

# PC9/P9 Power Supply Replacement

## Introduction

These instructions explain how to replace the power supply in the PC9 Industrial PC or the P9 PowerStation. They include steps for disassembling the unit, removing the previously installed power supply, installing the new power supply, and reassembling the unit.



**Warning** For safety reasons, the unit should be opened only by qualified service personnel.

**Warning** Be sure to observe electrostatic discharge (ESD) precautions while working inside the unit.

**To complete this procedure, you will need the following items:**

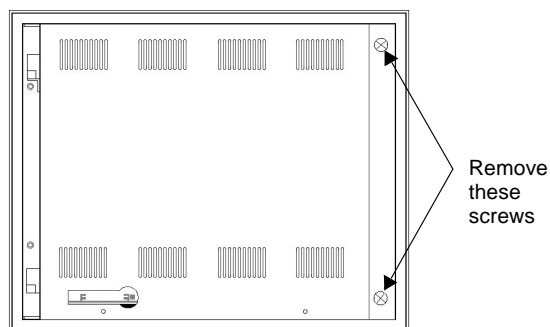
- PC9/P9 Replacement Power Supply (P9X-PWR)
- Phillips-head screwdriver

## Disassembling the Unit

**To disassemble the unit, follow these steps:**

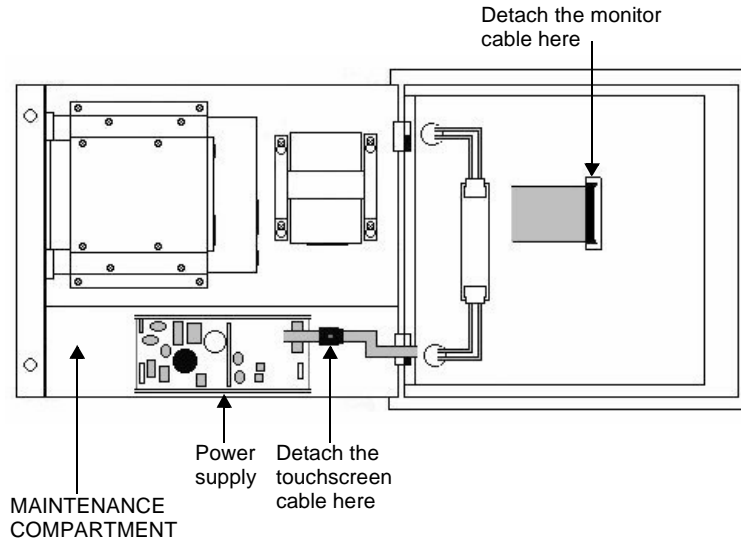
1. Turn off the unit.
2. Disconnect the unit from the power source.
3. Disconnect all cables attached to the unit.
4. Remove the two screws securing the backshell to the faceplate assembly, as shown in Figure 1.

**Figure 1: Opening the Backshell**



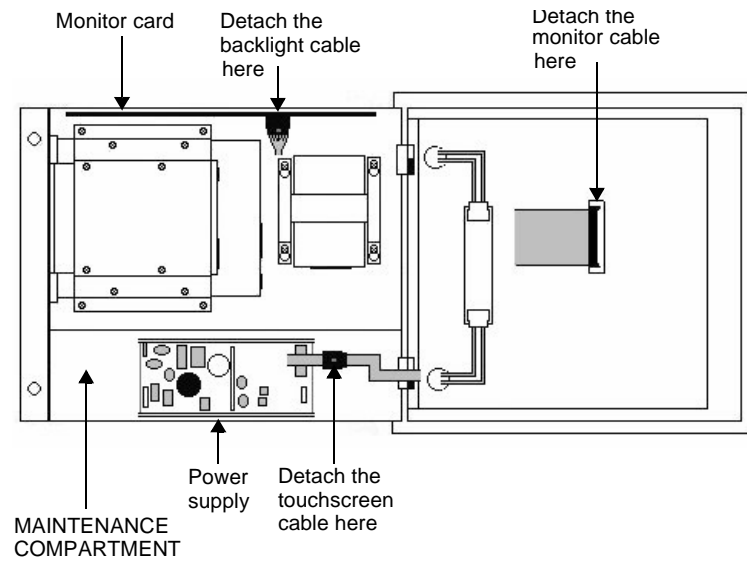
5. Swing the backshell away from the faceplate.
6. If you have a PC9, detach the two cables connecting the faceplate assembly and backshell, as shown in Figure 2. Then go to step 8.

**Figure 2: Disconnecting PC9 Cables**



- a. Detach the monitor (ribbon) cable from its connection at the center of the monitor frame (push back the locking clamps from either side of the monitor).
  - b. If your system has a touchscreen, detach the touchscreen cable from its extender in the maintenance compartment.
7. If you have a P9, detach the three cables connecting the faceplate assembly and backshell, as shown in Figure 3 on page 3.
    - a. Detach the monitor (ribbon) cable from its connection at the center of the monitor frame (push back the locking clamps from either side of the connector).
    - b. If your system has a touchscreen, detach the touchscreen cable from its extender in the maintenance compartment.
    - c. Detach the backlight cable from its connection on the monitor card (press down on the small tab at the center of the connector and pull the cable out).

