

Dell Vostro 3670

Setup and specifications guide



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.

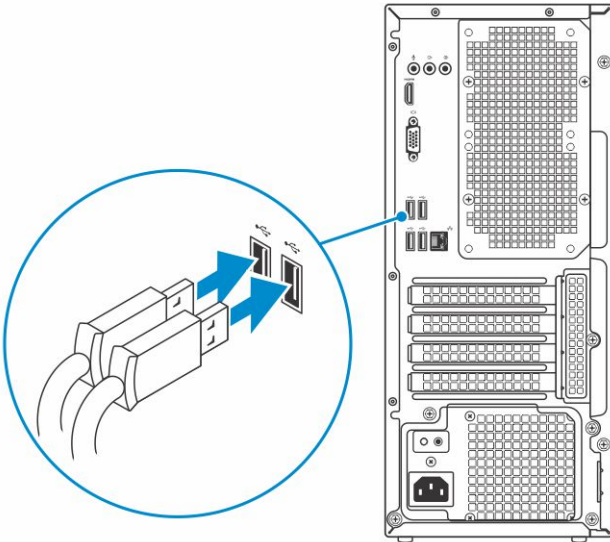
© 2018 - 2019 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

1 Set up your computer	5
2 Chassis	8
Chassis views.....	8
3 System specifications	10
Physical specifications.....	10
System information.....	10
Operating system specifications.....	11
Memory specifications.....	11
Port and connector specifications.....	12
Communication specifications.....	12
Video specifications.....	12
Audio specifications.....	14
Storage specifications.....	15
Processor specifications.....	15
Storage combinations.....	15
System board connectors.....	16
Power supply specifications.....	16
Security hardware.....	16
Regulatory and Environmental Compliance.....	16
4 System setup	18
System setup.....	18
General screen options.....	18
System Configuration screen options.....	19
Video screen options.....	20
Security screen options.....	20
Secure Boot screen options.....	22
Intel Software Guard Extensions screen options.....	22
Performance screen options.....	22
Power Management screen options.....	23
POST Behavior screen options.....	24
Virtualization support screen options.....	24
Wireless screen options.....	24
Maintenance screen options.....	24
System Log screen options.....	25
Advanced configuration options.....	25
SupportAssist System Resolution.....	25
5 Software	26
Supported operating systems.....	26
Downloading drivers.....	26
Intel chipset drivers.....	26

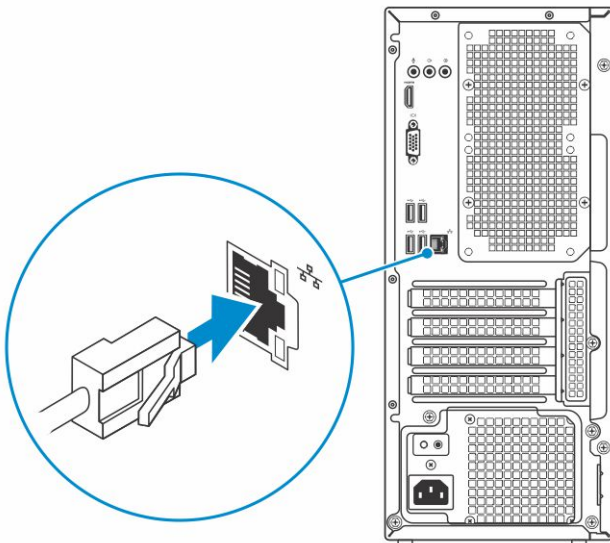
Intel HID Event Filter.....	27
Disk drivers.....	28
Display adapter driver.....	28
Bluetooth drivers.....	28
Network drivers.....	28
Audio drivers.....	29
Storage drivers.....	29
Security drivers.....	29
6 Getting help.....	30
Contacting Dell.....	30

Set up your computer

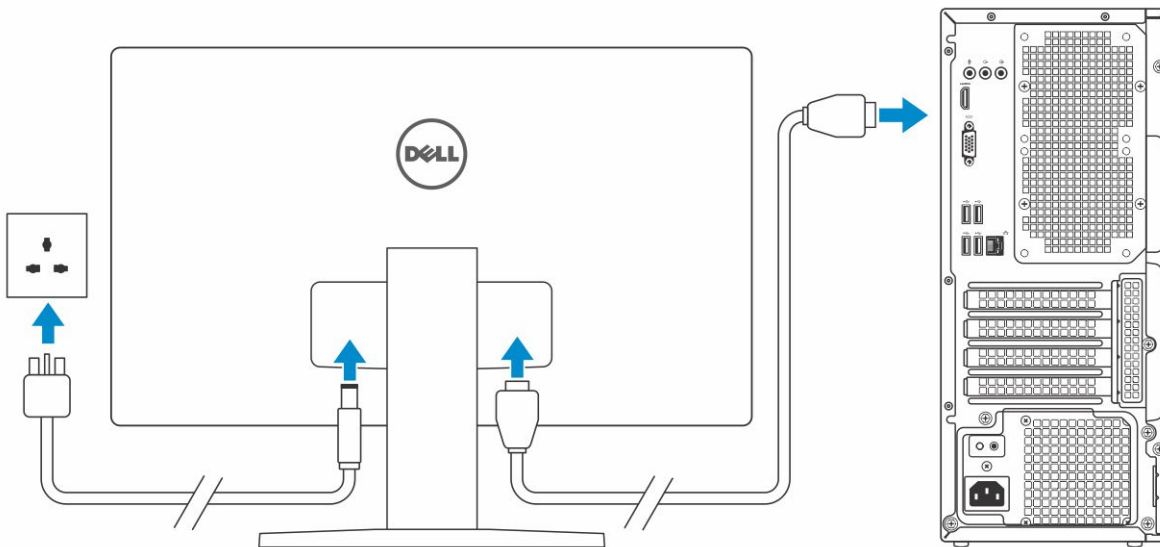
1. Connect the keyboard and mouse.



