2.4.2 Tool Facts

The following devices and components are used for computer repair and maintenance.

Tool	Description
Combination Ratchet/Screwdriver	A *combination ratchet* is a ratcheting handle with interchangeable bits that provides multiple features in a single tool. ▪ Bit ends can be replaced with Phillips and flat-head screwdrivers, hex sockets, and torx (star-shaped) bits. ▪ The ratcheting handle allows you to drive the screw without repositioning the driver. Most computer components use Phillips head screws.
IC Insertion and Extraction Tool	An IC insertion and extraction tool is used to add or remove integrated circuit chips that are used on motherboards and some computer components. For example, on some motherboards, you can use the IC insertion and extraction tool to change the BIOS chip.
Antistatic Pad/Wrist Strap	An antistatic pad provides an insulated covering to prevent static electricity from moving between objects and damaging computer components. When working with computer components, use a wrist strap connected to the antistatic pad and connect the pad to a ground.
Extension Magnet	An *extension magnet* is a small magnet on a collapsible rod. Use the extension magnet to retrieve screws that have fallen into a computer case or other areas you cannot reach. As an alternative to a magnet, use an extension tool with retractable prongs.
Three-Pronged Parts Retriever	A three-pronged parts retriever is used to grasp and retrieve small parts that have fallen into areas that are difficult to reach.
Multimeter	A *multimeter* is a device that tests various electrical properties. For example, most multimeters can measure: ▪ AC and DC voltage ▪ Current (amps) ▪ Resistance (ohms) ▪ Capacitance ▪ Frequency
Power Supply Tester	A *power supply tester* is a custom multimeter used to test output from a PC power supply. The power supply tester has multiple connectors to test the output for each connector type.
Cable Tester	A *cable tester* verifies that a network can carry a signal from one end to the other and that all wires within the connector are in the correct positions. Most testers have a single unit that tests both ends of the cable at once. Many testers come with a second unit that you can plug into one end of a long cable run to test the entire cable.

Loopback Plug	A *loopback plug* is used to test network communications by redirecting a signal from the transmit port on a device to the receive port on the same device. Use the loopback plug to verify that a device can both send and receive signals.
Known Good Spares	*Known good spares* are a set of components that you know are in proper functioning order. If you suspect a problem in a component, swap it with the known good component. If the problem is not resolved, troubleshoot other components. Examples of using this strategy are: ▪ Changing the cable connecting a computer to the network ▪ Connecting a different monitor to a computer ▪ Replacing an expansion card
POST Card	A *POST card* is an expansion board that you insert into an expansion slot. It is typically used to troubleshoot a computer system that doesn't start up correctly. The POST card displays output from the BIOS during the Power-On Self-Test (POST).