Dell Latitude 10 – ST2e Owner's Manual



Regulatory Model: T05G Regulatory Type: T05G001

# Notes, Cautions, and Warnings

IJ

NOTE: A NOTE indicates important information that helps you make better use of your computer.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

M WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

#### © 2013 Dell Inc.

Trademarks used in this text: Dell<sup>™</sup>, the DELL logo, Dell Precision<sup>™</sup>, Precision ON<sup>™</sup>, ExpressCharge<sup>™</sup>, Latitude<sup>™</sup>, Latitude ON<sup>™</sup>, OptiPlex<sup>™</sup>, Vostro<sup>™</sup>, and Wi-Fi Catcher<sup>™</sup> are trademarks of Dell Inc. Intel<sup>®</sup>, Pentium<sup>®</sup>, Xeon<sup>®</sup>, Core<sup>™</sup>, Atom<sup>™</sup>, Centrino<sup>®</sup>, and Celeron<sup>®</sup> are registered trademarks or trademarks of Intel Corporation in the U.S. and other countries. AMD<sup>®</sup> is a registered trademark and AMD Opteron<sup>™</sup>, AMD Phenom<sup>™</sup>, AMD Sempron<sup>™</sup>, AMD Athlon<sup>™</sup>, ATI Radeon<sup>™</sup>, and ATI FirePro<sup>™</sup> are trademarks of Advanced Micro Devices, Inc. Microsoft<sup>®</sup>, Windows<sup>®</sup>, MS-DOS<sup>®</sup>, Windows Vista<sup>®</sup>, the Windows Vista start button, and Office Outlook<sup>®</sup> are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. Blu-ray Disc<sup>™</sup> is a trademark owned by the Bluetooth<sup>®</sup> SIG, Inc. and any use of such mark by Dell Inc. is under license. Wi-Fi<sup>®</sup> is a registered trademark of Wireless Ethernet Compatibility Alliance, Inc.

2013 - 03

Rev. A01

# Contents

Notes, Cautions, and Warnings	
1 Working on Your Computer	5
Before Working Inside Your Computer	
Turning Off Your Computer	6
After Working Inside Your Computer	6
2 Removing and Installing Components	9
Recommended Tools	
Internal View	9
Removing the Base Cover	10
Installing the Base Cover	10
Removing the Battery	10
Installing the Battery	11
Removing the Front Camera	11
Installing the Front Camera	
Removing the Speakers	
Installing the Speakers	14
Removing the Docking Board	14
Installing the Docking Board	15
Removing the System Board	
Installing the System Board	
Removing the Rear Camera	17
Installing the Rear Camera	17
Removing the Coin-Cell Battery	
Installing the Coin-Cell Battery	
Removing the Volume-Button Board	
Installing the Volume-Button Board	19
3 System Setup	
Entering System Setup (BIOS)	21
System Setup Navigation	21
Boot Menu	
System Setup (BIOS) Options	
4 Troubleshooting Your Computer	27
Enhanced Pre-boot System Assessment (ePSA)	

Running the ePSA Diagnostic Utility	27
Beep Codes	
LED Error Codes	
5 Specifications	
Specifications	33
6 Contacting Dell	
Contacting Dell	

# Working on Your Computer

## **Before Working Inside Your Computer**

Use the following safety guidelines to help protect your computer from potential damage and to help to ensure your personal safety. Unless otherwise noted, each procedure included in this document assumes that the following conditions exist:

- You have performed the steps in Working on Your Computer. •
- You have read the safety information that shipped with your computer.
- A component can be replaced or--if purchased separately--installed by performing the removal procedure in • reverse order.

M WARNING: Before working inside your computer, read the safety information that shipped with your computer. For additional safety best practices information, see the Regulatory Compliance Homepage at www.dell.com/ regulatory\_compliance

∧ CAUTION: Many repairs may only be done by a certified service technician. You should only perform troubleshooting and simple repairs as authorized in your product documentation, or as directed by the online or telephone service and support team. Damage due to servicing that is not authorized by Dell is not covered by your warranty. Read and follow the safety instructions that came with the product.

∧ CAUTION: To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface, such as a connector on the back of the computer.

CAUTION: Handle components and cards with care. Do not touch the components or contacts on a card. Hold a card by its edges or by its metal mounting bracket. Hold a component such as a processor by its edges, not by its pins.

