

Illustrated parts & service map

HP ProDesk 600 G1 Desktop Mini



© 2014 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. HP shall not be liable for technical or editorial errors or omissions contained herein.

Document Number 756963-001.

1st Edition May 2014.



Key specifications

Processor type	Intel® Celeron, Pentium® and 4th Generation Core™ i3, i5 and i7 processors
RAM type	1600 MHz, DDR3 SDRAM, SODIMM, 2 slots
Maximum RAM	16 GB
Expansion slots	(1) internal M.2 connector for optional wireless NIC module (1) internal M.2 connector for optional SSD drive
Chipset	Intel Q85
Bays	(1) 2.5" internal storage drive bay
I/O interfaces	Front: 3.5 mm headphone output and microphone jacks; (2) USB 3.0 ports; (1) port with Fast Charge technology Rear: (2) USB 3.0 ports; (2) USB 2.0 ports; (1) VGA video port; (2) DisplayPort with multistream video ports; (1) RJ-45 network connector; 3.5 mm audio out jack
Internal storage	500TB SATA hard drive; up to 1TB solid state hybrid drive; up to 256GB Opal self-encrypting solid state drive
Operating systems	<ul style="list-style-type: none">Windows 8.1Windows 7FreeDOSNovell SUSE Linux Enterprise Desktop 11

Spare parts

System unit



System unit

1	Access panel	768428-001
2	Front bezel	768742-001
*	Stand assembly	768430-001
*	Power supply, 65W	751889-001
*	4-GB memory module (PC3-12800, SODIMM)	689373-001
*	8-GB memory module (PC3-12800, SODIMM)	689374-001

System boards (include thermal material; callouts illustrated on last page)

*	System board for use in models without Windows 8	746722-001
*	System board for use in models with Windows Standard	746722-501
*	System board for use in models with Windows Professional	746722-601
	System board for use in models with NetClone operating system	765381-001

Processors (include thermal material)

*	Intel Core i7-4785T, 2.2 GHz, 8-MB L3 cache	773230-001
*	Intel Core i7-4765T, 2.0 GHz, 8-MB L3 cache	754000-001
*	Intel Core i5-4570T, 2.9 GHz, 4-MB L3 cache	753998-001
*	Intel Core i3-4330T, 3.0 GHz, 4-MB L3 cache	753995-001
*	Intel Core i3-4190T, 2.0 GHz, 6-MB L3 cache	773228-001
*	Intel Core i3-4150T, 3.0 GHz, 3-MB L3 cache	773226-001
*	Intel Core i3-4130T, 2.9 GHz, 3-MB L3 cache	757416-001
*	Intel Pentium G3440T 2.8-GHz, 3 MB cache	773233-001
*	Intel Pentium G3420T 2.7-GHz, 3 MB cache	763217-001
*	Intel Pentium G3240T 2.7-GHz, 3 MB cache	773232-001
*	Intel Pentium G3220T 2.6-GHz, 3 MB cache	763216-001
*	Intel Celeron G1840T processor (2.5-GHz, 2 MB cache)	773225-001
*	Intel Celeron G1820T processor (2.4-GHz, 2 MB cache)	753994-001

*Not shown

Miscellaneous parts



Miscellaneous parts

1	Heat sink (thermal module)	768426-001
2	Fan	768424-001
3	Speaker	762420-001
4	LED cover	768425-001
*	Hood sensor assembly	768429-001
*	Wireless LAN module, 802.11 a/b/g/n 2x2, for use in Indonesia	750552-001
*	Wireless LAN module, 802.11 a/b/g/n 2x2	768423-001
*	Antenna cover	768433-001
*	HP ultraslim keyed cable lock	703372-001
*	Grommet for use mounting hard drives	594220-001
*	Mouse, wireless	674317-001
*	Mouse, USB, optical	674316-001
*	Mouse, USB, laser	674318-001
*	Mouse, washable	724795-001

*Not shown



Cables

1	SATA power cable	768427-001
*	Wireless antenna cables, internal	768432-001
*	Adapter, DisplayPort to VGA	632484-001
*	Adapter, DisplayPort to DVI	662723-001
*	Adapter, DisplayPort to HDMI	617450-001
*	DisplayPort cable	487562-001
*	USB to serial converter	407185-001

