

# OVERVIEW

Compaq Armada 4000

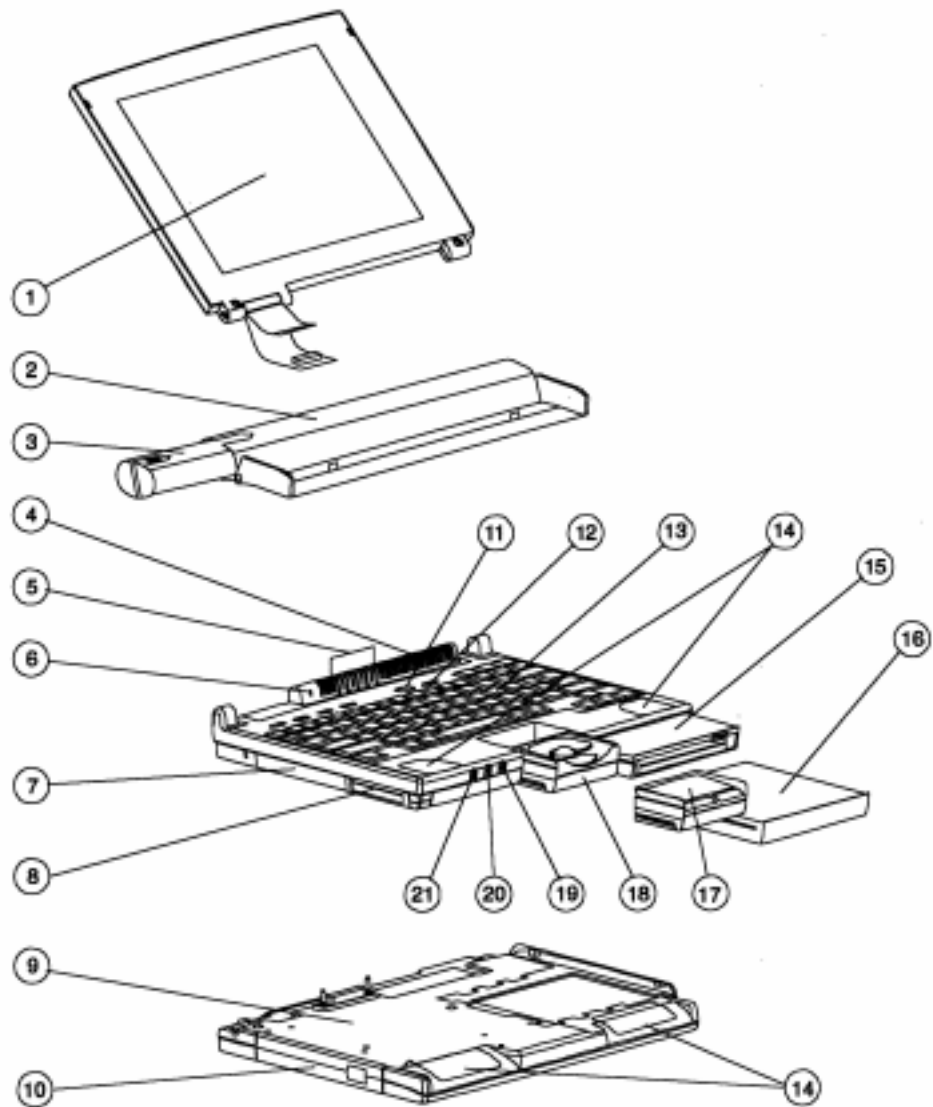
## BENEFITS AT A GLANCE

- Flexible design allows configuration as a slimline notebook, a full-featured notebook or a robust multimedia notebook
- 150-, 166-, 233- or 266-MHz Intel Pentium® processors with MMX™ technology and 256 or 512 KB level two cache (model dependant)
- Choice of 12.1-inch high contrast CSTN or CTFT displays (SVGA)
- PCI system bus (some models)
- 64-bit PCI local bus graphics on some models
- 16 or 32 MB standard memory expandable up to 80 or 96 MB
- Supports up to three Li-Ion batteries for over ten hours of battery life<sup>1</sup>
- Up to 500 hours standby
- 1.6-, 2.0-, 3.2- or 4-GB SMART Hard Drives
- Intelligent Manageability for lower total cost of ownership
- Upgradable memory and hard drive
- Full-sized 101-key compatible keyboard
- Optional Mobile CD Unit provides enhanced multimedia functionality
- Optional Pass-Through and Ethernet Convenience Bases
- Modular pointing device: touchpad standard, interchangeable with optional optical trackball
- Sound Blaster Pro-compatible with 16-bit stereo, integrated speakers and microphone
- Full motion video and software MPEG support
- Compaq-unique power conservation features including Hibernation
- Protected by Compaq Services including a three-year, Worldwide Limited Warranty<sup>2</sup>

<sup>1</sup> When tested in standard configuration using the Ziff-Davis BatteryMark test version 1.0, the battery life of the Armada 4100 will range from 2 hours and 0 minutes to 3 hours and 0 minutes depending on individual usage; the Armada 4200 will range up to 3.9 hours depending on individual usage.

<sup>2</sup> Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center for details.

<sup>3</sup> Data transfer rates will vary from 1276 KB/s to 3000 KB/s.



