# Alienware® M11x R3 Service Manual

<u> Before You Begin</u>	Power Button Board
Base Cover	Internal Card With Bluetooth Wireless Technology
Battery Pack	Coin-Cell Battery
Hard Drive	Display Assembly
Memory Module(s)	I/O Board
Wireless Mini-Card(s)	System Board
Hinge Cover	Speakers
Keyboard	System Setup
Palm Rest Assembly	Flashing the BIOS
Status Light Board	

Regulatory model: P06T series Regulatory type: P06T003

### Notes, Cautions, and Warnings

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

△ CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

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

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# Battery Pack

Alienware® M11x R3 Service Manual

- Removing the Battery Pack
- Replacing the Battery Pack
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To avoid damage to the computer, use only the battery designed for this particular Alienware<sup>®</sup> computer. Do not use batteries designed for other Alienware computers.

### **Removing the Battery Pack**

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see Removing the Base Cover).
- 3. Remove the two screws that secure the battery pack to the computer base.
- 4. Disconnect the battery pack cable from the connector on the system board.
- 5. Using the pull-tab, lift the battery pack off the computer base.



1	battery pack cable	2	battery pack
3	screws (2)	4	pull tab

### **Replacing the Battery Pack**

△ CAUTION: To avoid damage to the computer, use only the battery designed for this particular Alienware computer.

- 1. Follow the instructions in Before You Begin.
- 2. Place the battery pack in the battery bay and replace the two screws that secure the battery pack to the computer base.
- 3. Route the battery pack cable in the routing guide.
- 4. Connect the battery pack cable to the connector on the system board.
- 5. Replace the base cover (see Replacing the Base Cover).

# Before You Begin

Alienware® M11x R3 Service Manual

- Recommended Tools
- Turning Off Your Computer
- Before Working Inside Your Computer
- Contacting Alienware

This manual provides procedures for removing and installing the components in your computer. Unless otherwise noted, each procedure assumes that the following conditions exist:

- 1 You have performed the steps in Turning Off Your Computer and Before Working Inside Your Computer
- 1 You have read the safety information that shipped with your computer.
- 1 A component can be replaced or—if purchased separately—installed by performing the removal procedure in reverse order.

#### **Recommended Tools**

The procedures in this document may require the following tools:

- 1 Small flat-blade screwdriver
- 1 Phillips screwdriver
- 1 Plastic scribe
- 1 BIOS executable update program at support.dell.com

### **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.

- 1. Save and close all open files and exit all open programs.
- 2. Click Start 🧐 , and then click Shut Down.

The computer turns off after the operating system shutdown process finishes.

 Ensure that the computer and any 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 at least 8 to 10 seconds until the computer turns off.

#### Before Working Inside Your Computer

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

- MARNING: 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: 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 your 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.
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- 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.
- △ CAUTION: To avoid damaging the computer, perform the following steps before you begin working inside the computer.
- 1. Ensure that the work surface is flat and clean to prevent the computer cover from being scratched.

2. Turn off your computer (see Turning Off Your Computer).

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

- 3. Disconnect all telephone or network cables from the computer.
- 4. Press and eject any installed cards from the 3-in--1 Media Card Reader.
- 5. Disconnect your computer and all attached devices from their electrical outlets.
- 6. Disconnect all attached devices from your computer.

CAUTION: To help prevent damage to the system board, remove the main battery (see Removing the Battery Pack) before working inside the computer.

- 7. Remove the battery pack (see <u>Removing the Battery Pack</u>).
- 8. Turn the computer top-side up, open the display, and press the power button to ground the system board.

# **Contacting Alienware**

For customers in the United States/Canada, call 1-800-ALIENWARE.

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. Because availability varies by country and product, some services may not be available in your area.

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

- 1. Go to www.dell.com/contactdell.
- 2. Select your country or region.
- 3. Select the appropriate service or support link based on your need.
- 4. Choose the method of contacting Dell that is convenient for you.

# System Setup

Alienware® M11x R3 Service Manual

Configuring the System Setup

### Configuring the System Setup

The System Setup options allow you to:

- 1 Change the system configuration information after you add, change or remove any hardware in your laptop.
- 1 Set or change a user-selectable option.
- 1 View the installed amount of memory or set the type of hard drive installed.

Before you use System Setup, it is recommended that you write down the current System Setup information for future reference.

CAUTION: Do not change the settings in System Setup unless you are an expert computer user. Certain changes can cause your computer to work incorrectly.

#### **Entering System Setup**

1. Turn on (or restart) your laptop.



 While the laptop is booting, press <F2> immediately before the operating system logo appears to access the BIOS Setup Utility. If an error occurs during POST (Power On Self Test), you may also enter the BIOS Setup Utility by pressing <F2> when prompted.

NOTE: If you wait too long and the operating system logo appears, continue to wait until you see the Microsoft<sup>®</sup> Windows<sup>®</sup> desktop, then shut down your laptop and try again.

#### System Setup Screens

The BIOS Setup Utility window displays current or changeable configuration information for your laptop. Information is divided into five menus: Main, Advanced, Security, Boot, and Exit.

