# Product End-of-Life Disassembly Instructions

| Product Category: Personal Computers |
|---|
| **Marketing Name / Model [List multiple models if applicable.]** |
| HP Compaq dc5850 Small Form Factor Business PC |
| Name / Model #2 |

**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 or 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 | | 2, 4, or 5 |
| 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 |
|---|---|---|---|---|
| Main bezel | Main bezel | 75g | >ABS< | |
| Fan holder | Fan holder | 54g | >PC FR(40)< | |
| Fan duct | Fan duct | 48g | >PC+ABS FR(40)< | |
| Tower stand | Tower stand | 126g | >ABS< | |

## 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, press the buttons on the left and right sides of the computer (1), slide the access panel back until it stops, and then lift it up and off the chassis (2) (see Figure 1).
2. Lift up the green latch behind the upper right side of the bezel and push down on the latch behind the lower right side of the bezel (1), then pull the right side of the bezel off the chassis (2), followed by the left side. (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 (see Figure 6):
   a. Remove the fan shroud from the chassis.
   b. Rotate the drive cage to its upright position.
   c. Rotate the power supply to its full upright position.
   d. Disconnect all data and power cables from the system board.
   e. Disconnect the serial port from the system board.
   f. 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.
   g. Remove the seven screws that secure the system board to the chassis.
   h. Lift up the front of the system board, and then pull the system board forward, up, and out of the chassis.
6. To remove the power supply (see Figure 7):
   a. Rotate the drive cage up and disconnect the power cables from all of the drives.
   b. Disconnect the power cables from the system board.
   c. Release the power supply cables from the cable retaining clips on the bottom of the chassis and under the drive cage.
   d. Rotate the power supply to its full upright position, pull the power supply forward (1), and then lift the power supply straight up and out of the chassis (2).

7. HP uses seven different power supply vendors. The power supply cover is removed using the same procedure for each power supply; however, the internal components differ for all of the power supplies. To remove the power supply cover:
   a. Using dikes, cut the two plastic clamps that secure the wires to the power supply cover (see Figure 9).
   b. Using a phillips screwdriver, remove the four screws from the top, two screws from the back, and two screws from the front of the power supply, that secure the cover to the power supply (see Figures 8, 9, & 10).
   c. Lift the covers off the power supply. The cover you remove is in two pieces, and hinges connect the covers to the power supply chassis.
   After you remove the cover, refer to the procedures below for the remaining power supply disassembly instructions:

POWER SUPPLY 1:
1. Using dikes, cut all wires connected to the PCA in the power supply.
2. Remove the three screws that secure the power supply PCA to the chassis (see Figure 11).
3. Remove the power supply PCA from the power supply chassis.
4. Cut two capacitors from the PCA as shown in Figure 11.

POWER SUPPLY 2:
1. Using dikes, cut all wires connected to the PCA in the power supply.
2. Remove the three screws that secure the power supply PCA to the chassis (see Figure 12).
3. Remove the power supply PCA from the power supply chassis.
4. Cut the small PCA from the large PCA as shown in Figure 12.
5. Cut four capacitors from the large PCA as shown in Figure 12.

POWER SUPPLY 3:
1. Using dikes, cut all wires connected to the PCA in the power supply.
2. Remove the three screws that secure the power supply PCA to the chassis (see Figure 13).
3. Remove the power supply PCA from the power supply chassis.
4. Cut the small PCA from the large PCA as shown in Figure 13.
5. Cut five capacitors from the large PCA as shown in Figure 13.

POWER SUPPLY 4:
1. Using dikes, cut all wires connected to the PCA in the power supply.
2. Remove the three screws that secure the power supply PCA to the chassis (see Figure 14).
3. Remove the power supply PCA from the power supply chassis.
4. Cut five capacitors from the PCA as shown in Figure 14.

POWER SUPPLY 5:
1. Using dikes, cut all wires connected to the PCA in the power supply.
2. Remove the three screws that secure the power supply PCA to the chassis (see Figure 15).
3. Cut five capacitors from the PCA as shown in Figure 15.

POWER SUPPLY 6:
1. Using dikes, cut all wires connected to the PCA in the power supply.
2. Remove the three screws that secure the power supply PCA to the chassis (see Figure 16).
3. Remove the power supply PCA from the power supply chassis.
4. Cut four capacitors from the PCA as shown in Figure 16.

POWER SUPPLY 7:
1. Using dikes, cut all wires connected to the PCA in the power supply.
2. Remove the three screws that secure the power supply PCA to the chassis (see Figure 17).
3. Remove the power supply PCA from the power supply chassis.
4. Cut the small PCA from the large PCA as shown in Figure .
5. Cut four capacitors from the large PCA as shown in Figure 17.

