



Appendix 3 Product End-of-Life Disassembly instructions

Product Identification:

Marketing Name / Model	Description
HP Business Desktop dx5150 Series	Small Form Factor, 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	2 (sys board & P/S board)
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	0
Liquid Crystal Displays (LCD) with a surface greater than 100 square cm	Includes background illuminated displays with gas discharge lamps	0
Cathode Ray Tubes (CRT)		0
Capacitors / condensers (Containing PCB / PCT)		0
Electrolytic Capacitors / Condensers measuring greater than 2.5 cm in diameter or height		3 (3 in P/S)
External electrical cables and cords		0
Gas Discharge Lamps		0
Plastics containing Brominated Flame Retardants		0
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.	0
Components and waste containing asbestos		0
Components, parts and materials containing refractory ceramic fibers		0
Components, parts and materials containing radioactive substances		0



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	
Dikes (Figure 17)	

3.0 Product Disassembly Process

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

SYSTEM BOARD	
1	To remove the access panel (see Figure 1 below): a. Pull up and hold open the latch on the top of the computer. b. Slide the access panel back about 1.3 cm (0.5 inch), and then lift it off of the unit.
2	To remove the front bezel (see Figure 2 below): a. Pull up on the three release tabs on the top of the bezel. b. Pull the front bezel away from the chassis.
3	Rotate the drive cage to its full upright position (see Figure 3 below).
4	Unplug all cables from the system board (see Figure 4 below).
5	To remove the heatsink assembly (see Figures 5 & 6 below): a. Loosen the two captive screws that secure the heatsink to the system board. b. Twist the heatsink slightly to break the bond between it and the processor then, and then lift the heatsink from the processor.
6	To remove the processor (see Figure 7 below): a. Rotate the socket handle to its fully open position. b. Lift the processor from the system board.
7	To remove the system board (see Figures 8 & 9 below): a. Remove the eight screws that secure the system board to the chassis. b. Slide the system board toward the front of the computer until the rear I/O connectors clear the chassis, and then remove the system board from the chassis.
POWER SUPPLY PCA	
1	Make sure the drive cage is rotated to its fully upright position, and then disconnect all power cables from all devices.
2	To remove the power supply (see Figure 10 below): a. Remove the three screws that connect the power supply to the chassis. b. Slide the power supply forward about 0.95 cm (3/8 inch), lift it to clear the guides on the floor of the chassis, and then pivot the top of the power supply to clear the top chassis lip.
3	Cut the tie-wrap (see Figure 11 below).



POWER SUPPLY PCA (continued)	
4	Remove the cover from the power supply by removing the screws from the power supply surface, and then lifting the cover off of the power supply (see Figure 12 below).
5	Cut the two cables that connect the Switch (see Figure 13 below).
6	Cut the two cables that connect the Inlet (Figure 14 below).
7	Remove the power supply PCA from the power supply (see Figure 15 below).
8	Cut the capacitors (C4, C5) solder joint (see Figure 16 below) using dikes (see Figure 17 below), and then remove the capacitors.
9	Cut the capacitor (C11) solder joint using dikes, and then remove the capacitor (see Figure 18 below).
BATTERY	
1	Locate the battery and battery holder on the system board.
2	Depending on the type of battery holder on the system board, complete the following instructions to replace the battery:
	Type 1 Battery Holder (see Figure 19 below)
-	Lift the battery out of the holder.
	Type 2 Battery Holder (see Figure 20 below)
-	To release the battery from the holder, squeeze the metal clamp that extends above one edge of the battery. When the battery pops up, lift it out.



