Product End-of-Life Disassembly Instructions

Product Category: Personal Computers
Marketing Name / Model [List multiple models if applicable.]
HP Compaq dx2450 Business PC

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, as defined by EU directive 2002/96/EC, Waste Electrical and Electronic Equipment (WEEE).

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	Quantity of items included in product
Printed Circuit Boards (PCB) or Printed Circuit Assemblies (PCA)	With a surface greater than 10 sq cm	2 to 3 (1 sys board, 1 or 2 P/S PCAs
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 sq 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		3, 4, or 5 in P/S
External electrical cables and cords		
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		

1.3 Markings for plastic parts greater than 25 grams

Plastic Part Name	Plastic Part Description	Weight (grams)	ISO 11469:2000 Plastic Part Mark	Optional: Photo
Alamo Main Bezel	Main front bezel piece	150	>ABS<	
Alamo Anna Bezel Frame	Front bezel frame	194	>ABS<	
System Fan Frame	Fan Frame	47	>PBT-GF30-FR(17)<	
CPU Heatsink Fan Frame	Fan Frame	37	>PBT-GF30-FR(17)<	

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)
Description #1 Phillips screwdriver	
Description #2 Dikes	
Description #3 Torx screwdriver	T-15

3.0 Product Disassembly Process

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

1. To remove the access panel, loosen the screw (1) that secures the access panel to the computer chassis, slide the access panel back (2) about 1.3 cm (1/2 inch), and then lift it off the unit. (see Figure 1).
2. To remove the front bezel, press outward on the three latches on the right side of the bezel (1), then rotate the right side of the bezel off the chassis (2) (see Figure 2).
3. Remove or cut all expansion cards, cables, and any other devices from the system board.
4. To remove the battery:
   Locate the battery and battery holder on the system board. Depending on the type of battery holder on the system board, complete the following instructions to remove the battery.
   TYPE 1 BATTERY HOLDER (see Figure 3):
   Lift the battery out of the holder.
   TYPE 2 BATTERY HOLDER (see Figure 4):
   To release the battery from its holder, squeeze the metal clamp that extends above one edge of the battery. When the battery pops up, lift it out.
   TYPE 3 BATTERY HOLDER (see Figure 5):
   Pull back on the clip that holds the battery in place, and then remove the battery.
5. To remove the system board:
   For the dx2390 and the dx2400:
   a. Remove all expansion boards.
   b. Disconnect all cables connected to the system board.
   c. Remove the heatsink from the system board by loosening the four captive screws that secure the heatsink to the system board, and then lifting the heatsink from the system board. dx2390 heatsink removal requires use of a screwdriver with a narrow shaft.
   d. Remove the eight remaining screws that secure the system board to the chassis.
   e. Slide the system board toward the front of the computer, and then lift the board up to remove it.
   For the dx2450:
   a. Remove all expansion boards.
   b. Disconnect all cables connected to the system board.
   c. Remove the heatsink from the system board by lifting up on the silver latch until it loosens, then unlatching both metal hooks (one on each side of the heatsink) from the backplate, and then lifting the heatsink from the system board.
   d. Remove the eight remaining screws that secure the system board to the chassis.
   e. Slide the system board toward the front of the computer, and then lift the board up to remove it.
6. To remove the power supply.
   a. Remove the four screws that secure the power supply to the chassis (see Figure 7).

b. Press the tab in front of the power supply that holds it in place.
c. Slide the power supply toward the front of the computer, rotate toward the fan so the power supply clears the lip on the top of the chassis, and then lift the power supply out of the chassis (see Figure 8).

7. HP uses six different power supply vendors. See the instructions below to disassemble and remove required power supply components:

POWER SUPPLY 1:

a. Using dikes, cut the plastic clamp that secures the wires to the power supply cover (see Figure 9).
b. Using a phillips screwdriver, remove the five screws that secure the cover to the power supply chassis - three screws on top, two screws on the bottom (see Figures 9 & 10).
NOTE: You do not need to remove the screws from the fan guard or the power connector.
c. Remove the cover from the power supply.
d. Using dikes, cut all cables connecting the PCA to the power supply.
e. From the bottom of the power supply, remove the four screws that secure the power supply PCA to the chassis (see Figure 11).
f. Remove the power supply PCA from the power supply chassis.
g. Cut five capacitors from the PCA, as shown in Figure 12.

