem or ISDN.

 **NOTE:** If you do not know which type of connection to select, contact your ISP.

5. Follow the instructions on the screen and use the setup information provided by your ISP to complete the setup.

Set up the TV Tuner (Optional) (availability varies by regions)

You can set up the TV Tuner through the Media Center.

To set up the TV Tuner for the first time:

Follow this procedure if you are launching the Media Center for the first time.

Double-click on the Media Center icon on the desktop.

- Select **Express setup**,
 - Go to **Main Menu** → **Tasks** → **Settings** → **TV** → **Set up TV Signal** → **Confirm Your Region** and follow the instructions given.

– Go to **Main Menu** → **TV + Movies** → **Set up TV** → **Confirm Your Region** and follow the instructions given

- Select **Custom setup**,
 - Follow the instructions given.
 - In the **Optional Setup** screen, choose **Configure tuners, TV signal, and Guide**.
 - Click **Next** and confirm your region.

To re-setup the TV Tuner, if required:

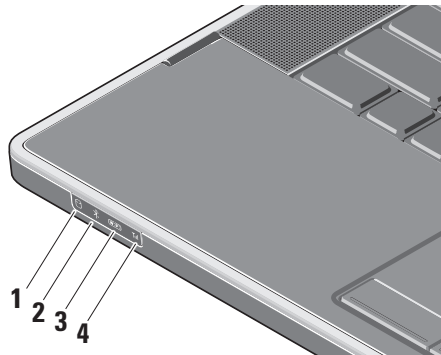
Follow this procedure if you have already launched Media Center once before.


1. Double-click on the Media Center icon on the desktop.
2. Go to **Main Menu** → **Tasks** → **Settings** → **TV** → **Set up TV Signal** → **Confirm Your Region**.


Using Your Dell™ Laptop


Your computer has several indicators, buttons, and features that provide information at-a-glance and time-saving shortcuts for common tasks.


Device Status Lights




- 1  **Hard drive activity light** – Turns on when the computer reads or writes data. A flashing light indicates hard drive activity.

 **NOTE:** To avoid loss of data, never turn off the computer while the hard drive activity light is flashing.

- 2  **Bluetooth® status light (optional)** – Turns on when a card with Bluetooth wireless technology is enabled.


 **NOTE:** The card with Bluetooth wireless technology is an optional feature.


To turn off Bluetooth wireless, right-click the bluetooth icon in the notification area of your desktop, and click **Disable Bluetooth Radio** or use the wireless switch.


- 3  **WiFi status light** – Turns on when wireless networking is enabled.

Use the wireless button to quickly turn all wireless communication On and Off:

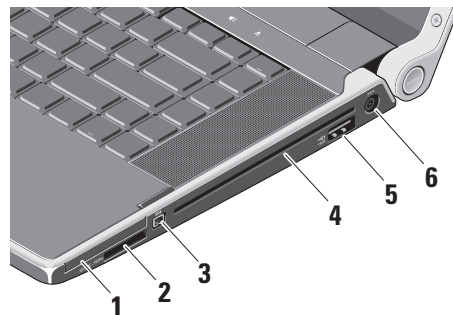
Using The Wireless Button


To turn on wireless, with the system turned on, lightly touch the wireless symbol  on the center control cover and then release.

- 4  **WWAN status light** - Turns on when WWAN is enabled.

To turn on wireless, with the system turned on, lightly touch the wireless symbol  on the center control cover and then release.

Right Side Features




- 1  **ExpressCard slot** – Supports one ExpressCard. The computer ships with a plastic *blank* installed in the slot.


2  SD/MMC - MS/Pro - xD

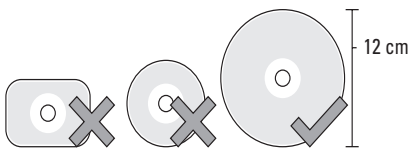
8-in-1 Media card reader – Provides a fast and convenient way to view and share digital photos, music, videos, and documents stored on the following digital memory cards:

- Secure digital (SD) memory card
- SDHC (Secure Digital High Capacity) card
- Multi Media Card (MMC)
- Memory Stick
- Memory Stick PRO
- xD-Picture Card (type - M and type - H)

3  **IEEE 1394 connector** – Connects to high-speed serial multimedia devices, such as digital video cameras

4 **Optical Drive** – Plays or burns only standard-size and shape (12 cm) CDs, and DVDs. Ensure that the side with print or writing is facing upward when inserting discs


 **NOTE:** Do not use non-standard-size or shape discs (including mini-CDs and mini-DVDs) or you will damage the drive.





5  **eSATA/USB combo connector with USB PowerShare** –

Connects to eSATA compatible storage devices, such as external hard disk drives or optical drives. Also, supports USB devices, such as a mouse, keyboard, printer, external drive, or MP3 player

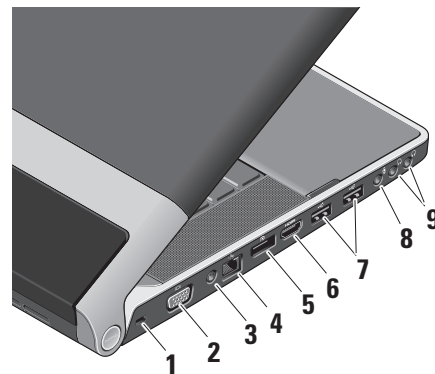
This connector can also be used for charging USB devices.

 **NOTE:** If the computer is turned off while the USB device is charging, unplug the device and plug it in again to continue charging.