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.

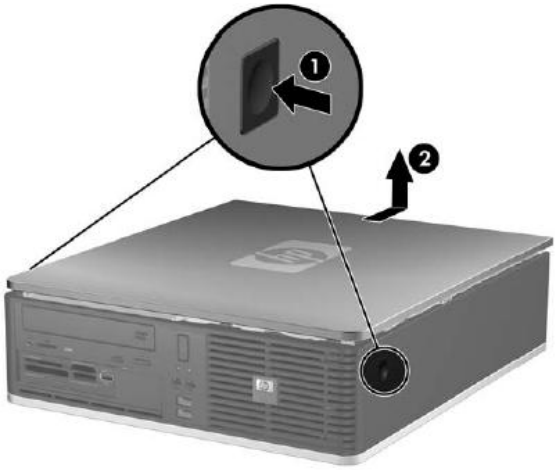


FIGURE 2: Removing the front bezel

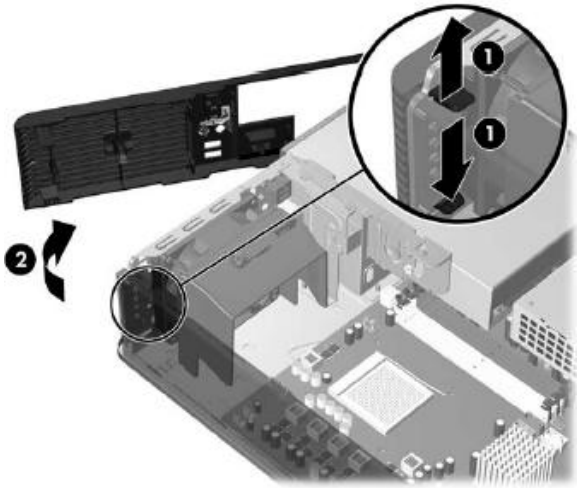


FIGURE 3: Type 1 battery holder

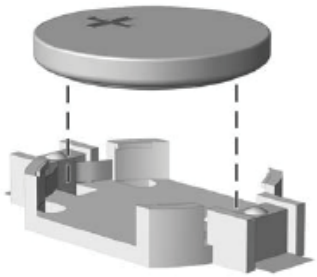

FIGURE 4: Type 2 battery holder

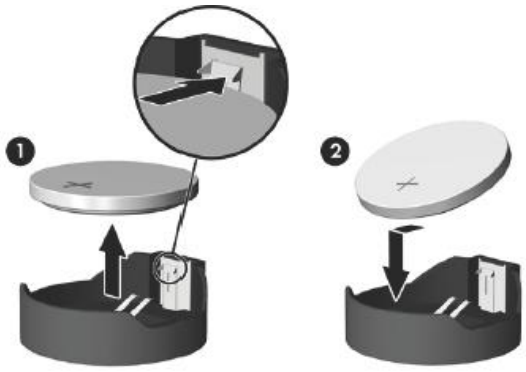


FIGURE 5: Type 3 battery holder

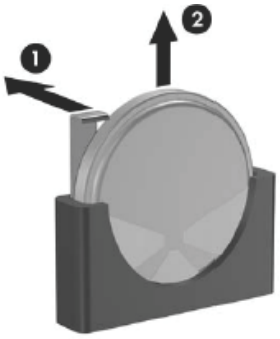


FIGURE 6: Removing the system board – screw locations

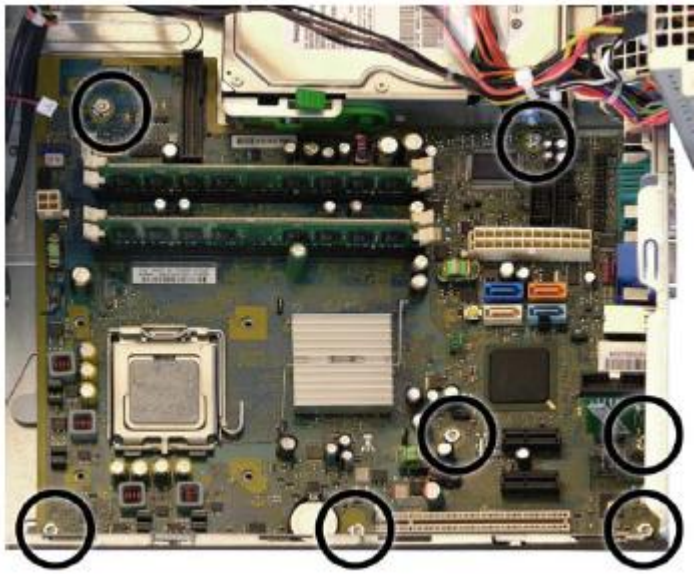

FIGURE 7: Removing the power supply

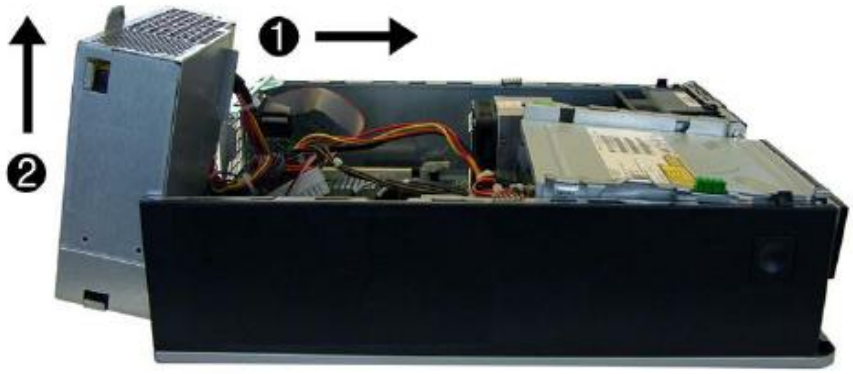


FIGURE 8: Power supply cover screw locations (top)

