



Appendix 3 Product End-of-Life Disassembly instructions

Product Identification:

Marketing Name / Model	Description
HP Compaq Business Desktop dx2000 uT Series	Microtower, ATX board

Purpose: The document is intended for use by end-of-life recyclers or treatment facilities. It provides the basic instructions for the disassembly of HP products to remove components and materials requiring selective treatment.

1.0 Items Requiring Selective Treatment

1.1 Items listed below are classified as requiring selective treatment.

1.2 Enter the quantity of items contained within the product which require selective treatment in the right column, as applicable.

Item Description	Notes	Qty items in product.
Printed Circuit Boards (PCB) or Printed Circuit Assemblies (PCA)	With a surface greater than 10 square cm	3 (sys board, modem card & power supply bd)
Batteries	All types including standard alkaline and lithium coin or button style batteries	1
Mercury containing components	For example, mercury in lamps, display backlights, scanner lamps, switches, batteries	
Liquid Crystal Displays (LCD) with a surface greater than 100 square cm	Includes background illuminated displays with gas discharge lamps	
Cathode Ray Tubes (CRT)		
Capacitors / condensers (Containing PCB / PCT)		
Electrolytic Capacitors / Condensers measuring greater than 2.5 cm in diameter or height		
External electrical cables and cords	PSU, IDE, SATA cables.	
Gas Discharge Lamps		
Plastics containing Brominated Flame Retardants		
Components and parts containing toner and ink, including liquids, semi-liquids (gel/paste) and toner	Include the cartridges, print heads, tubes, vent chambers, and service stations.	
Components and waste containing asbestos		
Components, parts and materials containing refractory ceramic fibers		
Components, parts and materials containing radioactive substances		



2.0 Tools Required

List the type and size of the tools that would typically be used to disassemble the product to a point where components and materials requiring selective treatment can be removed.

Tool Description	Tool Size (if applicable)
Torx Screw Driver	
Long, slender flat blade screwdriver	

3.0 Product Disassembly Process

3.1 List the basic steps that should typically be followed to remove components and materials requiring selective treatment:

MODEM CARD	
1	To remove an access panel (see Figure 1 below): a) Remove the screws that secure the access panel to the computer chassis. Some access panels use captive thumbscrews. b) Slide the access panel back about 1 inch (2.5 cm), and then lift it away from and off the unit.
2	To remove the PCI modem card (see Figures 2 & 3 below): a) Remove the right access panel. b) Remove the screw from the top of the expansion slot that secures the modem card to the chassis. c) Hold the card at each end and rock it back and forth until the connectors pull free from the socket.
SYSTEM BOARD	
1	Remove both access panels (see step 1 in <u>Modem Card</u>).
2	To remove the front bezel, grasp the bottom of the front panel below the lowest air vent and pull the panel out and up to release it from the chassis (see Figure 4 below).
3	To remove the diskette drive (see Figure 5 below): a) Disconnect the power and data cables from the back of the drive. b) Remove the four screws, two from each side, that secure the drive in the drive cage. c) Slide the drive out of the front of the chassis.
4	Disconnect the power and data cables from the back of all installed 3.5-inch drives.
5	To remove the lower drive cage (see Figures 6 & 7 below): a) Remove the four screws that secure the drive cage to the front of the chassis. b) Remove the single screw that attaches the lower drive cage to the fixed upper drive cage on the right side of the chassis. c) Slide the lower drive cage back about 1.25 cm (1/2 inch) to release it from the upper cage.
6	Unplug all cables from the system board.