3.2 Illustrations

FIGURE 1: Removing the access panel

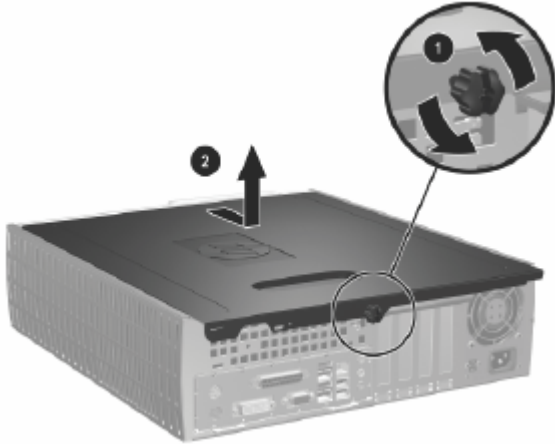


FIGURE 2: Removing the front bezel

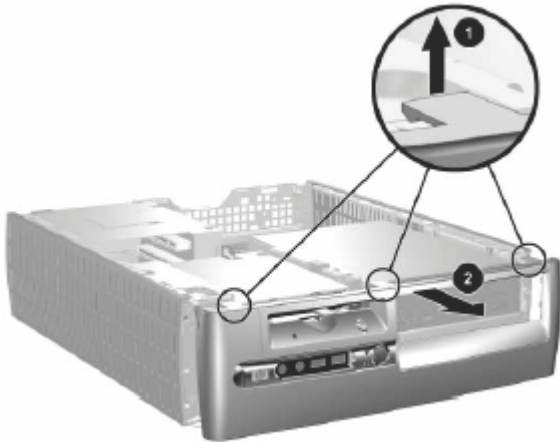


FIGURE 3: Rotating the drive cage



FIGURE 4: System board



FIGURE 5: Removing the heatsink

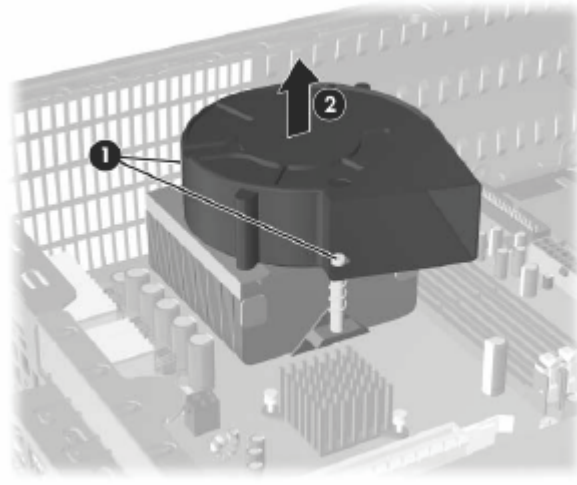


FIGURE 6: Removing the heatsink assembly



FIGURE 7: Removing the processor

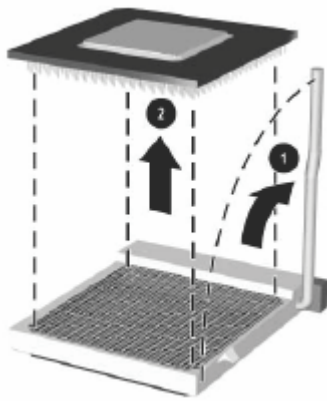


FIGURE 8: System board screw locations

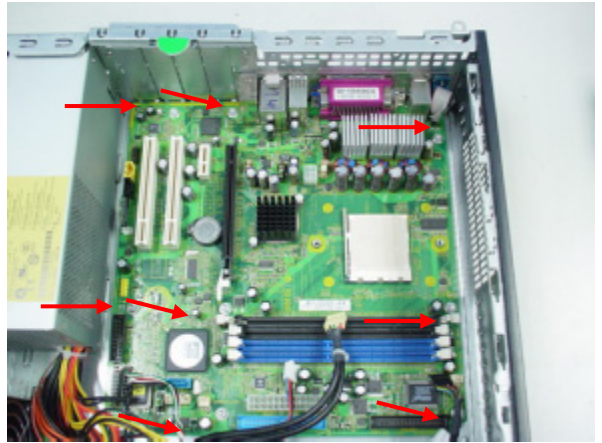


FIGURE 9: Removing the system board