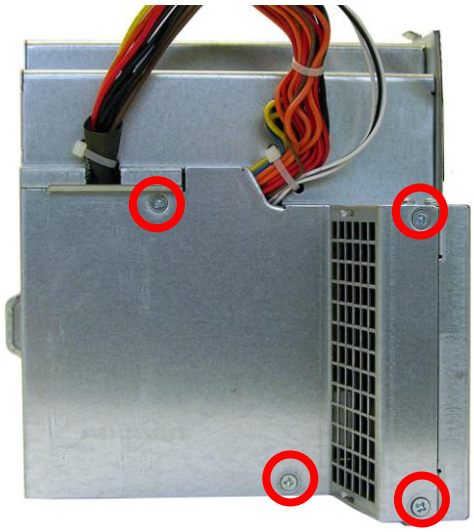

FIGURE 9: Power supply cover screw locations and plastic tie locations

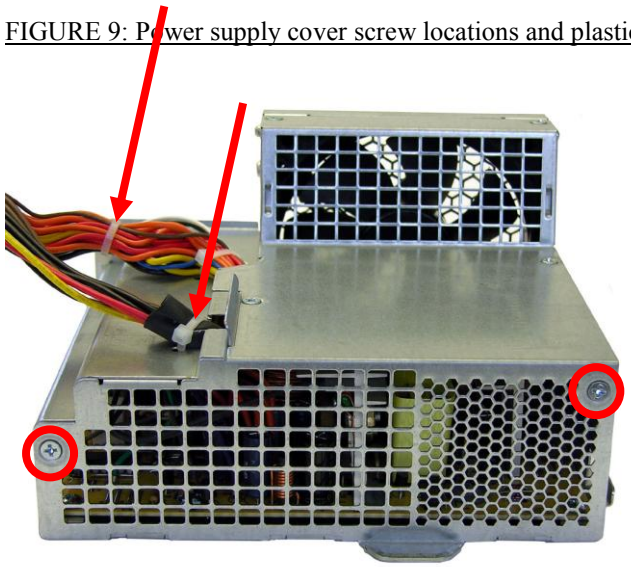

FIGURE 10: Power supply cover screw locations

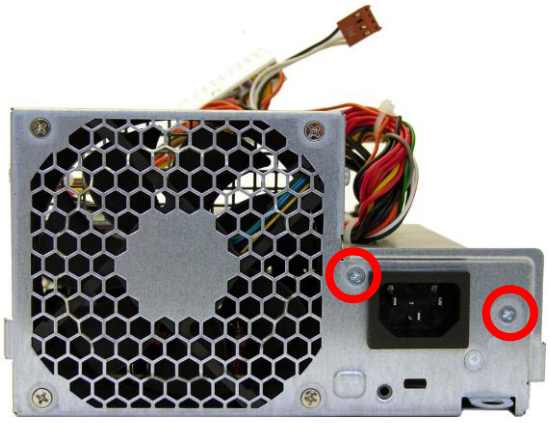

FIGURE 11: POWER SUPPLY 1: PCA screw locations and capacitors (2) to cut

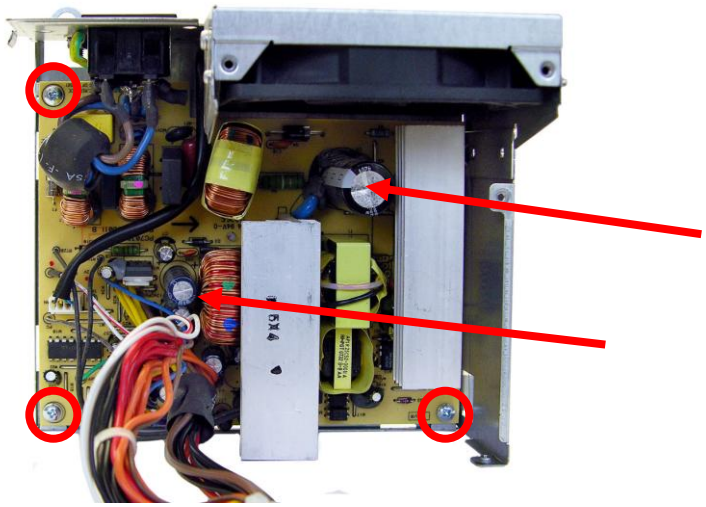

FIGURE 12: POWER SUPPLY 2: PCA screw locations; Capacitors (4) to cut

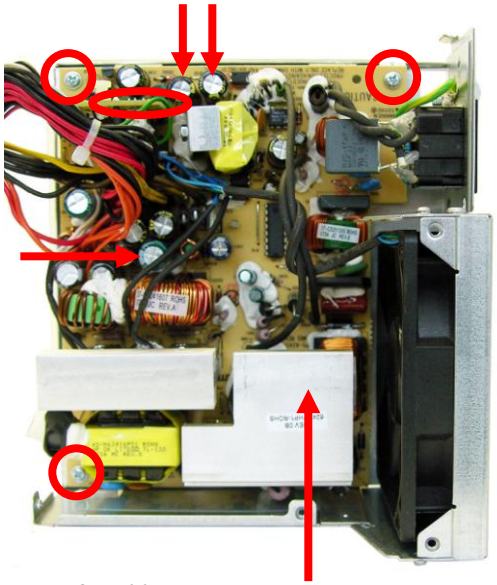

FIGURE 13: POWER SUPPLY 3: Large PCA screw locations; Capacitors (5) and small PCA to cut