 **NOTE:** The USB PowerShare will be automatically shut off when only 10% of total battery life remains.






6  **AC adapter connector** – Connects to the AC adapter to power the computer and charge the battery when the computer is not in use.




Left Side Features



1 **Security cable slot** – Used to attach a commercially available antitheft device to the computer.

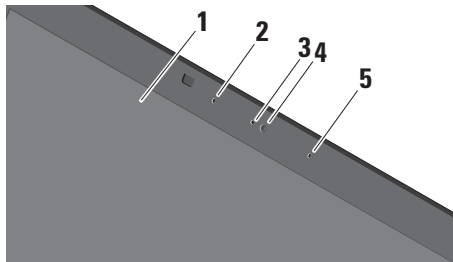
 **NOTE:** Before you buy an antitheft device, ensure that it works with the security cable slot on your computer.

- 2  **VGA connector** – Connects to a monitor or projector.
- 3 **TV In connector** – Connects to a TV to view programs using the TV Tuner card (optional, availability varies according to regions).
- 4  **Network connector** – If you are using a cabled network signal, this connects your computer to a network or broadband device.
- 5  **DisplayPort connector** – Digital interface standard connector that supports external DisplayPort monitors and projectors.
- 6  **HDMI connector** – Connects to a TV for both audio and video signals.
 **NOTE:** For a monitor, only the video signal will be read.


- 7  **USB connectors (2)** – Connect USB devices, such as a mouse, keyboard, printer, external drive, or MP3 player.
- 8  **Audio In/ Microphone connector** – Connect to a microphone or input signal for use with audio programs.
- 9  **Audio Out/ Headphone connectors (2)** – Connect one or two pairs of headphones, or send audio to a powered speaker or sound system. The audio signal is the same for both connectors.

Display Features

The display panel holds a camera and accompanying dual microphones.

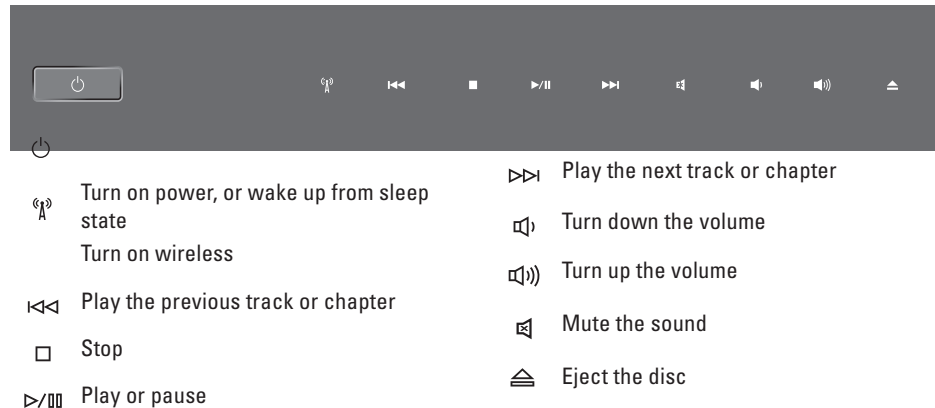


- 1 **Display** – Your display can vary based on selections you made when purchasing your computer. For more information about displays, see the *Dell Technology Guide*.
- 2 **Left digital array microphone** – Combines with the right digital array microphone to provide high quality sound for video chatting and voice recording.

- 3 **Camera activity light** – Turns on when the camera is on.
- 4 **Camera** – Built-in camera for video capture, conferencing, and chat.
FastAccess Facial Recognition – Helps to keep your Dell™ computer secure. This facial recognition software learns and recognizes your face each time you login to your computer and minimizes the need to manually login using passwords. For more information, click **Start**  → **Programs** → **FastAccess**.
- 5 **Right digital array microphone** – Combines with the left digital array microphone to provide high quality sound for video chatting and voice recording.

Media, Wireless, and Power Controls

To use the media, wireless, and power controls, lightly touch the symbol and then release. The control's symbol will shine for 2 seconds to confirm your selection then fade away.



Computer Base and Keyboard Features

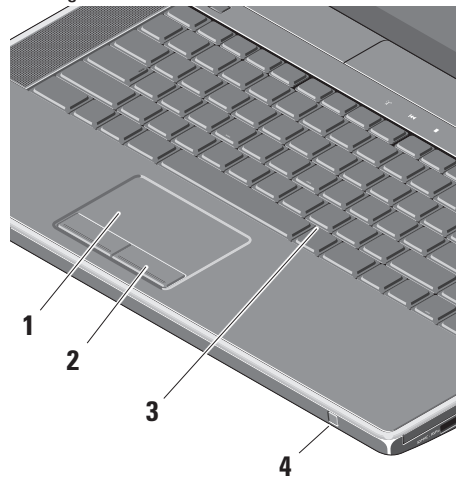
1 Touch pad – Provides the functionality of a mouse to move the cursor, drag or move selected items, and left-click by tapping the surface.

It supports circular scrolling and zoom. To change the circular scrolling and zoom settings, double-click the **Dell Touch pad** icon in the notification area of your desktop.

In the **Scrolling** tab, enable or disable scrolling or circular scrolling, choose the scroll zone width and scroll speed.

In the **Gestures** tab, enable or disable the one-finger zoom (zoom in and out moving the finger upward or downward) or the pinch zoom (zoom in and out by spreading two fingers or by bringing the two fingers together).