Key functions appear at the bottom of the BIOS Setup Utility window and lists keys and their functions within the active field.

System Setup Options

🖉 NOTE: Depending on your computer and installed devices, the items listed in this section may not appear, or may not appear exactly as listed.

Main Menu	
System Time	Displays the system time.
System Date	Displays the system date.
Alienware	Displays the model number of your computer.
Service Tag	Displays the service tag of your computer.
BIOS Version	Displays the BIOS version.
EC Version	Displays the EC firmware version.
ME version	Displays the Intel® ME firmware version.
CPU	Displays the type of processor installed.
CPU Frequency	Displays the speed of the processor.
CPU L3 Cache	Displays the processor cache size.
Integrated Graphics	Displays the integrated graphics card supported on your computer.
Discrete Graphics	Displays the primary discrete graphics card installed on your computer.
CPU ID	Displays the ID of the processor.
Total Memory	Displays the total memory available in your computer.
Memory Bank 0	Displays the memory size installed in DIMM 0.
Memory Bank 1	Displays the memory size installed in DIMM 1.

Advanced Menu	
Intel SpeedStep	Allows you to enable or disable the Intel SpeedStep technology. Disabling this feature may improve performance, but will greatly reduce battery life.
Virtualization	Allows you to enable or disable the Intel Virtualization technology.
USB Emulation	Allows you to enable or disable the USB emulation feature. This feature defines how the BIOS, in the absence of a USB-aware operating system, handles USB devices. USB emulation is always enabled during POST (Power On Self Test).
	NOTE: You cannot boot any type of USB device (floppy, hard drive, or memory key) when this option is off.
USB Wake Support	Allows you to enable USB devices to wake the computer from standby or to disable the USB wake support feature.
USB PowerShare	Allows you to enable or disable charging of devices plugged into the USB Powershare connector while in battery mode
Integrated Network	Allows you to enable or disable the on-board LAN controller.
	1 Disabled: Internal LAN is disabled and is not visible to the operating system.
	1 Enabled: Internal LAN is enabled.
High Definition	Allows you to enable or disable the internal high definition audio device.
Audio	1 Disabled: The internal audio device is disabled and is not visible to the operating system.
	1 Enabled: The internal audio device is enabled.
SD Card Reader	Allows you to enable or disable the internal SD card reader.
CPU Turbo Mode	Allows you to enable or disable the Intel CPU turbo mode performance option.
Performance Options	Allows you to enable or disable all over-clocking functions.
SATA Operation	Allows you to configure the operating mode of the integrated SATA hard drive controller.
	1 ATA: SATA is configured for ATA mode
	1 AHCL: SATA is configured for AHCL mode
SATA Hard Drive	Displays the installed SATA hard drive model.
Adapter Warnings	Allows you to choose if the computer should display warning messages when you use certain power adapters. The computer displays these messages if you attempt to use a power adapter that has too little capacity for your configuration.
	1 Disabled: BIOS will not detect unsupported AC adapters and will not display any message on the screen.
	1 Enabled: BIOS will detect unsupported AC adapters and display an error on the screen.
Charger Behavior	Allows you to enable or disable battery charging.
Wireless Menu	
Bluetooth	Allows you to enable or disable the internal Bluetooth device.
	Disabled: The internal Bluetooth device is disabled and is not visible to the operating system.
	Enabled: The internal Bluetooth device is enabled     Enabled: The internal Bluetooth device is enabled
Wirelegg Network	Allows you to anable or disable the internal wireless device
WITCIESS NEEWORK	
	1 Disabled: The internal wireless device is disabled and is not visible to the operating system.
	1 Enabled: The internal wireless device is enabled.
WWAN	Allows you to enable or disable the internal WWAN device.
Wireless Switch/Hotkey	Allows you to enable or disable all the internal wireless devices.
Security Monu	
Supervisor Password	Displays if the supervisor password is clear or set.
User Password	Displays if the user password is clear or set.

Set Service Tag	Allows you to set the service tag of your computer, if a service tag has not already been set.			
Set Supervisor Password	Allows you to set the supervisor password. The supervisor password controls access to the system setup utility.			
Set User Password	Allows you to set the user password. The user password controls access to the computer at boot.			
Computrace	Allows you to enable or disable the Computrace security feature on your computer.			
Boot Menu				
Use the <f5> or <f6></f6></f5>	keys to change the boot device priority. You can choose from:			
1 Hard Drive				
1 USB Storage				
1 CD/DVD/BD				
1 Removal Device	25			
1 Network				
Exit Menu				
Exit Saving Changes	Allows you to exit System Setup and save your changes to CMOS.			
Save Change Without Exit	Allows you remain in System Setup and save your changes to CMOS.			
Exit Discarding Changes	Allows you to exit System Setup and load previous values from CMOS for all Setup items.			
Load Optimal Defaults	Allows you to load default values for all Setup items.			
Discard Changes	Allows you to load previous values from CMOS for all Setup items.			