### Armada 4160T Shown (with Mobile CD Unit)

1. Display
2. Handle with Removable Battery (also provides 10° keyboard tilt and port cover)
3. Li-Ion Battery Handle
4. Heat Pipe Radiator
5. Power/Standby, Battery Charge, Cap Lock, Scroll Lock and Num Lock Status LEDs
6. Microphone
7. SMART Hard Drive
8. PC Card Slots
9. Mobile CD Unit
10. 20X Max<sup>3</sup> CD-ROM Drive
11. Standby Switch
12. Power Switch
13. Full-Sized Keyboard with Four User-programmable Keys
14. Stereo Speakers
15. Diskette Drive
16. Li-Ion Dual Bay Battery (optional)
17. Touchpad
18. Optical Trackball (optional)
19. Audio-in Jack
20. Headphone Jack
21. Microphone Jack

# QUICKSPECS

Compaq Armada 4000

## MODELS

**Armada 4150**  
287350-008

**Armada 4160T**  
287200-003

**Armada 4160T  
Slimline**  
287500-009

**Armada 4210T**  
290900-001

**Armada 4220T**  
290950-002

## STANDARD FEATURES

### Flexible Design

Flexible design allows users to configure units according to specific needs, taking with them what they need, and leaving the rest behind:

**Notebook Configuration:** Provides a full-featured notebook that weighs as little as 6.2 pounds and is less than 1.5 inches thick, with the convenience of a battery in the handle and the flexibility of swapping the Diskette Drive with the optional Li-Ion Dual Bay Battery.<sup>1</sup>

**Slimline Configuration:** From the standard configuration, just remove the Battery Handle, swap the Diskette Drive for the optional Li-Ion Dual Bay Battery, and you have a powerful notebook less than 1.5 inches thick and weighing 5.2 pounds. The optional External Diskette Drive Cable/Caddy is available, providing a no compromise solution. (Armada 4160T Slimline, 4210T and 4220T ship in this configuration and include a Li-Ion Dual Bay Battery and external diskette drive.)

**Multimedia Configuration:** To the Notebook Configuration, simply attach the optional Mobile CD Unit and you have CD-ROM capabilities, enhanced stereo sound, a MIDI/Joystick port and the ability to add a third battery—all in a notebook that weighs approximately as little as 8.2 pounds and is only 2.3 inches thick.

### Processor

Armada 4150: 150-MHz Intel Pentium® processor with MMX™ technology and 256 KB level two writeback cache

Armada 4160T and 4160T Slimline: 166-MHz Intel Pentium processor with MMX™ technology and 256 KB level two writeback cache

Armada 4210T: 233-MHz Intel Pentium processor with MMX™ technology and 256 KB level two writeback cache

Armada 4220T: 266-MHz Intel Pentium processor with MMX™ technology and 256 KB level two writeback cache

### Architecture

Armada 4210T and 4220T: PCI System Bus

All models: 64-bit CPU, cache and memory bus; PCI local bus graphics

### Display/Graphics

Armada 4150: 12.1-inch color STN with 800 x 600 resolution and 8-bit color (256 colors internal); 32-bit PCI local bus graphics with 1-MB EDO DRAM for video memory

### Display/Graphics (cont'd)

Armada 4160T and 4160T Slimline: 12.1-inch color SVGA TFT with 800 x 600 resolution and 16-bit color (64K colors internal) 32-bit PCI local bus graphics with 1-MB EDO DRAM for video memory

Armada 4210T and 4220T: 12.1-inch color SVGA TFT with up to 1024 x 768 resolution in panning mode and 24-bit true color (16.7 million colors internal); PCI local bus graphics with 2-MB EDO DRAM for video memory

### Memory

Armada 4210T and 4220T: 32 MB of RAM, expandable to 96 MB (supports FPM and EDO standard memory)

All other models: 16 MB of RAM, expandable to 80 MB

### Hard Drives

Armada 4150: 1.6-GB SMART Hard Drive

Armada 4160T and 4160T Slimline: 2.0-GB SMART Hard Drive

Armada 4210T: 3.2-GB SMART Hard Drive

Armada 4220T: 4-GB SMART Hard Drive

Optional Hard Drive: 3.2- and 4.0-GB SMART Hard Drive<sup>2</sup>, 4200 models only

### Diskette Drive

Armada 4160T Slimline, 4210T and 4220T:

External Diskette Drive Bay and Removable Bay Diskette Drive

All other models: Removable Bay Diskette Drives

### Storage

Up to 4.0 GB

### Multimedia

Compaq PremierSound for enhanced stereo audio including integrated 16-bit Sound Blaster Pro-compatible stereo audio, integrated stereo speakers and microphone, software volume control, stereo line in, headphone out, microphone in jacks, software MPEG, NTSC/PAL video output; optional Mobile CD Unit provides 20X Max<sup>3</sup> CD-ROM Drive, enhanced stereo speakers, MIDI/joy stick port, bay for an additional battery and Wave Table Synthesis

### PC Card Slots

Two Type II/One Type III PC Card Slot(s)

### Capable of Infrared Communication Port

Capable of IrDA-4 MB/s compatible infrared communication port for wireless communication with infrared devices

**STANDARD FEATURES** (cont'd)

**Power/Battery Life<sup>4</sup>**

External AC Adapter weighing approximately 10 ounces allows simultaneous system operation and battery charge Li-Ion Battery Handle or Li-Ion Dual Bay Battery provides up to 2.5 hours of battery life; up to 9 hours of battery life can be achieved when using three Li-Ion batteries including standard battery handle and an optional Modular Battery in both the Dual Bay and Mobile CD Unit battery bay (model dependent).

