# **Precision 5750**

Setup and specifications guide



### Notes, cautions, and warnings

(i) NOTE: A NOTE indicates important information that helps you make better use of your product.

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

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

© 2020 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

# **Contents**

| Chapter 1: Set up your computer                    | 5  |
|--|----|
| Chapter 2: Create a USB recovery drive for Windows | 7  |
| Chapter 3: Dell low blue light display             | 8  |
| Chapter 4: Chassis overview                        | 9  |
| Display view                                       | 9  |
| Left view  | 9  |
| Right view   | 9  |
| Palmrest view                                      | 9  |
| Bottom view  | 9  |
| Keyboard shortcuts                                 | 10 |
| Chapter 5: Technical specifications                | 11 |
| Dimensions and weight                              | 11 |
| Chipset  | 12 |
| Processors   | 12 |
| Operating system                                   | 12 |
| Memory   | 13 |
| Storage  | 13 |
| Media-card reader                                  | 14 |
| Audio  | 14 |
| Video  | 14 |
| Ports and connectors                               | 15 |
| Display  | 15 |
| Camera   | 16 |
| Communications                                     | 17 |
| Power adapter                                      | 17 |
| System board connectors                            | 18 |
| Battery  | 18 |
| Touchpad   | 19 |
| Keyboard   | 20 |
| Fingerprint reader in Power Button                 | 20 |
| Sensor and control specifications                  | 20 |
| Security   | 20 |
| Security Software                                  | 21 |
| Computer environment                               | 21 |
| Chapter 6: Software                                | 22 |
| Downloading Windows drivers                        | 22 |
| Chapter 7: System setup                            | 23 |
| Entoring RIOS sotup program                        | 23 |

| Navigation keys                                   | 23  |
|---|-----|
| Boot Sequence                                     | 24  |
| One time boot menu                                |     |
| System setup options                              | 24  |
| Clearing BIOS (System Setup) and System passwords | 35  |
| Chapter 8: Getting help                           | 7.6 |
| Contacting Dell                                   |     |
| Outradeling Domining                              |     |

# Set up your computer

#### Steps

- 1. Connect the power adapter and press the power button.
  - i NOTE: To conserve battery power, the battery might enter power saving mode.



2. Finish Windows system setup.

Follow the on-screen instructions to complete the setup. When setting up, Dell recommends that you:

- Connect to a network for Windows updates.
  - NOTE: If connecting to a secured wireless network, enter the password for the wireless network access when prompted.
- If connected to the internet, sign-in with or create a Microsoft account. If not connected to the internet, create an offline account.
- On the **Support and Protection** screen, enter your contact details.
- 3. Locate and use Dell apps from the Windows Start menu—Recommended

Table 1. Locate Dell apps

| Dell apps | Details                                    |
|-----------|--|
|           |  |
|           | Dell Product Registration                  |
|           | -  |
|           | Register your computer with Dell.          |
|           |  |
|           | Dell Help & Support                        |
|           | Access help and support for your computer. |

Table 1. Locate Dell apps (continued)

| Dell apps | Details  |
|-----------|--|
|           | SupportAssist  |
|           |  |
|           | Proactively checks the health of your computer's hardware and software.                                    |
|           | NOTE: Renew or upgrade your warranty by clicking the warranty expiry date in SupportAssist.                |
|           |  |
|           | Dell Update  |
|           | Updates your computer with critical fixes and important device drivers as they become available.           |
|           |  |
|           | Dell Digital Delivery  |
|           | Download software applications including software that is purchased but not preinstalled on your computer. |

**4.** Create recovery drive for Windows.

NOTE: It is recommended to create a recovery drive to troubleshoot and fix problems that may occur with Windows.

For more information, see Create a USB recovery drive for Windows.

# Create a USB recovery drive for Windows

Create a recovery drive to troubleshoot and fix problems that may occur with Windows. An empty USB flash drive with a minimum capacity of 16 GB is required to create the recovery drive.

#### **Prerequisites**

- i NOTE: This process may take up to an hour to complete.
- NOTE: The following steps may vary depending on the version of Windows installed. Refer to the Microsoft support site for latest instructions.

#### Steps

- 1. Connect the USB flash drive to your computer.
- 2. In Windows search, type Recovery.
- In the search results, click Create a recovery drive.
   The User Account Control window is displayed.
- 4. Click Yes to continue.
  - The **Recovery Drive** window is displayed.
- 5. Select Back up system files to the recovery drive and click Next.
- 6. Select the **USB flash drive** and click **Next**.

A message appears, indicating that all data in the USB flash drive will be deleted.

- 7. Click Create.
- 8. Click Finish.

For more information about reinstalling Windows using the USB recovery drive, see the *Troubleshooting* section of your product's *Service Manual* at www.dell.com/support/manuals.

# Dell low blue light display

WARNING: Prolonged exposure to blue light from the display may lead to long-term effects such as eye strain, eye fatigue, or damage to the eyes.

The ComfortView feature on Dell laptops and displays is designed to minimize blue light emitted from the display for better eye comfort.

To reduce the risk of eye strain after looking at the laptop's display for an extended period of time, it is recommended that you:

- 1. Set the laptop's display at a comfortable viewing distance between 20 inches and 28 inches (50 cm and 70 cm) from your eyes.
- 2. Blink frequently to moisten your eyes, or wet your eyes with water.
- **3.** Take a break for 20 minutes every two hours.
- 4. Look away from your display, and gaze at a distant object at 20 ft (609.60 cm) away for at least 20 seconds during each break

## **Chassis overview**

### Topics:

- Display view
- Left view
- Right view
- Palmrest view
- Bottom view
- Keyboard shortcuts

## **Display view**

- 1. Proximity sensor
- 3. Ambient light sensor
- 5. LED indicator
- 7. LCD panel

- 2. IR LED
- 4. RGB + IR camera
- 6. IR LED
- 8. LED diagnostics light

### Left view

- 1. Wedge-shaped lock slot
- 2. USB Type-C 3.2 Gen 2 Charging port with Thunderbolt3 / DisplayPort 1.4
- 3. USB Type-C 3.2 Gen 2 Charging port with Thunderbolt3 / DisplayPort 1.4

## Right view

- USB Type-C 3.2 Gen 2 Charging port with Thunderbolt3 / DisplayPort 1.4
- 3. SD-card reader 4.0

- USB Type-C 3.2 Gen 2 Charging port with Thunderbolt3 / DisplayPort 1.4
- 4. Universal Audio Jack

### Palmrest view

- 1. Microphones
- 3. Speaker
- 5. Speaker

- 2. Power button with fingerprint reader
- 4. Touchpad

### **Bottom view**

- 1. Speaker
- 3. Fan vents

- 2. Speaker
- 4. Service Tag label

# **Keyboard shortcuts**

NOTE: Keyboard characters may differ depending on the keyboard language configuration. Keys that are used for shortcuts remain the same across all language configurations.