#### **Base Cover**

Alienware® M11x R3 Service Manual

- Removing the Base Cover
- <u>Replacing the Base Cover</u>
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To avoid damage to the computer, use only the battery designed for this particular Alienware<sup>®</sup> computer. Do not use batteries designed for other Alienware computers.

### **Removing the Base Cover**

- 1. Follow the instructions in Before You Begin.
- 2. Turn the computer over.
- 3. Loosen the eight captive screws that secure the base cover to the computer base.
- 4. Lift the base cover off the computer base.



#### **Replacing the Base Cover**

△ CAUTION: To avoid damage to the computer, use only the battery designed for this particular Alienware computer.

- 1. Follow the instructions in Before You Begin.
- 2. Align the tabs on the base cover with the slots on the computer base and place the base cover in position.
- 3. Tighten the eight screws that secure the base cover to the computer base.

#### Internal Card With Bluetooth Wireless Technology Alienware® M11x R3 Service Manual

Allenware with tx K3 Service Mar

- Removing the Bluetooth Card
- Replacing the Bluetooth Card
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

If you ordered a card with Bluetooth wireless technology with your computer, it is already installed.

# Removing the Bluetooth Card

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Follow the instructions from step 4 to step 6 in Removing the Hard Drive.
- 5. Remove the memory module(s) (see <u>Removing the Memory Module(s)</u>).
- 6. Remove the hinge cover (see Removing the Hinge Cover).
- 7. Remove the keyboard (see Removing the Keyboard).
- 8. Remove the palm rest assembly (see Removing the Palm Rest Assembly).
- 9. Remove the screw that secures the Bluetooth card to the system board.
- 10. Lift the Bluetooth card to disconnect it from the connector on the system board.



### **Replacing the Bluetooth Card**

1. Follow the instructions in Before You Begin

- 2. Align the connector on the Bluetooth card with the connector on the system board and press gently.
- 3. Replace the screw that secures the Bluetooth card to the system board.
- 4. Replace the palm rest assembly (see Replacing the Palm Rest Assembly).
- 5. Replace the keyboard (see Replacing the Keyboard).
- 6. Replace the hinge cover (see <u>Replacing the Hinge Cover</u>).
- 7. Replace the memory module(s) (see <u>Replacing the Memory Module(s)</u>).
- 8. Follow the instructions from step 6 to step 8 in Replacing the Hard Drive.
- 9. Replace the battery pack (see Replacing the Battery Pack).
- 10. Replace the base cover (see Replacing the Base Cover).

△ CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

#### Coin-Cell Battery Alienware® M11x R3 Service Manual

Removing the Coin-Cell Battery

- Replacing the Coin-Cell Battery
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

# **Removing the Coin-Cell Battery**

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Follow the instructions from step 4 to step 6 in Removing the Hard Drive.
- 5. Remove the memory module(s) (see <u>Removing the Memory Module(s)</u>).
- 6. Remove the hinge cover (see Removing the Hinge Cover).
- 7. Remove the keyboard (see Removing the Keyboard).
- 8. Remove the palm rest assembly (see Removing the Palm Rest Assembly).
- 9. Disconnect the coin-cell battery cable from the connector on the system board.
- 10. The coin-cell battery is glued to the system board. Using a plastic scribe, pry the coin-cell battery from the system board.



1 coin-cell battery cable connector 2 coin-cell battery

#### **Replacing the Coin-Cell Battery**

1. Follow the instructions in Before You Begin.

- 2. Use the adhesive on the coin-cell battery and adhere it to the system board.
- 3. Connect the coin-cell battery cable to the connector on the system board.
- 4. Replace the palm rest assembly (see Replacing the Palm Rest Assembly).
- 5. Replace the keyboard (see Replacing the Keyboard).
- 6. Replace the hinge cover (see <u>Replacing the Hinge Cover</u>).
- 7. Replace the memory module(s) (see <u>Replacing the Memory Module(s)</u>).
- 8. Follow the instructions from step 6 to step 8 in Replacing the Hard Drive.
- 9. Replace the battery pack (see Replacing the Battery Pack).
- 10. Replace the base cover (see Replacing the Base Cover).

CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

#### Display Assembly Alienware® M11x R3 Service Manual

- <u>Removing the Display Assembly</u>
   <u>Replacing the Display Assembly</u>
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

# Removing the Display Assembly

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Follow the instructions from step 4 to step 6 in Removing the Hard Drive.
- 5. Remove the memory module(s) (see Removing the Memory Module(s)).
- 6. Disconnect the antenna cables from the Mini-Card(s).
- 7. Note the routing of the Mini-Card antenna cables and remove them from the routing guides on the computer base.



#### 1 Mini-Card antenna cables

- 8. Turn the computer over and open the display as far as possible.
- 9. Remove the hinge cover (see Removing the Hinge Cover)
- 10. Remove the keyboard (see Removing the Keyboard).
- 11. Remove the palm rest assembly (see Removing the Palm Rest Assembly).
- 12. Pull the pull-tab to disconnect the display cable from the connector on the system board.