2 Touch pad buttons – Provide left- and right-click functions like those on a mouse.



- 3 Backlit Keyboard** – The backlit keyboard provides visibility in dark environments by illuminating all symbols on the keys. For more information see *Dell Technology Guide*.
- 4 Consumer IR** - Allows certain software applications to be controlled by the Dell Travel Remote (an optional device that can be stored in the ExpressCard slot when not in use).

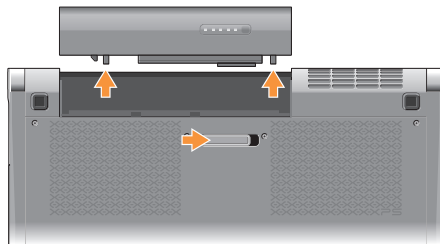
Removing and Replacing the Battery

- CAUTION:** Using an incompatible battery may increase the risk of fire or explosion. This computer should only use a battery purchased from Dell. Do not use batteries from other computers.
- CAUTION:** Before removing the battery, shut down the computer, and remove external cables (including the AC adapter).

To remove the battery:

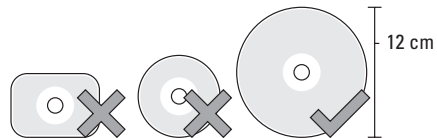
1. Shut down the computer and turn it over.
2. Slide the battery release latch towards the side of the computer and hold it in place.
3. Slide the battery out.

To replace the battery, slide it into the bay until it clicks into place.



Using the Optical Disc Drive


- NOTICE:** Do not use non-standard-size or shape discs (including mini-CDs and mini-DVDs) or you will damage the drive.




- NOTE:** Do not move the computer while playing or recording CDs and DVDs.

Place the disc in the center of the disc slot, with the label facing upwards and gently push the disc into the slot. The drive will automatically pull the disc in and begin reading its content.



To eject a disc from the drive, gently touch the eject control . The control will flash for a few seconds to confirm before ejecting the disc.

Software Features

 **NOTE:** For more information about the features described in this section, see the *Dell Technology Guide* on your hard drive or on the Dell Support website at support.dell.com.

Productivity and Communication

You can use your computer to create presentations, brochures, greeting cards, fliers, and spreadsheets. You can also edit and view digital photographs and images. Check your purchase order for software installed on your computer.

After connecting to the Internet, you can access websites, setup an e-mail account, upload and download files, and so on.

Entertainment and Multimedia

You can use your computer to watch videos, play games, create your own CDs, listen to music and internet radio stations. Your optical

disc drive may support multiple disc media formats including CDs and DVDs.

You can download or copy pictures and video files from portable devices, such as digital cameras and cell phones. Optional software applications enable you to organize and create music and video files that can be recorded to disc, saved on portable products such as MP3 players and handheld entertainment devices, or played and viewed directly on connected TVs, projectors, and home theater equipment.

Customizing the Desktop

You can customize your desktop to change the appearance, resolution, wallpaper, screensaver, and so on by accessing the **Personalize appearance and sounds** window.

To access the display properties window:

1. Right-click an open area of the desktop.
2. Click **Personalize**, to open the **Personalize appearance and sounds** window and learn more about your customization options.


Customizing Your Energy Settings


You can use the power options in your operating system to configure the power settings on your computer. Microsoft® Windows Vista® provides three default options:

- **Balanced** — This power option offers full performance when you need it and saves power during periods of inactivity.
- **Power saver** — This power option saves power on your computer by reducing system performance to maximize the battery life and by reducing the amount of energy consumed by your computer over its lifetime.
- **High performance** — This power option provides the highest level of system performance on your computer by adapting processor speed to your activity and by maximizing system performance.

Backing Up Your Data

It is recommended that you periodically back up files and folders on your computer. To back up files:

1. Click **Start**  → **Control Panel** → **System and Maintenance** → **Welcome Center** → **Transfer files and settings**.
2. Click **Back up files** or **Back up computer**.
3. Click **Continue on Your User Account Control** dialog box and follow the instructions in the Back up Files wizard. This section provides troubleshooting information for your computer. If you can not solve your problem using the following guidelines, see “Using Support Tools” on page 26 or “Contacting Dell” on page 40.


 **CAUTION: Only trained service personnel should remove the computer cover. See the *Service Manual* on the Dell Support website at support.dell.com for advanced service and troubleshooting instructions.**

Solving Problems

Network Problems

Wireless Connections

If the wireless network connection is lost

— The wireless button may be off. To turn on wireless, with the system turned on, lightly touch the wireless symbol  on the center control cover and then release. You can manage the Wireless LAN using *Intel PROSet* from your taskbar. You can also use *Windows Wireless Network Connections*, accessed from Control Panel, to manage Wireless LAN.

— Interference may be blocking or interrupting your wireless connection. Try moving the computer closer to your wireless router.

Wired Connections


If the wired network connection is lost

— The cable is loose or damaged.

— Verify both ends of the network cable are connected. Try another network cable, if available.

The link integrity light on the integrated network connector lets you verify that your connection is working and provides information on the status:

- Green — A good connection exists between a 10-Mbps network and the computer.
- Orange — A good connection exists between a 100-Mbps network and the computer.
- Yellow — A good connection exists between a 1000-Mbps network and the computer.
- Off — The computer is not detecting a physical connection to the network.

 **NOTE:** The link integrity light on the network connector is only for the wired cable connection. The link integrity light does not provide status for wireless connections.

Power Problems

If the power light is off — The computer is either turned off or is not receiving power.