Two batteries come standard with the 4160T slimline, 4210T and the 4220T (dual bay and handle battery).

**Integrated Pointing Device**

Standard Touchpad is fully interchangeable for optional Optical Trackball

**Keyboard**

101-key compatible keyboard with isolated, inverted-T cursor control keys, right control key, four user-programmable keys; special feature hot keys for instant access to power conservation, QuickLock/QuickBlank, toggle between internal external, or simultaneous displays, speaker volume control, brightness and contrast

**Power Conservation**

Hibernation, Instant-On via Standby; pop-ups with three presets and one custom level of power conservation

**Dimensions (HxWxD)**

Notebook Configuration:  
1.49 x 11.6 x 10.3 in/3.78 x 29.46 x 26.16 cm  
Slimline Configuration:  
1.49 x 11.4 x 8.8 in/3.78 x 28.96 x 22.35 cm  
Multimedia Configuration:  
2.3 x 11.6 x 10.3 x in/5.84 x 29.46 x 26.16 cm

**Weight**

Notebook Configuration: 6.2 lb/2.83 kg  
Slimline Configuration: 5.3 lb/2.42 kg  
Multimedia Configuration: 8.3 lb/3.81 kg

**Software**

Windows 95, Compaq Insight Manager Personal Edition

**Interfaces**

Infrared, enhanced parallel, serial, external monitor, keyboard/pointing device, AC adapter/automobile adapter, PCMCIA, NTSC/PAL composite TV out, microphone in, headphone out, stereo line-in

**Intelligent Manageability**

Lowers total cost of ownership by providing enhanced security, asset management and fault prediction

**Security Features**

Cable lock support; power-on and set-up passwords; ability to disable serial port, parallel port, PC Card slots, diskette drive, diskette drive boot sequence, infrared port

**Service and Support**

Compaq Services, includes a three-year, Worldwide Limited Warranty<sup>5</sup>, pick-up or carry-in; upgrade to on-site warranty available; lifetime toll-free 7x24 hardware technical phone support

**OPTIONS**

**Memory**

|                            |            |
|----------------------------|------------|
| 8-MB Memory Expansion Kit  | 217914-001 |
| 16-MB Memory Expansion Kit | 217915-001 |
| 32-MB Memory Expansion Kit | 217916-001 |
| 64-MB Memory Expansion Kit | 287325-B21 |

**Diskette Drives/Hard Drives**

|                                      |            |
|--------------------------------------|------------|
| Floppy Diskette Drive Caddy          | 258574-B21 |
| 2.0-GB SMART Hard Drive              | 287262-B21 |
| 3.2-GB SMART Hard Drive <sup>2</sup> | 290873-B21 |
| 4.0-GB SMART Hard Drive <sup>2</sup> | 290874-B21 |

**PC Card/Communications**

|  |            |
|--|------------|
| SpeedPaq Cellular PC Card + SpeedPaq 336 Modem     | 221200-001 |
| Netelligent 56K <sup>6</sup> PC Card Modem         | 295050-001 |
| 10/100 TX PC Card UTP Controller                   | 292812-B21 |
| 10 T PC Card UTP Controller                        | 292806-B21 |
| 10 2 PC Card Coax Controller                       | 292807-B21 |
| 10/100 TX PC Card UTP Controller Upgrade           | 292813-B21 |
| Netelligent 16/4 TR PC Card IBM UTP/STP Controller | 301208-B21 |

For additional compatible PC Cards, view the Compaq PC Card Solution List on the Compaq website at <http://www.compaq.com/support/techpubs/pcmcia/pccardlist.html>.

**Expansion/Convenience Bases**

|                                     |            |
|-------------------------------------|------------|
| 20X Max <sup>3</sup> Mobile CD Unit | 217929-003 |
| Convenience Base (Ethernet)         | 217927-001 |
| Convenience Base (Pass-Through)     | 217928-001 |

**Power**

|                         |            |
|-------------------------|------------|
| Li-Ion Dual Bay Battery | 217935-001 |
| Li-Ion Handle Battery   | 217930-001 |
| AC Adapter              | 217931-001 |

**OPTIONS** (cont'd)**Power** (cont'd)

|                          |            |
|--------------------------|------------|
| 3-Wire AC Power Cord     | 217932-001 |
| External Battery Charger | 217933-001 |
| Auto Adapter/Inverter    | 217934-002 |

**Monitors**

|                                |            |
|--------------------------------|------------|
| V55 Color <sup>7</sup>         | 308007-001 |
| V75 Color <sup>7</sup>         | 307710-001 |
| V90 Color <sup>7</sup>         | 305609-001 |
| P50 Color <sup>7</sup>         | 264200-001 |
| P75 Color <sup>7</sup>         | 307806-001 |
| P110 Color <sup>7</sup>        | 284956-001 |
| P1610 Color <sup>7,8</sup>     | 305708-001 |
| TFT450 Flat Panel <sup>7</sup> | 170406-001 |
| TFT500 Flat Panel <sup>7</sup> | 285006-001 |