IJ

∧ CAUTION: When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable. As you pull connectors apart, keep them evenly aligned to avoid bending any connector pins. Also, before you connect a cable, ensure that both connectors are correctly oriented and aligned.

NOTE: The color of your computer and certain components may appear differently than shown in this document.

To avoid damaging your computer, perform the following steps before you begin working inside the computer.

- Ensure that your work surface is flat and clean to prevent the computer cover from being scratched. 1.
- **2.** Turn off your computer.
- 3. If the computer is connected to a docking device (docked), undock it.

#### CAUTION: To disconnect a network cable, first unplug the cable from your computer and then unplug the cable from the network device.

- 4. Disconnect all network cables from the computer.
- 5. Disconnect your computer and all attached devices from their electrical outlets.
- 6. Turn the computer upside-down on a flat work surface.



NOTE: To avoid damaging the system board, you must remove the main battery before you service the computer.

- 7. Remove the main battery.
- Turn the computer top-side up. 8.
- Press the power button to ground the system board. 9.

CAUTION: To guard against electrical shock, always unplug your computer from the electrical outlet before opening the display.

CAUTION: Before touching anything inside your computer, ground yourself by touching an unpainted metal surface, such as the metal at the back of the computer. While you work, periodically touch an unpainted metal surface to dissipate static electricity, which could harm internal components.

10. Remove any installed SmartCards from the slots.

## **Turning Off Your Computer**

CAUTION: To avoid losing data, save and close all open files and exit all open programs before you turn off your computer.

- Shut down the operating system: 1.
  - Windows 8:
    - Using a touch-enabled device:

Swipe in from the right edge of the screen, opening the Charms menu and select Settings. Select

the  $\bigcirc$  and then select **Shut down** 

Using a mouse:

Point to upper-right corner of the screen and click **Settings**. Click on the  $\circlearrowright$  and then select **Shut** down.

2. Ensure that the computer and all attached devices are turned off. If your computer and attached devices did not automatically turn off when you shut down your operating system, press and hold the power button for about 4 seconds to turn them off.

## After Working Inside Your Computer

After you complete any replacement procedure, ensure you connect any external devices, cards, and cables before turning on your computer.

CAUTION: To avoid damage to the computer, use only the battery designed for this particular Dell computer. Do not use batteries designed for other Dell computers.

- 1. Connect any external devices, such as a port replicator, battery slice, or media base, and replace any cards, such as an ExpressCard.
- Connect any telephone or network cables to your computer. 2.

#### CAUTION: To connect a network cable, first plug the cable into the network device and then plug it into the computer.

- 3. Replace the battery.
- 4. Connect your computer and all attached devices to their electrical outlets.
- 5. Turn on your computer.



**NOTE:** It is recommended that you immediately backup the operating system image using the USB device through Dell Backup and Recovery (DBAR) application.

# **Removing and Installing Components**

This section provides detailed information on how to remove or install the components from your computer.

#### **Recommended Tools**

The procedures in this document may require the following tools:

- Small flat-blade screwdriver
- #0 Phillips screwdriver
- #1 Phillips screwdriver
- Small plastic scribe

#### **Internal View**



#### Figure 1. Internal View

- 1. system board
- 2. front camera

- 3. rear camera
- 4. battery

- 5. volume button
- 6. speaker
- 7. battery
- 8. docking board

- 9. coin-cell battery
- 10. speaker

## **Removing the Base Cover**

- 1. Follow the procedures in *Before Working Inside Your Computer*.
- 2. Pry and lift the base cover from the computer by following the arrow sequence in the diagram.



## Installing the Base Cover

- **1.** Attach the base cover to the computer.
- 2. Follow the procedures in After Working Inside Your Computer.

#### **Removing the Battery**

- 1. Follow the procedures in *Before Working Inside Your Computer*.
- 2. Remove the base cover.
- 3. Remove the screws that secure the battery to the computer and lift the battery from the computer.



## **Installing the Battery**

- 1. Tighten the screws to secure the battery to the computer.
- 2. Install the base cover.
- 3. Follow the procedures in *After Working Inside Your Computer.*

## **Removing the Front Camera**

- 1. Follow the procedures in *Before Working Inside Your Computer*.
- 2. Remove the:
  - a) base cover
  - b) battery
- **3.** Lift up the connector latch and disconnect the camera cable. Remove the screw that secures the camera module to the computer. Remove the camera module from the computer.