POWER SUPPLY 2:

a. Using dikes, cut the plastic clamp that secures the wires to the power supply cover (see Figure 13).
b. Using a phillips screwdriver, remove the seven screws that secure the cover to the power supply chassis - four screws on top, two screws on the right side, one screw on the left side (see Figures 13 & 14).
NOTE: You do not need to remove the screws from the fan guard or the power connector.
c. Remove the cover from the power supply.
d. Using dikes, cut all cables connecting the PCA to the power supply.
e. From the inside of the power supply, remove the four screws that secure the power supply PCA to the chassis (see Figure 12).
f. Remove the power supply PCA from the power supply chassis.
g. Cut three capacitors from the PCA, as shown in Figure 15.

POWER SUPPLY 3:

a. Using dikes, cut the plastic clamp that secures the wires to the power supply cover (see Figure 17).
b. Using a phillips screwdriver, remove the six screws that secure the cover to the power supply chassis - all six screws are on top (see Figure 16).
NOTE: You do not need to remove the screws from the fan guard or the power connector.
c. Remove the cover from the power supply.
d. Using dikes, cut all cables connecting the PCA to the power supply.
e. From the inside of the power supply, remove the four screws that secure the power supply PCA to the chassis (see Figure 18).
f. Remove the power supply PCA from the power supply chassis.
g. Cut the small PCA from the large power supply PCA (see Figure 18).
h. Cut three capacitors from the PCA, as shown in Figure 18.

POWER SUPPLY 4:

a. Using dikes, cut the plastic clamp that secures the wires to the power supply cover (see Figure 19).
b. Using a phillips screwdriver, remove the five screws that secure the cover to the power supply chassis - three screws on top, two screws on the bottom (see Figures 19 & 20).
NOTE: You do not need to remove the screws from the fan guard or the power connector.
c. Remove the cover from the power supply.
d. Using dikes, cut all cables connecting the PCA to the power supply.
e. From the bottom of the power supply, remove the four screws that secure the power supply PCA to the chassis (see Figure 21).
f. Remove the power supply PCA from the power supply chassis.
g. Cut four capacitors from the PCA, as shown in Figure 22.

POWER SUPPLY 5:

a. Using dikes, cut the plastic clamp that secures the wires to the power supply cover (see Figure 24).
b. Using a phillips screwdriver, remove the seven screws that secure the cover to the power supply chassis - four screws on top, two screws on the right side, one screw on the left side (see Figures 23 & 24).
NOTE: You do not need to remove the screws from the fan guard or the power connector.
c. Remove the cover from the power supply.
d. Using dikes, cut all cables connecting the PCA to the power supply.

e. From the inside of the power supply, remove the four screws that secure the power supply PCA to the chassis (see Figure 25).
f. Remove the power supply PCA from the power supply chassis.
g. Cut four capacitors from the PCA, as shown in Figure 25.
POWER SUPPLY 6:
a. Using dikes, cut the plastic clamp that secures the wires to the power supply cover (see Figure 26).
b. Using a phillips screwdriver, remove the six screws that secure the cover to the power supply chassis - all six screws are on top of the power supply (see Figure 26).
NOTE: You do not need to remove the screws from the fan guard or the power connector.
c. Remove the cover from the power supply.
d. Using dikes, cut all cables connecting the PCA to the power supply.
e. From the inside of the power supply, remove the four screws that secure the power supply PCA to the chassis (see Figure 27).
f. Remove the power supply PCA from the power supply chassis.
g. Cut the small PCA from the large power supply PCA (see Figure 27).
h. Cut three capacitors from the PCA, as shown in Figure 27.

3.2 Optional Graphic. If the disassembly process is complex, insert a graphic illustration below to identify the items contained in the product that require selective treatment (with descriptions and arrows identifying locations).

FIGURE 1: Removing the access panel.