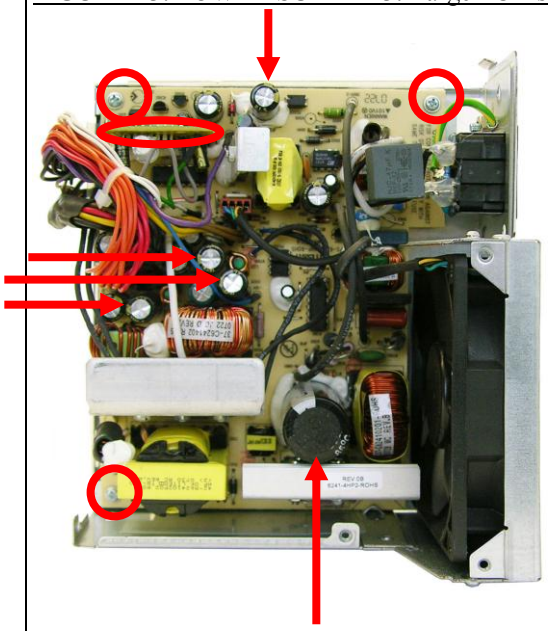

FIGURE 14: POWER SUPPLY 4: PCA screw locations; Capacitors (5) to cut

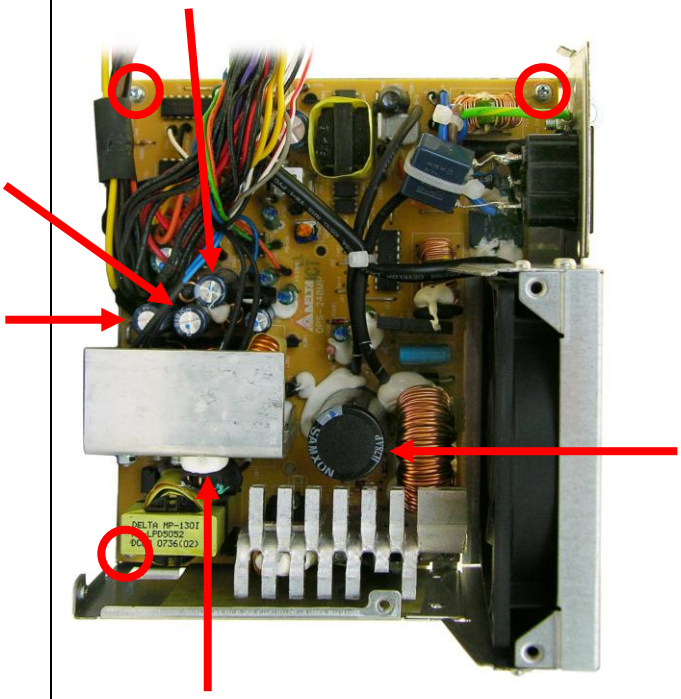

FIGURE 15: POWER SUPPLY 5: PCA screw locations; Capacitors (5) to cut