Table 2. List of keyboard shortcuts

| Keys      | Primary behavior               | Secondary behavior (Fn + Key) |
|-----------|--------------------------------|-------------------------------|
| Fn + Esc  | Escape                         | Toggle Fn-key lock            |
| Fn + F1   | Mute audio                     | F1 behavior                   |
| Fn + F2   | Decrease volume                | F2 behavior                   |
| Fn + F3   | Increase volume                | F3 behavior                   |
| Fn + F4   | Play/pause for audio playback  | F4 behavior                   |
| Fn + F5   | Turn on/off keyboard backlight | F5 behavior                   |
| Fn + F6   | Decrease brightness            | F6 behavior                   |
| Fn + F7   | Increase brightness            | F7 behavior                   |
| Fn + F8   | Switch to external display     | F8 behavior                   |
| Fn + F10  | Print screen                   | F10 behavior                  |
| Fn + F11  | Home                           | F11 behavior                  |
| Fn + 12   | End                            | F12 behavior                  |
| Fn + Ctrl | Open application menu          |                               |

# **Technical specifications**

NOTE: Offerings may vary by region. The following specifications are only those required by law to ship with your computer. For more information about the configuration of your computer, go to Help and Support in your Windows operating system and select the option to view information about your computer.

#### **Topics:**

- Dimensions and weight
- Chipset
- Processors
- Operating system
- Memory
- Storage
- Media-card reader
- Audio
- Video
- Ports and connectors
- Display
- Camera
- Communications
- Power adapter
- System board connectors
- Battery
- Touchpad
- Keyboard
- Fingerprint reader in Power Button
- Sensor and control specifications
- Security
- Security Software
- Computer environment

# **Dimensions and weight**

Table 3. Dimensions and weight

| D      | escription | Values   |  |
|--------|------------|--|--|
| Н      | Height:    |  |  |
|        | Front      | 8.67 mm (0.34 in.)   |  |
|        | Rear       | 13.15 mm (0.52 in.)  |  |
| V      | /idth      | 374.48 mm (14.74 in.)  |  |
| D      | epth       | 248.08 mm (9.77 in.)   |  |
| Weight |            | 2.13 kg (4.70 lb)  (i) NOTE: The weight of your system depends on the configuration ordered and the manufacturing variability. |  |

# Chipset

### Table 4. Chipset

| Description | Values                                   |
|-------------|--|
| Chipset     | Intel WM490                              |
| Processor   | 10th Generation Intel Core i5/i7/i9/Xeon |
| Flash EPROM | 32 MB                                    |
| PCle bus    | Up to Gen 3.0                            |

### **Processors**

#### **Table 5. Processors**

| Description         | Values  |   |   |   |   |  |  |
|---------------------|---|---|---|---|---|--|--|
| Processors          | 10th<br>Generation<br>Intel Core<br>i5-10400H<br>Vpro | 10th<br>Generation<br>Intel Core<br>i7-10750H | 10th<br>Generation<br>Intel Core<br>i7-10850H<br>Vpro | 10th<br>Generation<br>Intel Core<br>i7-10875H<br>Vpro | 10th Generation<br>Intel Core<br>i9-10885H Vpro | 10th Generation<br>Intel Xeon-<br>W10855M Vpro | 10th Generation<br>Intel Xeon-<br>W10885M Vpro |
| Wattage             | 45 W  | 45 W  | 45 W  | 45 W  | 45 W  | 45 W   | 45 W   |
| Core count          | 4   | 6   | 6   | 8   | 8   | 6  | 8  |
| Thread count        | 8   | 12  | 12  | 16  | 16  | 12   | 16   |
| Speed               | 2.6 to 4.6<br>GHz                                     | 2.6 to 5.0<br>GHz                             | 2.7 to 5.1<br>GHz                                     | 2.3 to 5.1<br>GHz                                     | 2.4 to 5.3 GHz                                  | 2.8 to 5.1 GHz                                 | 2.4 to 5.3 GHz                                 |
| Cache               | 8 MB  | 12 MB   | 12 MB   | 16 MB   | 16 MB   | 12 MB  | 16 MB  |
| Integrated graphics | Intel UHD<br>Graphics                                 | Intel UHD<br>Graphics                         | Intel UHD<br>Graphics                                 | Intel UHD<br>Graphics                                 | Intel UHD<br>Graphics                           | Intel UHD<br>Graphics                          | Intel UHD<br>Graphics                          |

# **Operating system**

- Windows 10 Home (64-bit)
- Windows 10 Enterprise (64-bit)
- Windows 10 Professional (64-bit)
- Windows 10 Pro Education (64-bit)
- Windows 10 Pro for Workstations (64-bit)
- Windows 10 Pro for China (64-bit)
- Ubuntu 18.04 LTS (64-bit)

## **Memory**

### **Table 6. Memory specifications**

| Description              | Values  |  |
|--------------------------|---|--|
| Slots                    | Two-SODIMM slots  |  |
| Туре                     | Dual-channel DDR4   |  |
| Speed                    | 2666 MHz for ECC memory/2933 MHz for Non-ECC memory   |  |
| Maximum memory           | 64 GB   |  |
| Minimum memory           | 8 GB  |  |
| Configurations supported | <ul> <li>8 GB, 1 x 8 GB, DDR4, 2666 MHz, ECC, SODIMM</li> <li>16 GB, 1 x 16 GB, DDR4, 2666 MHz, ECC, SODIMM</li> <li>16 GB, 2 x 8 GB, DDR4, 2666 MHz, ECC, SODIMM</li> <li>32 GB, 1 x 32 GB, DDR4, 2666 MHz, ECC, SODIMM</li> <li>32 GB, 2 x 16 GB, DDR4, 2666 MHz, ECC, SODIMM</li> <li>64 GB, 2 x 32 GB, DDR4, 2666 MHz, ECC, SODIMM</li> <li>8 GB, 1 x 8 GB, DDR4, 2933 MHz, Non-ECC, SODIMM</li> <li>16 GB, 1 x 16 GB, DDR4, 2933 MHz, Non-ECC, SODIMM</li> <li>16 GB, 2 x 8 GB, DDR4, 2933 MHz, Non-ECC, SODIMM</li> <li>32 GB, 1 x 32 GB, DDR4, 2933 MHz, Non-ECC, SODIMM</li> <li>32 GB, 2 x 16 GB, DDR4, 2933 MHz, Non-ECC, SODIMM</li> <li>32 GB, 2 x 32 GB, DDR4, 2933 MHz, Non-ECC, SODIMM</li> <li>64 GB, 2 x 32 GB, DDR4, 2933 MHz, Non-ECC, SODIMM</li> <li>64 GB, 2 x 32 GB, DDR4, 2933 MHz, Non-ECC, SODIMM</li> <li>MOTE: ECC memory will support 2933 MHz post RTS</li> </ul> |  |

## **Storage**

Your computer supports one of the following configurations:

- M.2 2230, solid-state drive (class 35)
- M.2 2280, solid-state drive (class 40)
- M.2 2280, solid-state drive (class 50)
- M.2 2280, SED solid-state drive (class 40)

The primary drive of your computer varies with the storage configuration.