## **Installing the Front Camera**

- 1. Place the camera module in its slot on the computer.
- 2. Tighten the screw to secure the camera module to the computer.
- **3.** Connect the camera cable to the connector.
- 4. Install the:
  - a) battery
  - b) base cover
- 5. Follow the procedures in *After Working Inside Your Computer*.

## **Removing the Speakers**

- 1. Follow the procedures in *Before Working Inside Your Computer*.
- 2. Remove the :
  - a) base cover
  - b) battery
- **3.** Lift up the coin-cell battery from its slot and un-route it's cabling from below the speaker. Disconnect the speaker connector from the system board.



4. Remove the screws that secure the speakers to the computer.



5. Un-route the speaker cable on the side of the computer and lift it up to release the speaker from the computer.



6. Un-route the speaker cable on the side of the computer and lift it up to release the speaker from the computer.



#### **Installing the Speakers**

- 1. Place the right and the left speakers in their slot.
- 2. Route the speaker cables on the chassis.
- 3. Tighten the screws to secure the speakers to the chassis.
- 4. Place the coin-cell battery in its slot and route the cables.
- 5. Connect the speaker connector cable to its port on the system board.
- 6. Install the :
  - a) battery
  - b) base cover
- 7. Follow the procedures in After Working Inside Your Computer.

## **Removing the Docking Board**

- 1. Follow the procedures in *Before Working Inside Your Computer*.
- 2. Remove the:
  - a) base cover
  - b) battery
  - c) speaker
  - d) front camera
- 3. Lift up the connector latch and disconnect the docking-board power cable from the connector.



4. Remove the screws that secure the docking board to the computer.



5. Remove the docking board from the computer and disconnect the home-button board cable.



## Installing the Docking Board

- 1. Connect the home-button board cable to the docking board and place the docking board in its slot in the computer.
- 2. Tighten the screws to secure the docking board to the computer.
- 3. Connect the docking-board power cable to the connector.
- 4. Install the:
  - a) front camera
  - b) speaker
  - c) battery
  - d) base cover
- 5. Follow the procedures in *After Working Inside Your Computer*.

## **Removing the System Board**

- 1. Follow the procedures in *Before Working Inside Your Computer*.
- 2. Remove the:
  - a) base cover
  - b) battery
  - c) speaker
  - d) front camera
  - e) docking board
- 3. Disconnect the LVDS and docking board cables.
- 4. Remove the screws that secure the system board to the computer.



5. Lift up the system board at a 45° angle and pull it away from the computer.





## Installing the System Board

- 1. Place the system board in its compartment on the computer.
- 2. Tighten the screws to secure the system board to the computer.
- 3. Connect the LVDS and docking board cables to the system board.

- 4. Install the:
  - a) docking board
  - b) front camera
  - c) speaker
  - d) battery
  - e) base cover
- 5. Follow the procedures in *After Working Inside Your Computer*.

## **Removing the Rear Camera**

- 1. Follow the procedures in *Before Working Inside Your Computer*.
- 2. Remove the:
  - a) base cover
  - b) battery
  - c) speaker
  - d) front camera
  - e) system board
- 3. Remove the camera module from the system board.



## Installing the Rear Camera

- 1. Place the camera module in its slot on the system board.
- 2. Install the:
  - a) system board
  - b) front camera
  - c) speaker
  - d) battery
  - e) base cover
- 3. Follow the procedures in *After Working Inside Your Computer*.

## **Removing the Coin-Cell Battery**

- 1. Follow the procedures in *Before Working Inside Your Computer*.
- 2. Remove the:
  - a) base cover
  - b) battery
  - c) speaker
  - d) front camera
  - e) system board
- 3. Disconnect the coin-cell battery cable and remove it from the computer.



#### Installing the Coin-Cell Battery

- 1. Connect the coin-cell battery cable to the system board.
- 2. Install the:
  - a) system board
  - b) front camera
  - c) speaker
- 3. Replace the coin-cell battery in its slot on the computer.
- 4. Install the:
  - a) battery
  - b) base cover
- 5. Follow the procedures in After Working Inside Your Computer.

## **Removing the Volume-Button Board**

- 1. Follow the procedures in *Before Working Inside Your Computer*.
- 2. Remove the:
  - a) base cover

- b) battery
- **3.** Disconnect the volume-board cable from the connector. Lift up and remove the volume-board cable from the system board.