**Input Devices**

|                                   |            |
|-----------------------------------|------------|
| Optical Trackball Pointing Device | 258793-001 |
|-----------------------------------|------------|

**Display**

|                             |            |
|-----------------------------|------------|
| 12.1-inch CTFT SVGA Display | 259233-B21 |
|-----------------------------|------------|

**Other**

|   |            |
|---|------------|
| Compaq Armada Headset                       | 220460-001 |
| Compaq Multimedia Sound System <sup>9</sup> | 294106-001 |
| External Enhanced III Keyboard              | 110562-001 |
| Compaq Mouse                                | 143315-001 |

**Carrying Cases**

A full line of Compaq brand carrying cases are available through Targus/Fabrique. For information please contact Targus/Fabrique at 801-572-8908 or 714-523-5429.

<sup>1</sup> Li-Ion Dual Bay Battery standard on 4160T slimline 4210T and 4220T.

<sup>2</sup> The 3.2- and 4.0-GB SMART Hard Drives will be available in 2Q 1998.

<sup>3</sup> Data transfer rates will vary from 1276 KB/s to 3000 KB/s.

<sup>4</sup> Battery performance will vary depending on model. When tested in standard configuration using the Ziff-Davis BatteryMark test version 1.0, the battery life of the Armada 4100 will range from 2 hours and 0 minutes to 3 hours and 0 minutes depending on individual usage; the Armada 4200 will range up to 3.9 hours depending on individual usage.

<sup>5</sup> Certain restrictions and exclusions apply. Consult the Compaq Customer Support Center for details.

<sup>6</sup> Designed only to allow faster downloads from K56flex compliant sources. Maximum achievable download transmission rates currently do not reach 56Kbps, and will vary with line conditions.

Modem only works with Windows 95 and Windows NT.

<sup>7</sup> AssetControl monitor. AssetControl features are accessible with Compaq desktops featuring Intelligent Manageability.

<sup>8</sup> Can not be used with the ArmadaStation Monitor Support Stand.

<sup>9</sup> For use with P55, V75, P75, V90, P110, and TFT450 and TFT500 Flat Panel Monitors.

# FEATURES

Compaq Armada 4000

|                                   | Compaq Armada 4150                                      | Compaq Armada 4160T                                     | Compaq Armada 4160T Slimline                            | Compaq Armada 4210T                                     | Compaq Armada 4220T                                     |
|-----------------------------------|---|---|---|---|---|
| <b>System Unit</b>                |   |   |   |   |   |
| Microprocessor                    |   |   |   |   |   |
| Standard                          | Intel Pentium® processor 150-MHz with MMX™ technology   | Intel Pentium processor 166-MHz with MMX™ technology    | Intel Pentium processor 166-MHz with MMX™ technology    | Intel Pentium processor 233-MHz with MMX™ technology    | Intel Pentium processor 266-MHz with MMX™ technology    |
| Cache                             | 256-KB level 2 writeback                                | 256-KB level 2 writeback                                | 256-KB level 2 writeback                                | 256-KB level 2 writeback                                | 512-KB level 2 writeback                                |
| Architecture                      | 64-bit CPU cache and memory bus; PCI local bus graphics | 64-bit CPU cache and memory bus; PCI local bus graphics | 64-bit CPU cache and memory bus; PCI local bus graphics | 64-bit CPU cache and memory bus; PCI local bus graphics | 64-bit CPU cache and memory bus; PCI local bus graphics |
| RAM                               |   |   |   |   |   |
| Standard                          | 16 MB   | 16 MB   | 16 MB   | 32 MB   | 32 MB   |
| Maximum                           | 80 MB   | 80 MB   | 80 MB   | 96 MB   | 96 MB   |
| Coprocessor                       | Integrated  | Integrated  | Integrated  | Integrated  | Integrated  |
| Advanced Power Management         | Yes   | Yes   | Yes   | Yes   | Yes   |
| <b>Display</b>                    |   |   |   |   |   |
| Type                              | 12.1-inch high-contrast color STN                       | 12.1-inch color TFT                                     | 12.1-inch color TFT                                     | 12.1-inch color TFT                                     | 12.1-inch color TFT                                     |
| Resolution                        | 800 x 600 with up to 256 colors                         | 800 x 600 with up to 64,000 colors                      | 800 x 600 with up to 64,000 colors                      | 800 x 600 with up to 16.7 million colors                | 800 x 600 with up to 16.7 million colors                |
| Extended Text                     | Yes   | Yes   | Yes   | Yes   | Yes   |
| <b>Graphics</b>                   |   |   |   |   |   |
| 64-bit PCI Local Bus Video        | No  | No  | No  | Yes   | Yes   |
| 32-bit PCI Local Bus Video        | Yes   | Yes   | Yes   | No  | No  |
| 1024 x 768 External               | Yes   | Yes   | Yes   | Yes   | Yes   |
| <b>Storage</b>                    |   |   |   |   |   |
| 1.44-MB Diskette Drive            | Standard  | Standard  | Standard  | Standard  | Standard  |
| Upgradable SMART Hard Drives      |   |   |   |   |   |
| Standard                          | 1.6-GB  | 2.0-GB  | 2.0-GB  | 3.2-GB  | 4-GB  |
| Optional                          | 2.0-GB, 3.2-GB <sup>1</sup> , 4.0-GB <sup>1</sup>       | 3.2-GB <sup>1</sup> , 4.0-GB <sup>1</sup>               | 3.2-GB <sup>1</sup> , 4.0-GB <sup>1</sup>               | 3.2-GB <sup>1</sup> , 4.0-GB <sup>1</sup>               | 3.2-GB <sup>1</sup> , 4.0-GB <sup>1</sup>               |
| Mobile CD Unit                    | Optional  | Optional  | Optional  | Optional  | Optional  |
| <b>Interfaces</b>                 |   |   |   |   |   |
| PC Card                           | Two Type II/<br>One Type III slot(s)                    | Two Type II/<br>One Type III slot(s)                    | Two Type II/<br>One Type III slot(s)                    | Two Type II/<br>One Type III slot(s)                    | Two Type II/<br>One Type III slot(s)                    |
| Infrared Communication Port       | 1   | 1   | 1   | 1   | 1   |
| Enhanced Parallel                 | 1   | 1   | 1   | 1   | 1   |
| Serial                            | 1   | 1   | 1   | 1   | 1   |
| External Monitor                  | 1   | 1   | 1   | 1   | 1   |
| NTSC/PAL Video Output             | 1   | 1   | 1   | 1   | 1   |
| External Keyboard/Pointing Device | 1   | 1   | 1   | 1   | 1   |
| Expansion Base Connector          | 1   | 1   | 1   | 1   | 1   |
| AC Adapter/Automobile Adapter     | 1   | 1   | 1   | 1   | 1   |