### Table 7. Storage specifications

| Form factor  | Interface type     | Capacity   |
|--|--------------------|------------|
| M.2 2230, Gen 3 PCIe x4 NVMe, Class 35 solid-state drive         | Gen 3 PCIe NVMe x4 | 256 GB     |
| M.2 2280, Gen 3 PCIe x4 NVMe, Class 40 solid-state drive         | Gen 3 PCIe NVMe x4 | up to 2 TB |
| M.2 2280, Gen 3 PCIe x4 NVMe, Class 50 solid-state drive         | Gen 3 PCIe NVMe x4 | up to 1 TB |
| M.2 2280, Gen 3 PCle x4 NVMe, Class 40 SED solid-<br>state drive | Gen 3 PCle NVMe x4 | up to 1 TB |

## Media-card reader

### Table 8. Media-card reader specifications

| Description     | Values  |
|-----------------|---|
| Туре            | SD card slot 4.0  |
| Cards supported | <ul> <li>Secure Digital (SD)</li> <li>Secure Digital High Capacity (SDHC)</li> <li>Secure Digital Extended Capacity (SDXC)</li> </ul> |

## **Audio**

### **Table 9. Audio specifications**

| Description            | Values   |
|------------------------|--|
| Controller             | Realtek ALC3204 with Waves MaxxAudio Pro                   |
| Stereo conversion      | 24-bit DAC (Digital-to-Analog) and ADC (Analog-to-Digital) |
| Internal interface     | Intel HDA (high-definition audio)                          |
| External interface     | Universal audio jack                                       |
| Speakers               | 4  |
| Speaker Output Average | 2 W  |
| Speaker Output Peak    | 2.5 W  |

## Video

### Table 10. Discrete graphics specifications

| Discrete graphics                                      |                 |      |       |
|--|-----------------|------|-------|
| Controller External display support Memory size Memory |                 |      |       |
| NVIDIA Quadro T2000                                    | mDP/HDMI/Type-C | 4 GB | GDDR6 |
| NVIDIA Quadro RTX3000                                  | mDP/HDMI/Type-C | 6 GB | GDDR6 |

### Table 11. Integrated graphics specifications

| Integrated graphics     |                          |                      |  |
|-------------------------|--------------------------|----------------------|--|
| Controller              | External display support | Memory size          | Processor                              |
| Intel UHD Graphics 630  | mDP/HDMI/Type-C          | Shared system memory | 10th Generation Intel<br>Core i5/i7/i9 |
| Intel UHD Graphics P630 | mDP/HDMI/Type-C          | Shared system memory | Intel Xeon                             |

### Ports and connectors

Table 12. External ports and connectors

| Description        | Values   |  |
|--------------------|--|--|
| External:          |  |  |
| USB                | Four USB Type-C 3.2 Gen 2 Charging port with<br>Thunderbolt3 / DisplayPort 1.4 |  |
| Audio              | One Universal Audio Jack   |  |
| Video              | via display dongle/dock to connect external display                            |  |
| Power adapter port | Four Type-C power port   |  |
| Security           | One Wedge-shaped lock slot   |  |
| Card slot          | SD card slot 4.0   |  |
| Dongle             | DA20 dual port HDMI/USB Dongle   |  |

### Table 13. Internal ports and connectors

| Description  | Values  |
|--|---|
| Internal:  |   |
| One M.2 Key-M (2280 or 2230) for solid-state drive | <ul> <li>One M.2 2230 slot for solid-state drive 256 GB</li> <li>One M.2 2280 slot for solid-state drive 256 GB/512 GB/1 TB/2 TB</li> <li>One M.2 2280 slot for Self-Encrypting solid-state drive 512 GB/1 TB</li> <li>NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626.</li> </ul> |

# **Display**

### Table 14. Display specifications

| Description               |          |                             | Values                       |  |
|---------------------------|----------|-----------------------------|------------------------------|--|
| Туре                      |          | Full High Definition (FHD+) | Ultra High Definition (UHD+) |  |
| Panel techno              | logy     | Wide Viewing Angle (WVA)    | Wide Viewing Angle (WVA)     |  |
| Luminance (typical)       |          | 500 nits                    | 500 nits                     |  |
| Dimensions (Active Area): |          |                             |                              |  |
|                           | Height   | 366.34 mm (14.42 in.)       | 366.34 mm (14.42 in.)        |  |
|                           | Width    | 228.96 mm (9.01 in.)        | 228.96 mm (9.01 in.)         |  |
|                           | Diagonal | 431.80 mm (17 in.)          | 431.80 mm (17 in.)           |  |
| Native Resolution         |          | 1920 x 1200                 | 3840 x 2400                  |  |

Table 14. Display specifications (continued)

| Description                 | Values         |                      |
|-----------------------------|----------------|----------------------|
| Megapixels                  | 2.3            | 9.2                  |
| Pixels per Inch (PPI)       | 133            | 266                  |
| Color Gamut (CG)            | sRGB 100%      | AdobeRGB 100%        |
| Contrast Ratio (min)        | 1800:1         | 1800:1               |
| Response Time (max)         | 35 ms          | 35 ms                |
| Refresh Rate                | 60 Hz          | 60 Hz                |
| Horizontal View Angle       | +/- 85 degrees | +/- 85 degrees       |
| Vertical View Angle         | +/- 85 degrees | +/- 85 degrees       |
| Pixel Pitch                 | 0.1908 mm      | 0.0549 mm            |
| Power Consumption (maximum) | 5.50 W         | 13.98 W              |
| Anti-glare vs glossy finish | Anti-glare     | Anti-reflective      |
| Touch options               | No             | Yes, 10 finger touch |

# Camera

**Table 15. Camera specifications** 

| Description            |             | Values                    |
|------------------------|-------------|---------------------------|
| Number of cameras      |             | One                       |
| Туре                   |             | Hello IR Webcam           |
| Location               |             | Front camera              |
| Sensor type            |             | CMOS sensor technology    |
| Resolution:            |             |                           |
|                        | Still image | 0.92 megapixel            |
|                        | Video       | 1280 x 720 (HD) at 30 fps |
| Diagonal viewing angle |             | 78.5 degrees              |

## **Communications**

### Wireless module

Table 16. Wireless module specifications

| Description               | Values  |
|---------------------------|---|
| Model number              | Intel Wi-Fi 6 AX201 soldered down   |
| Transfer rate             | Up to 2400 Mbps   |
| Frequency bands supported | 2.4 GHz/5 GHz   |
| Wireless standards        | <ul> <li>Wi-Fi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> <li>Wi-Fi 6 (WiFi 802.11ax)</li> </ul> |
| Encryption                | 64-bit/128-bit WEP     AES-CCMP     TKIP  |
| Bluetooth                 | Bluetooth 5.1   |