- Remove the AC adapter and try turning on the computer with only the battery.
- Remove the battery and try turning on the computer with only the AC adapter.
- Check both ends of the AC adapter cable connections. Ensure that the light on the AC adapter is on. If the light is not on, try plugging the AC adapter into another electrical outlet.

The power/battery lights on the hinges indicate the following:

On Battery Power:

- Solid amber - battery is low
- Flashing amber - battery is critically low
- Solid white - system is running on battery power

On AC Adapter:

- Solid white - system is powered on and battery is charged
- Blinking white - system is in a standby state.

Memory Problems

If you experience memory problems —

- Check if the memory module is compatible with your computer. Your computer supports DDR3 memory. For more information about the type of memory supported by your computer, see “Basic Specifications” on page 43.
- Run the Dell Diagnostics (see “Dell Diagnostics” on page 29).
- Reseat the memory modules (see the *Service Manual* on the Dell Support website at support.dell.com) to ensure that your computer is successfully communicating with the memory.

Lockups and Software Problems

If a program stops responding — End the program:

1. Press <Ctrl><Shift><Esc> simultaneously.
2. Click the **Applications** tab on the top.
3. Select the program that is no longer responding
4. Click **End Task**.

If the computer stops responding —


- ➔ **NOTICE:** You might lose data if you are unable to perform an operating system shutdown.

Turn the computer off. If you are unable to get a response by pressing a key on your keyboard or moving your mouse, press and hold the power button until the computer turns off. Then turn your computer back on.

If a solid blue screen appears — Write down any error message for future reference. Turn the computer off. If you are unable to get a

response by pressing a key on your keyboard or moving your pointer or mouse, press and hold the power button until the computer turns off. Then turn your computer back on.

If you have other software problems —

- Always keep backup copies of your important data.
- Use a virus-scanning program to check your computer.
- Save and close any open files or programs and shut down your computer through the **Start**  menu.
- Check the software documentation or contact the software manufacturer for troubleshooting information:
 - Ensure that the program is compatible with the operating system installed on your computer.
 - Ensure that your computer meets the minimum hardware requirements needed

to run the software. See the software documentation for information.


- Ensure that the program is installed and configured properly.
- If necessary, uninstall and then reinstall the program.

Using Support Tools

The Dell Support Center helps you find the service, support, and system-specific information you need. For more information about Dell Support Center and available support tools, click the **Services** tab at support.dell.com.

Dell Support Center

The Dell Support Center helps you find the service, support, and system-specific information you need. For more information about Dell Support Center and available support tools, click the **Services** tab at support.dell.com.

Click the  icon in the taskbar to run the application. The home page provides links to access:

- Self Help (Troubleshooting, Security, System Performance, Network/Internet, Backup/Recovery, and Windows Vista)


- Alerts (technical support alerts relevant to your computer)
- Assistance from Dell (Technical Support with DellConnect™, Customer Service, Training and Tutorials, How-To Help with Dell on Call, and Online Scan with PCCheckUp)
- About Your System (System Documentation, Warranty Information, System Information, Upgrades & Accessories)

The top of the Dell Support Center home page displays your system's model number along with its service tag and express service code.

For more information about the Dell Support Center, see the *Dell Technology Guide* on your hard drive or on the Dell Support website at support.dell.com.

System Messages

If your computer has an issue or error, it may display a System Message that will help you identify the cause and action needed to resolve the issue.

 **NOTE:** If the message you received is not listed in the following examples, see the documentation for either the operating system or the program that was running when the message appeared. Alternatively you could see the *Service Manual* on the Dell Support website at support.dell.com or see “Contacting Dell” on page 40 for assistance.

Alert! Previous attempts at booting this system have failed at checkpoint [nnnn]. For help in resolving this problem, please note this checkpoint and contact Dell Technical Support — The computer failed to complete the boot routine three consecutive times for the same error see “Contacting Dell” on page 40 for assistance.

CMOS checksum error — Possible motherboard failure or RTC battery low. Replace the battery. See the *Service Manual* on the Dell Support website at support.dell.com or see “Contacting Dell” on page 40 for assistance.

CPU fan failure — CPU fan has failed. Replace the CPU fan. See the *Service Manual* on the Dell Support website at support.dell.com.

Hard-disk drive failure — Possible hard disk drive failure during POST see “Contacting Dell” on page 40 for assistance.

Hard-disk drive read failure — Possible hard disk drive failure during HDD boot test see “Contacting Dell” on page 40 for assistance.

Keyboard failure — Keyboard failure or loose cable.

No boot device available — No bootable partition on hard disk drive, the hard disk drive cable is loose, or no bootable device exists.

- If the hard drive is your boot device, ensure that the cables are connected and that the

drive is installed properly and partitioned as a boot device.

- Enter system setup and ensure that the boot sequence information is correct (see the *Service Manual* on the Dell Support website at support.dell.com).

No timer tick interrupt — A chip on the system board might be malfunctioning or motherboard failure (see the *Service Manual* on the Dell Support website at support.dell.com).

USB over current error — Disconnect the USB device. Your USB device needs more power for it to function properly. Use an external power source to connect the USB device, or if your device has two USB cables, connect both of them.


NOTICE - Hard Drive SELF MONITORING SYSTEM has reported that a parameter has exceeded its normal operating range. Dell recommends that you back up your data regularly. A parameter out of range may or may not indicate a potential hard drive problem —

S.M.A.R.T error, possible hard disk drive failure. This feature can be enabled or disabled in the BIOS setup (see “Contacting Dell” on page 40 for assistance).

