



## CAUTION: General Safety Instructions

Use the following safety guidelines to help ensure your own personal safety and to help protect your equipment and working environment from potential damage.



**NOTE: Additional user information for your computer, monitor and individual components (such as storage drives, PC cards and other peripherals) may be available under the “Manuals” section at [support.dell.com](http://support.dell.com).**



**NOTE: In this section, equipment refers to all portable devices (computers, port replicators, media bases, docking stations, and similar devices), desktop computers, and monitors. After reading this section, be sure to read the safety instructions pertaining to your specific equipment.**

**IMPORTANT NOTICE FOR USE IN HEALTHCARE ENVIRONMENTS:** Dell products are not medical devices and are not listed under UL or IEC 60601 (or equivalent). As a result, they must not be used within 6 feet of a patient or in a manner that directly or indirectly contacts a patient.

## Safety: General Safety



**WARNING: To prevent the spread of fire, keep candles or other open flames away from this product at all times.**

When setting up the equipment for use:

- Place the equipment on a hard, level surface. Leave a 10.2 cm (4 in) minimum of clearance on all vented sides of the computer to permit the airflow required for proper ventilation. Restricting airflow can damage the computer or cause a fire.
- Do not stack equipment or place equipment so close together that it is subject to re-circulated or preheated air.



**NOTE: Review the weight limits referenced in your computer documentation before placing a monitor or other devices on top of your computer.**

- Ensure that nothing rests on your equipment’s cables and that the cables are not located where they can be stepped on or tripped over.
- Ensure that all cables are connected to the appropriate connectors. Some connectors have a similar appearance and may be easily confused (for example, do not plug a telephone cable into the network connector).
- Do not place your equipment in a closed-in wall unit or on a bed, sofa, or rug.
- Keep your device away from radiators and heat sources.
- Keep your equipment away from extremely hot or cold temperatures to ensure that it is used within the specified operating range.
- Do not push any objects into the air vents or openings of your equipment. Doing so can cause fire or electric shock by shorting out interior components.

- Avoid placing loose papers underneath your device. Do not place your device in a closed-in wall unit, or on a soft, fabric surface such as a bed, sofa, carpet, or a rug.

When operating your equipment:

- Do not use your equipment in a wet environment, for example, near a bath tub, sink, or swimming pool or in a wet basement.
- Do not use AC powered equipment during an electrical storm. Battery powered devices may be used if all cables have been disconnected.
- If your device includes an integrated or optional (PC card) modem, disconnect the modem cable if an electrical storm is approaching to avoid the remote risk of electric shock from lightning via the telephone line.
- If your device includes a modem, the cable used with the modem should be manufactured with a minimum wire size of 26 American wire gauge (AWG) and an FCC compliant RJ11 modular plug.
- This product may contain Optical Disk Drives (ODD), such as a CD-ROM, CDR/W, or DVD drive, etc. which have built-in laser devices. To prevent any risk of exposure to laser radiation, do not disable or open any ODD assembly for any reason.

These ODDs comply with safety requirements and are classified as Class 1 Laser Products, under the US DHHS Standard and IEC/EN60825-1 Laser Safety Standard. These ODD devices contain no user adjustments or any user serviceable or replaceable parts.



**NOTE: Additional user information for your optical storage device may be available under the “Manuals” section at [support.dell.com](http://support.dell.com).**

- Do not spill food or liquids on your equipment.
- Before you clean your equipment, disconnect it from the electrical outlet. Clean your device with a soft cloth dampened with water. Do not use liquids or aerosol cleaners, which may contain flammable substances.
- Clean the Portable or monitor display with a soft, clean cloth and water. Apply the water to the cloth, then stroke the cloth across the display in one direction, moving from the top of the display to the bottom. Remove moisture from the display quickly and keep the display dry. Long-term exposure to moisture can damage the display. Do not use a commercial window cleaner to clean your display.