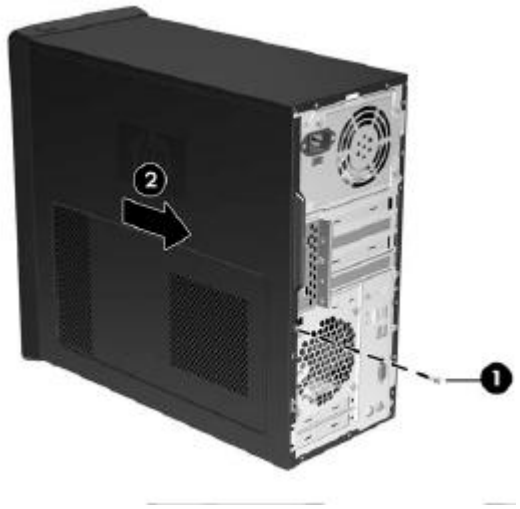

FIGURE 2: Removing the front bezel

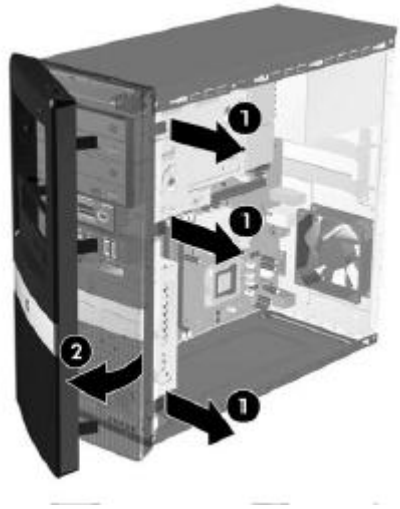

FIGURE 3: Type 1 battery holder

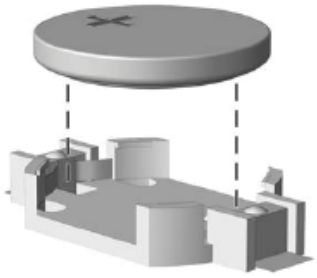

FIGURE 4: Type 2 battery holder

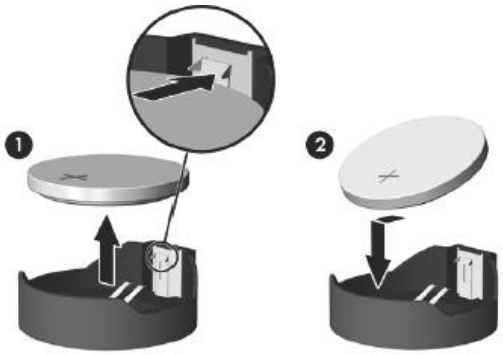

FIGURE 5: Type 3 battery holder

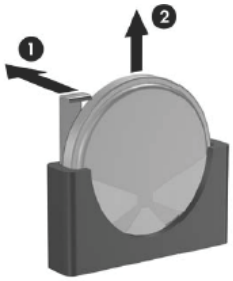

FIGURE 6: Removing the system board – screw locations

FIGURE 7: Power supply screw locations

FIGURE 8: Removing the power supply – tab location

