

PC9/P9 CPU Card Replacement

Introduction

These instructions explain how to replace the CPU card in the PC9 Industrial PC or the P9 PowerStation. They include steps for disassembling the unit, removing the old CPU card, installing a new card, 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:

- CPU Board Replacement Kit CPU-9000
- 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 on page 2.
5. Swing the backshell on its hinges away from the faceplate.

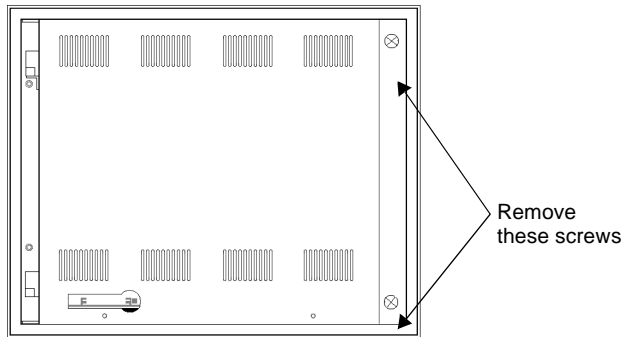


Figure 1: : Opening the Backshell

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

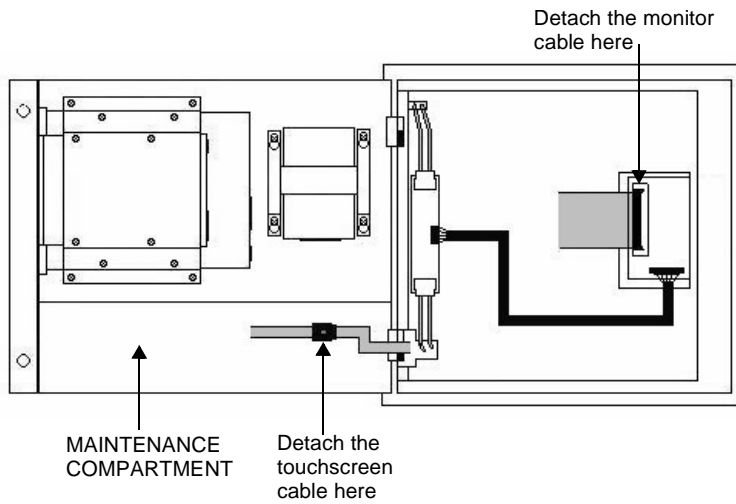


Figure 2: : Disconnecting PC9 Cables

- 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 connector).
- 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.

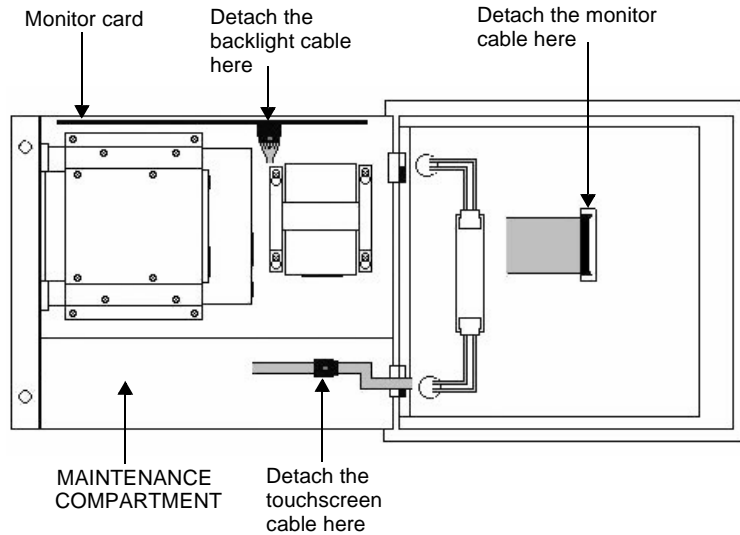


Figure 3: : Disconnecting P9 Cables

- 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 connector).
 - b. 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 on the lower half of the connector, and pull the cable out).
8. Remove the safety 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 on page 4.

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

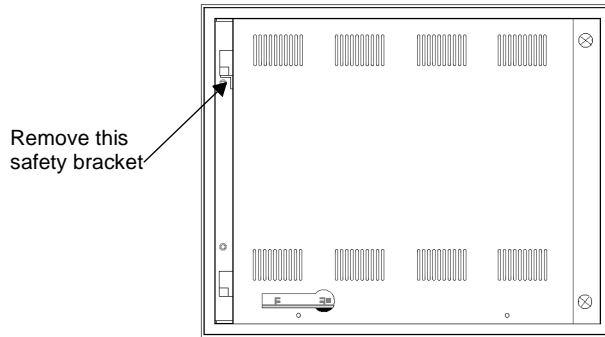


Figure 4: : Removing the Safety Bracket

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.

10. Remove the four retaining screws holding the back cover onto the unit.
11. Slide the back cover off the unit, exposing the configuration bay and the CPU card, as shown in Figure 5.

