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maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150, 1600-XL156, 1600-XL157, 1600-XL255, 1600-XL256, 1600-XL257, and 1600-XL258

Specifications

Physical and Environmental

Computer Specifications		
Dimensions	U.S.	Metric
Height	1.63 inch	41.4 cm
Width	12.20 inch	31.00 cm
Depth	10.38 inch	26.36 cm
Weight		
with 12.1 inch TFT display	7.2 lb	3.26 kg
with 13.3 inch TFT display	7.3 lb	3.31 kg
with 14.1 inch TFT display	7.2 lb	3.26 kg
Stand-Alone (Battery Pack)	Li-ION 3.2 Ahr	
Power Requirements		
Nominal Operating	W @ 14.8 V	
Maximum Average	W @ 14.8 V	
Peak Operating	W @ 14.8 V	
AC Power Requirements		
Operating Voltage	100-240 V	
Operating Current	0.8/0.4 A RMS	
Operating Frequency	47-63 Hz	
Maximum Transient	Meets IEC801-4 and IEC801-5 1kV for 50 ns	
Temperature		
Operating	50° to 95°F	10° to 35°C
Nonoperating	-4° to 140°F	-20° to 60°C
Relative Humidity (noncondensing)		
Operating	10 to 90%	
Nonoperating (tw = 38.7°C max)	5 to 95%	
Altitude		
Operating	0 to 10,000 ft	0 to 3.15 km
Non-Operating	0 to 30,000 ft	0 to 9.14 km

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maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150, 1600-XL156, 1600-XL157, 1600-XL255, 1600-XL256, 1600-XL257, and 1600-XL258

Computer Specifications		
Dimensions	U.S.	Metric
Shock		
Operating	10 G, 11 ms, half sine	
Nonoperating	240 G, 2 ms, half sine	
Vibration		
Operating	0.5 G	
Nonoperating	1.5 G	
NOTE: Applicable product safety standards specify thermal limits for plastic surfaces. Compaq Presario 1600XL Series Portable Notebooks operate well within this range of temperatures.		

System Interrupts

IRQ	Device(s)
0	System Timer
1	Standard 101/102-Key or Microsoft Natural Keyboard
2	Programmable Interrupt Controller
4	Communications Port (COM1)
6	Standard Floppy Disk Controller
7	Printer Port
8	System CMOS/Real Time Clock
9	VIA PCI Audio Controller
9	Texas Instruments PCI-1211 CardBus Controller
9	Trident CyberBlade i1 AGP (51)
10	SCI IRQ used by ACPI Bus
11	ACPI IRQ Holder for PCI IRQ Steering
11	VIA Tech 3038 PCI to USB Universal Host Controller
11	ACPI IRQ Holder for PCI IRQ Steering
11	Compaq PCI Modem Enumerator
12	Synaptics PS/2 TouchPad
13	Numeric Data Processor

maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150, XL156, XL157, XL255, XL256, XL257, and XL258

IRQ	Device(s)
14	VIA Bus Master PCI IDE Controller
14	Primary IDE Controller (Dual FIFO)
15	VIA Bus Master PCI IDE Controller
15	Secondary IDE Controller (Dual FIFO)

System DMA

DMA	Device(s)
2	Standard Floppy Disk Controller
4	Direct Memory Access Controller

System I/O Address

I/O Address	System Function (Shipping Configuration)
0000h-000Fh	Direct Memory Access Controller
0020h-0021h	Programmable Interrupt Controller
0040h-0043h	System Timer
0060h-0060h	Standard 101/102-Key or Microsoft Natural Keyboard
0061h-0061h	System Speaker
0062h-0062h	ACPI Embedded Controller
0064h-0064h	Standard 101/102-Key or Microsoft Natural Keyboard
0066h-0066h	ACPI Embedded Controller
0070h-0075h	System CMOS/Real Time Clock
0081h-008Fh	Direct Memory Access Controller
00A0h-00A1h	Programmable Interrupt Controller
00C0h-00DFh	Direct Memory Access Controller
00F0h-00FFh	Numeric Data Processor
0170h-0177h	VIA Bus Master PCI IDE Controller
0170h-0177h	Secondary IDE Controller (Dual FIFO)

maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150, 1600-XL156, 1600-XL157, 1600-XL255, 1600-XL256, 1600-XL257, and 1600-XL258