13. Remove the four screws that secure the display assembly to the computer base.



14. Gently slide the Mini-Card antenna cables out through the slot on the computer base.



15. Lift the display assembly off the computer.

# **Replacing the Display Assembly**

- 1. Follow the instructions in Before You Begin.
- 2. Slide the antenna cables in through the slot on the computer base.
- 3. Place the display assembly in position and replace the four screws that secure the display assembly to the computer base.
- 4. Connect the display cable to the connector on the system board.
- 5. Turn the computer over and route the Mini-Card antenna cables through the routing guides on the computer base.
- 6. Connect the Mini-Card antenna cables to the Mini-Card(s).
- 7. Replace the palm rest assembly (see Replacing the Palm Rest Assembly).
- 8. Replace the keyboard (see Replacing the Keyboard).
- 9. Replace the hinge cover (see <u>Replacing the Hinge Cover</u>).
- 10. Replace the memory module(s) (see Replacing the Memory Module(s)).
- 11. Follow the instructions from step 6 to step 8 in Replacing the Hard Drive.

- 12. Replace the battery pack (see Replacing the Battery Pack).
- 13. Replace the base cover (see Replacing the Base Cover).

△ CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

# Flashing the BIOS

Alienware® M11x R3 Service Manual

- 1. Turn on the computer.
- 2. Go to support.dell.com/support/downloads.
- 3. Locate the BIOS update file for your computer:

NOTE: The Service Tag for your computer is located on a label at the bottom of the computer.

If you have your computer's Service Tag:

- a. Click Enter a Service Tag.
- b. Enter your computer's Service Tag in the Enter a service tag: field, click Go, and proceed to step 4.

If you do not have your computer's Service Tag:

- a. Click Select Model.
- b. Select the type of product in the Select Your Product Family list.
- c. Select the product brand in the Select Your Product Line list.
- d. Select the product model number in the Select Your Product Model list.

MOTE: If you have selected a different model and want to start over again, click Start Over on the top right of the menu.

- e. Click Confirm.
- 4. A list of results appear on the screen. Click BIOS.
- Click Download Now to download the latest BIOS file. The File Download window appears.
- 6. Click Save to save the file on your desktop. The file downloads to your desktop.
- Click Close if the Download Complete window appears. The file icon appears on your desktop and is titled the same as the downloaded BIOS update file.
- 8. Double-click the file icon on the desktop and follow the instructions on the screen.

#### Hard Drive

Alienware® M11x R3 Service Manual

- Removing the Hard Drive
- Replacing the Hard Drive
- MARNING: If you remove the hard drive from the computer when the drive is hot, do not touch the metal housing of the hard drive.
- MARNING: 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: 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 your computer).
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.
- CAUTION: To prevent data loss, turn off your computer (see <u>Turning Off Your Computer</u>) before removing the hard-drive assembly. Do not remove the hard drive while the computer is On or in Sleep state.
- △ CAUTION: Hard drives are extremely fragile. Exercise care when handling the hard drive.
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- 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.
- 1/2 NOTE: Dell or Alienware does not guarantee compatibility or provide support for hard drives from sources other than Dell.
- NOTE: If you are installing a hard drive from a source other than Dell or Alienware, you need to install an operating system, drivers, and utilities on the new hard drive.

#### **Removing the Hard Drive**

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Loosen the three captive screws that secure the hard-drive assembly to the computer base.
- 5. Using the pull-tab, pull the hard-drive assembly to disconnect the hard- drive assembly from the connector on the system board.
- 6. Lift the hard-drive assembly off the computer base.



- 7. Remove the four screws that secure the hard-drive bracket to the hard drive.
- 8. Lift the hard-drive bracket away from the hard drive.



1	screws (4)	2	hard-drive bracket
3	hard drive		

9. Disconnect the interposer from the hard drive.



	1	interposer	2	hard drive
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CAUTION: When the hard drive is not in the computer, store it in protective antistatic packaging (see "Protecting Against Electrostatic Discharge" in the safety instructions that shipped with your computer).

#### **Replacing the Hard Drive**

- 1. Follow the instructions in Before You Begin.
- 2. Remove the new drive from its packaging.

Save the original packaging for storing or shipping the hard drive.

- 3. Connect the interposer to the hard drive.
- 4. Place the hard drive in the hard-drive bracket.
- 5. Replace the four screws that secure the hard-drive bracket to the hard drive.
- 6. Place the hard-drive assembly in the computer base.
- 7. Press the hard-drive assembly along the pull-tab to connect the hard drive assembly to the connector on the system board.
- 8. Tighten the three captive screws that secure the hard-drive assembly to the computer base.
- 9. Replace the battery pack (see Replacing the Battery Pack).
- 10. Replace the base cover (see Replacing the Base Cover).

- △ CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.
- 11. Install the operating system for your computer, as needed.
- 12. Install the drivers and utilities for your computer, as needed.