FIGURE 9: POWER SUPPLY 1: Plastic tie and screw locations

FIGURE 10: POWER SUPPLY 1: Screw locations

FIGURE 11: POWER SUPPLY 1: Large PCA screw locations

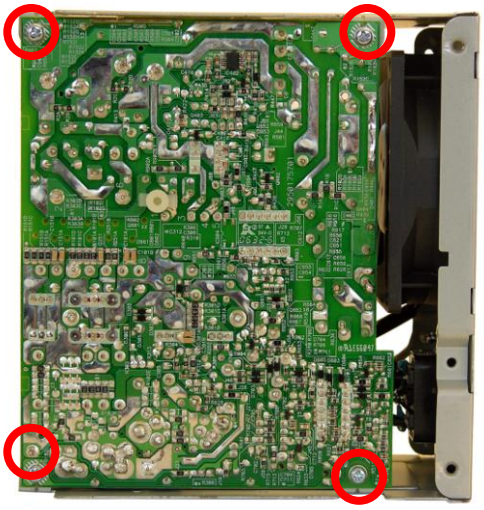

FIGURE 12: POWER SUPPLY 1: Capacitors (5) to cut

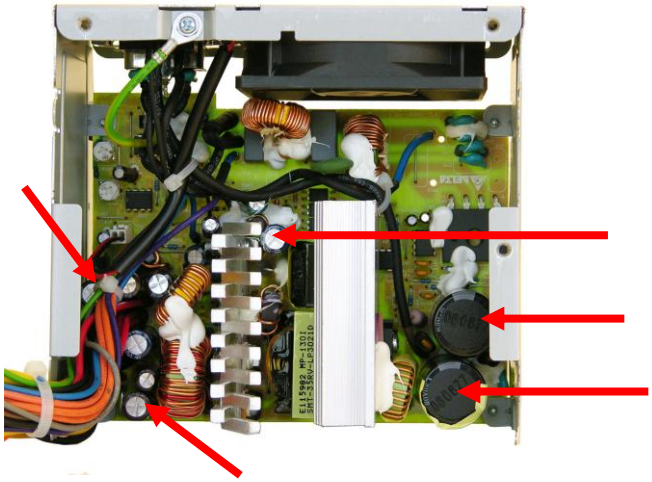

FIGURE 13: POWER SUPPLY 2: Screw locations

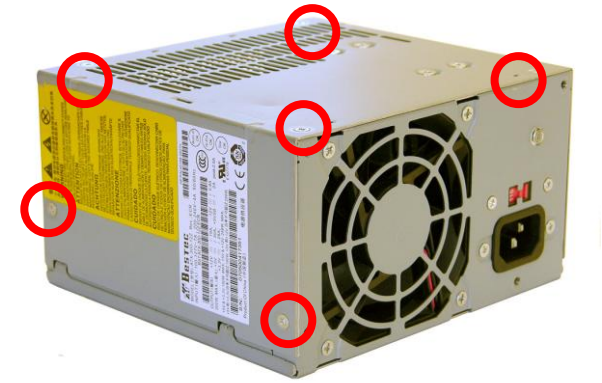

FIGURE 14: POWER SUPPLY 2: Screw and plastic tie location

FIGURE 15: POWER SUPPLY 2: PCA screw locations and capacitors (3) to cut