I/O Address	System Function (Shipping Configuration)
01F0h-01F7h	VIA Bus Master PCI IDE Controller
01F0h-01F7h	Primary IDE Controller (Dual FIFO)
0200h-0207h	Gameport Joystick
02F8h-02FFh	Compaq 56K V.90 HSF Mini PCI Modem
0376h-0376h	Secondary IDE Controller (Dual FIFO)
0376h-0376h	VIA Bus Master PCI IDE Controller
0378h-037Fh	Printer Port (LPT1)
03B0h-03BBh	Trident CyberBlade i1 AGP (51)
03C0h-03DFh	Trident CyberBlade i1 AGP (51)
03E8h-03EFh	Symphony Port (COM3)
03F0h-03F5h	Standard Floppy Disk Controller
03F6h-03F6h	VIA Bus Master PCI IDE Controller
03F6h-03F6h	Primary IDE Controller (Dual FIFO)
03F7h-03F7h	Standard Floppy Disk Controller
03F8h-03FFh	Communications Port (COM1)
0CF8h-0CFFh	PCI Bus
1000h-10FFh	VIA PCI Audio Controller (WDM)
1400h-141Fh	VIA Tech 3038 PCI to USB Universal Host Controller
1420h-1427h	Primary IDE Controller (Dual FIFO)
1420h-142Fh	VIA Bus Master PCI IDE Controller
1428h-142Fh	Secondary IDE Controller (Dual FIFO)
1430h-1433h	VIA PCI Audio Controller (WDM)
1434h-1437h	VIA PCI Audio Controller (WDM)
1438h-143Fh	Compaq PCI Modem Enumerator

maintenance & service guide

Presario 1600XL Series

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System Memory Catalog

Memory Address	Device(s)
00000000h-0009FFFFh	System Board Extension for ACPI BIOS
000A0000h-000AFFFFh	Trident CyberBlade i1 AGP (51)
000B0000h-000BFFFFh	Trident CyberBlade i1 AGP (51)
000C0000h-000CBFFFh	Trident CyberBlade i1 AGP (51)
000DC000h-000DFFFFh	System Board Extension for ACPI BIOS
000E0000h-000FFFFFh	System Board Extension for ACPI BIOS
03800000h-03800FFFh	Texas Instruments PCI-1211 CardBus Controller
F4000000h-F400FFFFh	Compaq PCI Modem Enumerator
F4100000h-F411FFFFh	Trident CyberBlade i1 AGP (51)
F4100000h-F57FFFFFFh	PCI Standard PCI-to-PCI Bridge
F4120000h-F412FFFFh	Trident CyberBlade i1 AGP (51)
F4800000h-F4FFFFFFh	Trident CyberBlade i1 AGP (51)
F5000000h-F57FFFFFFh	Trident CyberBlade i1 AGP (51)
F8000000h-FBFFFFFFh	PCI Standard Host CPU Bridge
FFFE0000h-FFFFFFFh	System Board Extension for ACPI BIOS

maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150, 1600-XL156, 1600-XL157, 1600-XL255, 1600-XL256, 1600-XL257, and 1600-XL258

Display Information

12.1 inch 13.3 inch, and 14.1 inch TFT Display		
Dimensions	U.S.	Metric
12.1 inch TFT		
Dimensions		
Height	7.89 inch	20.05 cm
Width	10.82 inch	20.05 cm
Depth	0.27 inch	0.69 cm
Display Dimensions		
Height	7.42 inch	18.85 cm
Width	9.84 inch	25.00 cm
Contrast Ratio	150:1	
Brightness	150nits	
Total Power Consumption	1.2 to 1.5W typ (Assuming backlight current of 5.0 mA, or 100 nits luminance)	
Response Time	50ms	
Refresh Rate	60Hz	
13.3 inch TFT		
Dimensions		
Height	8.44 inch	21.45 cm
Width	11.18 inch	28.40 cm
Depth	0.21 inch	0.55 cm
Display Dimensions		
Height	7.98 inch	20.27 cm
Width	10.64 inch	27.03 cm
Contrast Ratio	150:1	
Brightness	150nits	
Total Power Consumption	1.2 to 1.5W typ (Assuming backlight current of 5.0 mA, or 100 nits luminance)	
Response Time	50ms	
Refresh Rate	60Hz	

maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150, 1600-XL156, 1600-XL157, 1600-XL255, 1600-XL256, 1600-XL257, and 1600-XL258