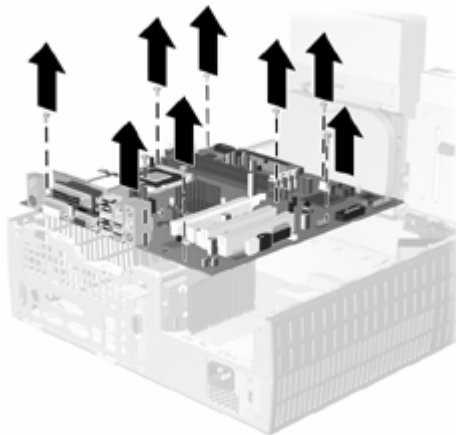


FIGURE 10: Removing the power supply

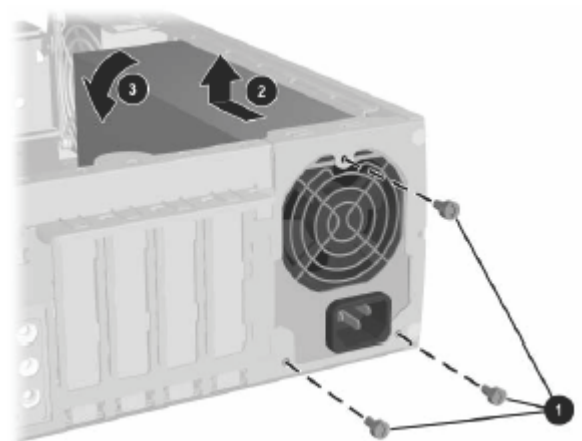


FIGURE 11: Tie wrap



FIGURE 12: Power supply with cover removed



FIGURE 13: Switch cables

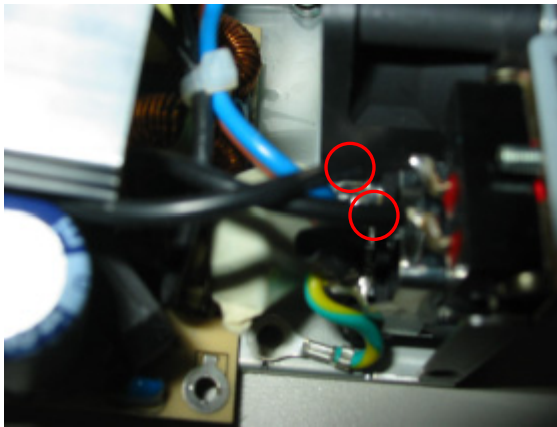


FIGURE 14: Inlet cables

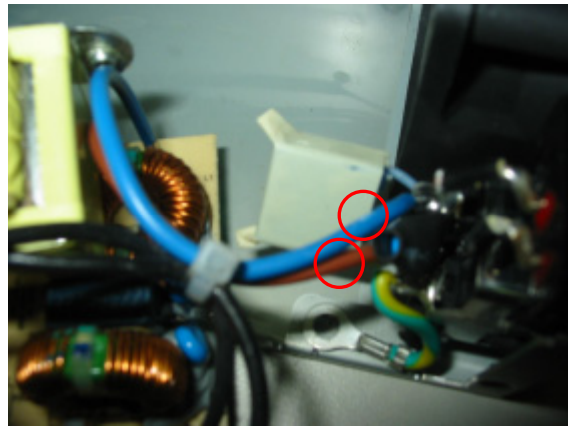


FIGURE 15: Power supply PCA



FIGURE 16: C4 and C5 capacitors





FIGURE 17: Dikes



FIGURE 18: C11 capacitor

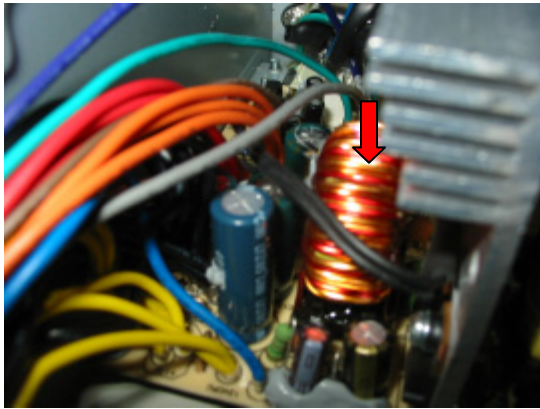


FIGURE 19: Type 1 battery holder

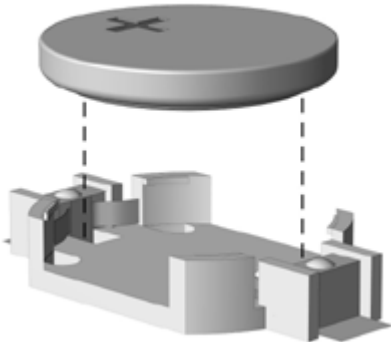


FIGURE 20: Type 2 battery holder

