

Vostro 3888

Setup and Specifications



Notes, cautions, and warnings

 **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.

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

Set up your computer

Steps

1. Connect the keyboard and mouse.



2. Connect to your network using a cable, or connect to a wireless network.



3. Connect the display.



NOTE: If you ordered your computer with a discrete graphics card. Connect the display cable to the discrete graphics card connectors.

4. Connect the power cable.



5. Press the power button.




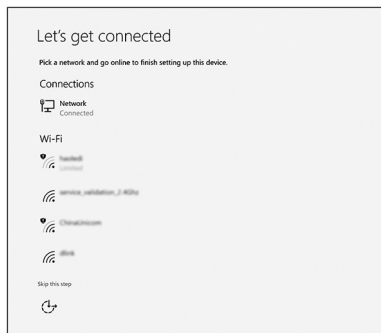
6. Finish operating system setup.

For Ubuntu:

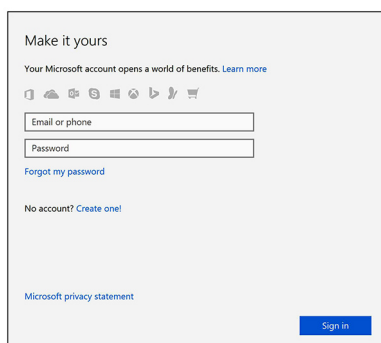
Follow the on-screen instructions to complete the setup. For more information about installing and configuring Ubuntu, see the knowledge base articles [SLN151664](#) and [SLN151748](#) at www.dell.com/support.

For Windows: 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.
- a. Connect to a network.



- b. Sign-in to your Microsoft account or create a new account.



7. Locate and use Dell apps from the Windows Start menu—Recommended.

Table 1. Locate Dell apps



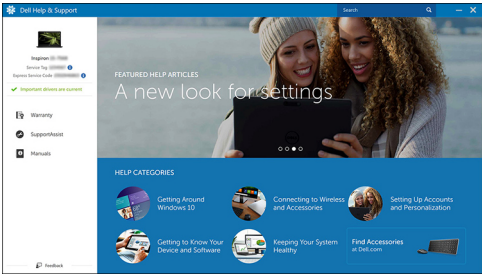



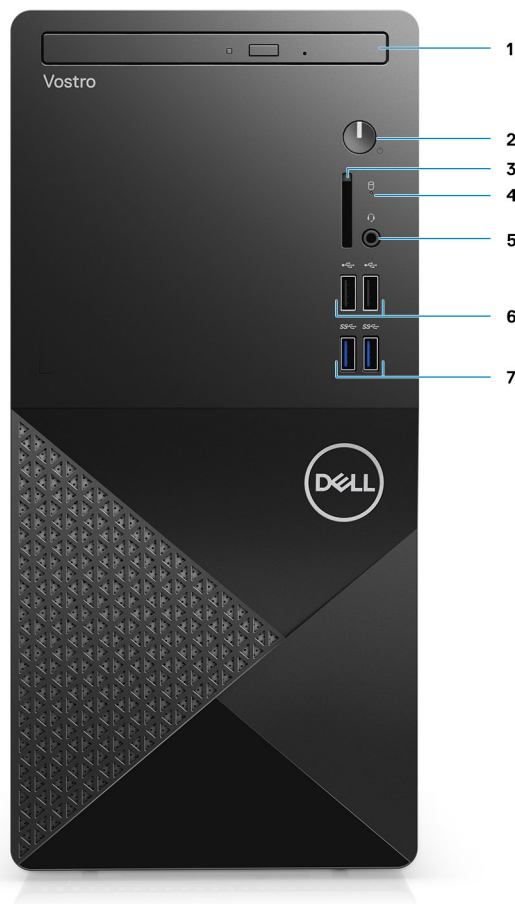
| | |
|---|--|
|  | <p>Dell Product Registration</p> <p>Register your computer with Dell.</p> |
|  | <p>Dell Help & Support</p> <p>Access help and support for your computer.</p>  |
|  | <p>SupportAssist</p> <p>Proactively checks the health of your computer's hardware and software.</p> <p>NOTE: Renew or upgrade your warranty by clicking the warranty expiry date in SupportAssist.</p> |
|  | <p>Dell Update</p> <p>Updates your computer with critical fixes and important device drivers as they become available.</p> |

Table 1. Locate Dell apps (continued)

| | |
|---|---|
|  | <p>Dell Digital Delivery</p> <p>Download software applications including software that is purchased but not preinstalled on your computer.</p> |
|---|---|