*Not shown

Keyboards (not illustrated)

USB Wireless keyboard with dongle (Brazil)		724720-xx1	
Wireless with mouse and dongle		724722-201	
Washable		730323-xx1	
Smart card, CCID		700510-xx1	
701671-xx1			
Arabic	-17x	Japanese	-29x
F Arabic	-DEx	LA Spanish	-16x
BHCSY	-B4x	Norwegian	-09x
Belgian	-18x	People's Republic of China	-AAx
Brazilian Portuguese	-20x	Portuguese	-13x
Bulgaria	-26x	Romanian	-27x
Czech and Slovakian	-CG1	Russian	-25x
Czech	-22x		
Danish	-08x	Slovenian	-23x
French	-05x	South Korea	-KDx
French Canadian	-12x	Spanish	-07x
German	-04x	Swedish	-10x
Greek	-15x	Swiss	-11x
Hebrew	-BBx	Taiwanese	-ABx
Hungarian	-21x	Thai	-28x
India	-D6x	Turkish	-14x
International English	-L3x	U.S.	-00x
Italian	-06x	U.K.	-03x

Mass storage devices (not illustrated)

1 TB hard drive, 2.5-inch, hybrid SSD, self-encrypting (SED)	724937-001
500 GB, 7200 rpm hard drive, 2.5-inch, self-encrypting (SED)	745136-001
500 GB, 7200 rpm hard drive, 2.5-inch	745135-001
500 GB hard drive, 2.5-inch, hybrid SSD, self-encrypting (SED)	724938-001
256 GB Solid State Drive (SSD), self-encrypting (SED)	746141-001
128 GB Solid State Drive (SSD), self-encrypting (SED)	746140-001
128 GB Solid State Drive (SSD)	665961-001
128 GB Solid State Drive (SSD), M.2	757990-001
120 GB Solid State Drive (SSD), MLC	756459-001

Diagnostic LEDs

LED	Color	LED Activity	State/Message
Power	White	On	Computer on
Power	White	1 blink every 2 seconds	Normal Suspend Mode
Power	Red	2 blinks every second followed by a 2 second pause	CPU thermal shutdown
Power	Red	3 blinks, 1 blink every second followed by a 2 second pause	Processor not installed
Power	Red	4 blinks, 1 blink every second followed by a 2 second pause	Power failure (power supply overload)
Power	Red	5 blinks, 1 blink every second followed by a 2 second pause	Pre-video memory error
Power	Red	6 blinks, 1 blink every second followed by a 2 second pause	Pre-video graphics error
Power	Red	7 blinks, 1 blink every second followed by a 2 second pause	System board failure (ROM)
Power	Red	8 blinks, 1 blink every second followed by a 2 second pause	Invalid ROM based on Checksum
Power	Red	9 blinks, 1 blink every second followed by a 2 second pause	System powers on but is unable to boot
Power	Red	10 blinks, 1 blink every second followed by a 2 second pause	Bad option card
Power	Red	11 blinks, 1 blink every second followed by a 2 second pause	Current processor does not support a feature previously enabled.
none	none	System does not power on and LEDs are not flashing	System unable to power on