**CAUTION: Do not operate your equipment with any cover(s) (including computer covers, bezels, filler brackets, front-panel inserts, and so on) removed.**

- If your equipment does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service center.

## **SAFETY: When Working Inside Your Device**

Do not attempt to service the equipment yourself, except as explained in your Dell documentation or in instructions otherwise provided to you by Dell.

Always follow installation and service instructions closely.

- To help avoid the potential hazard of electric shock, do not connect or disconnect any cables or perform maintenance or reconfiguration of your equipment during an electrical storm.
- PC Cards may become very warm during normal operation. Use care when removing PC Cards after their continuous operation.

## Protecting Against Electrostatic Discharge



**CAUTION: Disconnect product from mains power source in accordance with product-specific safety information located on the “Safety Information” section of this website.**

Electrostatic discharge (ESD) events can harm electronic components inside your computer. Under certain conditions, ESD may build up on your body or an object, such as a peripheral, and then discharge into another object, such as your computer. To prevent ESD damage, you should discharge static electricity from your body before you interact with any of your computer’s internal electronic components, such as a memory module.

You can protect against ESD and discharge static electricity from your body by touching a metal grounded object (such as an unpainted metal surface on your computer’s I/O panel) before you interact with anything electronic. When connecting a peripheral (including handheld digital assistants) to your computer, you should always ground both yourself and the peripheral before connecting it to the computer. In addition, as you work inside the computer, periodically touch a metal-grounded object to remove any static charge your body may have accumulated.

You can also take the following steps to prevent damage from electrostatic discharge:

- When unpacking a static-sensitive component from its shipping carton, do not remove the component from the antistatic packing material until you are ready to install the component. Just before unwrapping the antistatic package, be sure to discharge static electricity from your body.
- When transporting a sensitive component, first place it in an antistatic container or packaging.
- Handle all electrostatic sensitive components in a static-safe area. If possible, use antistatic floor pads and work bench pads.

## SAFETY: General Power Safety

Observe the following guidelines when connecting your equipment to a power source:

- Check the voltage rating before you connect the equipment to an electrical outlet to ensure that the required voltage and frequency match the available power source.
- Your device is equipped with either an internal power source or an external adapter. For internal power sources, your device is equipped with one of the following:
  - An auto-sensing voltage circuit – Devices with an auto-sensing voltage circuit do not have a voltage selection switch on the back panel and automatically detect the correct operating voltage.

OR

- A manual voltage selection switch – Devices with a voltage selection switch on the back panel must be manually set to operate at the correct operating voltage. Set the switch to the position that most closely matches the voltage used in your location.



**NOTE:** The switch on your system may be different than the one pictured.



**NOTICE:** To help avoid damaging a computer with a manual voltage selection switch, set the switch for the voltage that most closely matches the AC power available in your location.

For Japan, the voltage selection switch must be set to the 115-V position even though the AC power available in Japan is 100 V. Also, ensure that your monitor and attached devices are electrically rated to operate with the AC power available in your location.

- Do not plug the equipment power cables into an electrical outlet if the power cable is damaged.
- To prevent electric shock, plug the equipment power cables into properly grounded electrical outlets. If the equipment is provided with a 3-prong power cable, do not use adapter plugs that bypass the grounding feature, or remove the grounding feature from the plug or adapter.
- Norway and Sweden: If this product is provided with a 3-prong power cable, connect the power cable to a grounded electrical outlet only.
- If you use an extension power cable, ensure that the total ampere rating of the products plugged in to the extension power cable does not exceed the ampere rating of the extension cable.
- If you must use an extension cable or power strip, ensure the extension cable or power strip is connected to a wall power outlet and not to another extension cable or power strip. The extension cable or power strip must be designed for grounded plugs and plugged into a grounded wall outlet.
- If you are using a multiple-outlet power strip, use caution when plugging the power cable into the power strip. Some power strips may allow you to insert a plug incorrectly. Incorrect insertion of the power plug could result in permanent damage to your equipment, as well as risk of electric shock and/or fire. Ensure that the ground prong of the power plug is inserted into the mating ground contact of the power strip.
- Be sure to grasp the plug, not the cable, when disconnecting equipment from an electric socket.