7	<p>To remove the heatsink and processor from the system board (see Figure 8 below):</p> <ol style="list-style-type: none"> a) Unplug the fan cable from the system board. b) Use a long, slender screwdriver to unscrew the four processor retaining screws that secure the heatsink to the system board tray. <p>NOTE: The spring-loaded retaining screws are captive to the heatsink.</p> <ol style="list-style-type: none"> c) Twist the heatsink to break the bond between the heatsink and the processor, and then lift the heatsink from the processor. d) Raise the handle on the ZIF socket to the fully open position. e) Grasp the processor by the edges and pull it straight up from the socket.
8	<p>To remove the system board (see Figures 9 & 10 below):</p> <ol style="list-style-type: none"> a) Remove the eight screws that secure the system board to the chassis. b) Slide the system board toward the front of the chassis until the all rear I/O ports clear the chassis, and then lift the system board out of the chassis.
POWER SUPPLY PCA	
1	<p>To remove the power supply (see Figures 11 & 12 below):</p> <ol style="list-style-type: none"> a) Disconnect all power cables. b) Remove the four screws secure the power supply to the chassis. c) Slide the power supply toward the front of the chassis, and then lift it out of the chassis.
2	<p>To remove the cover from the power supply (see Figure 13 below):</p> <ol style="list-style-type: none"> a. Remove the five screws that secure the cover to the power supply. b. Cut the tie-wrap that secures the cables to the chassis. c. Lift the cover off the power supply.
3	<p>To remove the power supply PCA:</p> <ol style="list-style-type: none"> a) Remove four screws that secure the power supply PCA to the power supply (see Figure 14 below). b) Remove the screws that secure the inlet and switch to the power supply (see Figure 15 below). c) Cut the two tie-wraps that secure cables to the power supply (see Figure 16 below). d) Remove the grounding screw, and then remove the grounding cable (see Figure 17 below). e) Cut the white and black cables that connect the PFC transformer (see Figure 18 below). f) Remove the power supply PCA from the power supply.
BATTERY	
<p>To remove the battery (see Figures 19 & 20 below):</p> <ol style="list-style-type: none"> a) Locate the battery and battery holder on the system board. b) Pull back on the clip that holds the battery in place, and then remove the battery. 	