Chassis overview

Front

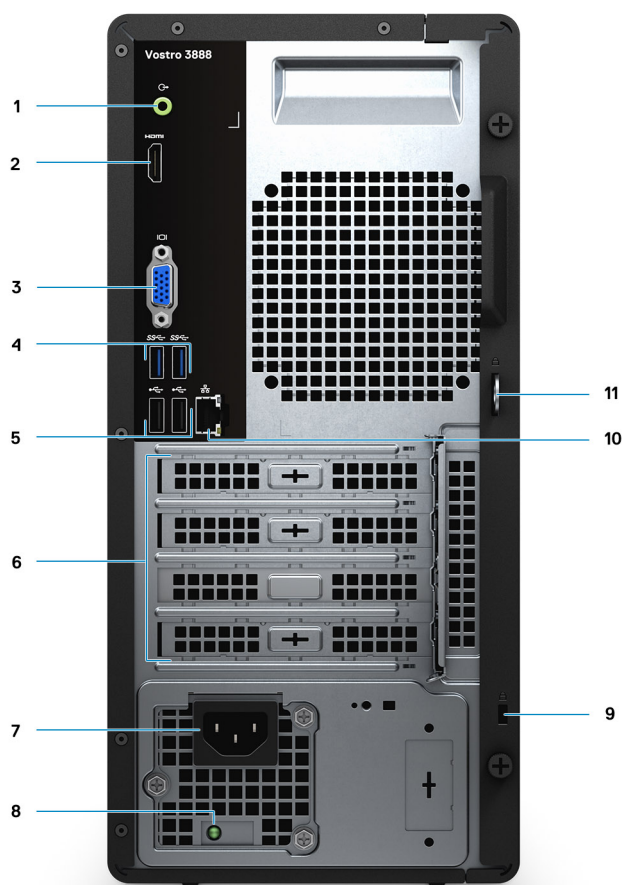


1. Optical drive
2. Power button
3. SD card slot (optional)
4. Hard-drive activity light
5. Combo audio jack

NOTE: 3.5 mm Global Headset Jack functionality varies by model configuration. For best results, use Dell recommended audio accessories.

6. USB 2.0 ports
7. USB 3.2 Gen 1 Type-A ports

Back



1. Line-out port
2. HDMI 1.4b port
3. VGA port
4. USB 3.2 Gen 1 ports
5. USB 2.0 Gen 1 ports
6. Expansion card slots
7. Power connector port
8. Power supply diagnostics light
9. Kensington security slot
10. Network port
11. Padlock loop

NOTE: HDMI 1.4b port is not available for computers shipped with 10th generation Intel Core i5-10400F and 10th generation Intel Core i7-10700F.

NOTE: VGA port is not available for computers shipped with 10th generation Intel Core i5-10400F and 10th generation Intel Core i7-10700F.

Specifications of Vostro 3888

Processors

Table 2. Processors List 1

| Description | Values | | | | | | |
|---------------------|---|---|--|--|---|---|--|
| Processor model | 10 th Generation Intel Core i3-10100 | 10 th Generation Intel Core i5-10400 | 10 th Generation Intel Core i5-10400F | 10 th Generation Intel Celeron G-5900 | 10 th Generation Intel Pentium Gold G-6400 | 10 th Generation Intel Core i7-10700 | 10 th Generation Intel Core i7-10700F |
| Wattage | 65 W | 65 W | 65 W | 58 W | 58 W | 65 W | 65 W |
| Core count | 4 | 6 | 6 | 2 | 2 | 8 | 8 |
| Thread count | 8 | 12 | 12 | 2 | 4 | 16 | 16 |
| Speed | 3.6 GHz to 4.3 GHz | 2.9 GHz to 4.3 GHz | 2.9 GHz to 4.3 GHz | Up to 3.4 GHz | Up to 4.0 GHz | 2.9 GHz to 4.8 GHz | 2.9 GHz to 4.8 GHz |
| Cache | 6 MB | 12 MB | 12 MB | 2 MB | 4 MB | 16 MB | 16 MB |
| Integrated graphics | Intel UHD Graphics 630 | Intel UHD Graphics 630 | Not supported | Intel UHD Graphics 610 | Intel UHD Graphics 610 | Intel UHD Graphics 630 | Not supported |

Table 3. Processors List 2

| Description | Values | | | |
|---------------------|------------------------|-------------------------|--------------------------------------|--------------------------------------|
| Processor model | Intel Celeron G5905 | Intel Pentium Gold 6405 | 10 th Intel Core i3-10105 | 10 th Intel Core i5-10505 |
| Wattage | 58 W | 58 W | 65 W | 65 W |
| Core count | 2 | 2 | 4 | 6 |
| Thread count | 2 | 4 | 8 | 12 |
| Speed | Up to 3.5 GHz | 4.1 GHz | 3.7 GHz to 4.4 GHz | 3.2 GHz to 4.6 GHz |
| Cache | 4 MB | 4 MB | 6 MB | 12 MB |
| Integrated graphics | Intel UHD Graphics 610 | Intel UHD Graphics | Intel UHD Graphics | Intel UHD Graphics |

Operating system

Your Vostro 3888 supports the following operating systems:

- Windows 11 Home, 64-bit
- Windows 11 Home National Academic, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Pro National Academic, 64-bit
- Windows 10 Home, 64-bit
- Windows 10 Pro, 64-bit
- Ubuntu 18.04 LTS, 64-bit

Chipset

Table 4. Chipset

| Description | Values |
|----------------|--|
| Chipset | B460 |
| Processor | 10 th Generation Intel Core i3/i5/i7 and Intel Pentium Gold G-6400 and Celeron 5900 |
| DRAM bus width | 64-bit |
| PCIe bus | Up to Gen3 |

Memory

Table 5. Memory specifications

| Description | Values |
|---------------------------|---|
| Slots | 2 UDIMM slots |
| Type | DDR4 |
| Speed | <ul style="list-style-type: none"> • 2666 MHz • 2933 MHz (supported on Core i7-10700 processor) <div> <i>i</i> NOTE: Memory speed may be subject to change by regions. </div> |
| Maximum memory | 64 GB |
| Minimum memory | 4 GB |
| Memory per slot | 4 GB, 8 GB, 12 GB, 16 GB, 32 GB |
| Configurations supported: | <ul style="list-style-type: none"> • 4 GB (1 x 4 GB) • 8 GB (2 x 4 GB, 1 x 8 GB) • 12 GB (1 x 4 GB and 1 x 8 GB) • 16 GB (2 x 8 GB, 1 x 16 GB) • 32 GB (1 x 32 GB, 2 x 16 GB) • 64 GB (2 x 32 GB) |

Storage

Your computer supports one or more combination of the following configurations:

- 3.5-inch, 500 GB, 7200 RPM, SATA HDD

- 3.5-inch, 1 TB, 7200 RPM, SATA HDD
- 3.5-inch, 2 TB, 7200 RPM, SATA HDD
- M.2 2230, 128 GB, NVMe, Class 35 SSD
- M.2 2230, 256 GB, NVMe, Class 35 SSD
- M.2 2230, 512 GB, NVMe, Class 35 SSD

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

- with a M.2 drive, the M.2 drive is the primary drive
- without a M.2 drive, the 3.5-inch hard drive is the primary drive

Table 6. Storage specifications

| Storage type | Interface type | Capacity |
|------------------------|------------------------------|--------------|
| 3.5-inch HDD, 7200 RPM | SATA | Up to 500 GB |
| 3.5-inch HDD, 7200 RPM | SATA | Up to 1 TB |
| 3.5-inch HDD, 7200 RPM | SATA | Up to 2 TB |
| M.2 2230 SSD | PCIe Gen 3 x4 NVMe, Class 35 | Up to 128 GB |
| M.2 2230 SSD | PCIe Gen 3 x4 NVMe, Class 35 | Up to 256 GB |
| M.2 2230 SSD | PCIe Gen 3 x4 NVMe, Class 35 | Up to 512 GB |

Intel Optane memory

Intel Optane memory functions only as a storage accelerator. It neither replaces nor adds to the memory (RAM) installed on your computer.

- NOTE:** Intel Optane memory is supported on computers that meet the following requirements:
- 7th Generation or higher Intel Core i3/i5/i7 processor
 - Windows 10 64-bit version or higher
 - Latest version of Intel Rapid Storage Technology driver

Table 7. Intel Optane memory

| Description | Values |
|--------------------------|--------------------------|
| Type | Storage accelerator |
| Interface | PCIe NVMe 3.0x2 or 3.0x4 |
| Connector | M.2 2280 |
| Configurations supported | 16 GB and 32 GB |
| Capacity | Up to 32 GB |

Ports and connectors

Table 8. Ports and connectors

| Description | Values |
|--------------|--|
| Front | |
| USB | <ul style="list-style-type: none"> • Two USB 2.0 Gen 1 ports (front) • Two USB 3.2 Gen 1 Type-A port (front) |

Table 8. Ports and connectors (continued)

| Description | Values |
|--------------------|---|
| | <ul style="list-style-type: none"> Two USB 2.0 Gen 1 ports (rear) Two USB 3.2 Gen 1 Type-A ports (rear) |
| Network | 1x RJ-45 Port 10/100/1000 Mbps |
| Audio | <ul style="list-style-type: none"> Universal audio jack (For computer with Realtek configuration) Global headset jack (For computers with C-media configuration) <p>NOTE: 3.5 mm Global Headset Jack functionality varies by model configuration. For best results, use Dell recommended audio accessories.</p> |
| Video | <ul style="list-style-type: none"> 1 x HDMI 1.4b port 1 x VGA port |
| Memory card reader | SD 3.0 card reader (optional) |
| Security | 1 x Padlock hoop, 1 x Kensington security-cable slot |
| Internal | |
| Expansion | <ul style="list-style-type: none"> 1 x full-height Gen 3 PCIe x16 slot 2 x full-height PCIe x1 slot |
| M.2 | <ul style="list-style-type: none"> 1 x M.2 2230 slot for Wi-Fi/Bluetooth card 1 x M.2 2230/2280 slot for solid-state drive or Intel Optane <p>NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article at https://www.dell.com.</p> |

Media-card reader

NOTE: Media-card reader is mutually exclusive with a dual M.2 configuration.