If your equipment uses an AC adapter:

- Use only the Dell provided AC adapter approved for use with this device. Use of another AC adapter may cause a fire or explosion.



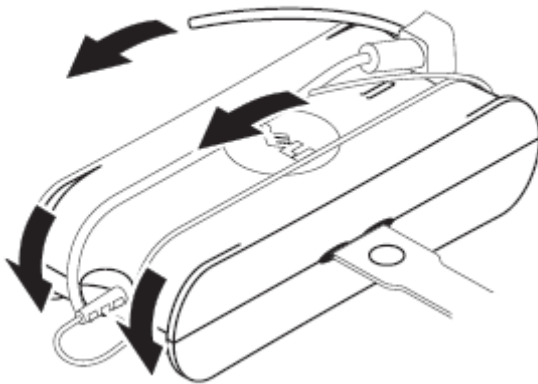
**NOTE: Refer to your system rating label for information on the proper adapter model approved for use with your device.**

- Place the AC adapter in a ventilated area, such as a desk top or on the floor, when you use it to run the computer or to charge the battery. Do not cover the AC adapter with papers or other items that will reduce cooling; also, do not use the AC adapter inside a carrying case.
- The AC adapter may become hot during normal operation of your computer. Use care when handling the adapter during or immediately after operation.
- It is recommended that you lay the adapter on the floor or desk so that the green light is visible. This will alert you if the adapter should accidentally go off due to external effects. If for any reason the green light goes off, disconnect the AC cord from the wall for a period of ten seconds, and then reconnect the power cord.

- Japan Only: Use only the Dell-provided AC power cable with the AC adapter. Use of any other power cable may damage the device or AC adapter or may present risk of fire or electric shock.



**CAUTION:** When preparing your AC adapter for travel, wrap both of the cords around the adapter in the same direction as shown in the following picture. Failure to wrap the cords in the correct direction can result in damage to the cords not covered by the adapter warranty. Never use an AC adapter that shows signs of damage or excessive wear.



#### Connecting the AC Plug Adapter (for Japan Only)

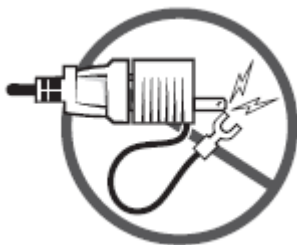


**CAUTION:** When using the AC plug adapter, do not permit contact between the green ground wire and power leads because electrical shock, fire, or damage to your computer can occur.

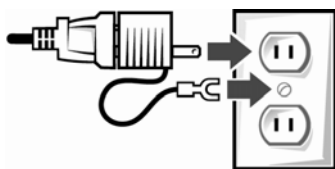


**NOTE:** Some devices available in Japan do not include the AC plug adapter.

1 Connect the metal ground connector to the grounding source on the outlet:



- a Loosen the grounding source.
- b Slide the metal ground connector behind the grounding source, and then tighten the grounding source.



2 Connect the AC power cable to the outlet.

## **SAFETY: If Your Device Gets Wet**



**CAUTION:** Before you begin any of the procedures in this section, see the “SAFETY: General Safety” section of this document.



**CAUTION:** Perform this procedure only after you are certain that it is safe to do so. If the computer is connected to an electrical outlet, turn off the AC power at the circuit breaker, if possible, before attempting to remove the power cables from the electrical outlet. Use the utmost caution when removing wet cables from a live power source.

- 1 Disconnect the AC adapter from the electrical outlet, and then, if possible, disconnect the AC adapter from the device.
- 2 Turn off any attached external devices, then disconnect them from their power sources, and then from the device.
- 3 For portables: Remove the main battery from the battery bay, and if necessary, the second battery from the media bay.