**4.** Pry the sides of the volume-button board with a flat-head screw driver to loosen it from it's slot on the computer. Remove the volume-button board from the computer



## Installing the Volume-Button Board

- 1. Place the volume-button board in it's slot on the computer.
- 2. Route and connect the volume-board cable to the connector.
- 3. Install the:
  - a) battery
  - b) base cover
- 4. Follow the procedures in *After Working Inside Your Computer*.

# System Setup

System Setup enables you to manage your computer hardware and specify BIOS-level options. From the System Setup, you can:

- Change the NVRAM settings after you add or remove hardware
- View the system hardware configuration
- Enable or disable integrated devices
- Set performance and power management thresholds
- Manage your computer security

## **Entering System Setup (BIOS)**

**NOTE:** Before entering the System Setup, you must connect a USB Keyboard to the USB port located on the right side of the computer or on the rear of the docking station if your computer is docked.

1. Turn on (or restart) your computer.

IJ

- 2. When the blue DELL logo is displayed, you must watch for the F2 prompt to appear.
- 3. Once the F2 prompt appears, press <F2> immediately.

**NOTE:** The F2 prompt indicates that the keyboard has initialized. This prompt can appear very quickly, so you must watch for it to display, and then press <F2>. If you press <F2> before you are prompted, this keystroke will be lost.

- 4. The System Setup screen is displayed.
- 5. 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.

## System Setup Navigation

Use the following options to navigate through the System Setup screens:

Keystroke	Action
< Esc >	Exit from current view or switch the current view to the <b>Exit</b> page in the System Setup.
<on keyboard<br="" screen="">Icon&gt;</on>	Select this option to navigate the system setup using the on screen keyboard built into the tablet.
< Up Arrow > or < Down Arrow > ( when connected to an optional external USB keyboard)	Select an item to display.
< Left Arrow > or < Right Arrow > ( when	Select a menu to display.

Keystroke	Action
connected to an optional external USB keyboard)	
On Screen Mouse Pointer	Use this to navigate the System Setup by using your finger or an interactive pen.
Apply Icon	Save current configuration.
Defaults Icon	Load setup defaults.
Exit Icon	Exits System Setup.

#### **Boot Menu**

Press <F12> when the Dell logo appears to initiate a one-time boot menu with a list of the valid boot devices for the system. **Hard Drive Network Diagnostics** and **Enter Setup** options are included in this menu. The devices listed on the boot menu depend on the bootable devices in the system. This menu is useful when you are attempting to boot to a particular device or to bring up the diagnostics for the system. Using the boot menu does not make any changes to the boot order stored in the BIOS.

## System Setup (BIOS) Options

#### Table 1. System Information

Option	Function
BIOS Version	Displays the BIOS revision.
Service Tag	Displays the service tag of your tablet.
Asset Tag	Displays the asset tag of your computer.
Ownership Tag	Displays the ownership information.
Manufacture Date	Displays the date of manufacture.
Ownership Date	Displays the ownership date.
Memory Installed	Displays the memory installed on the computer.
Memory Available	Displays the memory available on the computer.
Memory Speed	Displays the memory speed.
Table 2. Battery Information	
Option	Function
AC Adapter	Displays the AC Adapter information.
Battery Status	Displays the current battery status.

**Battery Health** 

Table 3. Boot Sequence

Option	Function
File Browser Add Boot Option	Displays the order that the BIOS searches devices when trying to find an operating system to boot. A new device can be added here.
File Browser Del Boot Option	A displayed boot device can be removed from the boot order.
Table 4. Date/Time	
Option	Function
System Date	Displays the system date.
System Time	Displays the system time.
Table 5. System Configuration	
Option	Function
USB Configuration	Enables or Disables boot from a USB mass storage device Default : <b>Enabled</b>
Miscellaneous Devices	Allows you to enable or disable various on-board devices.
	<ul> <li>Enable/Disable Front Camera Device</li> <li>Enable/Disable Rear Camera Device</li> <li>Enable/Disable Media Card Device</li> <li>Enable/Disable GPS</li> </ul>

Option	Function
LCD Brightness	Displays the panel brightness when the ambient light sensor is off.
	<ul><li>Brightness on Battery</li><li>Brightness on AC</li></ul>