# **Hinge Cover**

Alienware® M11x R3 Service Manual

- Removing the Hinge Cover.
- Replacing the Hinge Cover
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

# **Removing the Hinge Cover**

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Turn the computer over and open the display as far as possible.
- 5. Using a plastic scribe, gently pry the hinge cover along the side and then ease the hinge cover from the computer base.
- 6. Lift the hinge cover to disengage the hinge cover tabs from the computer base.



1 plastic scribe 2 hinge cover

7. Lift the hinge cover off the computer base.

### **Replacing the Hinge Cover**

- 1. Follow the instructions in Before You Begin.
- 2. Align the tabs on the hinge cover with the slots on the computer base and snap the cover in place.
- 3. Close the display and turn the computer over.
- 4. Replace the battery pack (see Replacing the Battery Pack).

5. Replace the base cover (see Replacing the Base Cover).

△ CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

### I/O Board

Alienware® M11x R3 Service Manual

- Removing the I/O Board
- Replacing the I/O Board
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

### Removing the I/O Board

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Follow the instructions from step 4 to step 6 in Removing the Hard Drive.
- 5. Remove the memory module(s) (see <u>Removing the Memory Module(s)</u>).
- 6. Remove the hinge cover (see Removing the Hinge Cover).
- 7. Remove the keyboard (see Removing the Keyboard).
- 8. Remove the palm rest assembly (see Removing the Palm Rest Assembly).
- 9. Disconnect the speaker cable from the connector on the I/O board.
- 10. Remove the three screws that secure the I/O board to the computer base.
- 11. Using the pull-tab, gently pull the I/O board to disconnect it from the connector on the system board and ease the connectors on the I/O board out of the slots on the computer.



1	speaker cable connector	2	I/O board
3	screws (3)		

# Replacing the I/O Board

- 1. Follow the instructions in Before You Begin.
- 2. Align the connectors on the I/O board with the slots on the computer base.
- 3. Use the pull-tab to align the connector on the I/O board with the connector on the system board and press gently.
- 4. Replace the three screws that secure the I/O board to the computer base.
- 5. Connect the speaker cable to the connector on the I/O board.
- 6. Replace the palm rest assembly (see <u>Replacing the Palm Rest Assembly</u>).
- 7. Replace the keyboard (see Replacing the Keyboard).
- 8. Replace the hinge cover (see Replacing the Hinge Cover).
- 9. Replace the memory module(s) (see Replacing the Memory Module(s)).
- 10. Follow the instructions from step 6 to step 8 in Replacing the Hard Drive.
- 11. Replace the battery pack (see Replacing the Battery Pack).
- 12. Replace the base cover (see Replacing the Base Cover).

CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

#### Keyboard

Alienware® M11x R3 Service Manual

- Removing the Keyboard
- Replacing the Keyboard
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

### Removing the Keyboard

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Follow the instructions from step 4 to step 6 in Removing the Hard Drive.
- 5. Remove the memory module(s) (see Removing the Memory Module(s))
- 6. Remove the two screws that secure the keyboard to the computer base.



CAUTION: The keycaps on the keyboard are fragile, easily dislodged, and time-consuming to replace. Be careful when removing and handling the keyboard.

- 🛆 CAUTION: Be extremely careful when removing and handling the keyboard. Failure to do so could result in scratching the display panel.
- 7. Turn the computer over and open the display as far as possible.
- 8. Remove the hinge cover (see Removing the Hinge Cover).
- 9. Remove the two screws that secure the keyboard to the computer base.



1	screws (2)	2	keyboard
3	tabs (5)	4	palm rest assembly

10. Carefully lift the keyboard and slide the keyboard tabs out of the slots on the palm rest.

11. Carefully turn the keyboard over and place it on the palm rest.

12. Lift the connector latches and pull the pull-tabs to disconnect the keyboard cable and backlit keyboard cable from their connectors on the system board.



13. Lift the keyboard off the palm rest assembly.

# **Replacing the Keyboard**

- 1. Follow the instructions in Before You Begin.
- 2. Slide the keyboard cable and backlit keyboard cable into their connectors on the system board and press down on their connector latches to secure the cables.
- 3. Slide the tabs on the keyboard into the slots on the palm rest assembly and lower the keyboard into place.
- 4. Gently press around the edges of the keyboard to secure the keyboard under the tabs on the palm rest assembly.
- 5. Replace the two screws that secure the keyboard to the computer base.
- 6. Replace the hinge cover (see Replacing the Hinge Cover).
- 7. Close the display and turn the computer over.
- 8. Replace the two screws that secure the keyboard to the computer base.
- 9. Replace the memory module(s) (see Replacing the Memory Module(s)).