Wipe off the batteries and put them in a safe place to dry.

- 4 Contact Dell support. (See your User’s Guide or Owner’s Manual for the appropriate contact information.)



**NOTE:** See the “Limited Warranties and Return Policy” section of this document or separate paper warranty document that shipped with your monitor or computer for information on your warranty coverage.

## **SAFETY: If You Drop or Damage Your Computer or Monitor**



**CAUTION:** Before you begin any of the procedures in this section, see the “SAFETY: General Safety” and “SAFETY: General Power Safety” sections in this document.



**CAUTION:** If any internal components can be seen through damaged portions, or if smoke or unusual odors are detected, disconnect the device from the electrical outlet and contact Dell support. See your User’s Guide or Owner’s Manual for the appropriate contact information.

- 1 Save and close any open files, exit any open programs, and shut down the computer.
- 2 Disconnect the computer or monitor AC adapter from the electrical outlet, and then, if possible, disconnect the AC adapter from the computer or monitor.
- 3 Turn off any attached external devices, then disconnect them from their power sources, and then from the computer.
- 4 If provided, remove and then reinstall the battery. If not battery powered, connect the device to the electrical outlet.
- 5 Turn on the device.

If the device does not start, or if and smoke or unusual odors are detected, or if you cannot identify the damaged components, contact Dell (see your User's Guide or Owner's Manual for the appropriate contact information).



**NOTE:** See the “Limited Warranties and Return Policy” section of this document or separate paper warranty document that shipped with your computer for information on your warranty coverage.



### **CAUTION: TV Tuner Safety Instructions**



**CAUTION: Use of controls, adjustments, procedures, connections, or signal types other than those specified in your documentation may result in exposure to shock, electrical hazards, and/or mechanical hazards.**

Use the following safety guidelines to help ensure your own personal safety and to help protect your equipment and working environment from potential damage.

- Read and retain instructions — Read and retain all the safety and operating instructions for future reference.
  - Heed warnings — Adhere to all warnings on the product and the product documentation.
  - To prevent damage to the product (due to lightning and/or power-line surges) during a lightning storm, or when it is left unattended and unused for long periods of time, unplug the computer or external TV tuner unit from the electrical outlet, and disconnect the antenna or cable system
  - For continued protection against risk of electric shock and fire, this accessory should be installed or connected only to the products, such as a computer, equipped with a 3-prong power cable. If the equipment is provided with a 3-prong power cable, do not use adapter plugs that bypass the grounding feature, or remove the grounding pin from the plug or adapter. If you are unable to insert the plug into the electrical power outlet, contact your electrician to replace the obsolete outlet.
  - To reduce the risk of electric shock, do not expose the tuner or computer to water or any other liquid.
  - An outside antenna system should not be located in the vicinity of overhead power lines or other light or power circuits, or where it can fall into such power lines or circuits.
  - When installing an outside antenna system, exercise extreme care to prevent the antenna system from touching such power lines or circuits, as contact with them may be fatal.
  - If an outside antenna is connected to the product, be sure that the antenna system is grounded in order to provide protection against voltage surges and built-up static charges. Consult with your local electrical codes for information regarding proper grounding of the mast and supporting structure, grounding of the lead-in wire to the antenna discharge unit, size of grounding conductors, location of the antenna discharge unit, connection of grounding electrodes, and requirements for grounding electrodes.
- For users/installers in the United States: Article 810.21 of the United States National Electric Code, ANSI/NFPA No.70, provides information with regard to proper grounding of the mast and supporting structure of an outside antenna system, grounding of the lead-in wire to the antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection of grounding electrodes, and requirements for the grounding electrodes.

- For users/installers in the EU member countries - EN60728-11: 2005 provides information with regard to separation of antenna from electrical power distribution systems, protection from atmospheric over-voltages, protection of antenna system, earthing and bonding of antenna systems, and mechanical stability of outdoor antennas, including the size of grounding conductors, location of antenna discharge unit, connection of grounding electrodes, and requirements for the grounding electrodes.