#### Table 7. Security

Option	Description
Admin Password	This field lets you set, change, or delete the administrator (admin) password (also known as the setup password). The admin password enables several security features. The drive does not have a password set by default. To add a new password:
	<ul> <li>Enter the old password</li> <li>Enter the new password</li> <li>Confirm the new password</li> </ul>

Option	Description
	Click <b>OK</b> after entering the password details.
System Password	Allows you to set, change, or delete the computer password (previously called the primary password). The drive does not have a password set by default. To add a new password:
	<ul> <li>Enter the old password</li> <li>Enter the new password</li> <li>Confirm the new password</li> </ul>
	Click <b>OK</b> after entering the password details.
Strong Password	Enable strong password - This option is disabled by default.
Password Configuration	This field controls the minimum and maximum number of characters allowed for the admin and system passwords. Changes to these fields are not active until they are committed via the apply button or saving changes before exiting setup.
	<ul> <li>Admin Password Min</li> <li>Admin Password Max</li> <li>System Password Min</li> <li>System Password Max</li> </ul>
Password Change	Allows you to determine whether changes to the system and hard disk passwords are permitted when an administrator password is set.
	Allow Non-Admin Password Changes (Default)
Non-Admin Setup Changes	This option lets you determine whether changes to the setup options are permitted when an administrator password is set.
	Allow Wireless Switch Changes (Default)
TPM Security	This option lets you control whether the Trusted Platform Module (TPM) in the system is enabled and visible to the operating system. TPM Security (Default)
	<b>NOTE:</b> Activation, deactivation, and clear options are not affected if you load the setup program's default values. Changes to this option take effect immediately.
PTT	Allows you to enable or disable PTT Support.
	<ul><li>PTT Security (Default)</li><li>Revoke Trust (Default)</li></ul>
Computrace (R)	This field lets you activate or disable the BIOS module interface of the optional <i>Computrace Service</i> from <i>Absolute Software</i> .
	<ul> <li>Deactivate (Default)</li> <li>Disable</li> <li>Activate</li> </ul>

Option	Description
Admin Setup Lockout	Allows you to enable or disable the option to enter setup when an admin password is set.
	Enable Admin Setup Lockout (Default)
Table 8. Secure Boot	
Option	Function
Secure Boot	Enables or Disables the secure boot feature. Default : Disabled
Expert Key Management	Allows you to manage all secure boot keys.
Table 9. Performance	
Option	Description
Multi Core Support	Specifies whether the process will have one or all cores enabled. The performance of some applications will improve with the additional cores.
	All (Default)
	• 1
	• 2
Intel SpeedStep	Allows you to enable or disable the Intel SpeedStep mode of the processor.
	Enable Intel(R) SpeedStep (Default)
C States Control	Allows you to enable or disable the additional processor sleep states.
	C states (Default)
Intel TurboBoost	Allows you to enable or disable Intel TurboBoost mode of the processor.
	<ul> <li>Enable Intel TurboBoost (Default) — Allows the Intel TurboBoost driver to increase the performance of the CPU or graphics processor.</li> </ul>
Hyperthread Control	This options allows users to enable and disable the Hyperthread Control.
	Hyperthread Control (selected by default)
Table 10. Power Management	

Option	Description
AC Behavior	Allows the computer to power-uon automatically, when AC adapter is plugged. The option is disabled.
	Wake on AC
Wake on LAN	This option allows the computer to power up from the off state when triggered by a special LAN signal. Wake-up from the Standby state is unaffected by this setting and must be enabled in the operating system. This feature only works when the computer is connected to AC power supply.

Option	Description

- **Disabled** Does not allow the system to power on by special LAN signals when it receives a wake-up signal from the LAN or wireless LAN. (Default )
- LAN Only Allows the system to be powered on by special LAN signals.

#### Table 11. POST Behaviour

Option Description	
Adapter Warnings	Allows you to activate the adapter warning messages when certain power adapters are used. The option is enabled by default.
	Enable Adapter Warnings
POST Hotkeys	Specifies whether the sign-on screen displays a message, that displays the keystroke sequence required to enter the BIOS Boot Option Menu.

• Enable F12 Boot Option menu (Default).

#### Table 12. Virtualization Support

Option	Description	
Virtualization	This option specifies whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Intel Virtualization technology.	