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

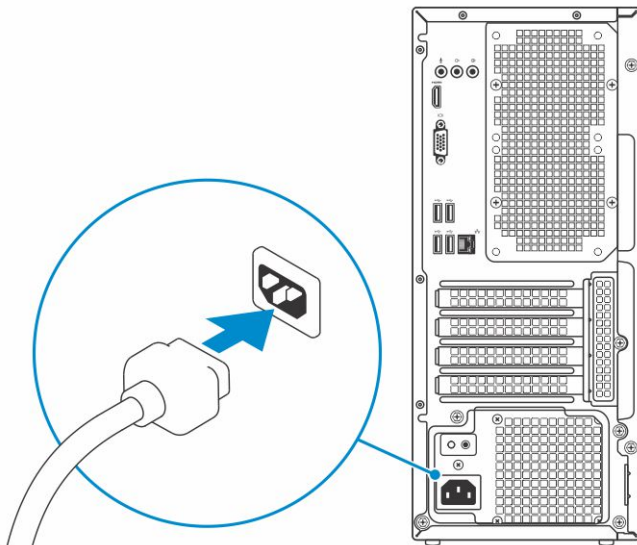


3. Connect the display.

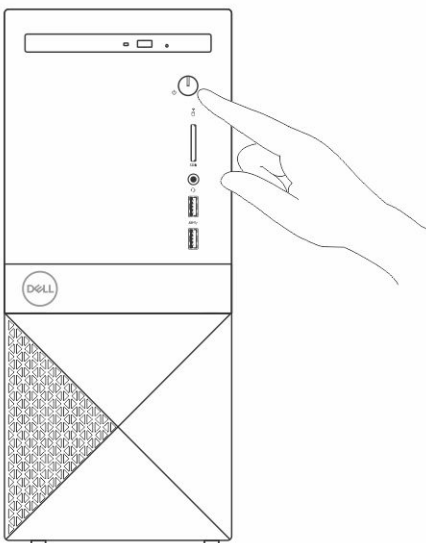


i **NOTE:** If you ordered your computer with a discrete graphics card, the HDMI and the display ports on the back panel of your computer are covered. Connect the display to the discrete graphics card.

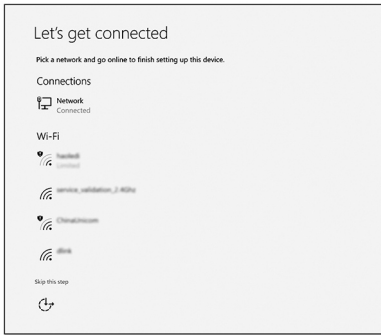
4. Connect the power cable.



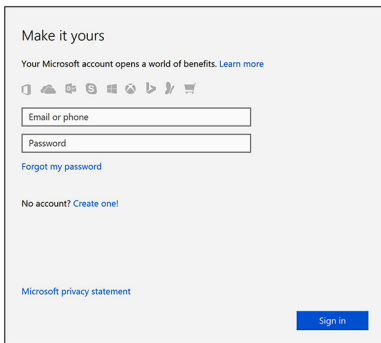
5. Press the power button.



6. Follow the instructions on the screen to finish Windows setup:
 - a) Connect to a network.



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



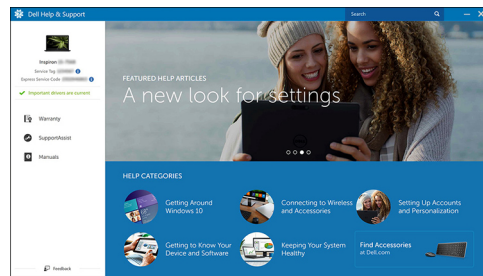
7. Locate Dell apps.

Table 1. Locate Dell apps



Register your computer

Dell Help & Support



SupportAssist — Check and update your computer

Chassis

The chapter illustrates the multiple views of the chassis along with the ports and connectors.

Topics:

- [Chassis views](#)

Chassis views

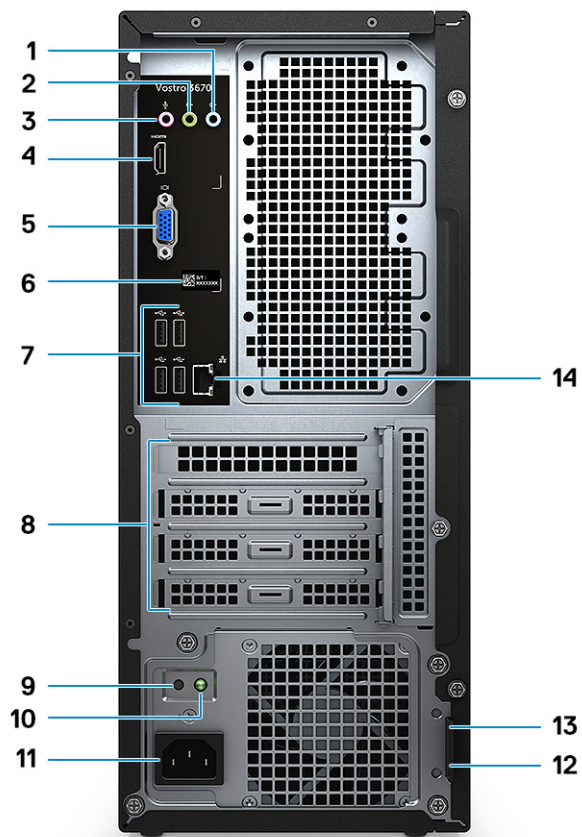
The chassis view displays only the standard components and all the optional components may not be listed.