Table 9. Media-card reader specifications

| Description | Values |
|-----------------|--|
| Type | SD 3.0 card reader (optional) |
| Cards supported | <ul style="list-style-type: none"> Secure Digital High Capacity (SDHC) Secure Digital Extended Capacity (SDXC) Multimedia Card (MMC) MMC+ Secure Digital (SD) |

Audio

Table 10. Audio specifications

| Description | Values | Values |
|--------------------|--|--|
| Type | Stereo High Definition Audio Codec | Stereo USB Audio Codec |
| Controller | Realtek ALC3246 (For computer with Realtek configuration) | C-Media CM6548 (For computer with C-Media configuration) |
| Internal interface | ALC3246 | USB 2.0 |
| External interface | <ul style="list-style-type: none">1 x Universal audio jack (front)1 x Line-out re-tasking Line-in audio jack (rear) | <ul style="list-style-type: none">One global headset jack (front)One Line-out audio jack (rear) |

Video

Table 11. Integrated graphics specifications

| Integrated graphics | | | |
|------------------------|--------------------------|----------------------|--|
| Controller | External display support | Memory size | Processor |
| Intel UHD Graphics 610 | VGA and HDMI 1.4b | Shared system memory | 10 th Generation Intel Celeron and Pentium Gold |
| Intel UHD Graphics 630 | VGA and HDMI 1.4b | Shared system memory | 10 th Generation Intel Core i3/i5/i7 processor |

Table 12. Discrete graphics specifications

| Discrete graphics | | | |
|------------------------|--------------------------------|-------------|-------------|
| Controller | External display support | Memory size | Memory Type |
| NVIDIA GeForce GT 730 | Dual Link DVI-D, VGA, and HDMI | 2 GB | GDDR5 |
| NVIDIA GeForce GT 1030 | Dual Link DVI-D, HDMI | 2 GB | GDDR5 |

Communications

Ethernet

Table 13. Ethernet specifications

| Description | Values |
|---------------|-------------------|
| Model number | Realtek RTL8111HS |
| Transfer rate | 10/100/1000 Mbps |

Wireless module

Table 14. Wireless module specifications

| Description | Values | | |
|---------------------------|--|--|--|
| Model number | Intel Wireless-AC 9260 | Intel Wireless-AC 3165 | Realtek RTL8723DE |
| Transfer rate | Up to 1.73 Mbps | Up to 433 Mbps | Up to 150 Mbps |
| Frequency bands supported | Dual band 2.4 GHz/5 GHz | Dual band 2.4 GHz/5 GHz | Dual band 2.4 GHz |
| Wireless standards | Wi-Fi 9260 802.11ac | Wi-Fi 802.11ac | Wi-Fi 802.11bgn |
| Encryption | <ul style="list-style-type: none">64-bit/128-bit WEPAES-CCMPTKIP | <ul style="list-style-type: none">64-bit/128-bit WEPAES-CCMPTKIP | <ul style="list-style-type: none">64-bit/128-bit WEPAES-CCMPTKIP |
| Bluetooth | Bluetooth 5.0 | Bluetooth 4.2 | Bluetooth 4.2 |

Power supply unit

Table 15. Power supply unit specifications

| Description | Values |
|-----------------------------|--|
| Type | 260 W Bronze |
| Input voltage | 90 VAC to 264 VAC |
| Input frequency | 47 Hz to 63 Hz |
| Input current (maximum) | 3.20 A |
| Output current (continuous) | Operating mode: <ul style="list-style-type: none">+12 VA/16.50 A+12 VB/14 A Standby mode: <ul style="list-style-type: none">+12 VA/0.5 A+12 VB/2.5 A |
| Rated output voltage | <ul style="list-style-type: none">+12 VA+12 VB |
| Temperature range: | |
| Operating | 5°C to 45°C (41°F to 113°F) |
| Storage | -40°C to 70°C (-40°F to 158°F) |


CMOS battery

Table 16. CMOS battery

| Brand | Type | Voltage | Composition | Battery life |
|------------|--------|---------|---------------|--|
| MITSUBISHI | CR2032 | 3.0 V | Lithium metal | Continuous Discharge Under 15 kΩ Load to 2.0 V End-Voltage. 20°C±2°C 940 Hrs. or Longer.910 Hrs.or Longer after 12 mo. |

Dimensions and weight

Table 17. Dimensions and weight

| Description | Values |
|--|-----------------------|
| Height | 12.77 in. (324.30 mm) |
| Width | 6.06 in. (154.00 mm) |
| Depth | 11.54 in. (293.00 mm) |
| Weight (approximate) | 13.28 lb (6.03 kg) |
|  NOTE: The weight of your system unit varies depending on the configuration ordered and the manufacturing variability. | |