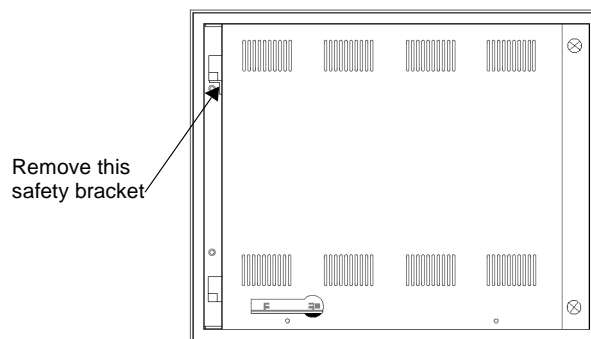
**Figure 3: Disconnecting P9 Cables**



8. Remove the bracket below the upper hinge of the backshell by removing the screw that holds the bracket in place. This bracket is shown in Figure 4.

**Warning** Make sure that both the faceplate assembly and backshell are supported when you remove this bracket and when you open the backshell.

**Figure 4: Removing the Safety Bracket**



9. Lift the backshell off its hinges, and place it on a static dissipative mat, in a location free from dirt and moisture and protected against static discharge. You may leave the faceplate mounted in the enclosure.

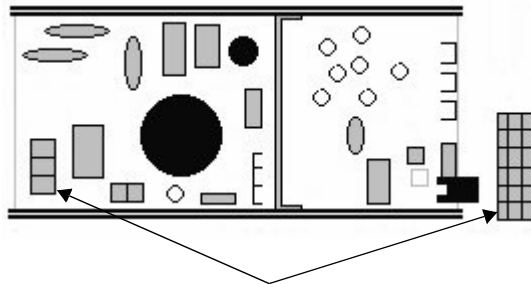
**Warning** When lifting the backshell, grasp it from the outside. If you have a P9, be careful **not** to touch the monitor card, located inside the top of the maintenance compartment. The monitor card is shown in Figure 3 on page 3.

## Removing a Power Supply

To remove the previously installed power supply, follow these steps:

1. Locate the power supply in the lower right portion of the maintenance compartment, as shown in the illustration on Figure 2 on page 2 or Figure 3 on page 3.
2. Disconnect the cables at the left and right sides of the power supply, as shown in Figure 5.

**Figure 5: Disconnecting the Power Supply Cables**



Disconnect cables here

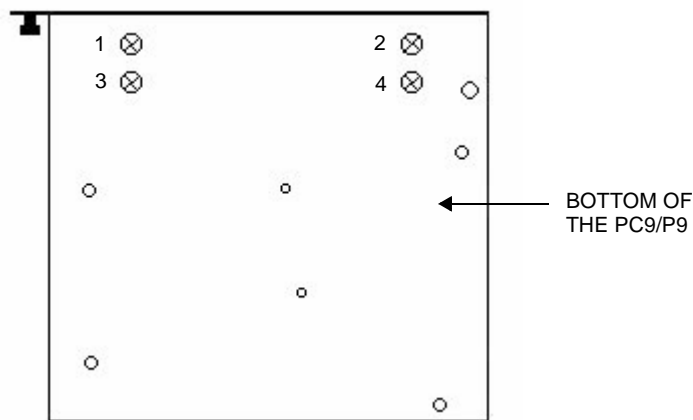
**Important** Each set of cables is gathered in a cable harness, and each harness has a plastic tab that you must pull back in order to detach the harness.

- a. Detach the cables on the left from the power supply itself.
  - b. Detach the cables on the right from the connector just to the right of the power supply.
3. Lay the backshell on its back so that the bottom of the backshell is facing you.

4. While holding the power supply in place, remove the four retaining screws that secure the power supply to the bottom of the unit. These screws (1, 2, 3, and 4) are shown in Figure 6.

**Important** These four screws are of different sizes, and two (screws 1 and 2) are secured by nuts on the inside of the unit. Be sure to capture the nuts when you remove the screws. When you install the new power supply, replace the same size screws in the same locations as the ones you removed.

**Figure 6: Removing the Power Supply Retaining Screws**



Remove screws 1, 2, 3, and 4

## Installing a New Power Supply

**To install the new power supply, follow these steps:**

1. Place the new power supply in the PC9/P9, aligning the screw holes in the bottom of the power supply with those in the bottom of the unit.
2. Replace the four screws that you removed when removing the old power supply in step 4 on page 5. Be sure to include the nuts with screws 1 and 2.
3. Re-attach the two sets of cables that you disconnected from the old power supply in step 2 on page 4.
4. Turn the backshell upright.

## Reassembling the Unit

**To reassemble the unit, follow these steps:**

1. Replace the backshell on its hinges.

**Warning** When lifting the backshell, grasp it from the outside. If you have a P9, be careful **not** to touch the monitor card, located inside the top of the maintenance compartment. The monitor card is shown in Figure 3 on page 3.

2. Re-attach the backlight cable, touchscreen cable (if necessary), and monitor cable (if you have a P9) to their connections. (Press the monitor cable connector into its socket until the locking clamps on either side of the socket snap into place).
3. Close the backshell against the faceplate assembly.
4. Replace the bracket that you removed in step 8 on page 3, and fasten it in place with its retaining screw.
5. Fasten the backshell to the unit by replacing the two screws that you removed in step 4 on page 1.
6. Reconnect power and other cables to the unit.
7. Reconnect the unit to the power source.

Your power supply replacement is complete. You may now restart the unit.