Front view



1. Optical drive
2. Power button/Power-status light
3. Hard-drive activity light
4. SD card slot
5. Headset port
6. USB 3.1 Gen 1 ports (2)

Back view



1. Line-in port
2. Line-out port
3. Microphone port
4. HDMI port
5. VGA port
6. Service tag label
7. USB 2.0 ports (4)
8. Expansion card slots
9. Power supply diagnostics button
10. Power supply diagnostics light
11. Power connector port
12. Padlock ring
13. Kensington security slot
14. Network port

System 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:

- [Physical specifications](#)
- [System information](#)
- [Operating system specifications](#)
- [Memory specifications](#)
- [Port and connector specifications](#)
- [Communication specifications](#)
- [Video specifications](#)
- [Audio specifications](#)
- [Storage specifications](#)
- [Processor specifications](#)
- [Storage combinations](#)
- [System board connectors](#)
- [Power supply specifications](#)
- [Security hardware](#)
- [Regulatory and Environmental Compliance](#)

Physical specifications

Table 2. Dimensions and weight

Feature	Specifications
Height	14.7 inch (373.7 mm)
Width	6.3 inch (160 mm)
Depth	11.4 inch (289.4 mm)
Weight	13.01 lb (5.9 kg)

System information

Table 3. System information

Feature	Specifications
Chipset	Intel B360
DRAM bus width	64-bit wide channels
FLASH EPROM	256Mbit
PCIe bus	100 Mhz
External bus frequency	DMI 3.0-8GT/s

Operating system specifications

Table 4. Operating system specifications

Feature	Specifications
Operating systems supported	<ul style="list-style-type: none"> Windows 10 64-bit Windows 10 64-bit Professional Windows 10 64-bit National Academic (STF) Ubuntu 16.04 LTS (64-bit)

Memory specifications

Table 5. Memory specifications

Feature	Specifications
Minimum memory configuration	4 GB
Maximum memory configuration	32 GB
Number of slots	2 UDIMM
Maximum memory supported per slot	16 GB
Memory options	<ul style="list-style-type: none"> 4 GB DDR4 2400 MHz (4Gx1) 8 GB DDR4 2400 MHz (8Gx1) 8 GB DDR4 2400 MHz (4Gx2) 12 GB DDR4 2400 MHz (8Gx1 + 4Gx1) 16 GB DDR4 2400 MHz (8Gx2) 16 GB DDR4 2400 MHz (16Gx1) 24 GB DDR4 2400 MHz (16Gx1 + 8Gx1) 32 GB DDR4 2400 MHz (16Gx2) 4 GB DDR4 2666 MHz (4Gx1) 8 GB DDR4 2666 MHz (8Gx1) 8 GB DDR4 2666 MHz (4Gx2) 12 GB DDR4 2666 MHz (8Gx1 + 4Gx1) 16 GB DDR4 2666 MHz (8Gx2) 16 GB DDR4 2666 MHz (16Gx1) 24 GB DDR4 2666 MHz (16Gx1 + 8Gx1) 32 GB DDR4 2666 MHz (16Gx2) 16 GB Optane (Optional) 32 GB Optane (Optional) <p>NOTE: The memory modules are customer replaceable units (CRU), and it can be upgraded.</p> <p>NOTE:</p> <ul style="list-style-type: none"> Memory configuration of 2400 MHz pair with PDC, CDC, core i3 CPU Memory configuration of 2666 MHz pair with core i5, i7 CPU
Type	DDR4 SDRAM Non-ECC memory
Speed	<ul style="list-style-type: none"> 2666 MHz on Core i5, i7 processor 2400 MHz on Celeron, Pentium, and i3 processor

Port and connector specifications

Table 6. Ports and connectors

Feature	Specifications
USB	<ul style="list-style-type: none"> Two USB 3.1 Gen 1 ports Four USB 2.0 ports
Security	<ul style="list-style-type: none"> Kensington lock slot Padlock ring
Audio	<ul style="list-style-type: none"> Universal audio jack Microphone port Line-in port Line-out port
Video	<ul style="list-style-type: none"> HDMI 1.4 (UMA) VGA port
Network adapter	One RJ-45 connector
Secure Digital card	SD card slot

Communication specifications

Table 7. Communication specifications

Feature	Specifications
Network adapter	Realtek RTL8111H Gigabit Ethernet controller 10/100/1000 Mb/s Ethernet (RJ-45)
Wireless	<ul style="list-style-type: none"> Intel 9462 1x1 ac + BT5 (band - 2.4 Ghz, 5 Ghz; 802.11ac + Bluetooth 5.0, 1X1) Intel 9560 2x2 ac + BT5 (band - 2.4Ghz, 5Ghz; 802.11ac + Bluetooth 5.0, 2x2) DW 1707 + BT4.0 2.4 GHZ (band - 2.4 Ghz; 802.11bgn + Bluetooth 4.0, 1x1) via M.2

Video specifications

Table 8. Video

Controller	Type	CPU Dependency	Graphics memory type	Capacity	External display support	Maximum resolution
Intel UHD Graphics 630	UMA	Intel Core i3 - 8100 / Intel Core i3 - 9100 Intel Core i5 - 8400 / Intel Core i5 - 9400 Intel Core i7 - 8700 / Intel Core i7 - 9700	Integrated	Shared system memory	VGA HDMI 1.4	VGA: 2048x1536@60 Hz HDMI : 1920x1080@60Hz