Hardware Troubleshooter

If a device is either not detected during the operating system setup or is detected but incorrectly configured, you can use the **Hardware Troubleshooter** to resolve the incompatibility.


To start the Hardware Troubleshooter:

1. Click **Start**  → **Help and Support**.
2. Type `hardware troubleshooter` in the search field and press <Enter> to start the search.
3. In the search results, select the option that best describes the problem and follow the remaining troubleshooting steps.

Dell Diagnostics

If you experience a problem with your computer, perform the checks in “Lockups and Software Problems” on page 24 and run the Dell Diagnostics before you contact Dell for technical assistance.

It is recommended that you print these procedures before you begin.

 **NOTICE:** Dell Diagnostics works only on Dell computers.

Starting Dell Diagnostics

The Dell Diagnostics is located on a hidden diagnostic utility partition on your hard drive.

1. Ensure that the computer is connected to an electrical outlet that is known to be working properly.
2. Hold down the <Fn> key while pressing the power button to turn on the system.
3. Follow the on-screen instructions.

 **NOTE:** If your computer cannot display a

screen image, running the diagnostics will start testing the display. The diagnostics will beep while testing the display. If the display still does not show anything, try connecting an external monitor or contact Dell, see “Contacting Dell” on page 40.

Restoring Your Operating System

You can restore your operating system in the following ways:

- System Restore returns your computer to an earlier operating state without affecting data files. Use System Restore as the first solution for restoring your operating system and preserving data files.
- Dell Factory Image Restore returns your hard drive to the operating state it was in when you purchased the computer. Both procedures permanently delete all data on the hard drive and remove any programs installed after you received the computer. Use Dell Factory Image Restore only if System Restore did not resolve your operating system problem.
- If you received an Operating System disc with your computer, you can use it to restore your operating system. However, using the

Operating System disc also deletes all data on the hard drive. Use the disc only if System Restore did not resolve your operating system problem.

System Restore


The Windows operating systems provide a System Restore option which allows you to return your computer to an earlier operating state (without affecting data files) if changes to the hardware, software, or other system settings have left the computer in an undesirable operating state. Any changes that System Restore makes to your computer are completely reversible.

➡ **NOTICE:** Make regular backups of your data files. System Restore does not monitor your data files or recover them.

✍ **NOTE:** The procedures in this document were written for the Windows default view,

so they may not apply if you set your Dell™ computer to the Windows Classic view.

Starting System Restore

1. Click **Start** .
2. In the **Start Search** box, type `System Restore` and press <Enter>.

✍ **NOTE:** The **User Account Control** window may appear. If you are an administrator on the computer, click **Continue**; otherwise, contact your administrator to continue the desired action.


3. Click **Next** and follow the remaining prompts on the screen.

In the event that System Restore did not resolve the issue, you may undo the last system restore.

Undoing the Last System Restore

✍ **NOTE:** Before you undo the last system restore, save and close all open files and exit any open programs. Do not alter, open, or delete any files or programs until the

system restoration is complete.

1. Click **Start** .
2. In the **Start Search** box, type `System Restore` and press <Enter>.
3. Click **Undo my last restoration** and click **Next**.

Dell Factory Image Restore

➡ **NOTICE:** Using Dell Factory Image Restore permanently deletes all data on the hard drive and removes any programs or drivers installed after you received your computer. If possible, back up the data before using these options. Use Dell Factory Image Restore only if System Restore did not resolve your operating system problem.

✍ **NOTE:** Dell Factory Image Restore may not be available in certain countries or on certain computers.


Use Dell Factory Image Restore only as the last method to restore your operating system.

These options restore your hard drive to the operating state it was in when you purchased the computer. Any programs or files added since you received your computer—including data files—are permanently deleted from the hard drive. Data files include documents, spreadsheets, e-mail messages, digital photos, music files, and so on. If possible, back up all data before using Factory Image Restore.


Dell Factory Image Restore

1. Turn on the computer. When the Dell logo appears, press <F8> several times to access the **Vista Advanced Boot Options** Window.
2. Select **Repair Your Computer**.
3. The **System Recovery Options** window appears.
4. Select a keyboard layout and click **Next**.
5. To access the recovery options, log on as a local user. To access the command prompt, type `administrator` in the **User name** field, then click **OK**.

6. Click **Dell Factory Image Restore**. The **Dell Factory Image Restore** welcome screen appears.

 **NOTE:** Depending upon your configuration, you may need to select **Dell Factory Tools**, then **Dell Factory Image Restore**.

7. Click **Next**. The **Confirm Data Deletion** screen appears.

 **NOTICE:** If you do not want to proceed with Factory Image Restore, click **Cancel**.

8. Select the checkbox to confirm that you want to continue reformatting the hard drive and restoring the system software to the factory condition, then click **Next**.


The restore process begins and may take five or more minutes to complete. A message appears when the operating system and factory-installed applications have been restored to factory condition.

9. Click **Finish** to reboot the system.

Operating System Reinstallation


Before you Begin

If you are considering reinstalling the Windows operating system to correct a problem with a newly installed driver, first try using Windows Device Driver Rollback. If Device Driver Rollback does not resolve the problem, then use System Restore to return your operating system to the operating state it was in before you installed the new device driver. See “Restoring Your Operating System” on page 30.

 **NOTICE:** Before performing the installation, back up all data files on your primary hard drive. For conventional hard drive configurations, the primary hard drive is the first drive detected by the computer.