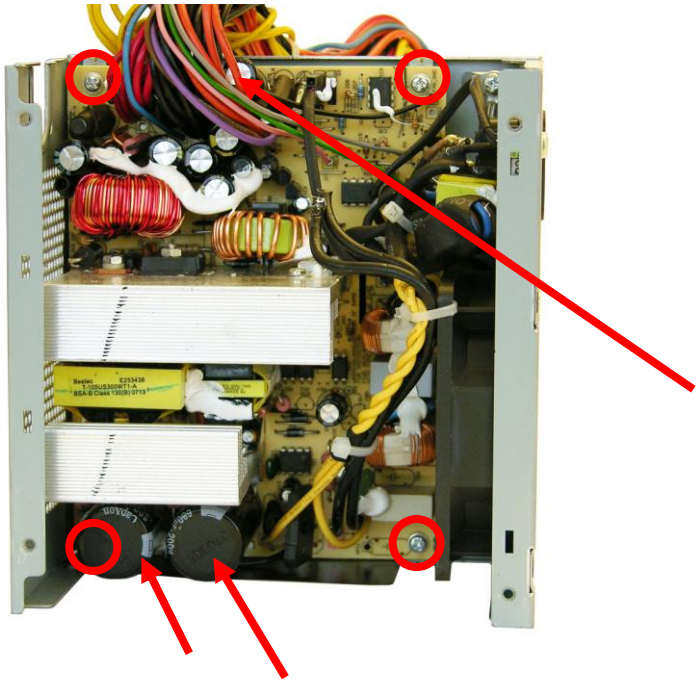

FIGURE 16: POWER SUPPLY 3: Screw locations

FIGURE 17: POWER SUPPLY 3: Plastic tie location

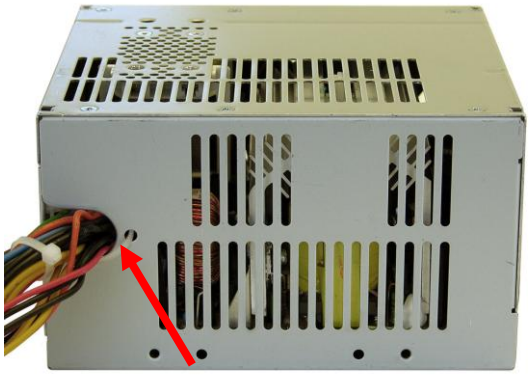

FIGURE 18: POWER SUPPLY 3: Small PCA and capacitors (3) to cut

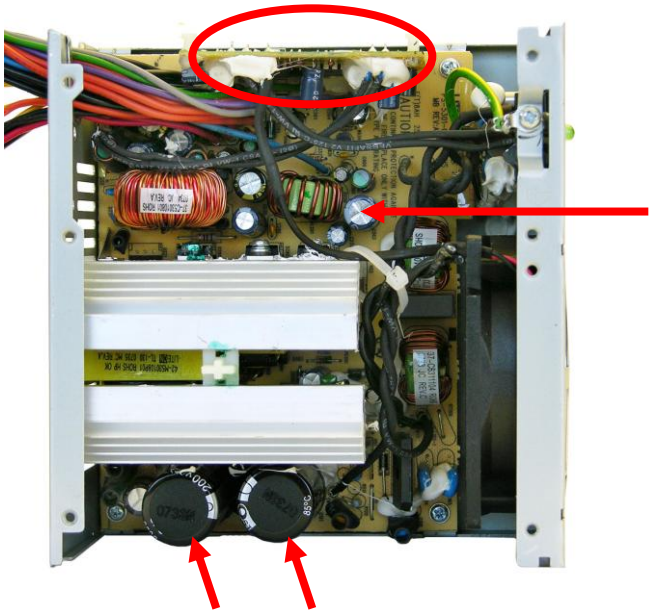

FIGURE 19: POWER SUPPLY 4: Plastic tie and screw locations

FIGURE 20: POWER SUPPLY 4: Screw locations

FIGURE 21: POWER SUPPLY 4: Large PCA screw locations

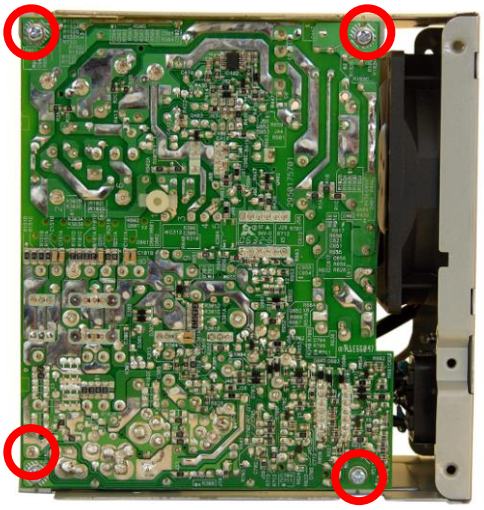

FIGURE 22: POWER SUPPLY 4: Capacitors (5) to cut

