

PC9/P9 Backlight Replacement

Introduction

These instructions explain how to replace backlight bulbs in the PC9 Industrial PC or P9 PowerStation. They include steps for disassembling the unit, removing the old bulbs, installing new ones, and reassembling the unit. Backlight bulbs tend to have a consistent life span. For this reason, you may wish to replace both bulbs at the same time.



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:

- The backlight bulb replacement kit that you purchased:
 - 12" Backlight Bulb Replacement Kit (BLR-7000)
 - 15" Backlight Bulb Replacement Kit (BLR-8000)
- Small flat-tipped screwdriver
- Phillips-head screwdriver

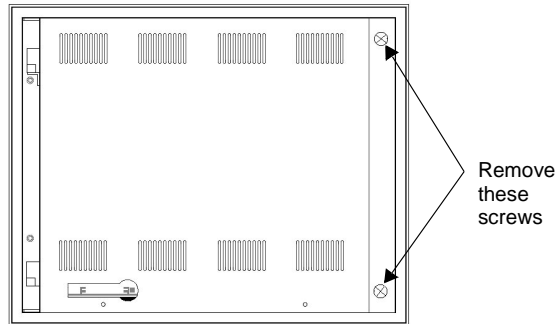
Disassembling the Unit

To disassemble the unit, follow these steps:

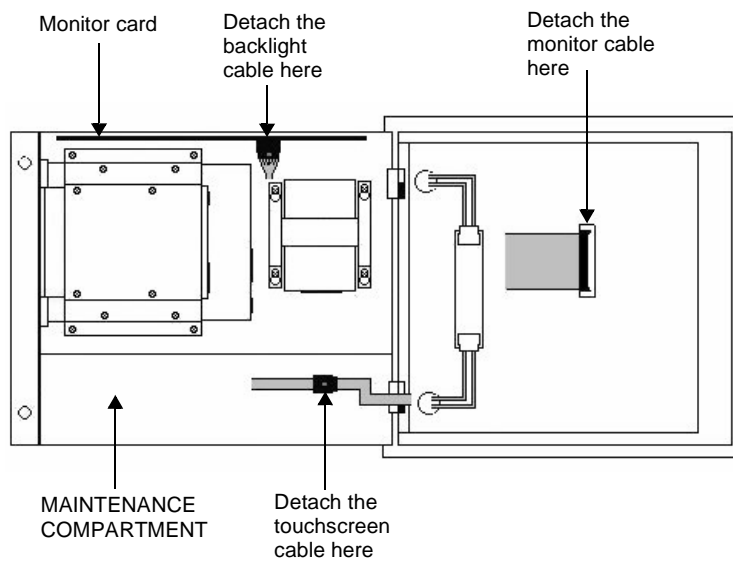
1. Turn off the unit.
2. Disconnect the unit from the power source.
3. Disconnect all cables attached to the unit.
4. Remove the unit from its enclosure, and place it on a static dissipative mat in a location free from dirt and moisture and protected against static discharge.

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5. Remove the two screws securing the backshell to the faceplate assembly, as shown below.



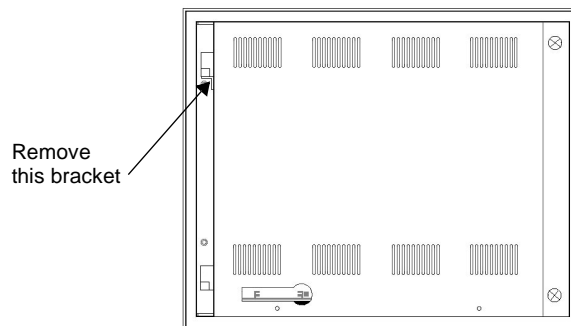
6. Swing the backshell away from the faceplate.
7. Detach the three cables connecting the faceplate assembly and backshell. These cables are shown below.



- 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 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. The bracket is shown below.

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



9. Lift the backshell off its hinges, and place it to one side.

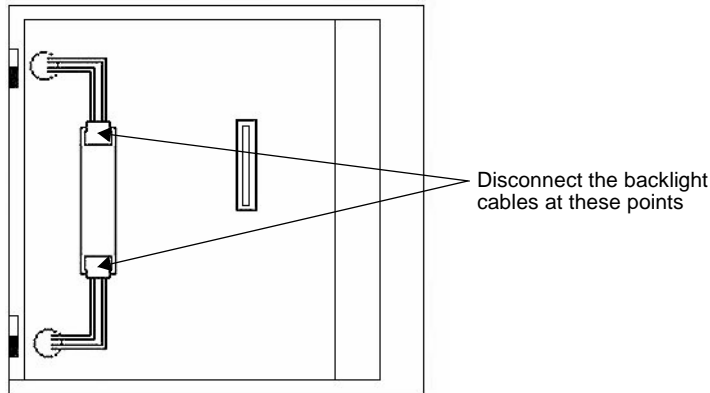
Warning When lifting the backshell, grasp it from the outside. Be careful **not** to touch the monitor card, located inside the top of the maintenance compartment.