- 10. Follow the instructions from step 6 to step 8 in Replacing the Hard Drive.
- 11. Replace the battery pack (see Replacing the Battery Pack).
- 12. Replace the base cover (see Replacing the Base Cover).
- $\Delta$  CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

#### Status Light Board Alienware® M11x R3 Service Manual

- <u>Removing the Status Light Board</u>
   Replacing the Status Light Board
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

#### **Removing the Status Light Board**

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Follow the instructions from step 4 to step 6 in Removing the Hard Drive.
- 5. Remove the memory module(s) (see Removing the Memory Module(s)).
- 6. Remove the hinge cover (see Removing the Hinge Cover).
- 7. Remove the keyboard (see Removing the Keyboard).
- 8. Remove the palm rest assembly (see Removing the Palm Rest Assembly).
- 9. Turn the palm rest assembly over.
- 10. Disconnect the speaker lights cable from the connector on the status light board.
- 11. Push the connector latch up and pull the pull-tab to disconnect the power board cable from the connector on the status light board.
- 12. Lift the connector latch and pull the pull-tab to disconnect the status light board cable from the connector on the status light board.



1	speaker lights cable connector	2	power board cable connector
3	status light board cable connector		

- 13. Remove the five screws that secure the status light board to the palm rest assembly.
- 14. Lift the status light board off the palm rest assembly.



### **Replacing the Status Light Board**

- 1. Follow the instructions in Before You Begin.
- 2. Place the status light board on the palm rest assembly and replace the five screws that secure the status light board to the palm rest assembly.
- 3. Connect the speaker lights cable to the connector on the status light board.
- 4. Insert the status light board cable into the connector on the status light board and press the connector latch into the connector to secure the cable.
- 5. Insert the power board cable into the connector on the status light board and press down on the connector latch to secure the cable.
- 6. Replace the palm rest assembly (see Replacing the Palm Rest Assembly).
- 7. Replace the keyboard (see Replacing the Keyboard).
- 8. Replace the hinge cover (see Replacing the Hinge Cover).
- 9. Replace the memory module(s) (see <u>Replacing the Memory Module(s)</u>).
- 10. Follow the instructions from step 6 to step 8 in Replacing the Hard Drive.
- 11. Replace the battery pack (see Replacing the Battery Pack).
- 12. Replace the base cover (see Replacing the Base Cover).

CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

#### Memory Module(s) Alienware® M11x R3 Service Manual

- <u>Removing the Memory Module(s)</u>
   <u>Replacing the Memory Module(s)</u>
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

You can increase your computer memory by installing memory modules on the system board. See "Specifications" in your Mobile Manual for information on the type of memory supported by your computer.

NOTE: Memory modules purchased from Dell or Alienware are covered under your computer warranty.

Your computer has two user-accessible SODIMM connectors.

# Removing the Memory Module(s)

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see Removing the Base Cover).
- 3. Remove the battery pack (see <u>Removing the Battery Pack</u>).

△ CAUTION: To prevent damage to the memory-module connector, do not use tools to spread the memory module securing clips.

4. Use your fingertips to carefully spread apart the securing clips on each end of the memory-module connector until the memory module pops up.



1	memory-module connector	2	securing clips (2)
3	memory module		

5. Remove the memory module from the memory-module connector.

### Replacing the Memory Module(s)

1. Follow the instructions in Before You Begin.

NOTE: If you need to install memory modules in two connectors, install a memory module in the lower connector before you install a memory module in the upper connector.

- 2. Align the notch in the memory module with the tab in the memory- module connector.
- 3. Slide the memory module firmly into the connector at a 45-degree angle, and press the memory module down until it clicks into place. If you do not hear the click, remove the memory module and reinstall it.
- NOTE: If the memory module is not installed properly, the computer may not boot.



1	memory-module connector	2	tab
3	notch		

- 4. Replace the battery pack (see Replacing the Battery Pack).
- 5. Replace the base cover (see Replacing the Base Cover).

△ CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

6. Turn on the computer.

As the computer boots, it detects the additional memory and automatically updates the system configuration information.

To confirm the amount of memory installed in the computer:

Click Start  $\bigcirc$   $\rightarrow$  Control Panel  $\rightarrow$  System and Security  $\rightarrow$  System.

# Wireless Mini-Card(s)

Alienware® M11x R3 Service Manual

- Removing the Mini-Card(s).
- Replacing the Mini-Card(s)
- MARNING: 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: 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 your computer).

CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.

CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

🜠 NOTE: Dell or Alienware does not guarantee compatibility or provide support for Mini-Cards from sources other than Dell or Alienware.

If you ordered a wireless Mini-Card with your computer, the card is already installed.

Your computer supports two Mini-Card slots:

- 1 One full Mini-Card slot for WWAN
- 1 One half Mini-Card slot for WLAN

💋 NOTE: Depending on the configuration of the computer when it was sold, the Mini-Card slot may or may not have a Mini-Card installed.

#### Removing the Mini-Card(s)

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see Removing the Base Cover).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Disconnect the antenna cables from the Mini-Card.



1	screw	2	antenna cables (2)			
3	Mini-Card					

- 5. Remove the screw that secures the Mini-Card to the system board.
- 6. Lift the Mini-Card out of the connector on the system board.



CAUTION: When the Mini-Card is not in the computer, store it in protective antistatic packaging. For more information, see "Protecting Against Electrostatic Discharge" in the safety information that shipped with your computer.