To reinstall Windows, you need the following items:

- *Dell Operating System* media
- *Dell Drivers and Utilities* media



 **NOTE:** The *Dell Drivers and Utilities* media contains drivers that were installed during the assembly of the computer. Use the Dell Drivers and Utilities media to load any required drivers. Depending on the region from which you ordered your computer, or whether you requested the media, the *Dell Drivers and Utilities* media and *Operating System* media may not ship with your computer.

Reinstalling Windows Vista

The reinstallation process can take 1 to 2 hours to complete. After you reinstall the operating system, you must also reinstall the device drivers, virus protection program, and other software.

1. Save and close any open files and exit any open programs.
2. Insert the *Operating System* disc.
3. Click **Exit** if the **Install Windows** message appears.


Restoring Your Operating System


- Restart the computer.
- When the DELL logo appears, press <F12> immediately.
 -  **NOTE:** If you wait too long and the operating system logo appears, continue to wait until you see the Microsoft® Windows® desktop; then, shut down your computer and try again.
 -  **NOTE:** The next steps change the boot sequence for one time only. On the next start-up, the computer boots according to the devices specified in the system setup program.
- When the boot device list appears, highlight **CD/DVD/CD-RW Drive** and press <Enter>.
- Press any key to **Boot from CD-ROM**. Follow the instructions on the screen to complete the installation.

Getting Help


If you experience a problem with your computer, you can complete the following steps to diagnose and troubleshoot the problem:

- See “Solving Problems” on page 22 for information and procedures that pertain to the problem your computer is experiencing.
- See “Dell Diagnostics” on page 29 for procedures on how to run Dell Diagnostics.
- Fill out the “Diagnostic Checklist” on page 39.
- Use Dell’s extensive suite of online services available at Dell Support (support.dell.com) for help with installation and troubleshooting procedures. See “Online Services” on page 36 for a more extensive list of Dell Support online.
- If the preceding steps have not resolved the problem, see “Contacting Dell” on page 40.

 **NOTE:** Call Dell Support from a telephone near or at the computer so that the support staff can assist you with any necessary procedures.

 **NOTE:** Dell’s Express Service Code system may not be available in all countries.

When prompted by Dell’s automated telephone system, enter your Express Service Code to route the call directly to the proper support personnel. If you do not have an Express Service Code, open the **Dell Accessories** folder, double-click the **Express Service Code** icon, and follow the directions.

 **NOTE:** Some of the following services are not always available in all locations outside the continental U.S. Call your local Dell representative for information on availability.

Technical Support and Customer Service

Dell's support service is available to answer your questions about Dell hardware. Our support staff uses computer-based diagnostics to provide fast, accurate answers.

To contact Dell's support service, see "Before You Call" on page 39 and then see the contact information for your region or go to **support.dell.com**.

DellConnect™

DellConnect is a simple online access tool that allows a Dell service and support associate to access your computer through a broadband connection, diagnose your problem and repair it all under your supervision. For more information, go to **support.dell.com** and click **DellConnect**.

Online Services

You can learn about Dell products and services on the following websites:

- **www.dell.com**
- **www.dell.com/ap** (Asian/Pacific countries only)
- **www.dell.com/jp** (Japan only)
- **www.euro.dell.com** (Europe only)
- **www.dell.com/la** (Latin American and Caribbean countries)
- **www.dell.ca** (Canada only)

You can access Dell Support through the following websites and e-mail addresses:

Dell Support websites

- **support.dell.com**
- **support.jp.dell.com** (Japan only)
- **support.euro.dell.com** (Europe only)

Dell Support e-mail addresses

- **mobile_support@us.dell.com**
- **support@us.dell.com**
- **la-techsupport@dell.com** (Latin America and Caribbean countries only)
- **apsupport@dell.com** (Asian/Pacific countries only)

Dell Marketing and Sales e-mail addresses

- **apmarketing@dell.com** (Asian/Pacific countries only)
- **sales_canada@dell.com** (Canada only)

Anonymous file transfer protocol (FTP)

- **ftp.dell.com**

Log in as user: `anonymous`, and use your e-mail address as your password.

AutoTech Service

Dell's automated support service—AutoTech—provides recorded answers to the questions

most frequently asked by Dell customers about their portable and desktop computers.

When you call AutoTech, use your touch-tone telephone to select the subjects that correspond to your questions. For instructions on accessing the telephone number to call your region, see "Contacting Dell" on page 40.

Automated Order-Status Service

To check on the status of any Dell products that you have ordered, you can go to **support.dell.com**, or you can call the automated order-status service. A recording prompts you for the information needed to locate and report on your order. For the telephone number to call your region, see "Contacting Dell" on page 40 for problems with your order.

If you have a problem with your order, such as missing parts, wrong parts, or incorrect billing, contact Dell for customer assistance. Have your invoice or packing slip handy when you call. For

the telephone number to call for your region, see “Contacting Dell” on page 40.

Product Information

If you need information about additional products available from Dell, or if you would like to place an order, visit the Dell website at www.dell.com. For the telephone number to call for your region or to speak to a sales specialist, see “Contacting Dell” on page 40.


Returning Items for Repair Under Warranty or for Credit

Prepare all items being returned, whether for repair or credit, as follows:

1. Call Dell to obtain a Return Material Authorization Number, and write it clearly and prominently on the outside of the box.
2. For the telephone number to call for your region, see “Contacting Dell” on page 40.
3. Include a copy of the invoice and a letter describing the reason for the return.