| Compaq Armada 4150 | Compaq Armada 4160T | Compaq Armada 4160T Slimline | Compaq Armada 4210T | Compaq Armada 4220T |
|--------------------|---------------------|------------------------------|---------------------|---------------------|
|--------------------|---------------------|------------------------------|---------------------|---------------------|

**Interfaces** (cont'd)

|                |   |   |   |   |
|----------------|---|---|---|---|
| Microphone In  | 1 | 1 | 1 | 1 |
| Headphone Out  | 1 | 1 | 1 | 1 |
| Stereo Line In | 1 | 1 | 1 | 1 |

**Monitors**

|                                |          |          |          |          |          |
|--------------------------------|----------|----------|----------|----------|----------|
| V55 Color <sup>2</sup>         | Optional | Optional | Optional | Optional | Optional |
| V75 Color <sup>2</sup>         | Optional | Optional | Optional | Optional | Optional |
| V90 Color <sup>2</sup>         | Optional | Optional | Optional | Optional | Optional |
| P75 Color <sup>2</sup>         | Optional | Optional | Optional | Optional | Optional |
| P110 color <sup>2</sup>        | Optional | Optional | Optional | Optional | Optional |
| P1610 Color <sup>2,3</sup>     | Optional | Optional | Optional | Optional | Optional |
| TFT450 Flat Panel <sup>2</sup> | Optional | Optional | Optional | Optional | Optional |
| TFT500 Flat Panel <sup>2</sup> | Optional | Optional | Optional | Optional | Optional |

**Keyboard**

|  |          |          |          |          |          |
|--|----------|----------|----------|----------|----------|
| 101-key compatible keyboard with Inverted "T" Cursor Keys, Hotkeys, Right Ctrl Key and four user-programmable keys | Yes      | Yes      | Yes      | Yes      | Yes      |
| External Enhanced III Keyboard   | Optional | Optional | Optional | Optional | Optional |

**Supported System Software**

|          |   |   |   |  |   |
|----------|---|---|---|--|---|
| Software | Microsoft Windows 3.1, Windows 95 OSR2, Windows NT Workstation 3.51, 4.0 and IBM OS/2 | Microsoft Windows 3.1, Windows 95 OSR2, Windows NT Workstation 3.51, 4.0 and IBM OS/2 | Microsoft Windows 3.1, Windows 95 OSR2, Windows NT Workstation 3.51, 4.0 and IBM OS/2 | Microsoft Windows 3.1, Windows 95 OSR2, Windows NT Workstation 4.0 | Microsoft Windows 3.1, Windows 95 OSR2, Windows NT Workstation4.0 |
|----------|---|---|---|--|---|

**Physical Specifications**

|                    |   |   |  |  |  |
|--------------------|---|---|--|--|--|
| Dimensions (HxWxD) | 1.49 x 11.6 x 10.3 in/3.78 x 29.64 x 26.16 cm | 1.49 x 11.6 x 10.3 in/3.78 x 29.64 x 26.16 cm | 1.49 x 11.4 x 8.8 in/3.78 x 28.96 x 22.35 cm | 1.49 x 11.4 x 8.8 in/3.78 x 28.96 x 22.35 cm | 1.49 x 11.4 x 8.8 in/3.78 x 28.96 x 22.35 cm |
| Weight (shipping)  | 6.2 lb/2.83 kg                                | 6.2 lb/2.83 kg                                | 5.3 lb/2.42 kg                               | 5.3 lb/2.42 kg                               | 5.3 lb/2.42 kg                               |

<sup>1</sup> The 3.2- and 4.0-GB SMART Hard Drives will be available in 2Q 1998.