# Power adapter

Table 17. Power adapter specifications

| Description                 | Values   |  |
|-----------------------------|--|--|
| Туре                        | 90 W USB Type-C  | 130 W Type-C   |
| Diameter (connector)        | Type-C connector   | Type-C connector   |
| Weight                      | 0.23 kg (0.51 lb)  | 0.32 kg (0.70 lb)  |
| Input voltage               | 100 VAC to 240 VAC   | 100 VAC to 240 VAC   |
| Input frequency             | 50 to 60 Hz  | 50 to 60 Hz  |
| Input current (maximum)     | 1.50 A   | 1.80 A   |
| Output current (continuous) | <ul> <li>20 V/4.5 A (Continuous)</li> <li>15 V/3 A (Continuous)</li> <li>9 V/3 A (Continuous)</li> <li>5 V/3 A (Continuous)</li> </ul> | <ul><li>20 V/6.5 A (Continuous)</li><li>5.0 V/1 A (Continuous)</li></ul> |
| Rated output voltage        | <ul><li>20 VDC</li><li>15 VDC</li><li>9 VDC</li><li>5 VDC</li></ul>  | • 20 VDC<br>• 5 VDC  |
| Operating                   | 0°C to 40°C (32°F to 104°F)  | 0°C to 40°C (32°F to 104°F)  |
| Storage                     | -40°C to 70°C (-40°F to 158°F)   | -40°C to 70°C (-40°F to 158°F)   |

# **System board connectors**

### Table 18. System board connectors

| Feature        | Specifications               |
|----------------|------------------------------|
| M.2 Connectors | Two M.2 2280 Key-M connector |

# **Battery**

### **Table 19. Battery specifications**

| Description   |                 | Values   |  |  |
|---------------|-----------------|--|--|--|
| Туре          |                 | 56 WHr, 3-cell "smart" lithium-ion   | 97 WHr, 6-cell "smart" lithium-ion   |  |
| Voltage       |                 | 11.40 VDC  | 11.40 VDC  |  |
| Weight (maxi  | imum)           | 0.27 kg (0.60 lb)  | 0.385 kg (0.85 lb)   |  |
| Dimensions:   |                 |  |  |  |
|               | Height          | 8.45 mm (0.33 in.)   | 8.45 mm (0.33 in.)   |  |
|               | Width           | 69.70 mm (2.74 in.)  | 69.70 mm (2.74 in.)  |  |
|               | Depth           | 330.65 mm (13.02 in.)  | 330.65 mm (13.02 in.)  |  |
| Temperature   | range:          |  |  |  |
|               | Operating       | <ul> <li>Charge: 0°C to 50°C (32°F to 122°F)</li> <li>Discharge: 0°C to 60°C (32°F to 140°F)</li> </ul>  | <ul> <li>Charge: 0°C to 50°C (32°F to 122°F)</li> <li>Discharge: 0°C to 60°C (32°F to 140°F)</li> </ul>  |  |
|               | Storage         | -40°C to 60°C (-4°F to 140°F)  | -40°C to 60°C (-4°F to 140°F)  |  |
| Operating tim | ne              | Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.  | Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.  |  |
| Charging time | e (approximate) | <ul> <li>Standard charge, 0°C to 50°C (32°F to 122°F): 4 hours</li> <li>ExpressCharge, 0°C to 15°C (32°F to 59°F): 4 hours</li> <li>ExpressCharge, 16°C to 45°C (60.80°F to 113°F): 2 hours</li> <li>ExpressCharge, 46°C to 50°C (114.80°F to 122°F): 3 hours</li> <li>NOTE: Control the charging time, duration, start and end time, and so on, using the Dell Power Manager application. For more information about the Dell Power Manager, see, Me and My Dell on www.dell.com/.</li> <li>NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on</li> </ul> | <ul> <li>Standard charge, 0°C to 50°C (32°F to 122°F): 4 hours</li> <li>ExpressCharge, 0°C to 15°C (32°F to 59°F): 4 hours</li> <li>ExpressCharge, 16°C to 45°C (60.80°F to 113°F): 2 hours</li> <li>ExpressCharge, 46°C to 50°C (114.80°F to 122°F): 3 hours</li> <li>NOTE: Control the charging time, duration, start and end time, and so on, using the Dell Power Manager application. For more information about the Dell Power Manager, see, Me and My Dell on www.dell.com/.</li> <li>NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on</li> </ul> |  |

Table 19. Battery specifications (continued)

| Description             | Values  |   |
|-------------------------|---|---|
|                         | the Dell Power Manager, see <i>Me and My Dell</i> on www.dell.com/  | the Dell Power Manager, see <i>Me and My Dell</i> on www.dell.com/  |
| Life span (approximate) | 300 discharge/charge cycles   | 300 discharge/charge cycles   |
| Coin-cell battery       | Not supported   | Not supported   |
| Operating time          | Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions. | Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions. |

# **Touchpad**

### Table 20. Touchpad specifications

| Feature     | Specifications   |
|-------------|--|
| Resolution  | 1221 x 661   |
| Dimensions  | <ul><li>Width: 101.7 mm (4.00 in.)</li><li>Height: 55.2 mm (2.17 in.)</li></ul>  |
| Multi-touch | Supports 5-finger multi-touch  (i) NOTE: For more information about touchpad gestures for Windows 10, see the Microsoft knowledge base article 4027871 at support.microsoft.com. |

### Table 21. Supported gestures

| Supported gestures   | Windows 10 |
|--|------------|
| Cursor moving  | Supported  |
| Clicking/ tapping  | Supported  |
| Click and drag   | Supported  |
| 2-finger scroll  | Supported  |
| 2-finger Pinch/ Zoom                                       | Supported  |
| 2-finger tap (Right Clicking)                              | Supported  |
| 3-finger tap (Invoke Cortana)                              | Supported  |
| 3-finger swipe up (See all open windows)                   | Supported  |
| 3-finger swipe down (Show the desktop)                     | Supported  |
| 3-finger swipe right or left (Switch between open windows) | Supported  |
| 4-finger tap (Invoke Action Center)                        | Supported  |
| 4-finger swipe right or left (Switch virtual desktops)     | Supported  |

## Keyboard

### Table 22. Keyboard specifications

| Feature          | Specifications  |
|------------------|---|
| Number of keys   | <ul><li>102 (U.S. and Canada)</li><li>103 (UK)</li><li>106 (Japan)</li></ul>      |
| Size             | Full sized  • X= 18.6 mm (0.73 in.) key pitch  • Y= 19.05 mm (0.75 in.) key pitch |
| Backlit keyboard | Optional (backlit and Non-backlit)  |
| Layout           | QWERTY  |

# Fingerprint reader in Power Button

### Table 23. Fingerprint reader specifications

| Description       | Values     |            |
|-------------------|------------|------------|
| Sensor technology | Capacitive | Capacitive |
| Sensor resolution | 363 dpi    | 500 dpi    |
| Sensor pixel size | 76 x 100   | 108 x 88   |

# Sensor and control specifications

### Table 24. Sensor and control specifications

| Specifications   |  |
|--|--|
| 1. Free fall sensor on motherboard                     |  |
| 2. Hall Effect Sensor (Detects when the lid is closed) |  |
| 3. Proximity sensor                                    |  |

# **Security**

### **Table 25. Security specifications**

| Features                          | Specifications             |
|-----------------------------------|----------------------------|
| Trusted Platform Module (TPM) 2.0 | Integrated on system board |
| Fingerprint reader                | Standard                   |
| Wedge-shaped lock slot            | Standard                   |