Media-card reader


 **NOTE:** Media-card reader is mutually exclusive with a dual M.2 configuration.

Table 18. Media-card reader specifications

| Description | Values |
|-----------------|--|
| Type | SD 3.0 card reader (optional) |
| Cards supported | <ul style="list-style-type: none">Secure Digital High Capacity (SDHC)Secure Digital Extended Capacity (SDXC)Multimedia Card (MMC)MMC+Secure Digital (SD) |

Power supply unit

Table 19. Power supply unit specifications

| Description | Values |
|-----------------------------|--|
| Type | D9 200 W EPA Bronze |
| Input voltage | 90 VAC to 264 VAC |
| Input frequency | 47 Hz to 63 Hz |
| Input current (maximum) | 3.20 A |
| Output current (continuous) | <ul style="list-style-type: none">+12 VA/16.50 A+12 VB/14 A Standby mode: <ul style="list-style-type: none">+12 VA/0.5 A+12 VB/2.5 A |
| Rated output voltage | <ul style="list-style-type: none">+12 VA+12 VB |
| Temperature range: | |
| Operating | 5°C to 45°C (41°F to 113°F) |

Table 19. Power supply unit specifications (continued)

| Description | Values |
|-------------|--------------------------------|
| Storage | -40°C to 70°C (-40°F to 158°F) |

Computer environment

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

Table 20. Computer environment

| Description | Operating | Storage |
|-----------------------------|-----------------------------------|------------------------------------|
| Temperature range | 10 °C to 35 °C (50 °F to 95 °F) | -40 °C to 65 °C (-40 °F to 149 °F) |
| Relative humidity (maximum) | 20% to 80% (non-condensing) | 5% to 95% (non-condensing) |
| Vibration (maximum)* | 0.26 GRMS | 1.37 GRMS |
| Shock (maximum) | 40 G† | 105 G‡ |
| Altitude (maximum) | 0 m to 3048 m (0 ft to 10,000 ft) | 0 m to 10668 m (0 ft to 35,000 ft) |

* Measured using a random vibration spectrum that simulates user environment.

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

‡ Measured using a 2 ms half-sine pulse when the hard-drive head is in parked position.

Energy Star and Trusted Platform Module (TPM)

Table 21. Energy Star and TPM

| Features | Specifications |
|--------------|----------------|
| Energy Star | Compliant |
| Discrete TPM | Optional |

Environmental

Table 22. Environmental specifications

| Feature | |
|--|----------------|
| Recyclable packaging | Yes |
| BFR/PVC—free chassis | No |
| Vertical orientation packaging support | Yes |
| MultiPack packaging | Yes (DAO only) |
| Energy-Efficient Power Supply | Standard |
| ENV0424 compliant | Yes |

NOTE: Wood-based fiber packaging contains a minimum of 35% recycled content by total weight of wood-based fiber. Packaging that contains without wood-based fiber can be claimed as Not Applicable. Anticipated Required Criteria for EPEAT Revision Effective 1H 2018.

Service and support

 **NOTE:** For more details on Dell Service Plans, see <https://www.dell.com/learn/us/en/19/services/warranty-support-services>.

Table 23. Service and support

| | Vostro 3681 |
|---|--------------------|
| 1-year Base Next Business Day On-site warranty | Standard |
| 2-4 Year Warranty ¹ Next Business Day On-site ² (3-3-3) | Optional |
| ProSupport | Optional |
| ProSupport Plus | Optional |
| Accidental damage | Optional |

¹ For a copy of guarantees or limited warranties, write to Dell USA L.P., Attn: Warranties, One Dell Way, Round Rock, TX 78682. For more information, go to www.dell.com/warranty.

² Service may be provided by third party. Technician is dispatched if necessary, following phone-based troubleshooting. Subject to parts availability, geographical restrictions, and terms of service contract. Service timing dependent upon time-of-day call placed to Dell. U.S.A only.

System setup

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

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

BIOS overview

The BIOS manages data flow between the computer's operating system and attached devices such as hard disk, video adapter, keyboard, mouse, and printer.

Entering BIOS setup program

About this task

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


Boot menu

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

The options are:

- UEFI Boot:
 - Windows Boot Manager
- Other Options:
 - BIOS Setup
 - BIOS Flash Update
 - Diagnostics
 - Change Boot Mode Settings

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.

| 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. |



| Keys | Navigation |
|------|---|
| Tab | Moves to the next focus area. |
| Esc | Moves to the previous page until you view the main screen. Pressing Esc in the main screen displays a message that 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)
 -  **NOTE:** XXX denotes the SATA drive number.
- Optical Drive (if available)
- SATA Hard Drive (if available)
- Diagnostics
 -  **NOTE:** Choosing **Diagnostics**, will display the **diagnostics** screen.

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 listed in this section may or may not appear.