Common POST error messages

Screen message	Probable cause	Recommended action
101-Option ROM Error	System ROM checksum error.	1. Verify ROM, reflash if required 2. Clear CMOS memory, reboot 3. Replace system board
103-System Board Failure	DMA, timers	1. Clear CMOS memory. 2. Replace system board.
164-Memory Size Error and 201-Memory Error	Incorrect memory configuration	1. Run Setup (F10). 2. Check DIMMs for proper seating, type, compatibility. 3. Remove DIMMs singularly and reboot to isolate faulty DIMM. 4. Replace system board.
213-Incompatible Memory Module in Memory Socket(s) X,X, ...	A memory module in memory socket identified in the error message is missing critical SPD information, or is incompatible with the chipset.	1. Verify proper memory module type. 2. Try another memory socket. 3. Replace DIMM with a module conforming to the SPD standard.
214-DIMM Configuration Warning	Populated DIMM configuration is not optimized	1. Check DIMMs for proper seating, type, compatibility. 2. Rearrange the DIMMs so that each channel has the same amount of memory.
219-ECC Memory Module Detected ECC Modules not supported on this Platform	Recently added memory module(s) support ECC memory error correction.	If additional memory was recently added, remove it to see if the problem remains.
301-, 304-Keyboard error	Keyboard failure.	Check kybd connection or keys. Check connector for bent or missing pins. Replace kybd. If 304, possible system board problem.
510-Flash Screen Image Corrupted	Flash Screen image has errors.	Reflash the system ROM with the latest BIOS image.
912-Computer Cover Has Been Removed Since Last System Startup	Computer cover was removed since last system startup.	No action required.
1720-SMART Hard Drive Detects Imminent Failure	Hard drive is about to fail.	1. Determine if hard drive is giving correct error message. Use F2 Diagnostics to run DPS Self-test. 2. Apply hard drive firmware patch if applicable. 3. Back up contents and replace hard drive.
1796-SATA Cabling Error	One or more SATA devices are improperly attached. For optimal performance, the SATA 0 and SATA 1 connectors must be used before SATA 2 and SATA 3.	Ensure SATA connectors are used in ascending order. For one device, use SATA 0. For two devices, use SATA 0 and SATA 1. For three devices, use SATA 0, SATA1, and SATA 2.
1801-Microcode Patch Error	Processor not supported by ROM BIOS.	1. Upgrade BIOS to proper version. 2. Change the processor.
Invalid Electronic Serial Number	Electronic serial number is missing.	Enter the correct serial number in Computer Setup.

Password security

Establishing a Setup or Power-On password:

1. Turn on or restart the computer.
2. As soon as the computer turns on, press the **Esc** key while “Press the ESC key for Startup Menu” message is displayed at the bottom of the screen.
3. Press the **F10** key to enter Computer Setup.
4. To establish Setup password, select **Security > Setup Password** and follow the instructions.
 - or -
 - To establish a Power-On password, select **Security > Power-On Password** and follow the instructions on the screen
5. Before exiting, click **File > Save Changes and Exit**.

Changing a Setup or Power-On password:

1. Turn on or restart the computer.

To change the Setup password, go to step 2.
To change the Power-on password, go to step 3.
 2. To change the Setup password, as soon as the computer turns on:
 - Press the **Esc** key while “Press the ESC key for Startup Menu” message is displayed.
 - Press the **F10** key to enter Computer Setup.
 3. When the key icon appears, type your current password, a slash (/) or alternate delimiter character, your new password, another slash (/) or alternate delimiter character, and your new password again as shown:
current password/new password/new password.
NOTE: Type the new password carefully since the characters do not appear on the screen.
 4. Press **Enter**.
- The new password will take effect the next time the computer is restarted.

Deleting a Power-On or Setup password

1. Turn on or restart the computer.

To delete the Setup password, go to step 2.
To delete the Power-On password, go to step 3.
2. To change the Setup password, as soon as the computer turns on:
 - Press the **Esc** key while “Press the ESC key for Startup Menu” message is displayed.
 - Press the **F10** key to enter Computer Setup.
3. When the key icon appears, type your current password followed by a slash (/) or alternate delimiter character as shown. Example: currentpassword/
4. Press **Enter**.

Clearing CMOS

1. Turn off the computer and disconnect the power cord from the power outlet.
2. Remove the access panel.
3. On the system board, press and hold the CMOS button for 5 seconds.
4. Replace the chassis access panel and reconnect the power cord.
5. Turn on the computer and allow it to start.