## **Security Software**

#### **Table 26. Security Software specifications**

#### **Specifications**

Dell Client Command Suite

Optional Dell Data Security and Management Software

Dell Client Command Suite

Dell BIOS Verification

Optional Dell Endpoint Security and Management Software

VMware Carbon Black Endpoint Standard

VMware Carbon Black Endpoint Standard + Secureworks Threat Detection and Response

Dell Encryption Enterprise

Dell Encryption Personal

Carbonite

VMware Workspace ONE

Absolute® Endpoint Visibility and Control

Netskope

Dell Supply Chain Defense

# **Computer environment**

Airborne contaminant level: G1 as defined by ISA-S71.04-1985

#### **Table 27. Computer environment**

| Description                 | Operating                                | Storage                                    |
|-----------------------------|--|--|
| Temperature range           | 0°C to 35°C (32°F to 95°F)               | -40°C to 65°C (-40°F to 149°F)             |
| Relative humidity (maximum) | 10% to 90% (non-condensing)              | 0% to 95% (non-condensing)                 |
| Vibration (maximum)*        | 0.66 GRMS                                | 1.30 GRMS                                  |
| Shock (maximum)             | 110 G†                                   | 160 G†                                     |
| Altitude (maximum)          | -15.2 m to 3048 m (4.64 ft to 5518.4 ft) | -15.2 m to 10668 m (4.64 ft to 19234.4 ft) |

<sup>\*</sup> Measured using a random vibration spectrum that simulates user environment.

<sup>†</sup> Measured using a 2 ms half-sine pulse when the hard drive is in use.

# **Software**

This chapter details the supported operating systems along with instructions on how to install the drivers.

#### Topics:

• Downloading Windows drivers

## **Downloading Windows drivers**

#### Steps

- 1. Turn on the notebook.
- 2. Go to Dell.com/support.
- 3. Click Product Support, enter the Service Tag of your notebook, and then click Submit.
  - i NOTE: If you do not have the Service Tag, use the auto detect feature or manually browse for your notebook model.
- 4. Click Drivers and Downloads.
- **5.** Select the operating system installed on your notebook.
- 6. Scroll down the page and select the driver to install.
- 7. Click **Download File** to download the driver for your notebook.
- 8. After the download is complete, navigate to the folder where you saved the driver file.
- 9. Double-click the driver file icon and follow the instructions on the screen.

# System setup

- CAUTION: Unless you are an expert computer user, do not change the settings in the BIOS Setup program.

  Certain changes can make your computer work incorrectly.
- i NOTE: Depending on the computer and its installed devices, the items listed in this section may or may not be displayed.
- NOTE: Before you change BIOS Setup program, it is recommended that you write down the BIOS Setup program screen information for future reference.

Use the BIOS Setup program for the following purposes:

- Get information about the hardware installed in your computer, such as the amount of RAM and the size of the hard drive.
- Change the system configuration information.
- Set or change a user-selectable option, such as the user password, type of hard drive installed, and enabling or disabling base devices.

#### Topics:

- Entering BIOS setup program
- Navigation keys
- Boot Sequence
- One time boot menu
- System setup options
- Clearing BIOS (System Setup) and System passwords

### **Entering BIOS setup program**

#### About this task

Turn on (or restart) your computer and press F2 immediately.

## **Navigation keys**

NOTE: For most of the System Setup options, changes that you make are recorded but do not take effect until you restart the system.

#### Table 28. Navigation keys

| Keys       | Navigation   |
|------------|--|
| Up arrow   | Moves to the previous field.   |
| Down arrow | Moves to the next field.   |
| Enter      | Selects a value in the selected field (if applicable) or follow the link in the field.                             |
| Spacebar   | Expands or collapses a drop-down list, if applicable.  |
| Tab        | Moves to the next focus area.  i NOTE: For the standard graphics browser only.                                     |
| Esc        | Moves to the previous page until you view the main screen. Pressing Esc in the main screen displays a message that |

#### Table 28. Navigation keys (continued)

| Keys | Navigation   |
|------|--|
|      | prompts you to save any unsaved changes and restarts the system. |

## **Boot Sequence**

Boot Sequence allows you to bypass the System Setup-defined boot device order and boot directly to a specific device (for example: optical drive or hard drive). During the Power-on Self Test (POST), when the Dell logo appears, you can:

- Access System Setup by pressing F2 key
- Bring up the one-time boot menu by pressing F12 key

The one-time boot menu displays the devices that you can boot from including the diagnostic option. The boot menu options are:

- Removable Drive (if available)
- STXXXX Drive (if available)
  - i) NOTE: XXX denotes the SATA drive number.
- Optical Drive (if available)
- SATA Hard Drive (if available)
- Diagnostics

The boot sequence screen also displays the option to access the System Setup screen.

### One time boot menu

To enter one time boot menu, turn on your computer, and then press F2 immediately.

NOTE: It is recommended to shutdown the computer if it is on.

The one-time boot menu displays the devices that you can boot from including the diagnostic option. The boot menu options are:

- Removable Drive (if available)
- STXXXX Drive (if available)
  - i NOTE: XXX denotes the SATA drive number.
- Optical Drive (if available)
- SATA Hard Drive (if available)
- Diagnostics

The boot sequence screen also displays the option to access the System Setup screen.

## System setup options

NOTE: Depending on this computer and its installed devices, the items that are listed in this section may or may not be displayed.

#### Table 29. System setup options—System information menu

| Overview       |   |
|----------------|---|
| precision 5750 |   |
| BIOS Version   | Displays the BIOS version number.         |
| Service Tag    | Displays the Service Tag of the computer. |
| Asset Tag      | Displays the Asset Tag of the computer.   |

Table 29. System setup options—System information menu (continued)

#### Overview

Manufacture Date Displays the manufacture date of the computer.

Ownership Date Displays the ownership date of the computer.

Express Service Code Displays the express service code of the computer.

Ownership Tag Displays the ownership tag of the computer.

Signed Firmware Update Displays whether the signed firmware update is enabled.

Default: Enabled

**Battery** Displays the battery health information.

Primary Displays the primary battery.

Battery Level Displays the battery level.

Battery State Displays the battery state.

Health Displays the battery health.

AC Adapter Displays whether an AC adapter is connected, If connected, the AC adapter

type.

**PROCESSOR** 

Processor Type Displays the processor type.

Maximum Clock Speed Displays the maximum processor clock speed.

Minimum Clock Speed Displays the minimum processor clock speed.

Current Clock Speed Displays the current processor clock speed.

Core Count Displays the number of cores on the processor.

Processor ID Displays the processor identification code.

Processor L2 Cache Displays the processor L2 Cache size.

Processor L3 Cache Displays the processor L3 Cache size.

Microcode Version Displays the microcode version.

Intel Hyper-Threading Capable Displays whether the processor is Hyper-Threading (HT) capable.

64-Bit Technology Displays whether 64-bit technology is used.

**MEMORY** 

Memory Installed Displays the total computer memory installed.

Memory Available Displays the total computer memory available.

Memory Speed Displays the memory speed.

Memory Channel Mode Displays single or dual channel mode.

Memory Technology Displays the technology that is used for the memory.