<sup>2</sup> AssetControl monitor. AssetControl features are accessible with Compaq desktops featuring Intelligent Manageability.

<sup>3</sup> Can not be used with the ArmadaStation Monitor Support Stand.

# MEMORY

Compaq Armada 4000

## Compaq Armada 4100

STANDARD  
MEMORY


16 MB  System Board

OPTIONAL  
MEMORY

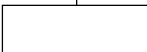


ADD

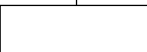
Total Memory

24 MB  8-MB Memory Expansion Kit  
(P/N 217914-001)


OR

32 MB  16-MB Memory Expansion Kit  
(P/N 217915-001)

OR

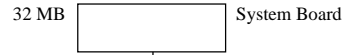
48 MB  32-MB Memory Expansion Kit  
(P/N 217916-001)

OR

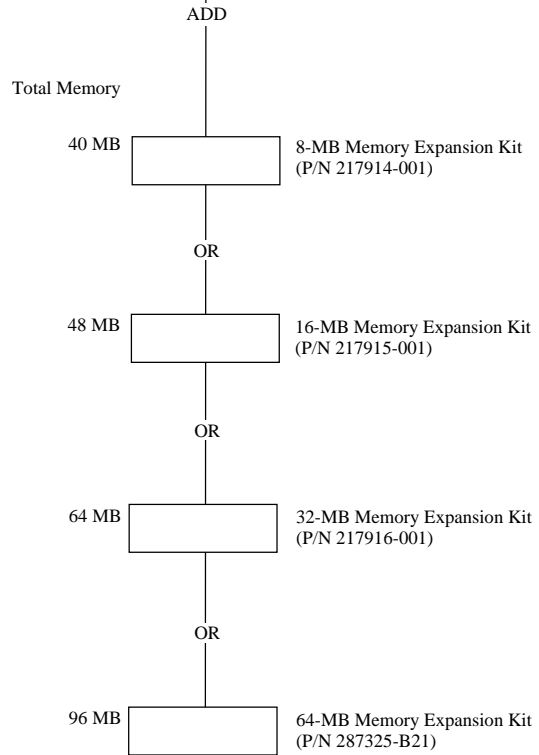
80 MB  64-MB Memory Expansion Kit  
(P/N 287325-B21)

**Compaq Armada 4200**

STANDARD  
MEMORY



OPTIONAL  
MEMORY



## System Unit

|  |   |
|--|---|
| <b>Dimensions (HxWxD)</b>                | 1.49 x 11.4 x 10.2 in/3.78 x 28.96 x 25.95 cm |
| <b>Weight</b>                            |   |
| Standard Configuration                   | 6.2 lb/2.83 kg                                |
| Slimline Configuration                   | 5.3 lb/2.42 kg                                |
| Multimedia Configuration                 | 8.3 lb/3.81 kg                                |
| <b>Stand-Alone Power Requirements</b>    |   |
| Nominal Operating Voltage                | 14.2 VDC                                      |
| Maximum Operating Power                  | 35 W  |
| Peak Operating Power                     | 40 W  |
| <b>Temperature</b>                       |   |
| Operating                                | 5 to 95° F/10 to 35° C                        |
| Nonoperating                             | -4 to 140° F/-20 to 60° C                     |
| <b>Relative Humidity (noncondensing)</b> |   |
| Operating                                | 10 to 90%                                     |
| Nonoperating                             | 5 to 95%                                      |
| <b>Shock</b>                             |   |
| Operating                                | 10 G, 11 ms, half sine                        |
| Nonoperating                             | 60 G, 11 ms, half sine                        |
| <b>Vibration</b>                         |   |
| Operating                                | .25 G, 5-500 Oct/Min sweep rate               |
| Nonoperating                             | 1.0 G, 5-500 Oct/Min sweep rate               |
| <b>Maximum Altitude (unpressurized)</b>  |   |
| Operating                                | 10,000 ft/3.15 km                             |
| Nonoperating                             | 30,000 ft/9.14 km                             |

## 12.1-Inch Color TFT SVGA Display

|                                |                                   |
|--------------------------------|-----------------------------------|
| <b>Dimensions (HxW)</b>        | 7.26 x 9.68 in/18.45 cm x 24.6 cm |
| <b>Diagonal Size</b>           | 12.1 in/30.7 cm                   |
| <b>Mounting</b>                | Internal Panel Supports           |
| <b>Number of Colors</b>        | 64K                               |
| <b>Contrast Ratio</b>          | Greater than 100:1                |
| <b>Brightness</b>              | 100 cd/m <sup>2</sup>             |
| <b>Pixel Resolution</b>        |                                   |
| Pitch                          | .3075 x .3075 mm                  |
| Format                         | 800 x 600                         |
| Configuration                  | RGB Stripe                        |
| <b>Backlight</b>               | Edge Lit                          |
| <b>Character Display</b>       | —                                 |
| <b>Total Power Consumption</b> | 3.9 W                             |
| <b>Display Inverter Board</b>  |                                   |
| Input Voltage                  | 10-20 Vdc                         |
| Output Voltage                 | 600 Vrms                          |
| Maximum Input Power            | 3.2 W                             |
| Maximum Output Power           | 2.5 W                             |

