

3.1.9 Lab: Troubleshoot Power Supply Problems

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Time Spent: 21:16

Score: 100%

Task Summary

Required Actions

- ✓ Prepare to test the Power Supply Tester
- ✓ Test the power supply
- ✓ Remove the power supply
- ✓ Install a new power supply

Explanation

Complete this lab as follows:

1. Verify that the computer does not boot and prepare to test the power supply.
 - a. Select the **power button** on the computer to verify that it fails to boot.
 - b. Select **OK** to close the message.
 - c. Under Inventory, expand **Tools**.
 - d. Drag the **Power Supply Tester** from the Inventory to the Workspace area.
 - e. Above the computer, select the change view icon, then select **Back** to view the back of the computer.
 - f. Drag the **power cord** from the computer's power supply to the Workspace.
 - g. Above the computer, select the change view icon, then select **Drive Bays**.
 - h. Drag the **power connector** (top left) from the optical drive to the Workspace.
 - i. Drag the **power connector** (bottom left) from the SATA drive to the Workspace.
2. Test the power supply.
 - a. Above the computer, select the change view icon, then select **Motherboard**.
 - b. Select the **power supply**. Notice the two cables connected from the power supply to the motherboard are highlighted.
 - c. From the motherboard, drag the **Connector, Power Supply, 20+4 pin** power supply connector to the far-right port on the power supply tester.
 - d. From the motherboard, drag the **Connector, Power Supply, 4-pin** CPU power connector to the 4/6/8 (upper-left) port on the power supply tester.
 - e. From the Selected Item pane, drag an unconnected **Connector, SATA 15-pin** power connector to the bottom-left port on the power supply tester.
 - f. Above the computer, select the change view icon, then select **Back**.
 - g. Select the **Partial Connections icon** for the wall plate, then select the **AC power cable**.

- h. From the Selected Item pane, drag the **AC Power Connector (Female)** to the power supply port.
 - i. Zoom in for better viewing and use the information in the exhibits to determine if the power supply is faulty. In this case, blinking voltage lights, low voltage readings, and low level (LL) indicate it is faulty.
3. Remove the power supply.
 - a. If you are not already viewing the back of the computer, select the change view icon, then select **Back**.
 - b. Drag the **power cord** from the computer's power supply to the Workspace.
 - c. Above the computer, select the change view icon, then select **Motherboard**.
 - d. Drag the bad **Power Supply** to the Workspace area. Leave the cables connected to the tester.
 4. Install a power supply and reconnect power to the motherboard and SATA drives.
 - a. Under Inventory, select **Tools** to return to the main Inventory list.
 - b. Expand **Power Supplies**.
 - c. Drag the **Power Supply, ATX, 20+4 pin, PCIe** power supply to the correct area in the computer.
 - d. Verify that the new power supply is selected.
 - e. From the Selected Item pane, drag the **Connector, Power Supply, 20+4 pin** power supply connector to the motherboard port.
 - f. From the Selected Item pane, drag the **Connector, Power Supply, 4-pin processor** power connector to the motherboard port.
 - g. Above the computer, select **Drive Bays** to switch to the drive bays view of the computer.
 - h. Select the *Partial Connections icon* above the computer, then select the **Power Supply**.
 - i. From the Selected Item pane, drag a **Connector, SATA 15-pin**, to the power port on the optical drive.
 - j. From the Selected Item pane, drag a **Connector, SATA 15-pin**, to the power port on the hard drive.
 5. Provide power to the computer and start the computer.
 - a. Above the computer, select the change view icon, then select **Back**.
 - b. Under Partial Connections for the wall plate, select the **AC power cable**.
 - c. From the Selected Item pane, drag the **AC Power Connector (Female)** to the power supply port.
 - d. On the power supply, flip the **power supply switch** to the on position.
 - e. Above the computer, select the change view icon, then select **Front**.
 - f. Select the **power button** to start the computer and verify that the computer boots successfully.