DIMM SLOT 1 Displays the memory card installed in slot 1
DIMM SLOT 2 Displays the memory card installed in slot 2

**DEVICES** 

Panel Type Displays the Panel Type of the computer.

Video Controller

Displays the integrate graphics information of the computer.

Video Memory

Displays the video memory information of the computer.

Wi-Fi Device

Displays the Wi-Fi device installed in the computer.

Displays the native resolution of the computer.

Video BIOS Version Displays the video BIOS version of the computer.

Table 29. System setup options—System information menu (continued)

| Overview                 |   |
|--------------------------|---|
| Audio Controller         | Displays the audio controller information of the computer.        |
| Bluetooth Device         | Displays whether a Bluetooth device is installed in the computer. |
| Pass Through MAC Address | Displays the MAC address of the video pass-through.               |

### Table 30. System setup options—Boot Configuration menu

| Boot Configuration            |  |
|-------------------------------|--|
| Boot Sequence                 |  |
| Boot Mode: UEFI only          | Displays the boot mode of this computer.   |
| Boot Sequence                 | Displays the boot sequence.  |
| Secure Digital (SD) Card Boot | Enables or disables Secure Digital (SD) Card boot.   |
| Secure Boot                   |  |
| Enable Secure Boot            | Enables or disables checking of boot software (including firmware drivers and the operating system).             |
| Secure Boot Mode              | Modifies the behavior of Secure Boot to allow evaluation or enforcement of UEFI driver signatures.               |
|                               | By default, Deployed Mode is selected.   |
| Expert Key Management         |  |
| Enable Custom Mode            | Enables or disables custom mode to allow keys in the PK, KEK, db, and dbx security key databases to be modified. |
|                               | Default: OFF   |

Table 31. System setup options—Integrated Devices menu

| Integrated Devices  |   |
|---|---|
| Date/Time   |   |
| Date  | Sets the computer date in MM/DD/YYYY format. Changes to the date take effect immediately.   |
| Time  | Sets the computer time in HH/MM/SS 24-hour format. You can switch between 12-hour and 24-hour clock. Changes to the time take effect immediately. |
| Thunderbolt Adapter Configuration                         |   |
| Enable Thunderbolt Technology Support                     | Enables or disables the Thunderbolt Technology feature and associated ports and adapters.   |
|   | Default: ON   |
| Enable Thunderbolt Boot Support                           | Enables or disables Thunderbolt adapter features during pre-boot.   |
|   | Default: OFF  |
| Enable Thunderbolt (and PCIe behind TBT) pre-boot modules | Enables or disables the setting that allows PCIe devices that are connected via a Thunderbolt adapter.  |
|   | Default: OFF  |
| Thunderbolt Security level                                | Sets the Thunderbolt adapter security level within the operating system.  |
|   | By default, User Authorization is selected.   |
| Camera  |   |
| Enable Camera   | Enables or disables the camera.   |

Table 31. System setup options—Integrated Devices menu (continued)

### **Integrated Devices** By default, Enable Camera is selected. Audio **Enable Audio** Enables or disables all integrated audio controller. Default: ON Enable Microphone Enables or disables microphone. By default, Enable Microphone is selected. Enable Internal Speaker Enables or disables internal speaker. By default, Enable Internal Speaker is selected. **USB** Configuration Enables or disables booting from USB mass storage devices such as external hard drive, optical drive, and USB drive. By default, Enable USB Boot Support is selected. By default, Enable External USB Ports is selected.

Enables or disables the Fingerprint Reader Device.

By default, Enable Fingerprint Reader Device is selected.

Enables or disables the Fingerprint Reader Single Sign On capability. By default, Enable Fingerprint Reader Single Sign On is selected.

Table 32. System setup options—Storage menu

Miscellaneous Devices

Enable Fingerprint Reader Device

Enable Fingerprint Reader Single Sign On

|                        | -  |
|------------------------|--|
| Storage                |  |
| SATA Operation         | Configures operating mode of the integrated SATA hard drive controller.                |
|                        | Default: RAID On. SATA is configured to support RAID (Intel Rapid Restore Technology). |
| Storage Interface      |  |
| Port Enablement        | Enables the selected onboard drives.   |
|                        | • SATA-4   |
|                        | Default: ON  |
|                        | M.2 PCle SSD-0   |
|                        | Default: ON  |
|                        | M.2 PCle SSD-1   |
|                        | Default: ON  |
| Drive Information      | Displays the information of various onboard drives.                                    |
| Enable SMART Reporting | Enables or disables Self-Monitoring, Analysis, and Reporting Technology (SMART).       |
|                        | Default: OFF   |
| Enable MediaCard       | Enables to switch all media cards On/Off or set the media card to read-only state.     |
|                        | By default, Enable Secure Digital (SD) Card is selected.                               |

Table 33. System setup options—Display menu

| splay  |   |
|--|---|
| Display Brightness                               |   |
| Brightness on battery power                      | Sets the screen brightness when the computer is running on battery power.   |
|  | Default: 50   |
| Brightness on AC power                           | Sets the screen brightness when the computer is running on AC power.  |
|  | Default: 0  |
| Touch Screen                                     | Enables or disables the touch screen for the OS.  (i) NOTE: The touch screen will always work in the BIOS setup irrespective this setting.                            |
| Full Screen Logo                                 | Enabled or disabled the computer to display full screen logo if the image mate screen resolution.   |
|  | Default: OFF  |
| Direct Graphics Controller Direct<br>Output Mode | When enabled, all graphics output ports directly to the Graphics Processing Unit (GPU), bypassing Intel Integrated graphics outputs for HDMI, Thunderboand mDP ports. |
|  | Default: OFF  |

Table 34. System setup options—Connection menu

| nnection                  |  |
|---------------------------|--|
| Wireless Device Enable    | Enable or disable internal WLAN/Bluetooth devices.   |
|                           | By default, WLAN is selected.  |
|                           | By default, Bluetooth is selected.   |
| Enable UEFI Network Stack |  |
| Enable UEFI Network Stack | When enabled, UEFI networking protocols are installed and available, allowing pre-OS and early OS networking features to use any enabled NICs. This may bused without PXE turned on.   |
|                           | Default: ON  |
| Wireless Radio Control    |  |
| Control WLAN radio        | Enables to sense the connection of the computer to a wired network and subsequently disable the selected wireless radios (WLAN and/or WWAN). Upon disconnection from the wired network, the selected wireless radios are re-enabled. |
|                           | Default: OFF   |
|                           |  |

Table 35. System setup options—Power menu

| wer   |  |
|---|--|
| Battery Configuration                           | Enables the computer to run on battery during power usage hours. Use the below options to prevent AC power usage between certain times of each day.  |
|   | By default Adaptive is selected.   |
| Advanced Configuration                          |  |
| Enable Advanced Battery Charge<br>Configuration | Enables Advanced Battery Charge Configuration from the beginning of the da to a specified work period. Advanced Battery Charged maximizes battery health while still supporting heavy use during the work day. |
|   | Default: OFF   |
| Peak Shift                                      | Enables the computer to run on battery during peak power usage hours.  |