Table 24. System setup options—System information menu

| General-System Information | | |
|----------------------------|--|--|
| System Information | | |
| 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. |
| Ownership Tag | | Displays the ownership tag of the computer. |
| 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. |
| Memory Information | | |
| 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 used for the memory. |
| DIMM 1 Size | | Displays the DIMM 1 memory size. |
| DIMM 2 Size | | Displays the DIMM 2 memory size. |

Table 24. System setup options—System information menu (continued)

| General-System Information | |
|--------------------------------|---|
| PCI Information | |
| SLOT2 | Displays the PCI information of the computer. |
| SLOT3 | Displays the PCI information of the computer. |
| SLOT5_M.2 | Displays the PCI information of the computer. |
| Processor Information | |
| Processor Type | Displays the processor type. |
| Core Count | Displays the number of cores on the processor. |
| Processor ID | Displays the processor identification code. |
| Current Clock Speed | Displays the current processor clock speed. |
| Minimum Clock Speed | Displays the minimum processor clock speed. |
| Maximum Clock Speed | Displays the maximum processor clock speed. |
| Processor L2 Cache | Displays the Processor L2 Cache size. |
| Processor L3 Cache | Displays the Processor L2 Cache size. |
| HT Capable | Displays whether the processor is HyperThreading (HT) capable. |
| 64-Bit Technology | Displays whether 64-bit technology is used. |
| Device Information | |
| SATA-0 | Displays the SATA device information of the computer. |
| SATA-1 | Displays the SATA device information of the computer. |
| M.2 PCIe SSD-2 | Displays the M.2 PCIe SSD information of the computer. |
| LOM MAC Address | Displays the LOM MAC address of the computer. |
| Video Controller | Displays the video controller type of the computer. |
| Audio Controller | Displays the audio controller information of the computer. |
| Wi-Fi Device | Displays the wireless device information of the computer. |
| Bluetooth Device | Displays the bluetooth device information of the computer. |
| Boot Sequence | |
| Boot Sequence | Displays the boot sequence. |
| Boot List Option | Displays the available boot options. |
| UEFI Boot Path Security | |
| Always,Except Internal HDD | Enable or disable the system to prompt the user to enter the Admin password when booting a UEFI boot path from the F12 boot menu. Default: Enabled |
| Always | Enable or disable the system to prompt the user to enter the Admin password when booting a UEFI boot path from the F12 boot menu. Default: Disabled |
| Never | Enable or disable the system to prompt the user to enter the Admin password when booting a UEFI boot path from the F12 boot menu. Default: Disabled |
| Date/Time | Displays the current date in MM/DD/YY format and current time in HH:MM:SS AM/PM format. |

Table 25. System setup options—System Configuration menu

| System Configuration | |
|---------------------------|--|
| Integrated NIC | |
| Enable UEFI Network Stack | Controls the on-board LAN controller. Enable or disable UEFI Network Stack. |

Table 25. System setup options—System Configuration menu (continued)

| System Configuration | |
|--------------------------------|--|
| SATA Operation | Configure operating mode of the integrated SATA hard drive controller. |
| Drives | Enable or disable various drives on board. |
| SATA-0 | Displays the SATA device information of the computer. |
| SATA-1 | Displays the SATA device information of the computer. |
| M.2 PCIe SSD-2 | Displays the M.2 PCIe SSD information of the computer. |
| SMART Reporting | Enable or disable SMART Reporting during system startup. |
| USB Configuration | |
| Enable USB Boot Support | Enable or disable booting from USB mass storage devices such as external hard drive, optical drive, and USB drive. |
| Enable front USB Port | Enable or disable the front USB ports. |
| Enable rear USB Port | Enable or disable the rear USB ports. |
| Front USB Configuration | Enable or disable the front USB ports. |
| Rear USB Configuration | Enable or disable the rear USB ports. |
| Audio | Enable or disable the integrated audio controller. |
| Miscellaneous Devices | Enable or disable various onboard devices. |

Table 26. System setup options—Video menu

| Video | |
|-----------------|--------------------------------------|
| Multi-Display | Enable or disable multiple displays. |
| Primary Display | Set or change the primary display. |

Table 27. System setup options—Security menu

| Security | |
|-------------------------------|--|
| Admin Password | Set, change, or delete the administrator password. |
| System Password | Set, change, or delete the system password. |
| Internal HDD-0 Password | Set, change, or delete the internal hard-disk drive password. |
| Password Configuration | Control the minimum and maximum number of characters allowed for Admin and System passwords. |
| Password Change | Enable or disable changes to the System and Hard Disk passwords when an administrator password is set. |
| UEFI Capsule Firmware Updates | Enable or disable BIOS updates through UEFI capsule update packages. |
| PTT Security | |
| PTT On | Enable or disable Platform Trust Technology (PTT) visibility to the operating system. |
| Clear | Default: Disabled |
| PPI ByPass for Clear Command | Enable or disable the TPM Physical Presence Interface (PPI). When enabled, this setting will allow the OS to skip BIOS PPI user prompts when issuing the Clear command. Changes to this setting take effect immediately. Default: Disabled |
| Absolute(R) | Enable or disable the BIOS module interface of the optional Computrace(R) Service from Absolute Software. |
| Admin Setup Lockout | Enable to prevent users from entering Setup when an Admin Password is set. |
| Master Password Lockout | Disables the master password support. Hard Disk passwords need to be cleared before changing the setting. |