# Replacing the Mini-Card(s)

- 1. Follow the instructions in Before You Begin.
- 2. Remove the new Mini-Card from its packaging.

🛆 CAUTION: Use firm and even pressure to slide the card into place. If you use excessive force, you may damage the connector.

 $\Delta$  CAUTION: The connectors are keyed to ensure correct insertion. If you feel resistance, check the connectors on the card and on the system board, and realign the card.

- 3. Insert the Mini-Card connector at a 45-degree angle into the connector on the system board.
- 4. Press the other end of the Mini-Card down into the slot on the system board and replace the screw that secures the Mini-Card to the system board.
- Connect the appropriate antenna cables to the Mini-Card you are installing. The following table provides the antenna cable color scheme for each Mini-Card supported by your computer.

Connectors on the Mini-Card	Antenna Cable Color Scheme		
WWAN (2 antenna cables)			
Main WWAN (white triangle)	white with gray stripe		
Auxiliary WWAN (black triangle)	black with gray stripe		
WLAN (2 antenna cables)			
Main WLAN (white triangle)	white		
Auxiliary WLAN (black triangle)	black		

6. Replace the battery pack (see Replacing the Battery Pack).

7. Replace the base cover (see Replacing the Base Cover).

CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

8. Install the drivers and utilities for your computer, as required.

💋 NOTE: If you are installing a Mini-card from a source other than Dell or Alienware, you must install the appropriate drivers and utilities.

#### Palm Rest Assembly Alienware® M11x R3 Service Manual

- Removing the Palm Rest Assembly
- Replacing the Palm Rest Assembly
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

#### **Removing the Palm Rest Assembly**

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Follow the instructions from step 4 to step 6 in Removing the Hard Drive.
- 5. Remove the memory module(s) (see Removing the Memory Module(s)).
- 6. Remove the nine screws that secure the palm rest to the computer base.



- 7. Turn the computer over and open the display as far as possible.
- 8. Remove the hinge cover (see Removing the Hinge Cover).
- 9. Remove the keyboard (see Removing the Keyboard).

#### △ CAUTION: Pull the pull-tabs on top of the connectors to avoid damage to the connectors.

- 10. Lift the connector latches and pull the pull-tabs to disconnect the touch pad cable and status light board cable from their connectors on the system board.
- 11. Remove the three screws that secure the palm rest assembly to the computer base.



- 12. Using a plastic scribe carefully pry out the palm rest assembly along the rear edge and then ease the palm rest assembly from the computer base.
- 13. Hold the palm rest assembly perpendicular to the computer base and disconnect the Alienware logo light cable from the connector on the status light board.



△ CAUTION: Carefully separate the palm rest assembly from the computer base to avoid damage to the palm rest assembly.

14. Lift the palm rest assembly off the computer base.

### **Replacing the Palm Rest Assembly**

- 1. Follow the instructions in Before You Begin.
- 2. Connect the Alienware logo light cable to the connector on the status light board.
- 3. Align the palm rest assembly on the computer base and gently snap the palm rest assembly into place.
- 4. Replace the three screws that secure the palm rest assembly to the computer base.
- Slide the touch pad cable and status light board cable into their connectors on the system board, and press down on their connector latches to secure the cables.

- 6. Replace the keyboard (see Replacing the Keyboard).
- 7. Replace the hinge cover (see Replacing the Hinge Cover).
- 8. Close the display and turn the computer over.
- 9. Replace the nine screws that secure the palm rest assembly to the computer base.
- 10. Follow the instructions from step 6 to step 8 in Replacing the Hard Drive.
- 11. Replace the memory module(s) (see Replacing the Memory Module(s)).
- 12. Replace the battery pack (see Replacing the Battery Pack).
- 13. Replace the base cover (see Replacing the Base Cover).

CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

#### Power Button Board Alienware® M11x R3 Service Manual

- Removing the Power Button Board
- Replacing the Power Button Board
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

#### **Removing the Power Button Board**

- 1. Follow the instructions in Before You Begin.
- 2. Remove the base cover (see <u>Removing the Base Cover</u>).
- 3. Remove the battery pack (see Removing the Battery Pack).
- 4. Follow the instructions from step 4 to step 6 in Removing the Hard Drive.
- 5. Remove the memory module(s) (see <u>Removing the Memory Module(s)</u>).
- 6. Remove the hinge cover (see Removing the Hinge Cover).
- 7. Remove the keyboard (see Removing the Keyboard).
- 8. Remove the palm rest assembly (see Removing the Palm Rest Assembly).
- 9. Remove the status light board (see Removing the Status Light Board).
- 10. Remove the two screws that secure the power button board to the palm rest assembly.