12.1 inch 13.3 inch, and 14.1 inch TFT Display		
Dimensions	U.S.	Metric
14.1 inch (Diagonal) TFT Display with LVDS		
Dimensions		
Height	8.92 inch	22.65 cm
Width	11.76 inch	29.85 cm
Depth	0.28 inch	0.72 cm
Display Dimensions		
Height	8.60 inch	21.84 cm
Width	11.41 inch	28.98 cm
Contrast Ratio	150:1	
Brightness	150nits	
Total Power Consumption	1.2 to 1.5W typ (Assuming backlight current of 5.0 mA, or 100 nits luminance)	
Response Time	50 ms	
Refresh Rate	60 Hz	

Memory Expansion

Memory Expansion		
System Memory	Expansion Board Memory	Total Memory
64MB	none	64MB
64MB	32MB	96MB
64MB	64MB	128MB
64MB	128MB	193MB
64MB	256MB	320MB

maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150, 1600-XL156, 1600-XL157, 1600-XL255, 1600-XL256, 1600-XL257, and 1600-XL258

Diskette Drive

Diskette Drive	
Capacity per Diskette (High/Low)	1.44 MB/720KB
Diskette Size	3.5 inch
Number of LED Indicators (Read/Write)	0
Number of Drives Supported	1
Drive Rotation (rpm)	300
Transfer Rate (Kbps)	500
Bytes per Sector	512
Sectors per Track (High/Low)	18/9
Tracks per Side (High/Low)	80
Access Times	
Track-to-Track (ms)	3
Average (ms)	94
Setting Time (ms)	15
Latency Average (ms)	100
Cylinders (High/Low)	80
Number of Read/Write Heads	2

maintenance & service guide

Presario 1600XL Series

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Hard Drive

Hard Drives			
Drive Type	6.0GB	12.0GB	18.0GB
Capacity Per Drive	6.0GB	12.0GB	18.0GB
Logical Configuration			
Cylinders	8647	11968	11968
Heads	4	6	6
Sectors per Track	190/330	190/330	190/330
Bytes per Sector	512	512	512
Seek Times			
Typical (including settling in ms)			
Single Track	4	4	4
Average	14	14	14
Full Stroke	24	24	24
Transfer Rate at Interface	33.3 MB/s	33.3 MB/s	33.3 MB/s

maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150, 1600-XL156, 1600-XL157, 1600-XL255, 1600-XL256, 1600-XL257, and 1600-XL258

CD or DVD Drive

	CD or DVD Drive			
	6x DVD	8x DVD	CD-RW	24x CD-ROM
Dimensions	128 x 129 x 12.7 mm	128 x 129 x 12.7 mm	128 x 129 x 12.7 mm	128 x 129 x 12.7 mm
Weight	0.29 kg	0.29 kg	0.29	0.19 kg
Rotational Speed - Approx.	3450 rpm	2300 rpm	Not Available	4225 rpm
Typical Transfer Rate				
Sustained Data-Transfer Rate	8100 KB/s	5400 KB/s	2100 KB/s	3600 KB/s
Access Time				
Average Random Access Time	140 ms	140 ms	150 ms	120 ms
Spin Up Time	<15 s	3.8 s	<10.0 s	2.7 s
Data Buffer Capacity	512 KB	128 KB	Not Available	128 KB

maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150 XL156, XL157, XL255, XL256, XL257, and XL258

Battery Pack

Battery Pack	
Type	Lithium Ion (Li-ION)
Dimensions	
Height	0.8 in (20.3 mm)
Length	5.7 in (145 mm)
Width	3.1 in (78.7 mm)
Weight	
	0.90 lb (408.2 g)
Operating Lifetime	
	2 hr 30 min*
Energy	
Nominal Open Circuit Voltage	14.4 V
Capacity	3000 mAH
Power	43.2 WH
Temperature Requirements	
Operating	32° F (0 to 50° C)
Non-Operating	-20° C to 60° C
Charging	5° C to 45° C

**The battery operating lifetime changes depending on the power management settings, system components, options, and applications used.*



maintenance & service guide

Presario 1600XL Series

Model 1600T, 1600-XL140, 1600-XL141, 1600-XL142, 1600-XL143, 1600-XL144, 1600-XL146, 1600-XL147, 1600-XL150 XL156, XL157, XL255, XL256, XL257, and XL258