3.2 ILLUSTRATIONS

FIGURE 1: Removing the access panel

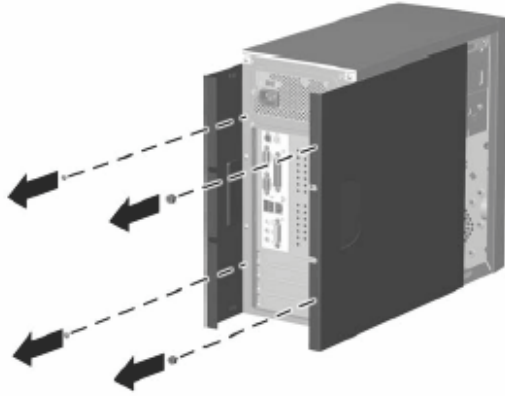


FIGURE 2: Modem card

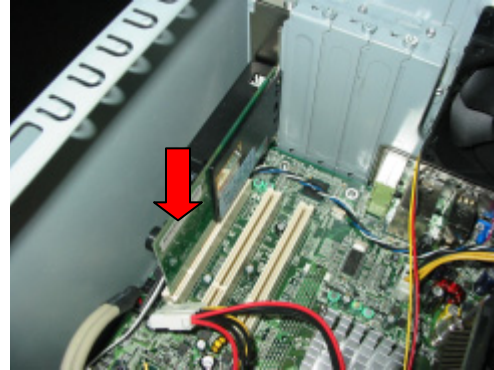


FIGURE 3: Removing a PCI expansion card

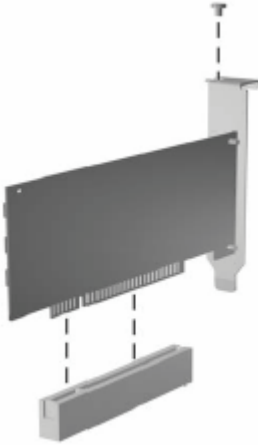


FIGURE 4: Removing the front bezel



FIGURE 5: Removing a diskette drive



FIGURE 6: Drive cage



FIGURE 7: Removing the lower drive cage

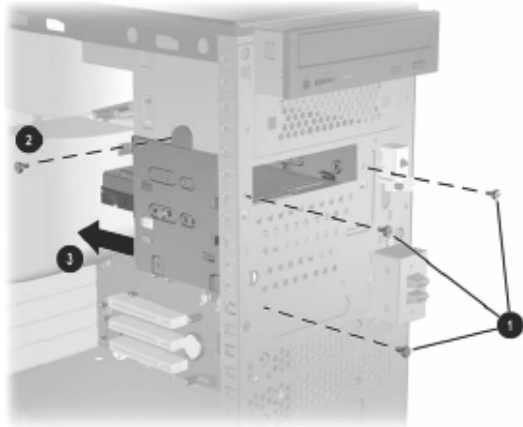


FIGURE 8: Removing the heatsink and processor

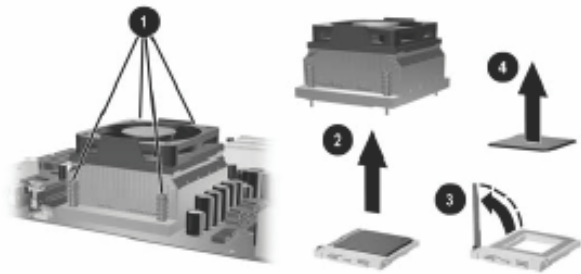


FIGURE 9: System board



FIGURE 10: Removing the system board

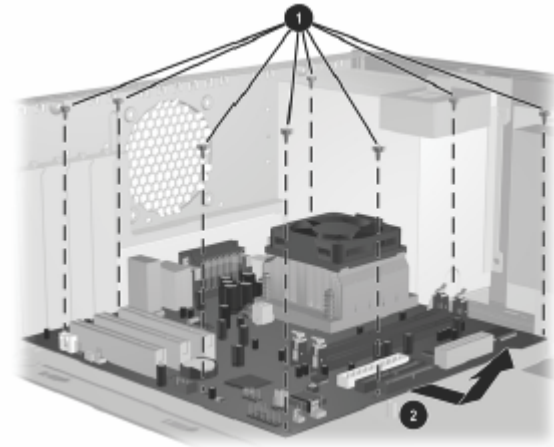