**CAUTION: For users/installers in Norway - A hazardous situation may develop due to voltage differences between the screen of the coaxial cable of the Cable Distribution System and the local equipment earth (typically, earthed chassis of the computer system). To avoid any hazards, antenna/cable input connection from the TV tuner card to a Cable Distribution System must be provided through a galvanic isolator (may or may not be included with your computer).**



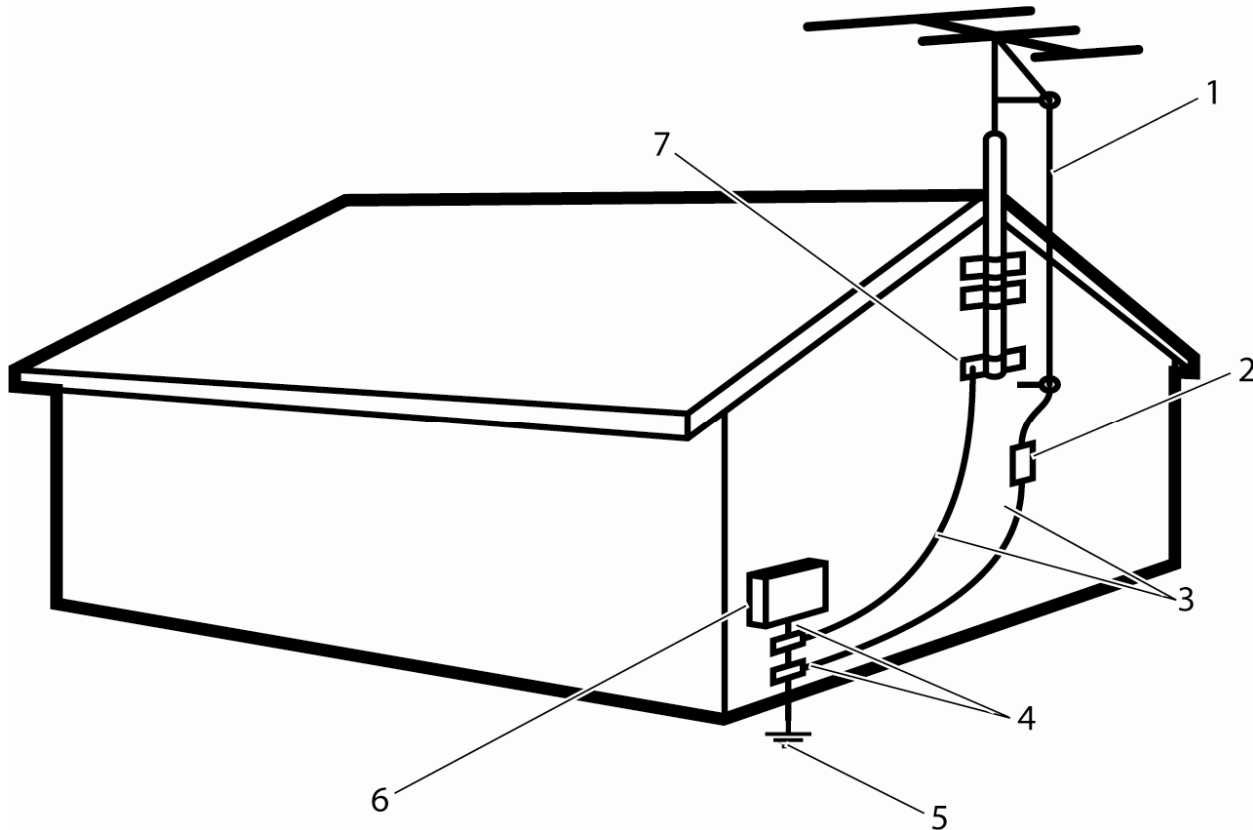
**CAUTION: For users/installers in Sweden, Finland and Denmark - If a galvanic isolator is included with your computer, the galvanic isolator must be used in series with the coaxial antenna connector. See your User's Guide or Owner's Manual for instructions.**