Controller	Type	CPU Dependency	Graphics memory type	Capacity	External display support	Maximum resolution
Intel UHD Graphics 610	UMA	Intel Pentium Gold G5400 / Intel Pentium Gold G5420 Celeron processor G4900 / Intel Pentium Gold G4930	Integrated	Shared system memory	VGA HDMI 1.4	VGA: 2048x1536@60 Hz HDMI : 1920x1080@60Hz
nVIDIA GeForce GT 710	Discrete	N/A	DDR3	2 GB	DL-DVI HDMI VGA (FH only)	Dual Link DVI = 2560x1600 HDMI = 1920x1200 (PC Mode), 1920x1080 (TV mode, 1080p) VGA (optional) = 2048x1536
nVIDIA GeForce GT 1030	Discrete	N/A	GDDR5	2 GB	SL-DVI HDMI	SL-DVI = 1920 x 1200x 24bpp @ 60hz (reduced blanking) HDMI = 4096 x 2160 x 24bpp @ 60hz
nVIDIA GeForce GTX 1050	Discrete	N/A	GDDR5	2 GB	DL-DVI DP HDMI	DL-DVI = 2560 x 1600x 24bpp @ 60hz (reduced blanking) DisplayPort = <ul style="list-style-type: none"> • 7680 x 4320 @ 60hz YUV420 8bit with single DP1.3 • 5120 x 3200 x 24 bpp @ 60hz (reduced blanking) • 5120 x 3200 x 30 bpp @ 60hz (YUV422) HDMI = 4096 x 2160 x 24bpp @ 60hz

Controller	Type	CPU Dependency	Graphics memory type	Capacity	External display support	Maximum resolution
nVIDIA GeForce GTX 1050Ti	Discrete	N/A	GDDR5	4 GB	DL-DVI DP HDMI	DL-DVI = 2560 x 1600x 24bpp @ 60hz (reduced blanking) DisplayPort = <ul style="list-style-type: none"> 7680 x 4320 @ 60hz YUV420 8bit with single DP1.3 5120 x 3200 x 24 bpp @ 60hz (reduced blanking) 5120 x 3200 x 30 bpp @ 60hz (YUV422) HDMI = 4096 x 2160 x 24bpp @ 60hz
nVIDIA GeForce GTX 1060	Discrete	N/A	GDDR5	3 GB	DL-DVI DP HDMI	DL-DVI = 2560 x 1600x 24bpp @ 60hz (reduced blanking) DisplayPort = <ul style="list-style-type: none"> 7680 x 4320 @ 60hz YUV420 8bit with single DP1.3 5120 x 3200 x 24 bpp @ 60hz (reduced blanking) 5120 x 3200 x 30 bpp @ 60hz (YUV422) HDMI = 4096 x 2160 x 24bpp @ 60hz

Audio specifications

Table 9. Audio specifications

Feature	Specifications
Controller	Waves MaxxAudio Pro
Type	Four-channel high-definition audio
Interface	<ul style="list-style-type: none"> 3-stack audio jacks supporting 5.1 surround sound. High-quality speakers Stereo headset/mic combo

Storage specifications

Table 10. Storage specifications

Primary/Boot drive	Secondary drive	Interface	Capacity
Solid-State Drive (SSD)	M.2 2230 and 2280 PCIe	PCIe 3 x4 NVME, Up to 32 Gbps	Up to 512 GB
Hard drive (HDD)	2.5 and 3.5 inch	SATA AHCI, Up to 6 Gbps	Up to 2 TB at 5400 RPM and 7200 RPM

Processor specifications

NOTE: Processor numbers are not a measure of performance. Processor availability is subject to change and may vary by region/country.

Table 11. Processor specifications

Type	UMA Graphics
Intel 8th Generation Celeron processor G4900 (2M Cache, 2 cores, 54 W, up to 3.1 GHz)	Intel UHD Graphics 610 with shared graphics memory
Intel 8th Generation Pentium Gold processor G5400 (4M Cache, 2 cores, 58 W, up to 3.7 GHz)	Intel UHD Graphics 610 with shared graphics memory
Intel 8th Generation Core i3-8100 processor (6 MB Cache, 4 cores, 65 W, up to 3.6 GHz)	Intel UHD Graphics 630 with shared graphics memory
Intel 8th Generation Core i5-8400 processor (9 MB Cache, 6 cores, 65 W, up to 4.0 GHz)	Intel UHD Graphics 630 with shared graphics memory
Intel 8th Generation Core i7-8700 processor (12 MB Cache, 6 cores, 65 W, up to 4.6 GHz),	Intel UHD Graphics 630 with shared graphics memory
Intel Celeron 9th Generation Celeron G4930 (2M Cache, 2 cores, 54 W, up to 3.2 GHz)	Intel UHD Graphics 610 with shared graphics memory
Intel 9th Generation Pentium Gold G5420 (4M Cache, 2 cores, 54 W, up to 3.8 GHz)	Intel UHD Graphics 610 with shared graphics memory
Intel 9th Generation Core i3-9100 (6 MB Cache, 4 cores, 65 W, up to 4.2 GHz)	Intel UHD Graphics 630 with shared graphics memory
Intel 9th Generation Core i5-9400 (9 MB Cache, 6 cores, 65 W, up to 4.1 GHz)	Intel UHD Graphics 630 with shared graphics memory
Intel 9th Generation Core i7-9700 (12 MB Cache, 8 cores, 65 W, up to 4.7 GHz)	Intel UHD Graphics 630 with shared graphics memory