#### • Enable Intel Virtualization Technology (Default)

#### Table 13. Wireless

Option	Description	
Wireless Device Enable	Allows you to enable or disable the wireless devices	
	<ul><li>WLAN</li><li>Bluetooth</li></ul>	
	All options are enabled by default.	

#### Table 14. Maintenance

Option	Description
Service Tag	Displays the service tag of your computer.
Asset Tag	Allows you to create a system asset tag if an asset tag is not already set. This option is not set by default.

#### Table 15. System Logs

Option	Description
BIOS events	Displays the system event log and allows you to clear the log.
	• Clear Log

# **Troubleshooting Your Computer**

You can troubleshoot your computer using indicators like Diagnostic Lights, Beep Codes, and Error Messages during the operation of the computer.

## Enhanced Pre-boot System Assessment (ePSA)

The ePSA is a diagnostic utility available on your computer. This utility includes a series of tests for a computer's hardware. You can run these tests even if the computer lacks any media (hard drive, optical drive, etc.). If a ePSA-tested component fails, the system displays an error code and generates a beep code.

#### Features

- Graphical User Interface
- Automatic Default Operation- runs test on all devices, allowing a user to interrupt and select any device
- Checks the Master Boot Record for readiness to boot into a full OS environment
- Tablet panel test
- Video memory test
- Battery test
- Charger test
- Event log scan
- Multiprocessor cache test

#### Running the ePSA Diagnostic Utility



**NOTE:** The following steps can be used to run the ePSA diagnostic utility in DOS mode without using an external keyboard.

1. Power on the system and immediately press the <Power> + <Start> buttons simultaneously for a second.



2. The computer will start up and begin running the ePSA utility automatically.



3. During the testing process, you will be prompted to answer a YES or NO question. To respond, press Volume Up = YES or Volume Down = NO.



4. Press the Security Button (<Ctrl> + <Alt> + <Del>) to click **OK** once the tests are completed.

Devices		ystem Health Event Log		
	Battery and AC Adapter			
System	Sensor	Current	High	Low
	Battery Charge	60%	60%	60%
Cables	Battery Health	95%	95%	95%
10	Battery Current Flow	0 mA	0 mA	0 mA
OS Boot Path	AC adapter	65 watt adapter	n/a	n/a
OS Boot Path	Battery Charging State	Idle	n/a	n/a
Hard Drive 0	Fans			
CDROM Drive 0	Sensor	Current	High	Low
	Processor Fan	3810 RPM	3810 RPM	0 RPM
-	CPU Thermistor	C 33 C	76 C 33 C	45 C 25 C
Notebook Panel	Sensor 🛛	K C	High Z6 C	Low 45.C
Primary Battery				
	SODIMM Thermistor	49 C	49 C	28 C
Charger				
System Management				
Processor R				m Quick Audio Check Igh Test Mode
Memory			10000	
			Run	

5. The volume up and down buttons can also be used as the <Tab> key when switching between options.



## **Beep Codes**

The computer may emit a series of beeps during start-up if the display cannot show errors or problems. These series of beeps, called beep codes, identify various problems. The delay between each beep is 300 ms, the delay between each set of beeps is 3 seconds, and the beep sound lasts 300 ms. After each beep and each set of beeps, the BIOS should detect if the user presses the power button. If so, BIOS will jump out from looping and execute the normal shutdown process and power system.

Code Cause and Troubleshooting Steps

1

5.1

BIOS ROM checksum in progress or failure

Code	Cause and Troubleshooting Steps System board failure, covers BIOS corruption or ROM error
2	No RAM detected No memory detected
3	Chipset Error (North and South Bridge Chipset, DMA/IMR/ Timer Error) , Time-Of-Day Clock test failure , Gate A20 failure , Super I/O chip failure , Keyboard controller test failure System board failure
4	RAM Read/Write failure Memory failure
5	Real-time clock power fail CMOS battery failure
6	Video BIOS test failure Video card failure
7	CPU - cache test failure Processor failure
8	Display Display failure

## **LED Error Codes**

Diagnostic LED codes are communicated via the Power Button LED. The Power Button LED blinks the corresponding LED codes for the corresponding fault condition. Example: For No Memory detected (LED code 2), The Power Button LED blinks two times followed by a pause, blinks two times, pause, etc. This pattern continues until the system is powered off.