System setup and boot

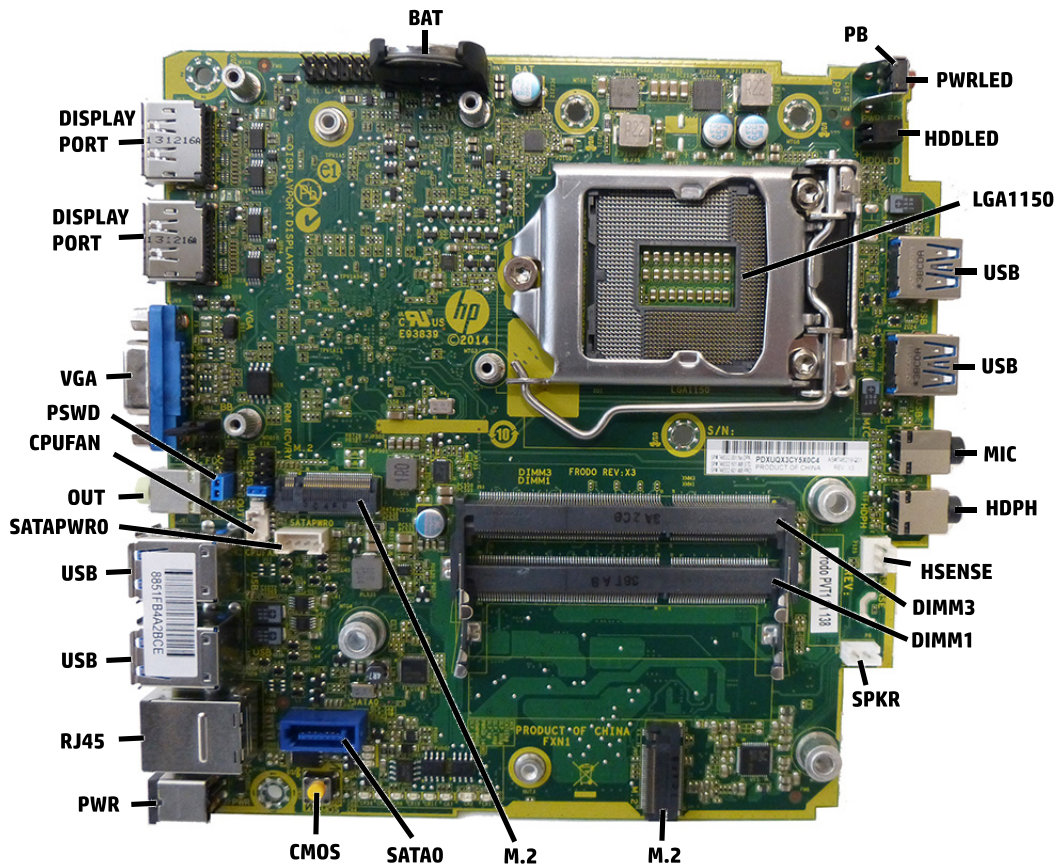
Access the Setup Utility during computer boot by pressing the **F10** key. If you do not press **F10** at the appropriate time, you must restart the computer and again press **F10** when the monitor light turns green. NOTE: Not all settings are available for all models.

Computer Setup Menu

Heading	Option/Description
File	System Information - Lists the following main system specifications: <ul style="list-style-type: none">Product nameManufacturerSKU numberProcessor type/speed/steppingInstalled memory size/speed/chIntegrated MAC AddressChassis serial numberAsset tracking numberSystem board IDSystem board CT NumberBIOS
	About - Displays copyright notice.
	Set Time and Date - Allows you to set system time and date.
	Flash System ROM - Allows you to update the system ROM with a BIOS image file located on removable media.
	Replicated Setup - Allows you to save or restore system configuration to/from a USB flash drive.
	Default Setup - Allows you to save current settings as default or restore factory settings as default.
	Apply Defaults and Exit - Applies the selected default settings and clears any established passwords.
	Ignore Changes and Exit - Exits Computer setup without saving changes.
	Save Changes and Exit - Saves changes to system configuration or default settings and exits Computer Setup.
Storage	Device Configuration - Lists all installed BIOS-controlled storage devices. The following options are available: <ul style="list-style-type: none">CD-ROMHard DiskDiskette (external USB)
	Storage Options - Allows you to set: <ul style="list-style-type: none">SATA Emulation - Choose how the SATA controller and devices are accessed by the OS. SATA Emulation choices are AHCI or IDE.Removable Media Boot - Enables/disables ability to boot the system from removable media.
	Boot Order - Specify boot order for UEFI and legacy boot sources. Also specify hard drive boot order. <ul style="list-style-type: none">Shortcut to Temporarily Override Boot Order
Security	Setup Password - Set and enable the setup (Admin) password.
	Power-On Password - Set and enable power-on password.
	Password Options - Allows to you enable/disable: <ul style="list-style-type: none">Lock Legacy ResourcesSetup Browse ModePassword prompt on F9 & F12Network Server ModeStringent Password
	Device Security - Set Device Available/Device Hidden for: system audio, network controller, and SATA ports.
	USB Security - Set Device Available/Device Hidden for front USB ports, rear USB ports, accessory USB ports.
	Slot Security - Disable any PCIe slots.
	Network Boot - Enables/disables boot from OS (NIC models only).
	System IDs - Allows you to update asset tag, ownership tag, UUID, keyboard locale setting.
	Master Boot Record Security - enables/disables MBR.
	System Security - Allows you to set: <ul style="list-style-type: none">Data Execution Prevention (enable/disable)Virtualization Technology (VTx) (enable/disable)Embedded Security Device (enable/disable)OS management of Embedded Security Device
	DriveLock Security - Allows you to assign or modify a master or user password for hard drives.
	Secure Boot Configuration (Windows 8 only) <ul style="list-style-type: none">Legacy Support (enable/disable)Secure Boot (enable/disable).Key Management (enable/disable)Fast Boot (enable/disable)
Power	OS Power Management - Allows you to enable/disable Runtime Power Management, Idle Power Savings.
	Hardware Power Management - Enable/disable SATA power management, S5 maximum power savings., PCI slots, network controller, USB 3.0 controller
	Thermal - Control minimum fan speed.