1	power button board	2	screws (2)

11. Lift the power button board off the palm rest assembly.

#### **Replacing the Power Button Board**

1. Follow the instructions in Before You Begin.

- 2. Place the power button board on the palm rest assembly and replace the two screws that secure the power button board to the palm rest assembly.
- 3. Replace the status light board (see Replacing the Status Light Board).
- 4. Replace the palm rest assembly (see <u>Replacing the Palm Rest Assembly</u>).
- 5. Replace the keyboard (see Replacing the Keyboard).
- 6. Replace the hinge cover (see <u>Replacing the Hinge Cover</u>).
- 7. Replace the memory module(s) (see Replacing the Memory Module(s)).
- 8. Follow the instructions from step 6 to step 8 in Replacing the Hard Drive.
- 9. Replace the battery pack (see Replacing the Battery Pack).
- 10. Replace the base cover (see Replacing the Base Cover).

△ CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

#### Speakers

Alienware® M11x R3 Service Manual

- Removing the Speakers
- Replacing the Speakers
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.

# **Removing the Speakers**

- 1. Follow the instructions in Before You Begin.
- 2. Remove the system board (see Removing the System Board).



- 3. Remove the three screws that secure the speakers to the computer base.
- 4. Note the routing of the speaker cable and remove the speakers and cable from the computer base.

#### **Replacing the Speakers**

- 1. Follow the instructions in Before You Begin.
- 2. Place the speakers on the computer base and route the speaker cables in the routing guides.
- 3. Replace the three screws that secure the speakers to the computer base.
- 4. Replace the system board (see Replacing the System Board).

CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

#### System Board Alienware® M11x R3 Service Manual

- <u>Removing the System Board</u>
  <u>Replacing the System Board</u>
- <u>Replacing the oystern board</u>
- Entering the Service Tag in the BIOS
- MARNING: 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: 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 your computer).
- CAUTION: Only a certified service technician should perform repairs on your computer. Damage due to servicing that is not authorized by Dell™ is not covered by your warranty.
- CAUTION: To help prevent damage to the system board, remove the main battery (see <u>Removing the Battery Pack</u>) before working inside the computer.
- △ CAUTION: Handle components by their edges, and avoid touching pins and contacts.

The system board's BIOS chip contains the Service Tag, which is also visible on a barcode label at the bottom of the computer.

### **Removing the System Board**

- 1. Follow the instructions in Before You Begin.
- 2. Remove any installed card or blank from the 3-in-1 Media Card reader.
- 3. Remove the base cover (see Removing the Base Cover).
- 4. Remove the battery pack (see Removing the Battery Pack).
- 5. Follow the instructions from step 4 to step 6 in Removing the Hard Drive.
- 6. Remove the Mini-Card(s) (see Removing the Mini-Card(s)).
- 7. Remove the memory module(s) (see Removing the Memory Module(s)).
- 8. Remove the hinge cover (see Removing the Hinge Cover).
- 9. Remove the keyboard (see Removing the Keyboard).
- 10. Remove the palm rest assembly (see Removing the Palm Rest Assembly).
- 11. Remove the Bluetooth<sup>®</sup> card (see <u>Removing the Bluetooth Card</u>).
- 12. Remove the coin-cell battery (see Removing the Coin-Cell Battery).
- 13. Remove the display assembly (see Removing the Display Assembly).
- 14. Remove the I/O board (see Removing the I/O Board).
- 15. Remove the four screws that secure the system board to the computer base.



16. Carefully ease the connectors on the system board out of the slots in the computer, and lift the system board off the computer base.

### **Replacing the System Board**

- 1. Follow the instructions in Before You Begin.
- 2. Align the connectors on the system board with the slots on the computer base and place it on the computer base.
- 3. Replace the four screws that secure the system board to the computer base.
- 4. Replace the I/O board (see Replacing the I/O Board).
- 5. Replace the display assembly (see Replacing the Display Assembly).
- 6. Replace the coin-cell battery (see Replacing the Coin-Cell Battery).
- 7. Replace the Bluetooth card (see Replacing the Bluetooth Card).
- 8. Replace the palm rest assembly (see Replacing the Palm Rest Assembly).
- 9. Replace the keyboard (see Replacing the Keyboard).
- 10. Replace the hinge cover (see Replacing the Hinge Cover).
- 11. Replace the memory module(s) (see Replacing the Memory Module(s)).
- 12. Replace the Mini-Card(s) (see Replacing the Mini-Card(s)).
- 13. Follow the instructions from step 6 to step 8 in Replacing the Hard Drive.
- 14. Replace the battery pack (see Replacing the Battery Pack).
- 15. Replace the base cover (see Replacing the Base Cover).
- 16. Replace any cards or blank that you removed from the 3-in-1 Media Card reader.

CAUTION: Before turning on the computer, replace all screws and ensure that no stray screws remain inside the computer. Failure to do so may result in damage to the computer.

17. Turn on the computer.

💋 NOTE: After you have replaced the system board, enter the computer Service Tag into the BIOS of the replacement system board.

18. Enter the service tag (see Entering the Service Tag in the BIOS).

# Entering the Service Tag in the BIOS

- 1. Ensure that the AC adapter is plugged in and that the main battery is installed properly.
- 2. Turn on the computer.
- 3. Press <F2> during POST to enter the system setup program.
- 4. Navigate to the security tab and enter the service tag in the Set Service Tag field.

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