Table 27. System setup options—Security menu (continued)

| Security | |
|-------------------------|---|
| SMM Security Mitigation | Enable or disable SMM Security Mitigation |

Table 28. System setup options—Secure Boot menu

| Secure Boot | |
|------------------------------|---|
| Secure Boot Enable | Enable or disable the secure boot feature. |
| Secure Boot Mode | Modifies the behavior of Secure Boot to allow evaluation or enforcement of UEFI driver signatures. <ul style="list-style-type: none"> • Deployed Mode-Default: Enabled • Audit Mode-Default: Disabled |
| Deployed Mode | Enable or disable the deployed mode. |
| Audit Mode | Enable or disable the audit mode. |
| Expert Key Management | |
| Expert Key Management | Enable or disable Expert Key Management. |
| Custom Mode Key Management | Select the custom values for expert key management. |

Table 29. System setup options—Intel Software Guard Extensions menu

| Intel Software Guard Extensions | |
|--|--|
| Intel SGX Enable | Enable or disable Intel Software Guard Extensions. |
| Enclave Memory Size | Set the Intel Software Guard Extensions Enclave Reserve Memory Size. |
| Performance | |
| Multi Core Support | Enable multiple cores. Default: Enabled. |
| Intel SpeedStep | Enable or disable Intel Speedstep Technology. Default: Enabled. i NOTE: If enabled, the processor clock speed and core voltage are adjusted dynamically based on the processor load. |
| C-States Control | Enable or disable additional processor sleep states. Default: Enabled. |
| Intel TurboBoost | Enable or disable Intel TurboBoost mode of the processor. Default: Enabled. |
| HyperThread control | Enable or disable HyperThreading in the processor. Default: Enabled. |
| Power Management | |
| AC Recovery | Sets what action the computer takes when power is restored. |
| Enable Intel Speed Shift Technology | Enable or disable Intel Speed Shift Technology. |
| Auto On Time | Enable to set the computer to turn on automatically every day or on a preselected date and time. This option can be configured only if the Auto On Time is set to Everyday, Weekdays or Selected Days. Default: Disabled. |
| USB Wake Support | Enable the USB devices to wake the computer from Standby. |
| Deep Sleep Control | Enables you to control the Deep Sleep mode support. |

Table 29. System setup options—Intel Software Guard Extensions menu (continued)

| Intel Software Guard Extensions | |
|--|--|
| Wake on LAN/WLAN | Enables the computer to be powered on by special LAN signals. |
| Block sleep | Enables you to block entering to sleep mode in OS environment. |
| POST Behavior | |
| Numlock LED | Enables the NumLock function when computer boots. |
| Keyboard Errors | Enables the keyboard error detection. |
| Fastboot | Enable to set the speed of the boot process. Default: Thorough. |
| Extend BIOS POST Time | Configure additional pre-boot delay. |
| Full Screen Logo | Enable or disable to display full screen logo. |
| Warnings and Errors | Sets the boot process to pause when Warnings or Errors are detected. |

Table 30. System setup options—Virtualization Support menu

| Virtualization Support | |
|-------------------------------|--|
| Virtualization | Specify whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Intel Virtualization Technology. |
| VT for Direct I/O | Specify whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Intel Virtualization Technology for Direct I/O. |

Table 31. System setup options—Wireless menu

| Wireless | |
|------------------------|--|
| Wireless Device Enable | Enable or disable internal wireless devices. |

Table 32. System setup options—Maintenance menu

| Maintenance | |
|--------------------|---|
| Service Tag | Display the system's Service Tag. |
| Asset Tag | Create a system Asset Tag. |
| SERR Messages | Enable or disable SERR messages. |
| BIOS Downgrade | Control flashing of the system firmware to previous revisions. |
| Data Wipe | Enable to securely erase data from all internal storage devices. |
| BIOS Recovery | Enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key. |

Table 33. System setup options—System Logs menu

| System Logs | |
|--------------------|----------------------|
| BIOS Events | Display BIOS events. |

Table 34. System setup options—SupportAssist System Resolution menu

| SupportAssist System Resolution | |
|--|--|
| Auto OS Recovery Threshold | Control the automatic boot flow for SupportAssist System Resolution Console and for Dell OS Recovery tool. |

System and setup password


Table 35. System and setup password

| Password type | Description |
|-----------------|--|
| System password | Password that you must enter to log in to your system. |
| Setup password | Password that you must enter to access and make changes to the BIOS settings of your computer. |

You can create a system password and a setup password to secure your computer.