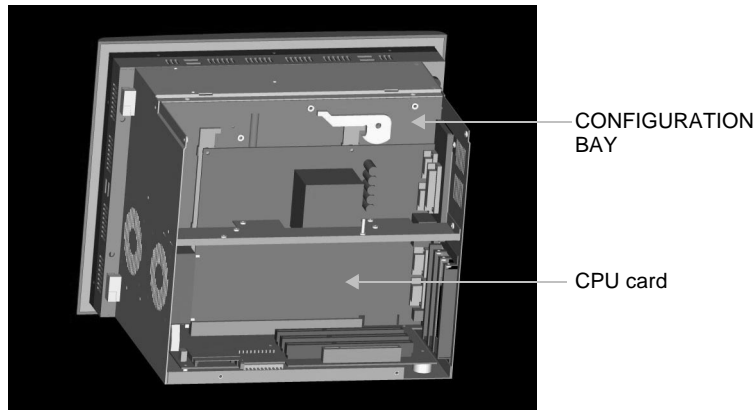


Figure 5: : Configuration Bay

Removing the Old CPU Card

To remove the previously installed CPU card, follow these steps:

1. If you have a P9, disconnect the video cable from the video port on the left side of the unit, as shown in Figure 6.

Note The PC9 does not have an internal video cable connected to the video port. If you have a PC9, you will not have to disconnect this cable.

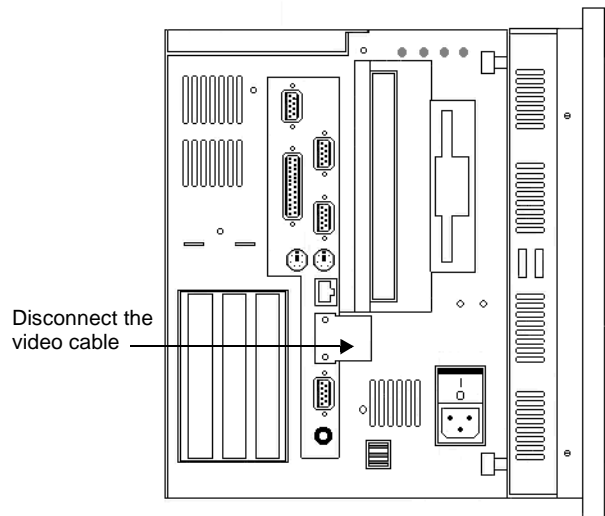


Figure 6: : Video Cable on the P9

2. Pull up on the lever connected to the top of the CPU card, as shown in Figure 7 on page 6.

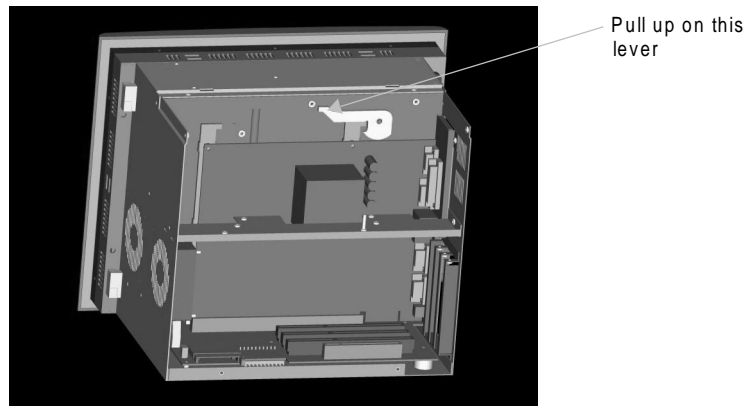


Figure 7: : CPU Card Lever

The CPU card should lift out of its socket on the riser card.

3. Grasp the CPU card and lift it all the way out of the unit.

Installing the New CPU Card

To install the new CPU card, follow these steps:

1. Slide the new CPU card into the unit.
 - Slide the plastic supports on the back of the card into the metal brackets on the back wall of the configuration bay.
 - Fit the hook on the riser lever underneath the top of the support on the back of the CPU card.
 - Guide the bottom of the CPU card into its socket on the riser card.
2. When the CPU card is inserted into its socket, push the card down until it is firmly seated in the socket.

Important Make sure that the card is inserted into the socket as far as it will go. The riser lever should lie horizontal and flush against the top of the bracket, as shown in Figure 7.

3. Re-attach the video cable that you disconnected in step 1 on page 5, when removing the old CPU card.

Reassembling the Unit

To reassemble the unit, follow these steps:

1. Fit the two tabs in the top of the back cover into the two slots at the top of the configuration bay, and slide the back cover onto the unit.
2. Fasten the back cover on the unit by replacing the four retaining screws that you removed in step 10 on page 4.
3. 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.

4. 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).
5. Close the backshell against the faceplate assembly.
6. Replace the safety bracket that you removed in step 8 on page 3, and fasten it in place with its retaining screw.
7. Fasten the backshell to the unit by replacing the two screws that you removed in step 4 on page 1.
8. Reinstall the unit in its enclosure.
9. Reconnect power and other cables to the unit.

Your CPU card replacement is complete. You may now restart the unit.