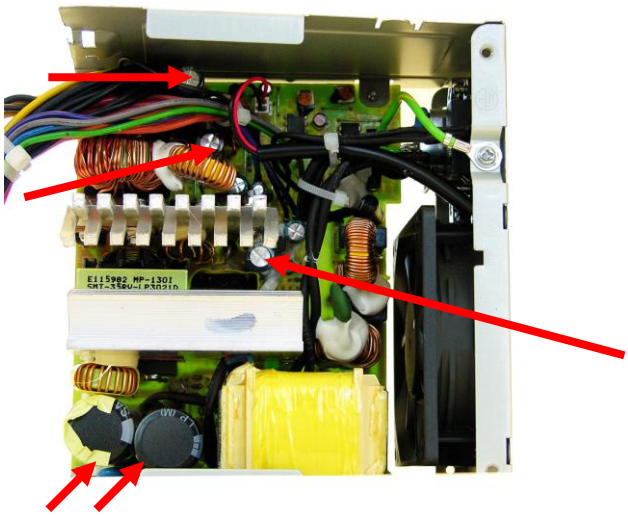

FIGURE 23: POWER SUPPLY 5: Screw locations

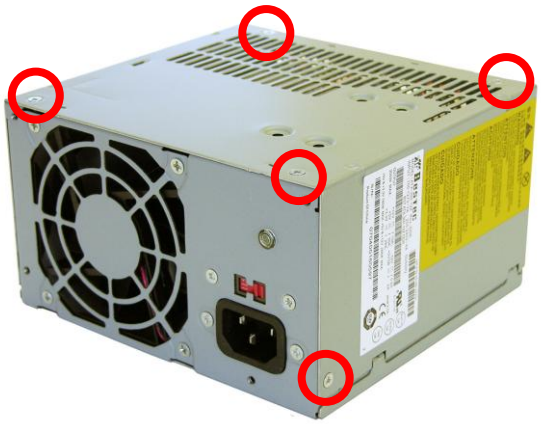

FIGURE 24: POWER SUPPLY 5: Screw and plastic tie locations

FIGURE 25: POWER SUPPLY 5: Large PCA screw locations and capacitors (4) to cut

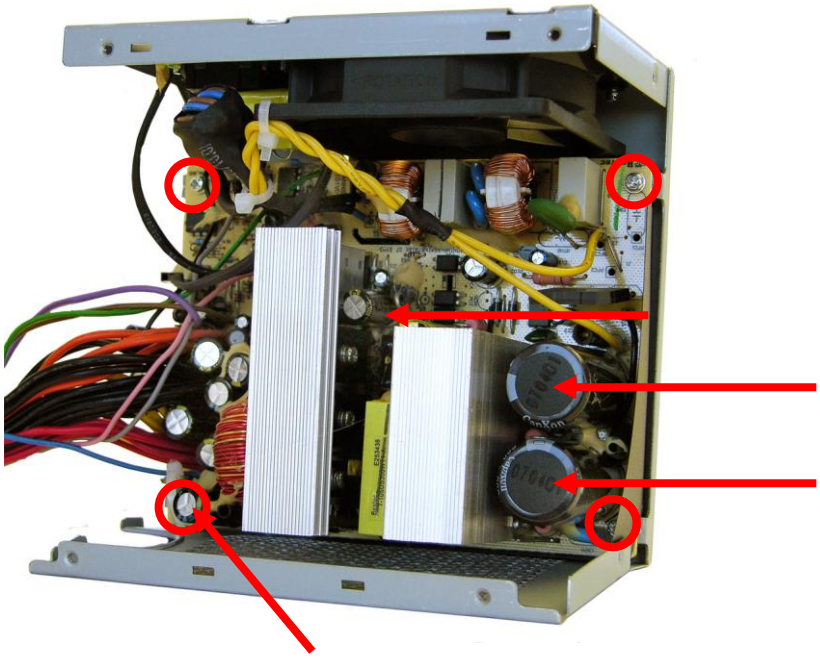

FIGURE 26: POWER SUPPLY 6: Screw and plastic tie locations

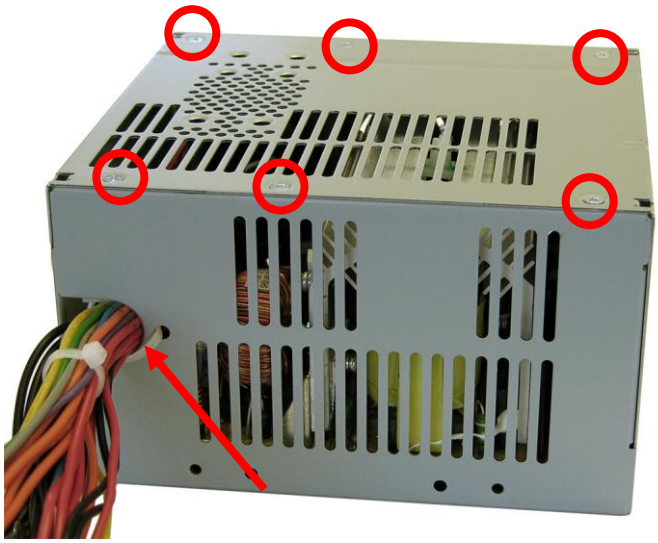

FIGURE 27: POWER SUPPLY 6: PCA screw locations, small PCA, and capacitors (3) to cut