4. Include a copy of the Diagnostics Checklist (see “Diagnostic Checklist” on page 39), indicating the tests that you have run and any error messages reported by the Dell Diagnostics (see “Dell Diagnostics” on page 29).
5. Include any accessories that belong with the item(s) being returned (power cables, software, guides, and so on) if the return is for credit.
6. Pack the equipment to be returned in the original (or equivalent) packing materials.
7. You are responsible for paying shipping expenses. You are also responsible for insuring any product returned, and you assume the risk of loss during shipment to Dell. Collect On Delivery (C.O.D.) packages are not accepted.
8. Returns that are missing any of the preceding requirements will be refused at Dell’s receiving dock and returned to you.

Before You Call

 **NOTE:** Have your Express Service Code ready when you call. The code helps Dell’s automated-support telephone system direct your call more efficiently. You may also be asked for your Service Tag (located on the back or bottom of your computer).

Remember to fill out the following Diagnostics Checklist. If possible, turn on your computer before you call Dell for assistance and call from a telephone at or near the computer. You may be asked to type some commands at the keyboard, relay detailed information during operations, or try other troubleshooting steps possible only at the computer itself. Ensure that the computer documentation is available.

Diagnostic Checklist

- Name:
- Date:
- Address:

- Phone number:
- Service Tag (bar code on the back or bottom of the computer):
- Express Service Code:
- Return Material Authorization Number (if provided by Dell support technician):
- Operating system and version:
- Devices:
- Expansion cards:
- Are you connected to a network? Yes /No
- Network, version, and network adapter:
- Programs and versions:

See your operating system documentation to determine the contents of the computer’s start-up files. If the computer is connected to a printer, print each file. Otherwise, record the contents of each file before calling Dell.


- Error message, beep code, or diagnostic code:

Finding More Information and Resources

- Description of problem and troubleshooting procedures you performed:

Contacting Dell

For customers in the United States, call 800-WWW-DELL (800-999-3355).

-  **NOTE:** If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area.

To contact Dell for sales, technical support, or customer service issues:

1. Visit **support.dell.com**.
2. Verify your country or region in the **Choose A Country/Region** drop-down menu at the bottom of the page.
3. Click **Contact Us** on the left side of the page.

4. Select the appropriate service or support link based on your need.
5. Choose the method of contacting Dell that is convenient for you.

Finding More Information and Resources

If you need to:

See:

reinstall your operating system.

your Operating System disc.

run a diagnostic program for your computer, reinstall notebook system software, or update drivers for your computer, and readme files.

the *Drivers and Utilities* disc.

-  **NOTE:** Drivers and documentation updates can be found on the Dell™ Support website at **support.dell.com**.


learn more about your operating system, maintaining peripherals, RAID, Internet, Bluetooth®, networking, and e-mail.

the *Dell Technology Guide* installed on your hard drive.

upgrade your computer with new or additional memory, or a new hard drive.

the *Service Manual* on the Dell Support website at **support.dell.com**

reinstall or replace a worn or defective part.

-  **NOTE:** In some countries, opening and replacing parts of your computer may void your warranty. Check your warranty and return policies before working inside your computer.

Finding More Information and Resources

If you need to:

find safety best practices information for your computer

review Warranty information, Terms and Conditions (U.S. only), Safety instructions, Regulatory information, Ergonomics information, and End User License Agreement.

find your Service tag/Express Service Code— You must use the service tag to identify your computer on **support.dell.com** or to contact technical support.

find drivers and downloads.

access technical support and product help.

check on your order status for new purchases.

find solutions and answers to common questions.

locate information for last-minute updates about technical changes to your computer or advanced technical-reference material for technicians or experienced users.

See:

the safety and regulatory documents that shipped with your computer and also see the Regulatory Compliance Homepage on www.dell.com at the following location: www.dell/regulatory_compliance

the back or bottom of your computer.

the Dell™ Support website at **support.dell.com**.

Basic Specifications

System Model


Studio XPS 1640

This section provides basic information that you may need when setting up, updating drivers for, and upgrading your computer. For more detailed specifications, see the *Service Manual* on the Dell Support website at **support.dell.com**.



NOTE: Offerings may vary by region.

For more information regarding the configuration of your computer, click

Start  → **Help and Support** and select the option to view information about your computer.

Processor

Type	L2 cache
Intel Core™ 2 Duo	3 MB/6 MB
External bus frequency	800/1066MHz

ExpressCard

ExpressCard controller	Intel ICH9M
ExpressCard connector	one ExpressCard slot (54 mm)
Cards supported	ExpressCard/34 (34 mm) ExpressCard/54 (54 mm) 1.5 V and 3.3 V

Basic Specifications

ExpressCard connector size 26 pins


Memory

Connectors two internally-accessible SO-DIMM sockets

Capacities 512 MB, 1 GB, and 2 GB

Memory type 800/1066 MHz DDR3 SODIMM

Memory configuration possible 1 GB, 1.5 GB, 2 GB, 3 GB, 4 GB

 **NOTE:** For instructions on upgrading your memory, see the *Service Manual* on the Dell Support website at support.dell.com.