Storage combinations

Table 12. Storage combinations

Primary/Boot drive	Secondary drive
M.2 Drive + SATA	M.2 128GB Solid State Drive+ 1TB 7200 rpm Hard Drive

System board connectors

Table 13. System board connectors

Feature	Specifications
M.2 Connectors	M.2 2230/2280 for M.2 PCIe SSD/Wireless (optional)
Serial ATA (SATA) connector	4 SATA 3.0 ports (Up to 6Gb/s)
PCIe X16 slot	PCIe X16 (1)
PCIe X1 slot	PCIe X1 (2)
PCI	PCI (1)

i NOTE: PCI slot support on TPM sku

Power supply specifications

Table 14. Power supply

Feature	Specifications
Input Voltage	100–240 VAC, 50–60 Hz
Wattage	<ul style="list-style-type: none">• 290 W PSU (APFC Full range)• 290 W PSU (EPA Bronze)• 365 W PSU (EPA Gold), pair with nVIDIA GTX 1060 3GB GDDR5, red mesh MT for China only.

Security hardware

Table 15. Security hardware

Feature	Specifications
Security HW	<ul style="list-style-type: none">• Data wipe via BIOS (Secure Erase)• Support of Computrace BIOS agent – supports both Computrace and Proactive Systems Management• Discrete TPM 2.0 (optional)• BIOS disable TPM (China Only)

Regulatory and Environmental Compliance

Table 16. Regulatory and Environmental Compliance

Feature	Specifications
Regulatory and Environmental Compliance	<ul style="list-style-type: none">• Energy Star 7.0 (available in selected configurations only)• FCC, UL mark• EPEAT Registered (for selected configurations only). For specific country participation and rating, please visit www.epeat.net• CCC/CECP (China only)• ESPL/ 1 Million Hr MTBF (China only, Post-RTS)
Temperature range	<ul style="list-style-type: none">• Operating :10°C to 35°C (50°F to 95°F)• Storage: -40°C to 65°C (-40°F to 149°F)

Feature	Specifications
Relative humidity	<ul style="list-style-type: none"> · Operating : 20% to 80% (*Max dew point temperature = 26°C) (non-condensing) · Storage: 5% to 95% (+Max dew point temperature = 33°C) (non-condensing)
Airborne contaminant level	G1 as defined by ISA-S71.04-1985
Vibration	Vibration (maximum)*: operating=0.26 GRMS; Storage=1.37 GRMS
Shock	Shock (maximum): operating=40 G†; Storage=105 G‡

System setup

System setup enables you to manage your desktop 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

Topics:

- [System setup](#)
- [General screen options](#)
- [System Configuration screen options](#)
- [Video screen options](#)
- [Security screen options](#)
- [Secure Boot screen options](#)
- [Intel Software Guard Extensions screen options](#)
- [Performance screen options](#)
- [Power Management screen options](#)
- [POST Behavior screen options](#)
- [Virtualization support screen options](#)
- [Wireless screen options](#)
- [Maintenance screen options](#)
- [System Log screen options](#)
- [Advanced configuration options](#)
- [SupportAssist System Resolution](#)

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.

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.

General screen options


This section lists the primary hardware features of your computer.

Option	Description
System Information	<ul style="list-style-type: none"> • System Information: Displays BIOS Version, Service Tag, Asset Tag, Ownership Tag, Ownership Date, Manufacture Date, and the Express Service Code. • Memory Information: Displays Memory Installed, Memory Available, Memory Speed, Memory Channels Mode, Memory Technology, DIMM 1 Size, DIMM 2Size.

Option	Description
	<ul style="list-style-type: none"> Processor Information: Displays Processor Type, Core Count, Processor ID, Current Clock Speed, Minimum Clock Speed, Maximum Clock Speed, Processor L2 Cache, Processor L3 Cache, HT Capable, and 64-Bit technology. Device Information: Displays Primary Hard Drive, SATA-0, SATA-1, SATA-2, SATA-3, LOM MAC Address, Video Controller, Audio Controller, WiFi Device, Bluetooth Device.
Boot Sequence	<p>Boot Sequence Allows you to change the order in which the computer attempts to find an operating system. The options are:</p> <ul style="list-style-type: none"> Windows Boot Manager Onboard NIC(IPV4) Oboard NIC(IPV6) <p>By default, all the options are checked. You can also deselect any option or change the boot order.</p> <p>Boot List Options Allows you to change the boot list option:</p> <ul style="list-style-type: none"> Legacy External Devices UEFI (default)
Advanced Boot Options	<p>This option allows you the legacy option ROMs to load.</p> <ul style="list-style-type: none"> By default, the Enable Legacy Option ROMs is enabled This option allows you the legacy option ROMs to load. By default, the Enable Attemot Legacy Boot is disabled.
UEFI Boot Path Security	<p>This options control whether or not the system will prompt the user to enter the Admin password (if set) when booting a UEFI boot path from the F12 Boot Menu</p> <ul style="list-style-type: none"> Always Except Internal HDD (default) Always Never
Date/Time	Allows you to change the date and time.