Advanced	Power-On Options - Allows you to set: <ul style="list-style-type: none">POST mode (QuickBoot, Clear Memory, FullBoot, or FullBoot Every x Days)POST messages (enable/disable)Press the ESC key for Startup Menu (enable/disable)Option ROM Prompt (enable/disable)After Power Loss (off/on/previous state)POST Delay (none, 5, 10, 15, 20, or 60 seconds)Remote Wakeup Boot Source (remote server/local hard drive)Factory Recovery Boot Support (enable/disable)Bypass F1 Prompt on Configuration Changes (enable/disable)POST Memory Manager Runtime Allocation (enable/disable).
	BIOS Power-On - Set the computer to turn on at a preset time.
	Bus Options - Allows you to enable/disable PCI SERR# Generation and PCI VGA palette snooping.
	Onboard Devices - Allows you to set resources for or disable on-board system devices.
	Device Options - Allows you to set: <ul style="list-style-type: none">Num Lock State at Power-on (off/on)Internal Speaker (enable/disable)Multi-Processor (enable/disable)USB Charging Port (enable/disable)USB 3.0 BIOS Driver SupportHyper-threading
	Management Operations - Allows you to set: <ul style="list-style-type: none">AMT (disable/enable)Unconfigure AMT/ME (enable/disable)Hide Unconfigure ME Confirmation Prompt (enable/disable)Watchdog Timer (enable/disable)
	Option ROM Launch Policy - Allows you to set: <ul style="list-style-type: none">PXE Option ROMs (UEFI Only/Do Not Launch)Storage Option ROMs (UEFI Only/Do Not Launch)Video Option ROMs (UEFI Only/Do Not Launch)
	Connected BIOS - Lets you configure a proxy server from which to get updates to the BIOS.
	Update BIOS via Network - Lets you update the BIOS over a network.
	Ethernet Connection - provides information about the network connection.

System board



System board connectors and jumpers (component location may vary)

BAT	RTC battery socket	M.2	SSD connector
PB	Power button	SATA0	1st hard drive data connector
PWRLED	Power light	CMOS	CMOS button
HDDLED	Hard drive activity LED	PWR	Main power connector
LGA1150	Processor socket	RJ45	Network jack
USB	External USB 2.0 connectors	USB	External USB 2.0 connectors (2)
MIC	External microphone connector	USB	External USB 3.0 connectors (3)
HDPH	External headphone connector	SATA PWR0	Hard drive power connector
HSENSE	Hood sensor connector	OUT	External audio out connector
DIMM3	Memory socket - Channel B	CPUFAN	Fan connector
DIMM1	Memory socket - Channel A	PSWD	Password header
SPKR	Speaker connector	VGA	Display connector
M.2	WLAN module connector	DISPLAYPORT	DisplayPort connectors