12.1-Inch Color STN Display

|                                |                                |
|--------------------------------|--------------------------------|
| <b>Dimensions (HxW)</b>        | 7.26 x 9.68 in/18.45 x 24.6 cm |
| <b>Diagonal Size</b>           | 12.1 in/30.7 cm                |
| <b>Mounting</b>                | Internal Panel Supports        |
| <b>Number of Colors</b>        | 256                            |
| <b>Contrast Ratio</b>          | Greater than 30:1              |
| <b>Brightness</b>              | 75 cd/m <sup>2</sup> @ 4.0 mA  |
| <b>Pixel Resolution</b>        |                                |
| Pitch                          | .3075 x .3075 mm               |
| Format                         | 800 x 600                      |
| Configuration                  | RGB Stripe                     |
| <b>Backlight</b>               | Edge Lit                       |
| <b>Character Display</b>       | —                              |
| <b>Total Power Consumption</b> | 3.9 W                          |
| <b>Display Inverter Board</b>  |                                |
| Input Voltage                  | 10-20 Vdc                      |
| Output Voltage                 | 600 Vrms                       |
| Maximum Input Power            | 3.2 W                          |
| Maximum Output Power           | 2.5 W                          |

SMART Hard Drives<sup>1</sup>

|   | 1.6-GB               | 2.0-GB               | 3.2-GB               | 4.0-GB               |
|---|----------------------|----------------------|----------------------|----------------------|
| <b>Formatted Capacity Per Drive</b>             | 1.6 GB               | 2167.6 GB            | 3.3 GB               | 4.1 GB               |
| <b>Drive Type</b>                               | 65                   | 65                   | 65                   | 65                   |
| <b>Transfer Rate</b>                            |                      |                      |                      |                      |
| Media   | 36.3 to<br>67.4 Mb/s | 61.6 to<br>39.1 Mb/s | 51.7 to<br>83.4 Mb/s | 51.7 to<br>83.4 Mb/s |
| Interface                                       | 16.67 MB/s           | 16.6 MB/s            | 16.6 MB/s            | 16.6 MB/s            |
| <b>Sector Interleave</b>                        | 1:1                  | 1:1                  | 1:1                  | 1:1                  |
| <b>Seek Times (typical, including settling)</b> |                      |                      |                      |                      |
| Track-to-track                                  | 3 ms                 | 4 ms                 | 4 ms                 | 4 ms                 |
| Average   | 12 ms                | 13 ms                | 13 ms                | 13 ms                |
| Maximum   | 24 ms                | 23 ms                | 23 ms                | 23 ms                |
| <b>Disk Rotational Speed</b>                    | 4000 rpm             | 4006 rpm             | 4009 rpm             | 4009 rpm             |
| <b>Physical Configuration</b>                   |                      |                      |                      |                      |
| Cylinders                                       | 5158                 | 4975                 | 6975                 | 6975                 |
| Heads   | 4                    | 6                    | 5                    | 6                    |
| Sectors per track                               | 108 to 198           | 110 to 180           | 144 to 240           | 144 to 240           |
| Bytes per sector                                | 512                  | 512                  | 512                  | 512                  |
| <b>Logical Configuration</b>                    |                      |                      |                      |                      |
| Cylinders                                       | 3162                 | 4200                 | 6304                 | 7944                 |
| Heads   | 16                   | 16                   | 16                   | 16                   |
| Sectors per track                               | 63                   | 63                   | 63                   | 63                   |
| Bytes per sector                                | 512                  | 512                  | 512                  | 512                  |
| <b>Buffer Size</b>                              | 128 KB               | 128 KB               | 468 KB               | 468 KB               |

## Diskette Drive

|                           |                             |
|---------------------------|-----------------------------|
| <b>Diskette Size</b>      | 3.5-inch                    |
| <b>Light</b>              | None                        |
| <b>Height</b>             | .43 in/1.1 cm               |
| <b>Bytes per Sector</b>   | 512                         |
| <b>Sectors per track</b>  |                             |
| High density              | 18 (1.44-MB)/15<br>(1.2-MB) |
| Low density               | 9                           |
| <b>Tracks per side</b>    |                             |
| High density              | 80 (1.44-MB)/80<br>(1.2-MB) |
| Low density               | 80                          |
| <b>Read/Write heads</b>   | 2                           |
| <b>Access Times</b>       |                             |
| Track-to track (high/low) | 3 ms/6 ms                   |
| Average (high/low)        | 94 ms/174 ms                |
| Settling time             | 15 ms                       |
| Latency average           | 100 ms                      |

## AC Adapter

|                              |   |
|------------------------------|---|
| <b>Dimensions (HxWxL)</b>    | 1.42 x 2.83 x 4.69 in/3.6 x 11.9 x 7.2 cm |
| <b>Weight</b>                | .66 lb/.3 kg                              |
| <b>Power Supply (Input)</b>  |   |
| Nominal Voltage              | 120 VAC                                   |
| Current                      | <1.11 A                                   |
| Voltage Range                | 90-265 VAC                                |
| Input Frequency              | 47 to 63 Hz                               |
| <b>Power Supply (Output)</b> |   |
| Nominal Voltage              | +18.5 +/- 0.25 VDC                        |
| Current                      | 40 to 42 W                                |
| <b>Temperature</b>           |   |
| Normal Operating             | 140°F/60°C                                |
| Operating                    | 41 to 104°F/5 to 40°C                     |
| Nonoperating                 | -4 to 185°F/-20 to 85°C                   |
| <b>Relative Humidity</b>     |   |
| Operating                    | 10 to 95%                                 |
| Nonoperating                 | 10 to 95%                                 |