Table 35. System setup options—Power menu (continued)

| Power                        |   |
|------------------------------|---|
|                              | Default: OFF  |
| Thermal Management           | Sets cooling fan and processor heat management to adjust system performance, noise, and temperature.  |
|                              | By default, Optimized is selected.  |
| USB Wake Support             |   |
| Wake on Dell USB-C Dock      | Enables connecting a Dell USB-C Dock to wake the computer from Standby.  Default: ON  |
| Block Sleep                  | Blocks the computer from entering Sleep (S3) mode in the operating system.  |
|                              | Default: OFF  |
|                              | (i) <b>NOTE:</b> If enabled, the computer will not go to sleep, Intel Rapid Start will be disabled automatically, and the operating system power option will be blank if it was set to Sleep. |
| Lid Switch                   |   |
| Enable Lid Switch            | Enables or disables the lid switch.   |
|                              | Default: ON   |
| Power On Lid Open            | Enables the computer to power up from the off state whenever the lid is opened.   |
|                              | Default: ON   |
| Intel Speed Shift Technology | Enables or disables the Intel Speed Shift Technology support. Setting this option to enable allows the operating system to select the appropriate processor performance automatically.        |
|                              | Default: ON   |

Table 36. System setup options—Security menu

| Security                        |  |
|---------------------------------|--|
| TPM 2.0 Security On             | Select whether or not the Trusted Platform Model (TPM) is visible to the OS.   |
|                                 | Default: ON  |
| PPI Bypass for Enable Commands  | Enables or disables the OS to skip BIOS Physical Presence Interface (PPI) user prompts when issuing TPM PPI enabled and activate commands.                             |
|                                 | Default: OFF   |
| PPI Bypass for Disable Commands | Enables or disables The OS to skip BIOS PPI user prompts when issuing TPM PPI Disable and Deactivate commands.   |
|                                 | Default: OFF   |
| PPI Bypass for Clear Commands   | Enables or disables the operating system to skip BIOS Physical Presence Interface (PPI) user prompts when issuing the Clear command.                                   |
|                                 | Default: OFF   |
| Attestation Enable              | Enables to control whether the TPM Endorsement Hierarchy is available to the OS. Disabling this setting restricts the ability to use the TPM for signature operations. |
|                                 | Default: ON  |
| Key Storage Enable              | Enables to control whether the TPM Endorsement Hierarchy is available to the OS. Disabling this setting restricts the ability to use the TPM for storing owner data.   |

Table 36. System setup options—Security menu (continued)

| Security                       |   |
|--------------------------------|---|
|                                | Default: ON   |
| SHA-256                        | Enables or disables the BIOS and the TPM to use the SHA-256 hash algorithm to extend measurements into the TPM PCRs during BIOS boot.                 |
|                                | Default: ON   |
| Clear                          | Enables or disables the computer to clear the PTT owner information, and returns the PTT to the default state.  |
|                                | Default: OFF  |
| TPM State                      | Enables or disables the TPM. This is the normal operating state for the TPM when you want to use its complete array of capabilities.                  |
|                                | Default: Enabled  |
| Intel Software Guard Extension | s   |
| Intel SGX                      | Enables or disables the Intel Software Guard Extensions (SGX) to provide a secured environment for running code/storing sensitive information.        |
|                                | By default, Software Control is selected.   |
| SMM Security Mitigation        |   |
| SMM Security Mitigation        | Enables or disables additional UEFI SMM Security Mitigation protections.  |
|                                | Default: OFF  |
|                                | (i) <b>NOTE:</b> This feature may cause compatibility issues or loss of functionality with some legacy tools and applications.                        |
| Data Wipe on Next Boot         |   |
| Start Data Wipe                | When enabled, the BIOS will queue up a data wipe cycle for storage device(s) connected to the motherboard on the next reboot.                         |
|                                | Default: OFF  |
| Absolute                       |   |
| Absolute                       | Enables, disables or permanently disable the BIOS module interface of the optional Absolute Persistence Module service from Absolute Software.        |
|                                | By default, Enable Absolute is selected.  |
| <b>UEFI Boot Path Security</b> |   |
| UEFI Boot Path Security        | Controls whether the system will prompt the user to enter the admin password (if set) when booting to a UEFI boot path device from the F12 boot menu. |

### Table 37. System setup options—Passwords menu

| sswords                |   |
|------------------------|---|
| Admin Password         | Sets, changes, or deletes the administrator password (sometimes called the "setup password"). The administrator password enables several security features. |
| Password Configuration |   |
| Upper Case Letter      | When enabled, password must contain at least one upper case letter.   |
|                        | Default: OFF  |
| Upper Case Letter      | When enabled, password must contain at least one lower case letter.   |
|                        | Default: OFF  |

By default, Always Except Internal HDD is selected.

Table 37. System setup options—Passwords menu (continued)

| sswords                           |  |
|-----------------------------------|--|
| Digit                             | When enabled, password must contain at least one digit number.   |
|                                   | Default: OFF   |
| Special Character                 | When enabled, password must contain at least one special character.  |
|                                   | Default: OFF   |
| Minimum Characters                | Sets the minimum number of characters allowed for passwords.   |
|                                   | Default: 04  |
| Password Bypass                   |  |
| Password Bypass                   | When enabled, the system and the hard drive passwords are prompted when the computer is powered on from the Off state. |
|                                   | By default, Disabled is selected.  |
| Password Changes                  |  |
| Enable Non-Admin Password Changes | When On, users can change the system and the hard drive password without the need for administrator password.          |
|                                   | Default: ON  |
| Admin Setup Lockout               |  |
| Enable Admin Setup Lockout        | Enables or disables the user from entering BIOS Setup when an administrator password is set.                           |
|                                   | Default: OFF   |
| Master Password Lockout           |  |
| Enable Master Password Lockout    | Enables or disables the master password support.   |

Table 38. System setup options—Update Recovery menu

| UEFI Capsule Firmware Updates        |  |
|--------------------------------------|--|
| Enable UEFI Capsule Firmware Updates | Controls whether this computer allows BIOS updates via EUFI capsule update packages. |

Default: ON

**BIOS Recovery from Hard Drive** 

BIOS Recovery from Hard Drive Enables the computer to recover from a bad BIOS image, as long as the Boot

Block portion is intact and functioning.

Default: ON

Default: OFF

(i) NOTE: BIOS recovery is designed to fix the main BIOS block and cannot work if the Boot Block is damaged. In addition, this feature cannot work in the event of EC corruption, ME corruption, or a hardware issue. The recovery image must exist on an unencrypted partition on the drive.

**BIOS Downgrade** 

**Update Recovery** 

Allow BIOS Downgrade Controls flashing of the system firmware to previous revisions.

Default: ON

SupportAssist OS Recovery

SupportAssist OS Recovery Enables or disables the boot flow for SupportAssist OS Recovery tool in the

event of certain system errors.