10. Place the faceplate assembly face-down on a static dissipative mat.

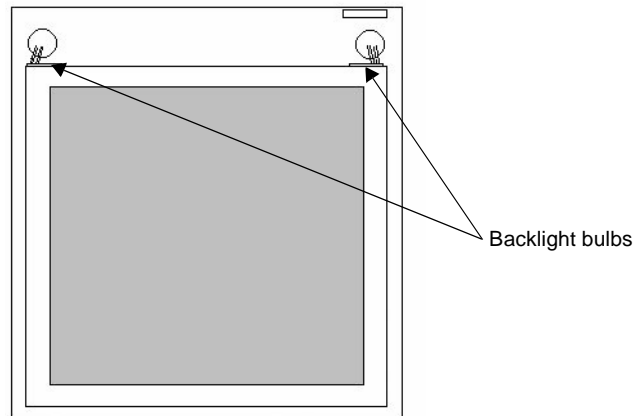
Removing Backlight Bulbs

To remove the old backlight bulbs, follow these steps:

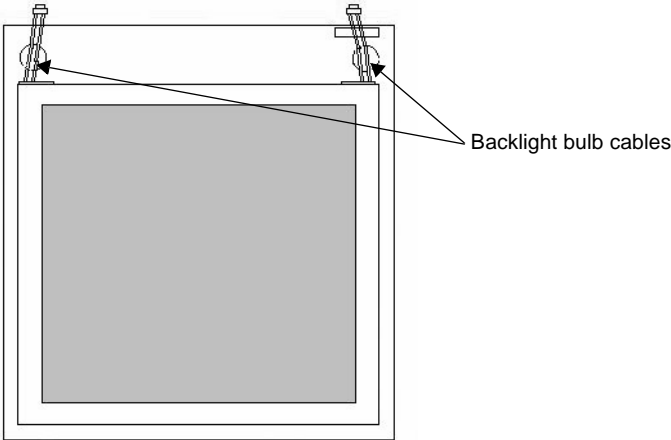
1. Remove the 10 retaining screws around the monitor frame.
2. On the left side of the monitor frame is the inverter board, to which internal cables from the backlight bulbs are fastened at the top and bottom. Disconnect these cables as shown below.



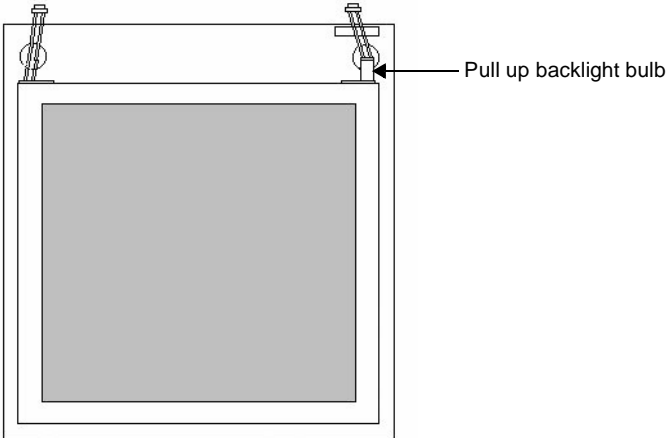
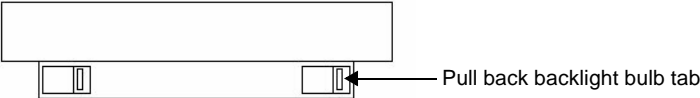
3. Lift the monitor frame from the bezel, and tilt it up on its side so that you can see the ends of the backlight bulbs facing up, as shown below.



- 4. Pull the end of the cable leading from each bulb through the hole near it in the frame so that the cables are on the same side of the frame as the bulbs. This step is shown below.



Using a small, flat-tipped screwdriver, gently pull back the white tab next to the top of each bulb, and lift the bulb out of the frame, as shown in the next two illustrations. You can most easily remove a bulb by gently pulling up on its cable.



Installing Backlight Bulbs

To install new backlight bulbs, follow these steps:

Important Make sure that all of the backlight and display components are free of dust or dirt before you assemble them.

1. Insert the new backlight bulbs into the sockets where the old bulbs were. The cable on each bulb must face up.
2. Thread the cable for each new bulb through the hole in the back of the frame near it.
3. Re-attach the cables to their connectors on the inverter board.
4. Replace the monitor frame over the bezel. As you do this, carefully feed the touchscreen cable through the space for it at the lower left side of the frame, outside in.
5. Fasten the frame in place with the 10 screws that you removed in step 1 on page 4.

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. Be careful **not** to touch the monitor card, located inside the top of the maintenance compartment.

2. Re-attach the monitor data cable, touchscreen cable (if necessary), and backlight cable that you removed in step 7 on page 2. (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 safety 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 5 on page 2.
6. Reinstall the unit in its enclosure.
7. Reconnect power and other cables to the unit.

8. Reconnect the unit to the power source.

The backlight bulb replacement is complete. You may now restart the unit.