FIGURE 11: Power supply

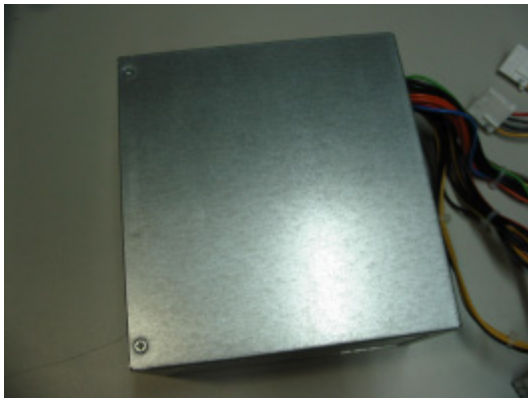


FIGURE 12: Removing the power supply

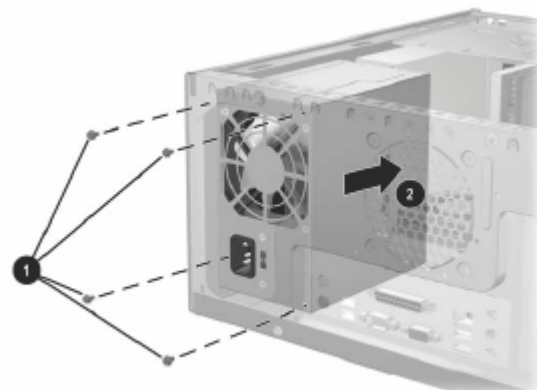


FIGURE 13: Tie wrap to cut

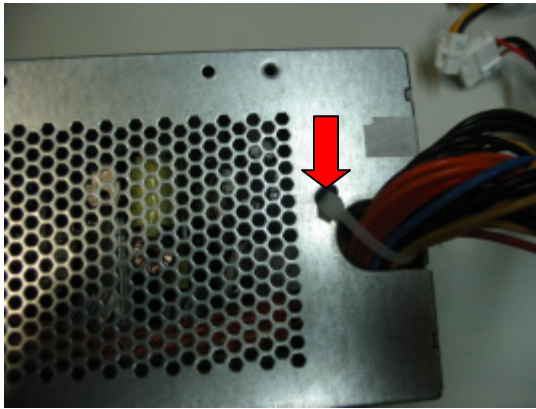


FIGURE 14: Power supply PCA screws

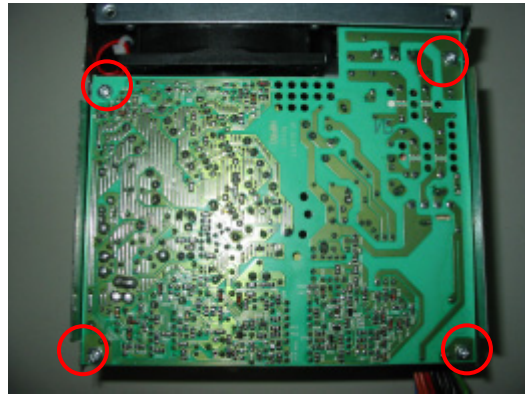


FIGURE 15: Inlet and Switch screws



FIGURE 16: Tie wraps to cut

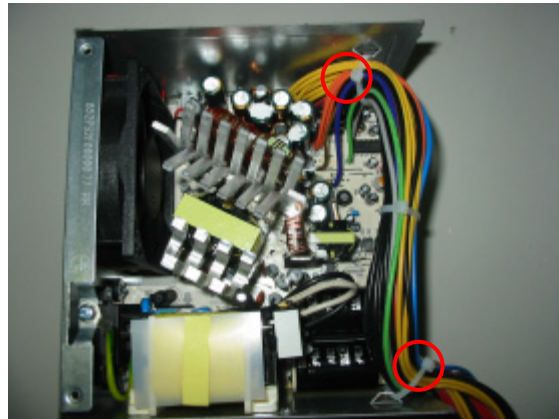


FIGURE 17: Grounding screw

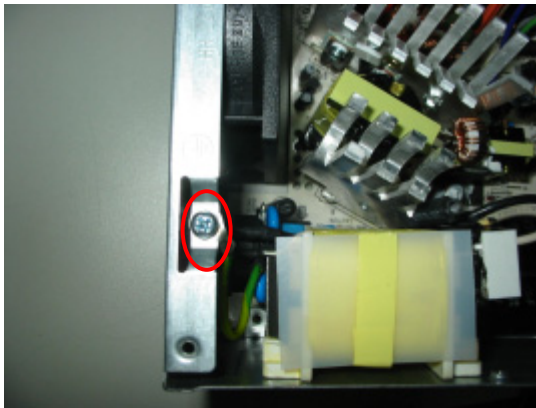


FIGURE 18: PFC cables – cut location



FIGURE 19: Battery location on system board

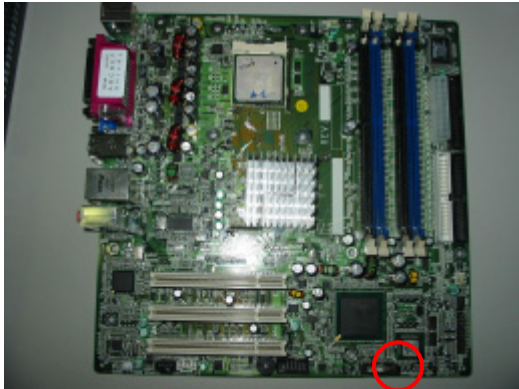


FIGURE 20: Removing the battery