System Configuration screen options

Option	Description
Integrated NIC	<p>Allows you to configure the integrated network controller. The options are:</p> <ul style="list-style-type: none"> Disabled Enabled Enabled w/PXE: This option is enabled by default.
SATA Operation	<p>Allows you to configure the internal SATA hard-drive controller. The options are:</p> <ul style="list-style-type: none"> Disabled AHCI RAID On(default)
Drives	<p>Allows you to configure the SATA drives on board. All drives are enabled by default. The options are:</p> <ul style="list-style-type: none"> SATA-0 SATA-1 SATA-2 SATA-3 M.2 PCIe SSD-0

Option	Description
SMART Reporting	<p>This field controls whether hard drive errors for integrated drives are reported during system startup. This technology is part of the SMART (Self-Monitoring Analysis and Reporting Technology) specification. This option is disabled by default.</p> <ul style="list-style-type: none"> · Enable SMART Reporting
USB Configuration	<p>This field configures the integrated USB controller. If Boot Support is enabled, the system is allowed to boot any type of USB Mass Storage Devices (HDD, memory key, floppy).</p> <p>If USB port is enabled, device attached to this port is enabled and available for OS.</p> <p>If USB port is disabled, the OS cannot see any device attached to this port.</p> <ul style="list-style-type: none"> · Enable USB Boot Support (default) · Enable Front USB Ports(default) · Enable Rear USB Ports (default) <p> NOTE: USB keyboard and mouse always work in the BIOS setup irrespective of these settings.</p>
Front USB Configuration	<p>This field enables or disables the front USB configuration</p> <ul style="list-style-type: none"> · Front Port 1 (Bottom Right)* (default) · Front Port 2 (Bottom Left)* (default) <p>* denotes a USB 3.0-capable port</p>
Rear USB Configuration	<p>This field enables or disables the front USB configuration</p> <ul style="list-style-type: none"> · Rear Port 1 · Rear Port 2 · Rear Port 3 (w/RJ-45) · Rear Port 4 (w/RJ-45) <p>* denotes a USB 3.0-capable port</p>
Audio	<p>This field enables or disables the integrated audio controller. By default, the Enable Audio option is selected.</p>
Miscellaneous Devices	<p>Allows you to enable or disable the following devices:</p> <ul style="list-style-type: none"> · Enable PCI Slot · Enabled Secure Digital (SD) Card (default)

Video screen options


Option	Description
Multi-Display	<p>This option enables or disables Multi-Display. It should be enables for Windows 7 or later. This feature is not applicable to other operating systems.</p> <ul style="list-style-type: none"> · Enable Multi-Display: This option is enabled by default.
Primary Display	<p>This option determines which video controller becomes the primary display when multiple controllers are available in the system</p> <ul style="list-style-type: none"> · Auto: This option is enabled by default. · Intel HD Graphics · NVIDIA HD Graphics

Security screen options

Option	Description
Admin Password	<p>Allows you to set, change, or delete the administrator (admin) password.</p>

Option	Description
	<p>NOTE: You must set the admin password before you set the system or hard drive password. Deleting the admin password automatically deletes the system password and the hard drive password.</p> <p>NOTE: Successful password changes take effect immediately.</p> <p>Default setting: Not set</p>
System Password	<p>Allows you to set, change, or delete the system password.</p> <p>NOTE: Successful password changes take effect immediately.</p> <p>Default setting: Not set</p>
Internal HDD-0 Password	<p>Allows you to set, change, or delete the password on the system's internal hard-disk drive.</p> <p>NOTE: Successful password changes take effect immediately.</p> <p>Default Setting: Not set</p>
Internal HDD-3 Password	<p>Allows you to set, change, or delete the password on the system's internal hard-disk drive.</p> <p>NOTE: Successful password changes take effect immediately.</p> <p>Default Setting: Not set</p>
Password Change	<p>Allows you to enable the disable permission to the System and Hard Drive passwords when the admin password is set.</p> <p>Default setting: Allow Non-Admin Password Changes is selected.</p>
UEFI Capsule Firmware Update	<p>This option controls whether the system allows the BIOS updates through UEFI capsule update packages. This option is enabled by default.</p>
TPM 2.0 Security	<p>Allows you to enable the Trusted Platform Module (TPM) during POST. The options are:</p> <ul style="list-style-type: none"> • TPM On (enabled by default) • Clear • PPI Bypass for Enabled Commands • PPI Bypass for Disabled Commands • PPI Bypass for Clear Command • Attestation Enable (enabled by default) • Key Storage Enable (enabled by default) • SHA-256 (enabled by default) • Disabled • Enabled (enabled by default) <p>NOTE: To upgrade or downgrade TPM1.2/2.0, download the TPM wrapper tool (software).</p>
Computrace	<p>Allows you to activate or disable the optional Computrace software The options are:</p> <ul style="list-style-type: none"> • Deactivate • Disable • Activate <p>NOTE: The Activate and Disable options will permanently activate or disable the feature and no further changes are allowed</p> <p>Default setting: Deactivate</p>
Master Password Lockout	<p>The option Enable Master Password Lockout is not selected by default.</p>
SIMM Security Mitigation	<p>Allows you to enable or disable the additional UEFI SIMM Security Mitigation protections.</p> <p>Default Setting: SIMM Security Mitigation is not selected.</p>

Secure Boot screen options

Option	Description
Secure Boot Enable	This option enables or disables the Secure Boot feature. Default setting: Not selected
Secure Boot Mode	<ul style="list-style-type: none">• Deployed Mode (default)• Audit Mode
Expert Key Management	Allows you to manipulate the security key databases only if the system is in Custom Mode. The Enable Custom Mode option is disabled by default. The options are: <ul style="list-style-type: none">• PK (default)• KEK• db• dbx If you enable the Custom Mode , the relevant options for PK, KEK, db, and dbx appear. The options are: <ul style="list-style-type: none">• Save to File—Saves the key to a user-selected file.• Replace from File—Replaces the current key with a key from a user-selected file.• Append from File—Adds a key to the current database from a user-selected file• Delete—Deletes the selected key• Reset All Keys—Resets to default setting• Delete All Keys—Deletes all the keys <p> NOTE: If you disable the Custom Mode, all the changes made are erased and the keys restore to default settings.</p>