Computer Information

System Chipset Intel PM45

Data bus width 64 bits

DRAM bus width dual channel (2) 64-bit buses

Processor address bus width 32 bits

Flash EPROM 16 MB

Graphics bus PCI -E X16

PCI Bus 32 bits

Communications

Modem type External V.92 56K USB Modem

Modem controller Hardware Modem

Modem interface Universal Serial Bus (USB)

Communications

Network adapter 10/100/1000 Ethernet LAN on system board

Wireless internal WLAN (half-size Mini-Card), WWAN, Mini-Card with Bluetooth® wireless technology, UWB Mini-Cards WWAN ExpressCard Bluetooth® wireless technology

Video

Discrete

Video type integrated on system board

Video controller ATI Mobility Radeon™ HD 3670

Video memory 512 MB dedicated memory

LCD interface Low Voltage Differential Signaling (LVDS)

External display support CRT, HDMI 1.2, DisplayPort

Audio

Audio type 5.1 channel High Definition Audio

Audio controller IDT 92HD73C HDA Codec

Stereo conversion 24-bit (analog-to-digital and digital-to-analog)

Internal Interface High Definition Audio

Basic Specifications

Basic Specifications

External Interface	microphone-in connector, two stereo headphones/speakers connectors
Speaker	two 4-ohm main speaker with one 4-ohm subwoofer
Internal speaker amplifier	2 watt per channel with 3 watt subwoofer
Volume controls	program menus, media control buttons
Audio	microphone connector, two stereo headphone/speakers connectors

Ports and Connectors

IEEE 1394a	4-pin serial connector
Mini-Card	two Type IIIA Mini Card slots, one half-size Mini Card slot
Network adapter	RJ-45 port
USB	two 4-pin USB 2.0-compliant connectors
eSATA	one 4-pin eSATA/USB combo connector
Video	15-hole connector
HDMI	19 pin
DisplayPort	20 pin

Display

Type (Anti-Glare)	16.0-inch WLED 16.0-inch RGBLED
<i>Dimensions (active area):</i>	
Height	198.72 mm (7.82 in) (WLED/RGBLED)
Width	353.28 mm (13.91 in) (WLED) 353.45 mm (13.92 in) (RGBLED)
Diagonal	406.4 mm (16 in)
Maximum resolution	1366 x 768 (WLED) 1920 x 1080 (RGBLED)
Refresh rate	60 Hz
Operating angle	0° (closed) to 140°
Luminance (with ETED)	270 cd/m ² (typical) 225 cd/m ² (minimum)

Viewing Angles:

Horizontal	±55° (WLED) min. ±65° (RGBLED) min
Vertical	±45° (WLED/RGBLED) min.
Pixel pitch	0.2235 mm
Controls	brightness can be controlled through keyboard shortcuts (see Dell Technology Guide for more information.)

Keyboard (backlit)

Number of keys	86/103 (U.S. and Canada); 87/104 (Europe); 90/107 (Japan)
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Basic Specifications

Basic Specifications

Layout	QWERTY/AZERTY/ Kanji
Camera	
Pixel	2.0 megapixel
Video resolution	320x240 ~1600x1200 (640x480 at 30fps)
Diagonal viewing angle	66°
X/Y position resolution (graphics table mode)	240 cpi
<i>Size:</i>	
Width	61.9 mm (2.43 in) sensor-active area
Height	39.04 mm (1.53 in) rectangle

Battery	
Type	6-cell/9-cell "smart" lithium ion
Depth	52.3 mm (2.06 in) (6/9 cell)
Height	21.95 mm (0.86 in) (6 cell) 41.54 mm (1.63 in) (9 cell)
Width	204.1 mm (8.03 in) (6 cell) 292.7 mm (11.52 in) (9 cell)
Weight	0.33 kg (0.7 lb) (6 cell) 0.48 kg (1.06 lb) (9 cell)
Voltage	11.1 VDC

Charge time (approximate): Computer off	4 hours
Operating time	Battery operating time varies depending on operating conditions and can be significantly reduced under certain power-intensive conditions. See Dell Technology Guide for more information..
Life span (approximate)	300 discharge/charge cycles

<i>Temperature range:</i>	
Operating	0° to 35°C (32° to 95°F)
Storage	-40° to 65°C (-40° to 149°F)
Coin-cell battery	CR-2032
AC Adapter	
Input voltage	100–240 VAC
Input current (maximum)	1.5A
Input frequency	50–60 Hz
Output power	90 W
Output current (90 W)	4.62 A (continuous)
Rated output voltage	19.5 VDC

Basic Specifications

AC Adapter*Dimensions:*

90 W

Height 16 mm (0.62 in)

Width 70 mm (2.75 in)

Depth 147 mm (5.7 in)

Weight (without AC power cord) 0.345 kg (0.76 lb)

Temperature range:

Operating 0° to 40°C (32° to 104°F)

Storage -40° to 70°C (-40° to 158°F)

Physical

Height 24.09 mm to 33.95 mm (0.94 in to 1.33 in)

Width 384.9 mm (15.15 in)

Depth 254.59 mm (10.02 in)

Weight (with 6-cell battery)

Configurable to less than 2.94 kg (6.5 lb)

Computer Environment*Temperature range:*

Operating 0° to 35°C (32° to 95°F)

Storage -40° to 65°C (-40° to 149°F)

Relative humidity (maximum):

Operating 10% to 90% (noncondensing)

Storage 5% to 95% (noncondensing)

Maximum vibration (using a random-vibration spectrum that simulates user environment):

Operating 0.66 GRMS

Storage 1.3 GRMS

Maximum shock (measured with hard drive in head-parked position and a 2-ms half-sine pulse):

Operating 110 G

Storage 163 G

Altitude (maximum):

Operating -15.2 to 3048 m (-50 to 10,000 ft)

Storage -15.2 to 10,668 m (-50 to 35,000 ft)

Airborne contaminant level G2 or lower as defined by ISA-S71.04-1985

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