Lithium Ion Modular  
Battery Pack

|                           |   |
|---------------------------|---|
| <b>Dimensions (HxWxL)</b> | .77 x 4.35 x 5.34 in/1.9 x 11.0 x 13.6 cm |
| <b>Weight</b>             | .88 lb/.39 kg                             |
| <b>Energy</b>             |   |
| Voltage                   | 14.4V                                     |
| Amp-hour capacity         | 2.8 Ah                                    |
| Watt-hour capacity        | 40 Wh                                     |
| <b>Temperature</b>        |   |
| Operating                 | 50° to 104° F/10° to 40° C                |
| Nonoperating              | -22° F to 140°F/-30° to 60°C              |

**Lithium Ion Handle  
Battery Pack**

|                           |   |
|---------------------------|---|
| <b>Dimensions (HxWxL)</b> | .89 x 1.53 x 11 in/1.52 x 3.9 x 27.9 cm |
| <b>Weight</b>             | .88 lb/.39 kg                           |
| <b>Energy</b>             |   |
| Voltage                   | 14.4 V                                  |
| Amp-hour capacity         | 2.8 Ah                                  |
| Watt-hour capacity        | 40 Wh                                   |
| <b>Temperature</b>        |   |
| Operating                 | 50° to 104° F/10° to 40° C              |
| Nonoperating              | -22° F to 140°F/-30° to 60°C            |

**20X Max<sup>2</sup> Mobile CD Unit**

|                             |  |
|-----------------------------|--|
| <b>Dimensions (HxWxD)</b>   | .86 x 11.69 x 8.95 in/2.18 x 29.7 x 22.7 cm    |
| <b>Weight</b>               | 2.0 lb/.91 kg                                  |
| <b>Power Supply (Input)</b> |  |
| Operating Voltage           | 100 to 240 VAC                                 |
| Operating Current           | 1.10 Amp Maximum                               |
| Rated Voltage               | 100 to 240 VAC                                 |
| Rated Current               | 1.0 Amp Maximum                                |
| Line Frequency              | 47 to 63 Hz                                    |
| <b>Temperature</b>          |  |
| Operating                   | 50 to 95°F/10 to 35°C                          |
| Nonoperating                | -4 to 140°F/-20 to 60°C                        |
| <b>Relative Humidity</b>    |  |
| Operating                   | 20 to 80%                                      |
| Nonoperating                | 5 to 90%                                       |
| <b>Altitude</b>             |  |
| Operating                   | 10,000 ft/3.15 km                              |
| Nonoperating                | 30,000 ft/9.14 km                              |
| <b>Shock</b>                |  |
| Operating                   | 5 G, 11 ms, half sine                          |
| Nonoperating                | 140 G, 2 ms, half sine                         |
| <b>Vibration</b>            |  |
| Operating                   | 0.25 G, 5 to 500 Hz, 0.5 octave/min sweep rate |
| Nonoperating                | 0.75 G, 5 to 500 Hz, 0.5 octave/min sweep rate |

**20X Max<sup>2</sup> CD-ROM  
Drive (included with  
Mobile CD Unit)**

|                                |   |
|--------------------------------|---|
| <b>Compatible Disc Formats</b> | CD-ROM (Mode 1, 2 and 3)<br>CD-DA<br>CD-XA ready (Mode 2 Form 1, Form 2)<br>CD-I ready (Mode 2, Form 1 and 2)<br>CD-R (read only)<br>CD Plus<br>Photo CD (single and multi-session)<br>CD Extra |
| <b>Center Hole Diameter</b>    | 15 mm   |
| <b>Disc Diameter</b>           | 12 cm, 8 cm   |
| <b>Disc Thickness</b>          | 1.2 mm  |
| <b>Track Pitch</b>             | 1.6 µm  |

**20X Max<sup>2</sup> CD-ROM Drive** (included with Mobile CD Unit) (cont'd)

|   |  |
|---|--|
| <b>Laser</b>  |  |
| Beam divergence   | 53.5 +/- 1.5°                                    |
| Output power  | 0.13 +/- .1 mw                                   |
| Type  | Semiconductor Laser GaAlAs                       |
| Wave length   | 780 +/- 25 nm                                    |
| <b>Access Times</b> (typical, including settling)       |  |
| Random  | < 150 ms   |
| Full stroke   | < 600 ms   |
| <b>Audio Output Level</b>                               |  |
| Line out  | 0.7 Vrms   |
| Headphone   | none   |
| <b>Cache Buffer</b>                                     |  |
|   | 128 KB   |
| <b>Data Transfer Rate</b> (typical, including settling) |  |
| Sustained   | 3.0 MB/s, 20X Outer Diameter<br>150 KB/s, single |
| Asynchronous Burst                                      | 8.3 MB/s   |
| <b>Startup Time</b>                                     |  |
|   | < 10 seconds                                     |

<sup>1</sup> Hard drive specifications may vary slightly depending on vendor.

<sup>2</sup> Data transfer rates will vary from 1276 KB/s to 3000 KB/s.