**NOTE:** For CATV system installers – Section 820.93 of the National Electric Code (NEC), ANSI/NFPA 70:2005 (for US/Canada), and/or EN60728-11:2005 standard (for the European Union), provides guidelines for proper grounding and specifies that the coaxial cable shield shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



## Example of Antenna Grounding



- |   |   |
|---|---|
| 1 antenna lead in wire  | 2 antenna discharge unit (NEC Section 810-20) |
| 3 grounding connectors (NEC Section 810-21)                     | 4 ground clamp(s)                             |
| 5 power service grounding electrode system (NEC Article 250.52) | 6 electric service equipment                  |
| 7 ground clamp  |   |



**NOTE:** NEC refers to the United States National Electric Code (NEC), ANSI/NFPA 70:2005. Consult with your local electrical code for installation requirements in your area.

## SAFETY: TV Tuner Option Card Safety

- The TV tuner option card is for use only with compatible UL listed (or equivalent) personal computers that have installation instructions detailing user installation of cardcage accessories.
- To reduce the risk of electric shock, never disassemble or touch the inside of the computer while the computer is connected to an electrical outlet.
- All card securement pins shall be completely tightened as to provide continuous bonding between the option card and the computer chassis.

- To reduce the risk of electric shock, do not expose the card or computer to water or any other liquid.

## **SAFETY: TV Tuner Option Card Safety**

- To reduce the risk of electric shock, do not insert any metal object into the TV tuner openings.
- Openings in the TV tuner cabinet are provided for ventilation. To prevent overheating, these openings should not be blocked or covered. Avoid using the TV tuner on a bed, sofa, rug, or other soft surface, which may block the ventilation openings in the cabinet. If you place the TV tuner in a bookcase or an enclosed space, ensure that adequate ventilation and air flow is provided.
- Service or repair work should be done by qualified service personnel. Incorrect reassembly can cause electric shock.
- To reduce the risk of electric shock, do not expose the tuner or computer to water or any other liquid.



## **CAUTION: Portable Device Safety Instructions**

Review the sections on General Safety Instructions and General Power Safety in this document.

Use the following portable safety guidelines to help ensure your own personal safety and to help protect your device (computer, port replicator, media base, docking station, and similar devices) and working environment from potential damage.

## **SAFETY: General Portable Device Safety**

- Do not store your portable computer in a low-airflow environment, such as a carrying case or a closed briefcase, while the computer is turned on. Restricting airflow can damage the computer or cause a fire.
- Do not allow your portable computer or adapter to operate with the base resting directly on exposed skin for extended periods of time. The surface temperature of the base will rise during normal operation, particularly when AC power is present. Allowing sustained contact with exposed skin can cause discomfort or a burn.
- Disconnect all cables including the phone cable before opening memory/modem access door.

## **SAFETY: Portable Device Power Safety**

- Use only the Dell provided AC adapter approved for use with this device. Use of another AC adapter may cause a safety hazard. See your User's Guide or Owner's Manual for AC adapter electrical ratings.
- To remove all power sources from your portable computer, turn the computer off, disconnect the AC adapter from the electrical outlet, and remove any battery installed in the battery bay or module bay.

## Auto Adapter Power Safety

- The Dell auto adapter allows you to power and charge your portable computer in your car, boat, or in an airplane. The adapter connects your computer to a power source via a DC power cable. The DC power cable connects via either an automobile cigarette lighter adapter or an empower-type connector. Review the operation instructions in your User's Guide before connecting and operating the auto adapter.
- Do not use your device in vehicles with high voltage (24 VDC), such as commercial transport vehicles.
- Plug the auto adapter into the computer; then with the car engine or other DC power source turned off, plug the adapter into the cigarette lighter or DC power source.