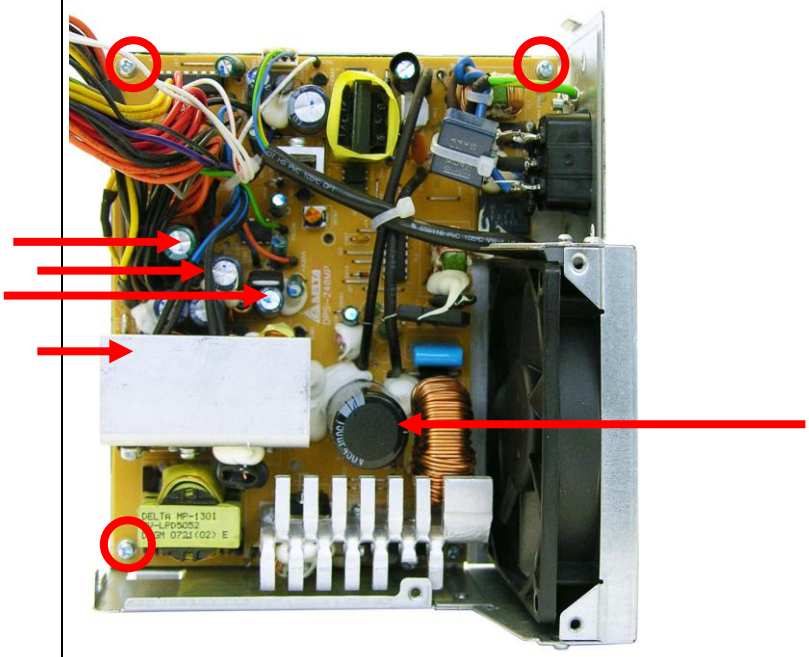

FIGURE 16: POWER SUPPLY 6: PCA screw locations; Capacitors (4) to cut

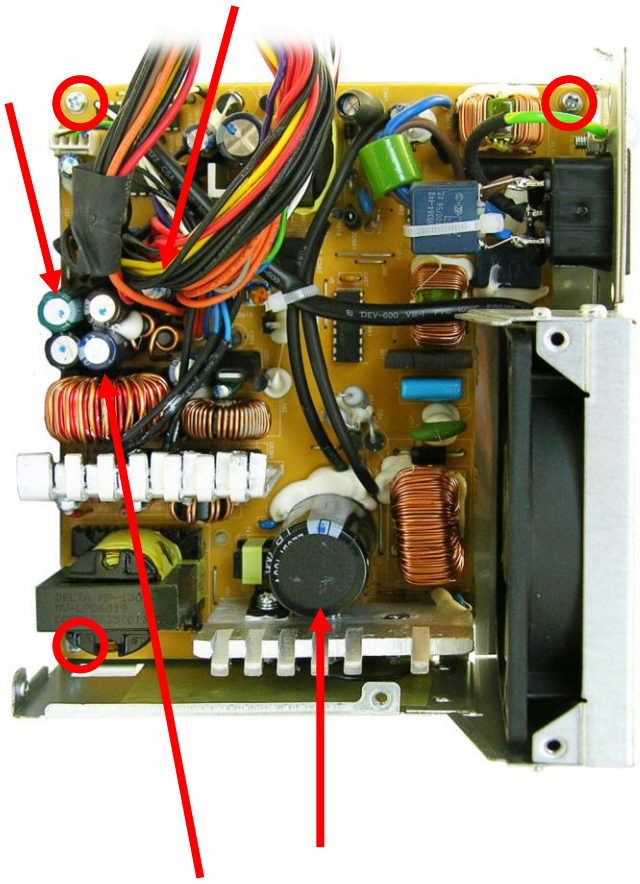

FIGURE 17: POWER SUPPLY 7: Large PCA screw locations; Capacitors (4) and small PCA to cut