Intel Software Guard Extensions screen options

Option	Description
Intel SGX Enable	This field specifies you to provide a secured environment for running code/storing sensitive information in the context of the main OS. The options are: <ul style="list-style-type: none">• Disabled• Enabled• Software Controlled (default)
Enclave Memory Size	This option sets SGX Enclave Reserve Memory Size . The options are: <ul style="list-style-type: none">• 32 MB• 64 MB• 128 MB

Performance screen options

Option	Description
Multi Core Support	This field specifies whether the process has one or all cores enabled. The performance of some applications improve with the additional cores. This option is enabled by default. Allows you to enable or disable multi-core support for the processor. The installed processor supports two cores. If you enable Multi Core Support, two cores are enabled. If you disable Multi Core Support, one core is enabled. <ul style="list-style-type: none">• Enabled Multi Core Support (enabled by default)
Intel SpeedStep	Allows you to enable or disable the Intel SpeedStep feature. <ul style="list-style-type: none">• Enable Intel SpeedStep

Option	Description
	Default setting: The option is enabled.
C-States Control	Allows you to enable or disable the additional processor sleep states. <ul style="list-style-type: none"> · C states Default setting: The option is enabled.

Power Management screen options

Option	Description
AC Recovery	Allows you to enable or disable the computer from turning on automatically when an AC adapter is connected. <ul style="list-style-type: none"> · Power Off (default) · Power On · Last Power State
Enable Intel Speed Shift Technology	This option is used to enable or disable the Intel speed shift technology support. The option is enabled by default.
Auto On Time	Allows you to set the time at which the computer must turn on automatically. The options are: <ul style="list-style-type: none"> · Disabled · Every Day · Weekdays · Select Days Default setting: Disabled
Deep Sleep Control	Allows you to aggressive the system is at conserving power while Shut down (S5) or in Hibernate (S4) mode. <ul style="list-style-type: none"> · Disabled (default) · Enabled in S5 only · Enabled in S4 and S5
USB Wake Support	Allows you to enable USB devices to wake the system from Standby. <p>NOTE: This feature is only functional when the AC power adapter is connected. If the AC power adapter is removed during Standby, the system setup removes power from all the USB ports to conserve battery power.</p> <ul style="list-style-type: none"> · Enable USB Wake Support Default setting: The option is enabled..
Wake on LAN/WLAN	Allows you to enable or disable the feature that powers on the computer from the Off state when triggered by a LAN signal. <ul style="list-style-type: none"> · Disabled: This option is enabled by default. · LAN Only · WLAN Only · LAN or WLAN · LAN with PXE Boot
Block Sleep	This option lets you block entering to sleep (S3 state) in operating system environment. <p>Block Sleep (S3 state)</p> Default setting: This option is disabled

POST Behavior screen options

Option	Description
Numlock LED	This option specifies whether the NumLock LED should be on when the system boots. <ul style="list-style-type: none">· Enable Numlock LED: The option is enabled.
Keyboard Errors	This option option specifies whether the keyboard related errors are reported when it boots. <ul style="list-style-type: none">· Enables Keyboard Error Detection: The option is enabled by default.
Fastboot	Allows you to speed up the boot process by bypassing some of the compatibility steps. The options are: <ul style="list-style-type: none">· Minimal· Thorough (default)· Auto
Extend BIOS POST Time	This option created an additional pre-boot delay. <ul style="list-style-type: none">· 0 seconds (default)· 5 seconds· 10 seconds
Full Screen Logo	. This option displays full screen logo if your image match screen resolution. The option Enable Full Screen Logo is not selected by default.
Warnings and Errors	<ul style="list-style-type: none">· Prompt on Warnings and Errors (default)· Continue on Warnings· Continue on Warnings and Errors

Virtualization support screen options

Option	Description
Virtualization	Allows you to enable or disable the Intel Virtualization Technology. Enable Intel Virtualization Technology (default).
VT for Direct I/O	Enables or disables the Virtual Machine Monitor (VMM) from utilizing the additional hardware capabilities provided by Intel® Virtualization technology for direct I/O. Enable VT for Direct I/O - enabled by default.

Wireless screen options

Option	Description
Wireless Device Enable	Allows you to enable or disable internal wireless devices. <ul style="list-style-type: none">· WLAN/WiGig (default)· Bluetooth (default)

Maintenance screen options

Option	Description
Service Tag	Displays the Service Tag of your computer.
Asset Tag	Allows you to create a system asset tag if an asset tag is not already set. This option is not set by default.
SERR Messages	This field controls the SERR message mechanism. Some graphic card required the SERR message. <ul style="list-style-type: none">· Enable SERR Messages (default)

Option	Description
BIOS Downgrade	This field controls flashing of the system firmware to previous revisions. Allows BIOS Downgrade (Enabled by default)
Data Wipe	This field enables user to erase data from all internal storage device.
BIOS Recovery	Allows you to recover from certain corrupted BIOS conditions from a recover file on the user primary hard drive. Enabled by default.
First Power On Date	This option lets you set Ownership date. This option is disabled by default.

System Log screen options

Option	Description
BIOS Events	Allows you to view and clear the System Setup (BIOS) POST events.