Table 38. System setup options—Update Recovery menu (continued)

| Jpdate Recovery                 |  |
|---------------------------------|--|
|                                 | Default: ON  |
| BIOSConnect                     |  |
| BIOSConnect                     | Enables or disables cloud Service OS recover if the main operating system fails to boot with the number of failures equal to or greater than the value specified by the Auto OS Recovery Threshold setup option. |
|                                 | Default: ON  |
| Dell Auto OS Recovery Threshold | Controls the automatic boot flow for SupportAssist System Resolution Console and for Dell operating system Recovery tool.  |
|                                 | By default, 2 is selected.   |

Table 39. System setup options—System Management menu

| Displays the Service Tag of the computer.   |
|---|
| Creates a system Asset Tag that can be used by an IT administrator to uniquely identify a particular system. Once set in BIOS, the Asset Tag cannot be changed. |
|   |
| Enables the computer to turn on and go to boot when AC power is supplied to the computer.   |
| Default: OFF  |
|   |
| Enables or disables the computer to turn on by a special LAN/WLAN signal.   |
| By default, Disabled is selected.   |
|   |

### Table 40. System setup options—Keyboard menu

| yboard                           |   |
|----------------------------------|---|
| Numlock Enable                   |   |
| Enable Numlock                   | Enables or disables Numlock when the computer boots.  |
|                                  | Default: ON   |
| Fn Lock Options                  |   |
| Fn Lock Options                  | Enables or disables the Fn lock option.   |
|                                  | Default: ON   |
| Lock Mode                        | Default: Lock Mode Secondary. Lock Mode Secondary = If this option is selected, the F1-F12 keys scan the code for their secondary functions.                                      |
| Keyboard Illumination            |   |
| Keyboard Illumination            | Configures the operating mode of the keyboard illumination feature.   |
|                                  | By default, Bright is selected.   |
| Keyboard Backlight Timeout on AC |   |
| Keyboard Backlight Timeout on AC | Configures the timeout value for the keyboard when an AC adapter is connected to the computer. The keyboard backlight timeout value is only effect when the backlight is enabled. |
|                                  | By default, 1 minute is selected.   |

### Table 40. System setup options—Keyboard menu (continued)

#### Keyboard

**Keyboard Backlight Timeout on** 

**Battery** 

Keyboard Backlight Timeout on Battery Configures the timeout value for the keyboard when the computer is running

on battery. The keyboard backlight timeout value is only effect when the

backlight is enabled.

By default, 1 minute is selected.

OROM Keyboard Access Enables or disables the option to enter Option ROM configuration screens via

hotkeys during boot.

By default, Enabled is selected.

**OROM Keyboard Access** 

#### Table 41. System setup options—Pre-Boot Behavior menu

#### **Pre-Boot Behavior**

#### **Adapter Warnings**

Enable Adapter Warnings Enables or disables the computer to display adapter warning messages when

adapters with too little power capacity are detected.

Default: ON

Warnings and Errors

Warnings and Errors Selects an action on encountering a warning or error during boot.

By default, Prompt on Warnings and Errors is selected.

(i) NOTE: Errors deemed critical to the operation of the computer hardware

will always halt the computer.

**USB-C Warnings** 

Enable Dock Warning Messages Enables or disables dock warning messages.

Default: ON

**Fastboot** 

Fastboot Configures the speed of the UEFI boot process.

By default, Thorough is selected.

**Extend BIOS POST Time** 

Extend BIOS POST Time Configures the BIOS POST (Power-On Self-Test) load time.

By default, 0 seconds is selected.

MAC Address Pass-Through

MAC Address Pass-Through Replaces the external NIC MAC address (in a supported dock or dongle) with

the selected MAC address from the computer.

By default, System Unique MAC Address is selected.

Sign of Life

Early Logo Display Displays Logo Sign of Life.

Default: ON

### Table 42. System setup options—Virtualization menu

#### Virtualization

#### Intel Virtualization Technology

Table 42. System setup options—Virtualization menu (continued)

| Virtualization                  |   |
|---------------------------------|---|
| Intel Virtualization Technology | Enables or disables the computer to run a virtual machine monitor (VMM).  |
|                                 | Default: ON   |
| VT for Direct I/O               |   |
| Enable Intel VT for Direct I/O  | Enables or disables the computer to perform Virtualization Technology for Direct I/O (VT-d). VT-d is an Intel method that provides virtualization for memory map I/O. |
|                                 | Default: ON   |

Table 43. System setup options—Performance menu

| Performance                                    |  |
|--|--|
| Multi-Core Support                             |  |
| Active Cores                                   | Changes the number of CPU cores available to the operating system. The default value is set to the maximum number of cores.  |
|  | By default, All Cores is selected.   |
| Intel SpeedStep                                |  |
| Enable Intel SpeedStep Technology              | Enables or disables the Intel SpeedStep Technology to dynamically adjust processor voltage and core frequency, decreasing average power consumption and heat production.                               |
|  | Default: ON  |
| C-States Control                               |  |
| Enable C-State Control                         | Enables or disables the CPU's ability to enter and exit low-power states.  |
|  | Default: ON  |
| Enable Adaptive C-States for Discrete Graphics | Allows the computer to dynamically detect high usage of a discrete graphics and adjust the computer parameters for higher performance during that time period.   |
|  | Default: ON  |
| Intel Turbo Boost Technology                   |  |
| Enable Intel Turbo Boost Technology            | Enabled or disabled the Intel TurboBoost mode of the processor. If enabled, the Intel TurboBoost driver increases the performance of the CPU or graphics processor.                                    |
|  | Default: ON  |
| Intel Hyper-Threading Technology               |  |
| Enable Intel Hyper-Threading Technology        | Enabled or disabled the Intel Hyper-Threading mode of the processor. If enabled, the Intel Hyper-Threading increases the efficiency of the processor resources when multiple threads run on each core. |
|  | Default: ON  |
| Dynamic Tuning:Machine Learning                |  |
| Enable Dynamic Tuning:Machine Learning         | Enables or disables OS capability to enhance dynamic power tuning capabilities based on detected workloads.  |
|  | Default: OFF   |

### Table 44. System setup options—System Logs menu

| rubio i ii oyotom ootup opiiono |  |
|---------------------------------|--|
| System Logs                     |  |
| BIOS Event Log                  |  |

Table 44. System setup options—System Logs menu (continued)

| System Logs             |                                      |
|-------------------------|--------------------------------------|
| Clear Bios Event Log    | Select keep or clear BIOS events.    |
|                         | By default, Keep is selected.        |
| Thermal Event Log       |                                      |
| Clear Thermal Event Log | Select keep or clear Thermal events. |
|                         | By default, Keep is selected.        |
| Power Event Log         |                                      |
| Clear POWER Event Log   | Select keep or clear Power events.   |
|                         | By default, Keep is selected.        |

# Clearing BIOS (System Setup) and System passwords

#### About this task

To clear the system or BIOS passwords, contact Dell technical support as described at www.dell.com/contactdell.

NOTE: For information on how to reset Windows or application passwords, refer to the documentation accompanying Windows or your application.

# **Getting help**

#### Topics:

Contacting Dell

# **Contacting Dell**

#### **Prerequisites**

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.

#### About this task

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:

#### **Steps**

- 1. Go to Dell.com/support.
- 2. Select your support category.
- 3. Verify your country or region in the Choose a Country/Region drop-down list at the bottom of the page.
- 4. Select the appropriate service or support link based on your need.