2/24/2020 Simulation Viewer

Lab Report

Your Performance

Your Score: 0 of 2 (0%) Pass Status: Not Passed Elapsed Time: 1 minute 44 seconds Required Score: 100%

Task Summary

Actions you were required to perform:

- Remove the bad power supply
- X Install the 20+4 pin power supply with PCIe connectors Hide Details

■ Install the ATX 20+4 pin PCIe power supply in the case
Connect the 20+4 pin motherboard power
Connect the 4 pin CPU power
Connect power to the SATA drive
Connect power to the optical drive

Explanation

In this lab, your task is to complete the following:

- Test the power supply.
- Choose a power supply that has the following connectors:
 - The motherboard main power connector (20+4 pin)
 - The CPU power connector (4 pin)
 - A PCIe video card (6 pin)
- The customer has expressed interest in a new graphics card that requires its own power connector. Make sure that the power supply you select will support adding this card.
- Install a power supply in the computer making the following connections:
 - Connect the motherboard power connector.
 - Connect the CPU power connector.
 - Connect the power connector for the SATA hard drive and the optical drive.
 - Plug the computer in using the existing power cable that is plugged into the wall.
- Start the computer and boot into Windows. If everything is connected correctly, the computer will work.

Complete this lab as follows:

- 1. Test the power supply as follows:
 - a. On the computer, click the **power** button to turn on the computer and observe the symptoms.
 - b. In the Computer Startup dialog, click **OK**.
 - c. On the Shelf, expand **PC Tools**.
 - d. Drag the **Power Supply Tester** from the Shelf to the Workspace area.
 - e. Above the computer, select **Motherboard** to switch to the motherboard view of the computer.
 - f. On the motherboard, drag the **20+4 pin power supply connector** to the port on Power Supply Tester.
 - g. On the motherboard, drag the **4-pin CPU power connector** to the 4/6/8 port on Power Supply Tester.
 - h. Under Selected Component, drag an unconnected 15-pin SATA power connector to the port on the Power Supply Tester.

What do the lights and values on the Power Supply Tester indicate? The power supply is bad.

- 2. Remove the power supply as follows:
 - a. Above the computer, select **Back** to switch to the back view of the computer.
 - b. Drag the *power cord* from the power supply to the Workspace.
 - c. Above the computer, select **Drive Bays** to switch to the drive bays view of the computer.
 - d. Drag the *power connector* from the SATA drive to the Workspace.

2/24/2020 Simulation Viewer

- e. Drag the *power connector* from the optical drive to the Workspace.
- f. In the Workspace, disconnect the *connectors* from the Power Supply Tester.
- g. Above the computer, select **Motherboard** to switch to the motherboard view of the computer.
- h. Drag the **power supply** to the Workspace area.
- 3. Install a power supply as follows:
 - a. On the Shelf, expand **Power Supplies**.
 - b. Select a *power supply*.
 - c. Under Selected Component, examine each of the power *connectors* looking for all of the connectors required for this scenario.
 - d. From the Shelf, drag the **Power Supply, ATX, 20+4 pin, PCIe** to the correct area in the computer.
 - e. Under Selected Component, drag the **20+4 pin power supply connector** to the motherboard connector to connect the motherboard main power connector.
 - f. Under Selected Component, drag the 4-pin CPU power connector to the motherboard connector
- 4. Connect the SATA hard drive power as follows:
 - a. Above the computer, select **Drive Bays** to switch to the drive bays view of the computer.
 - b. Under Selected Component, drag the **SATA power connector** to the location on the hard drive.
 - c. Under Selected Component, drag the **optical drive power connector** to the location on the hard drive.
- 5. Plug the computer into the wall outlet as follows:
 - a. Above the computer, select **Back** to switch to the back view of the computer.
 - b. Under Partial Connections for the wall plate, select the **power cord**.
 - c. Under Selected Component, drag the **AC Power Connector** to the power supply port.
 - d. On the power supply, click the **power supply switch** to turn it to the on position.
 - e. Above the computer, select **Front** to switch to the front view of the computer.
- 6. On the computer, click the **power** button to turn on the computer and verify that the computer boots into Windows.