Advanced configuration options

Option	Description
ASPM	Allows you to set the ASPM level. <ul style="list-style-type: none"> • Auto (default) • Disabled • L1 Only

SupportAssist System Resolution

Option	Description
Auto OS Recovery Threshold	Allows you to control the automatic boot flow for SupportAssist System. Options are: <ul style="list-style-type: none"> • Off • 1 • 2 (Enabled by default) • 3
SupportAssist OS Recovery	Allows you to recover the SupportAssist OS Recovery (Enabledby default)

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

Topics:

- [Supported operating systems](#)
- [Downloading drivers](#)
- [Intel chipset drivers](#)
- [Intel HID Event Filter](#)
- [Disk drivers](#)
- [Display adapter driver](#)
- [Bluetooth drivers](#)
- [Network drivers](#)
- [Audio drivers](#)
- [Storage drivers](#)
- [Security drivers](#)

Supported operating systems

Table 17. Supported operating systems

Supported operating systems	Description
Windows	<ul style="list-style-type: none"> • Microsoft Windows 10 Pro 64-bit • Microsoft Windows 10 Home 64-bit • Microsoft Windows 10 National Academic 64-bit (Bid Desk)
Others	Ubuntu 16.04 LTS 64-bit

Downloading drivers

1. Turn on the desktop.
2. Go to **Dell.com/support**.
3. Click **Product Support**, enter the Service Tag of your desktop, and then click **Submit**.

 **NOTE:** If you do not have the Service Tag, use the auto detect feature or manually browse for your desktop model.

4. Click **Drivers and Downloads**.
5. Select the operating system installed on your desktop.
6. Scroll down the page and select the driver to install.
7. Click **Download File** to download the driver for your desktop.
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.

Intel chipset drivers

Verify if the Intel chipset drivers are already installed in the system.

- ▼ System devices
 - ACPI Fan
 - ACPI Fan
 - ACPI Fan
 - ACPI Fan
 - ACPI Fan
 - ACPI Fixed Feature Button
 - ACPI Power Button
 - ACPI Processor Aggregator
 - ACPI Thermal Zone
 - ACPI Thermal Zone
 - Composite Bus Enumerator
 - Dell Diag Control Device
 - Dell System Analyzer Control Device
 - High Definition Audio Controller
 - High Definition Audio Controller
 - High precision event timer
 - Intel(R) Management Engine Interface
 - Intel(R) Power Engine Plug-in
 - Intel(R) Xeon(R) E3 - 1200/1500 v5/6th Gen Intel(R) Core(TM) Gaussian Mixture Model - 1911
 - Intel(R) Xeon(R) E3 - 1200/1500 v5/6th Gen Intel(R) Core(TM) PCIe Controller (x16) - 1901
 - Legacy device
 - Microsoft ACPI-Compliant System
 - Microsoft System Management BIOS Driver
 - Microsoft UEFI-Compliant System
 - Microsoft Virtual Drive Enumerator
 - Microsoft Windows Management Interface for ACPI
 - Microsoft Windows Management Interface for ACPI
 - Microsoft Windows Management Interface for ACPI
 - NDIS Virtual Network Adapter Enumerator
 - Numeric data processor
 - PCI Express Root Complex
 - PCI standard host CPU bridge
 - PCI standard RAM Controller
 - PCI-to-PCI Bridge
 - Plug and Play Software Device Enumerator
 - Programmable interrupt controller
 - Remote Desktop Device Redirector Bus
 - System CMOS/real time clock
 - System timer
 - UMBus Root Bus Enumerator

Intel HID Event Filter

Verify if the Intel HID event filter is already installed in the computer.

- Human Interface Devices
 - USB Input Device
 - USB Input Device

Disk drivers

Disk drivers installed in the system

- Disk drives
 - HGST HTS721010A9E630
 - ST2000DM001-1ER164

Display adapter driver

Verify if the display adapter driver is already installed in the computer.

- Display adapters
 - AMD Radeon (TM) RX 560
 - Intel Coffee Lake UHD Graphics

Bluetooth drivers

This platform supports a variety of Bluetooth drivers. The following is an example

- Bluetooth
 - Microsoft Bluetooth Enumerator
 - Microsoft Bluetooth LE Enumerator
 - Microsoft Bluetooth Protocol Support Driver
 - Qualcomm QCA9565 Bluetooth 4.0

Network drivers

Install the WLAN and Bluetooth drivers from the Dell support site.

- Network adapters
 - Bluetooth Device (Personal Area Network)
 - Bluetooth Device (RFCOMM Protocol TDI)
 - Qualcomm QCA9565 802.11b/g/n Wireless Adapter
 - Realtek PCIe GBE Family Controller
 - WAN Miniport (IKEv2)
 - WAN Miniport (IP)
 - WAN Miniport (IPv6)
 - WAN Miniport (L2TP)
 - WAN Miniport (Network Monitor)
 - WAN Miniport (PPPOE)
 - WAN Miniport (PPTP)
 - WAN Miniport (SSTP)

Audio drivers

Verify if audio drivers are already installed in the computer.

- Sound, video and game controllers
 - AMD High Definition Audio Device
 - Intel(R) Display Audio
 - Realtek Audio

Storage drivers

Verify if the storage controller drivers are installed in the system.

- Storage controllers
 - Intel(R) Chipset SATA/PCIe RST Premium Controller
 - Microsoft Storage Spaces Controller

Security drivers

Verify if the security device drivers are installed in the computer.


- Security devices
 - Trusted Platform Module 2.0

Getting help

Topics:

- [Contacting Dell](#)

Contacting Dell

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

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. 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.