Code	Cause and Troubleshooting Steps
1	System board: BIOS ROM failure
	System board failure, covers BIOS corruption or ROM error
2	Memory
	No memory/RAM detected
3	Chipset Error (North and South Bridge Chipset, DMA/IMR/ Timer Error) , Time-Of-Day Clock test
	failure , Gate A20 failure , Super I/O chip failure , Keyboard controller test failure
	System board failure
4	RAM Read/Write failure
	Memory failure
5	Real-time clock power fail
	CMOS battery failure

Code	Cause and Troubleshooting Steps
6	Video BIOS test failure Video card failure
7	CPU - cache test failure Processor failure
8	Display Display failure

## **Specifications**

## Specifications

IJ

**NOTE:** Offerings may vary by region. The following specifications are only those required by law to ship with your computer. For more information regarding the configuration of your computer, click **Start**  $\rightarrow$  **Help and Support** and select the option to view information about your computer.

System Information		
Chipset	Intel Atom Z2760	
DRAM bus width	32-bit	
Flash EPROM	SPI 4M bits	
Processor		
Туре	Intel Atom Z2760	
External bus frequency	800 MHz	
Memory		
Memory capacity	2 GB	
Memory type	LPDDR2	
Audio		
Туре	Dual channel I2S codec	
Controller	Realtek ALC3261	
Stereo conversion	24-bit	
Interface:		
Internal	I2 S audio interface	
External	microphone-in and stereo headphones/speakers combo connector	
Speakers	2 x 1 W stereo speakers	
Internal speaker amplifier	1 W per channel	

#### Video Video type integrated Data bus internal Video controller Intel Graphics Media Accelerator Communications Network adapter USB 2.0 based Gigabit LAN via dock **Ports and Connectors** Audio one microphone-in and stereo headphones/speakers combo connector Video one mini HDMI connector USB one USB 2.0 connector Memory card reader one 3-in-1 memory card reader Display Туре HD IPS LED Size 10.1 inches high definition (HD) Dimensions: Height 125.11 mm (4.93 inches) Width 222.52 mm (8.76 inches) Diagonal 255.28 mm (10.05 inches) Active area (X/Y) 222.52 mm / 125.11 mm Maximum resolution 1366 x 768 pixels 470 nits Typical brightness Refresh rate 60 Hz Minimum viewing angles: Horizontal 80/80 80/80 Vertical

## Pixel pitch

Battery

Type Dimensions Length

Height

2–cell lithium ion (30 WHr)

0.1629 x 0.1629

238.30 mm (9.38 inches) 5.48 mm (0.22 inch)

# Battery Width 86.50 mm (3.40 inches) Weight 220.00 g (0.49 lb) Voltage 7.4 VDC Temperature range 0°C to 50 °C (32° F to 158 °F) Non-Operating -20 °C to 65 °C ( -4 °F to 149 °F) Coin-cell battery 3 V CR2025 lithium ion

#### AC Adapter

Туре	
Input voltage	100 VAC to 240 VAC
Input current (maximum)	0.87 A
Input frequency	50 Hz to 60 Hz
Output power	30 W
Output current (30 W)	1.54 A
Rated output voltage	19 Vdc/1.58 A; 19.5 Vdc/1.54 A
Temperature range:	
Operating	0 °C to 35 °C (32 °F to 95 °F)
Non-operating	–40 °C to 65 °C (–40 °F to 149 °F)

#### Physical

-	
Height	10.50 mm (0.41 inch)
Width	274 mm (10.79 inches)
Depth	176.60 mm (6.95 inches)
Weight (minimum)	699 grams (1.54 lb)

#### Environmental

Temperature:	
Storage	-40 °C to 85 °C
Relative humidity (maximum):	
Operating	Operating 10% to 90% (noncondensing)
Storage	Storage 5% to 95% (noncondensing)
Altitude (maximum):	

#### Environmental

Operating

Non-operating

Airborne contaminant level

-16 m to 3048 m (-50 to 10,000 ft) -15.2 m to 10,668 m (-50 ft to 35,000 ft) G1 as defined by ISA-71.04-1985

# 6

# **Contacting Dell**

## **Contacting Dell**



**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 dell.com/support

- 2. Select your support category.
- 3. Verify your country or region in the Choose a Country/Region drop-down menu at the top of page.
- 4. Select the appropriate service or support link based on your need.