 **CAUTION:** The password features provide a basic level of security for the data on your computer.

 **CAUTION:** Anyone can access the data that is stored on your computer if it is not locked and left unattended.

 **NOTE:** System and setup password feature is disabled.

Assigning a system setup password

Prerequisites

You can assign a new **System or Admin Password** only when the status is in **Not Set**.

About this task

To enter the system setup, press F12 immediately after a power-on or reboot.

Steps

1. In the **System BIOS** or **System Setup** screen, select **Security** and press Enter.
The **Security** screen is displayed.
2. Select **System/Admin Password** and create a password in the **Enter the new password** field.
Use the following guidelines to assign the system password:
 - A password can have up to 32 characters.
 - At least one special character: ! " # \$ % & ' () * + , - . / : ; < = > ? @ [\] ^ _ ` { | }
 - Numbers 0 through 9.
 - Upper case letters from A to Z.
 - Lower case letters from a to z.
3. Type the system password that you entered earlier in the **Confirm new password** field and click **OK**.
4. Press Esc and save the changes as prompted by the pop-up message.
5. Press Y to save the changes.
The computer restarts.

Deleting or changing an existing system setup password


Prerequisites

Ensure that the **Password Status** is Unlocked (in the System Setup) before attempting to delete or change the existing System and/or Setup password. You cannot delete or change an existing System or Setup password, if the **Password Status** is Locked.

About this task

To enter the System Setup, press F12 immediately after a power-on or reboot.

Steps

1. In the **System BIOS** or **System Setup** screen, select **System Security** and press Enter.
The **System Security** screen is displayed.
2. In the **System Security** screen, verify that **Password Status** is **Unlocked**.
3. Select **System Password**, update, or delete the existing system password, and press Enter or Tab.
4. Select **Setup Password**, update, or delete the existing setup password, and press Enter or Tab.
 **NOTE:** If you change the System and/or Setup password, reenter the new password when prompted. If you delete the System and/or Setup password, confirm the deletion when prompted.
5. Press Esc and a message prompts you to save the changes.
6. Press Y to save the changes and exit from System Setup.
The computer restarts.

Software

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

Downloading Windows drivers

Steps

1. Turn on the .
2. Go to **Dell.com/support**.
3. Click **Product Support**, enter the Service Tag of your , and then click **Submit**.
NOTE: If you do not have the Service Tag, use the auto detect feature or manually browse for your model.
4. Click **Drivers and Downloads**.
5. Select the operating system installed on your .
6. Scroll down the page and select the driver to install.
7. Click **Download File** to download the driver for your .
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 device drivers

Verify if the system device drivers are already installed in the system.

Serial IO driver

Verify if the drivers for Touchpad, IR camera, and keyboard and are installed.

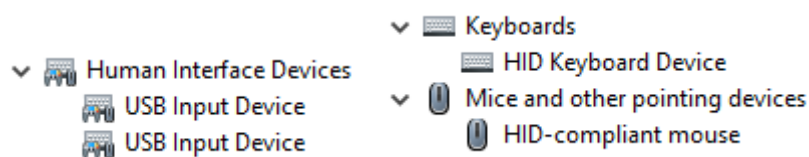
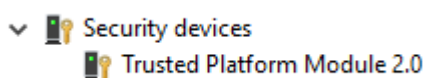


Figure 1. Serial IO driver




Security drivers

Verify if the security drivers are already installed in the system.



USB drivers

Verify if the USB drivers are already installed in the computer.




- ▼  Universal Serial Bus controllers
 -  Intel(R) USB 3.1 eXtensible Host Controller - 1.10 (Microsoft)
 -  USB Root Hub (USB 3.0)

Network adapter drivers

Verify if the Network adapter drivers are already installed in the system.

Realtek Audio

Verify if audio drivers are already installed in the computer.

- ▼  Sound, video and game controllers
 -  Intel(R) Display Audio
 -  Realtek Audio

Storage controller



Verify if the storage control drivers are already installed in the system.

Getting help and contacting Dell

Self-help resources


You can get information and help on Dell products and services using these self-help resources:


Table 36. Self-help resources

| Self-help resources | Resource location |
|---|---|
| Information about Dell products and services | www.dell.com |
| My Dell app |  |
| Tips |  |
| Contact Support | In Windows search, type <code>Contact Support</code> , and press Enter. |
| Online help for operating system | www.dell.com/support/windows |
| Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents. | <p>Your Dell computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at www.dell.com/support.</p> <p>For more information on how to find the Service Tag for your computer, see Locate the Service Tag on your computer.</p> |
| Dell knowledge base articles for a variety of computer concerns | <ol style="list-style-type: none"> 1. Go to www.dell.com/support. 2. On the menu bar at the top of the Support page, select Support > Knowledge Base. 3. In the Search field on the Knowledge Base page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles. |

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see www.dell.com/contactdell.

 **NOTE:** Availability varies by country/region and product, and some services may not be available in your country/region.

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