

Router

I. Competencies

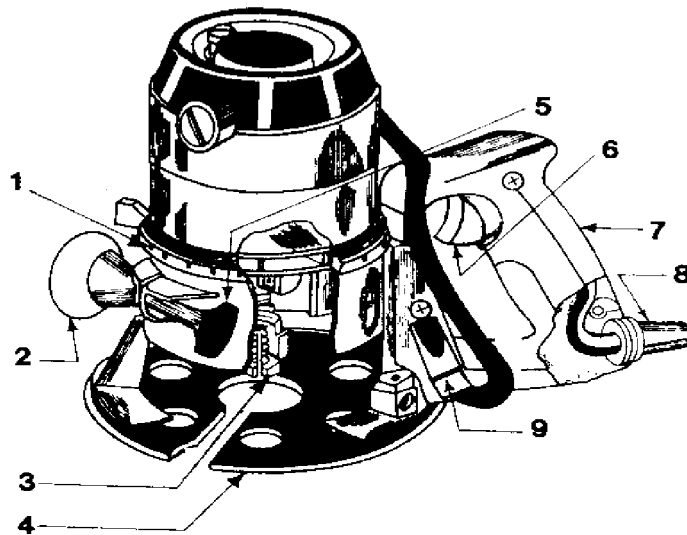
Given a properly adjusted router, instruction and demonstration of use, each student will be able to:

- A. Identify the major parts of the router.
- B. Complete a written test on safety and operating procedures of the router with 100% accuracy.
- C. Demonstrate the ability to change bits in the router, adjust router for correct depth of cut, and make router cuts while following all safety rules and correct operation procedures.

II. Instructional Materials and Procedures

A. Identification of basic router parts

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|--------------------------------|-------------------------|
| 1. Micrometer depth adjustment | 6. Trigger switch |
| 2. Guide knob | 7. D-handle |
| 3. Collet chuck | 8. Cord strain reliever |
| 4. Base | 9. Motor disconnect |
| 5. Locking handle | |



B. Router Safety

1. Check condition of the router and power cord. Make sure the handles, base switch and thumb locking screw are tight. See that the plug power cord and the cord strain reliever are not frayed, cut or pulled loose.
2. Wear safety glasses at all times while using the router.
3. Do not wear loose clothing, rings, bracelets or necklaces while operating the router.
4. Make sure the switch is off before the router is plugged into the electrical power source.
5. Have a firm grip on the router handle when you turn on the switch. Use both hands to hold the router while making cuts.
6. Make sure the router bit is not in contact with the stock before turning the switch on.
7. Be sure the stock is clamped securely to the work bench.
8. Keep the electrical cord positioned away from stock being cut to prevent the cord from being cut by the router bit.
9. Unplug the electric before making adjustments to the router or before inserting bits.
10. Do not stand on wet surfaces when using a router.
11. Wear a dust mask while using the router.

C. Operating Procedures

1. Insert the bit at least $\frac{1}{2}$ inch in the collet; then tighten the collet nut to hold the bit in place.
2. Adjust the cutter depth on the router with the electrical cord unplugged.
3. After the depth of cut adjustment is made experiment on a scrap piece of lumber to make sure it is correct. If further adjustment needs to be made, unplug the router!
4. Feed the router from the left to right on the work. Feed the router in same direction as the grain of the wood.
5. Feed the router with a uniform speed. Feeding too slowly will cause the bit to burn the wood while going too fast will result in rough cuts and excessive wear.
6. Guide the movement of the router by one of the following methods:
 - a. A straight edge clamped to the top of the wood.
 - b. A straight or circular guide attached to the router.
 - c. Bit with a pilot end.
 - d. Template or pattern.
 - e. Freehand.

7. To prevent splintering, cut the middle section first, then move the router in the same direction as the grain of the wood.
8. After completing the cut, turn off the motor but do not lift the router from the work until the bit has stopped rotating.
9. Once the cut is completed, disconnect the power source, remove the bit and clean the router.