## SAFETY: Portable Device Battery Safety



**CAUTION: Using an incompatible battery may increase the risk of fire or explosion. Replace the battery only with a compatible battery purchased from Dell that is designed to work with your Dell computer. Do not use a battery from other computers with your computer.**

- A damaged battery may pose a risk of personal injury. Damage may include impact or shock that dents or punctures the battery, exposure to a flame, or other deformation. Do not disassemble the battery. Handle a damaged or leaking battery pack with extreme care. If the battery is damaged, electrolyte may leak from the cells or fire may result which may cause personal injury.
- Keep the battery away from children.
- Do not expose (store or place) your computer or battery pack to a heat source such as a radiator, fireplace, stove, electric heater, or other heat-generating appliance or otherwise expose it to temperatures in excess of 65°C (149°F). When heated to excessive temperatures, battery cells could vent or explode, posing risk of fire.
- Do not carry a battery pack in your pocket, purse, or other container where metal objects (such as keys) could short-circuit the battery terminals. The resulting excessive current flow can lead to extremely high temperatures and may cause damage to the battery pack or surrounding materials, or personal injury, such as burns.
- Dispose of used batteries properly. See Battery Disposal in this document.



## **CAUTION: Desktop Computer Safety Instructions**

Review the sections on General Safety Instructions and General Power Safety sections in this document.

Read and follow these instructions when connecting and using your computer:

When setting up the equipment for use:

- Place the equipment on a hard, level surface.
- Leave a 10.2 cm (4 in) minimum clearance on all vented sides of the computer to permit the airflow required for proper ventilation. Restricting airflow can damage the computer or cause a fire.

## **SAFETY: Desktop Computer Power Safety**

Observe the following guidelines when connecting your equipment to a power source:

- Check the voltage rating before you connect the equipment to an electrical outlet to ensure that the required voltage and frequency match the available power source.
- Your device is equipped with either an internal power source or an external adapter. For internal power sources, your device is equipped with an auto-sensing voltage circuit OR a manual voltage selection switch.
- Refer to the General Power Safety section on proper settings for the manual voltage selection switch.

## **SAFETY: Desktop Computer Coolant Safety**

The following information applies to desktop computers equipped with a liquid cooling assembly:

- The liquid cooling assembly is not user serviceable or upgradeable. All required service should be performed by qualified service personnel only.
- The liquid cooling assembly in your system contains a non-refillable coolant. In the event of a coolant leak, shut down your system immediately, unplug your system from the power outlet, and then contact Dell Technical Support.
- In the event of skin contact with the coolant, immediately wash your skin with soap and water. Seek medical attention if irritation develops.
- In the event of eye contact with the coolant, immediately flush your eyes with water (with your eyes open) for at least 15 minutes. Seek medical attention if irritation persists.



### **CAUTION: Monitor Safety Instructions**

Review the sections on General Safety Instructions and Power Safety in this document.

Read and follow these instructions when connecting and using your computer monitor:



**CAUTION: Use of controls, adjustments, or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards, and/or mechanical hazards.**

- Always be sure that your monitor is electrically rated to operate with the AC power available in your location.



**NOTE: This monitor does not need or have a voltage selection switch for setting the AC voltage input. It will automatically accept any AC input voltage according to the ranges defined in the "Electrical Specifications" section in the User's Guide.**

- Place the monitor on a solid surface and treat it carefully. The screen is made of glass and can be damaged if dropped or hit sharply.

- Keep flat panel monitor in room temperature conditions. Excessive cold or hot conditions can have an adverse effect on the liquid crystal of the display.
- Do not subject the monitor to severe vibration or high impact conditions. For example, do not place the monitor inside a car trunk.
- Unplug the monitor when it is going to be left unused for an extended period of time.
- To avoid electric shock, do not attempt to remove any cover or touch the inside of the monitor. Only a qualified service technician should open the monitor case.