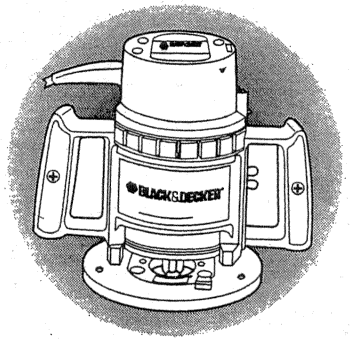
BLACK&DECKER®



INSTRUCTION MANUAL

WARNING: FOR SAFE OPERATION READ INSTRUCTION MANUAL. IF YOU HAVE ANY QUESTIONS, CALL US TOLL FREE:

1-800-762-6672

1 H.P. Router

VEA EL ESPAÑOL EN LA CONTRAPORTADA.

POUR LE FRANÇAIS, VOIR LA COUVERTURE ARRIÈRE.

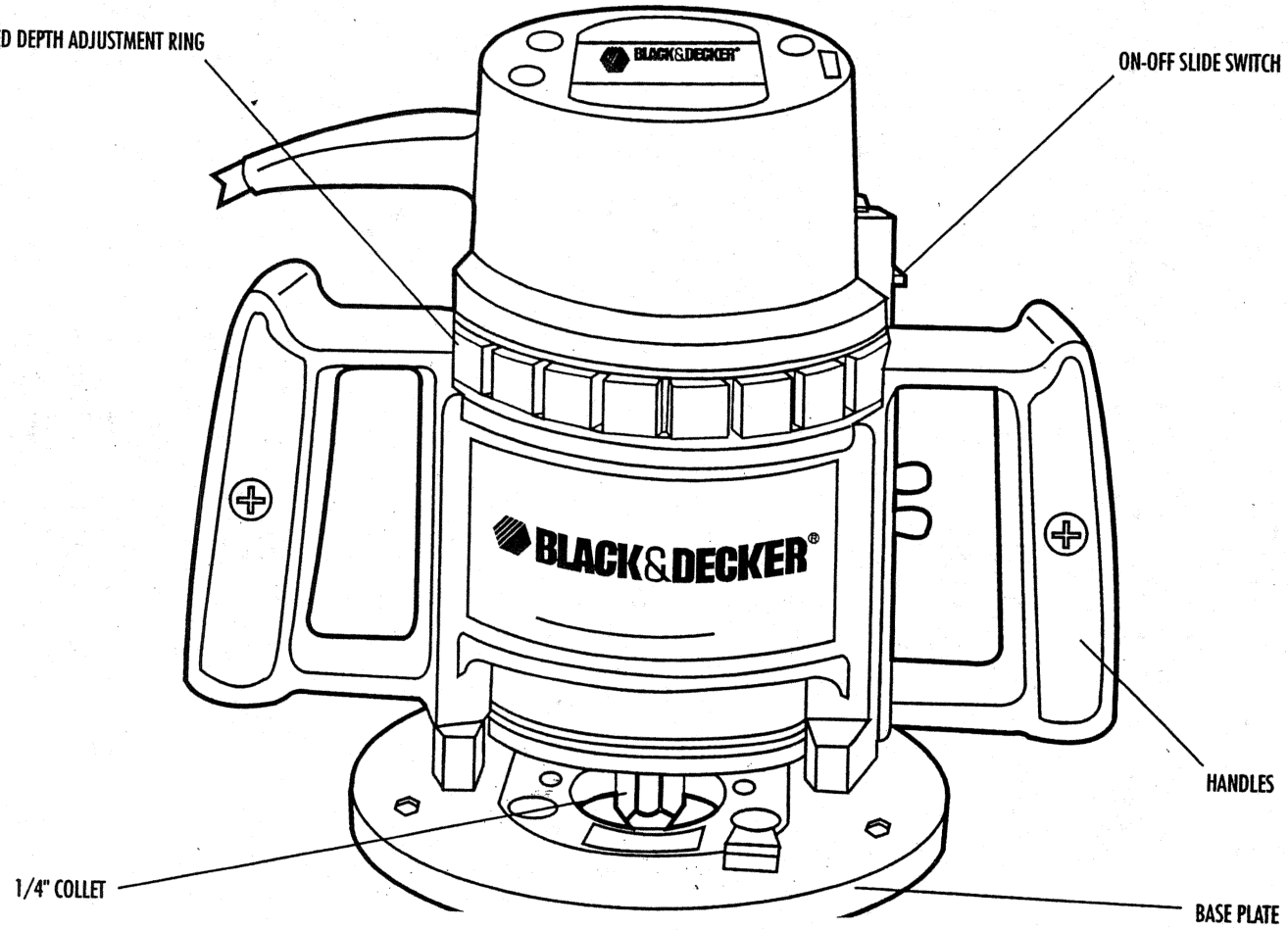
7604

KEY INFORMATION YOU SHOULD KNOW

— **Not for use in cutting drywall.**

— **Bit must be installed according to instructions on page 3.**

SPECIFICATIONS
120 Volts
60 Hz
5.0 Amps



IMPORTANT SAFETY INSTRUCTIONS (FOR ALL TOOLS)

WARNING: When using electric tools, basic safety precautions should always be followed to reduce risk of fire, electric shock, and personal injury, including the following:

READ ALL INSTRUCTIONS

Double Insulation

Double insulated tools are constructed throughout with two separate layers of electrical insulation or one double thickness of insulation between you and the tool's electrical system. Tools built with this insulation system are not intended to be grounded. As a result, your tool is equipped with a two prong plug which permits you to use extension cords without concern for maintaining a ground connection.

NOTE: Double insulation does not take the place of normal safety precautions when operating this tool. The insulation system is for added protection against injury resulting from a possible electrical insulation failure within the tool.

CAUTION: When servicing all tools, USE IDENTICAL REPLACEMENT PARTS. Repair or replace damaged cords.

Polarized Plug

Polarized plugs (one blade is wider than the other) are used on equipment to reduce the risk of electric shock. When provided these plugs will fit only into polarized outlets one way. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a proper polarized outlet. Do not modify the tool plug or the extension cord in any way.

For All Tools:

- **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
- **CONSIDER WORK AREA ENVIRONMENT.** Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit.
- **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces; for example, pipes, radiators, ranges, and refrigerator enclosures.
- **KEEP CHILDREN AWAY.** All visitors should be kept away from work area. Do not let visitors contact tool or extension cord.
- **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place — out of reach of children.
- **DON'T FORCE A TOOL.** It will do the job better and safer at the rate for which it was intended.
- **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool. Don't use tool for purpose not intended.
- **DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
- **USE SAFETY GLASSES.** Also use face or dustmask if operation is dusty.
- **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
- **DON'T OVERREACH.** Keep proper footing and balance at all times.
- **DISCONNECT OR LOCK OFF TOOLS** when not in use, before

servicing, and when changing accessories, such as blades, bits, cutters.

- **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- **AVOID UNINTENTIONAL STARTING.** Don't carry plugged-in tool with finger on the switch. Be sure the switch is off when plugging in.
- **EXTENSION CORDS.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table below shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Minimum Gage for Cord Sets

Volts	Total Length of Cord in Feet			
120V	0-25	26-50	51-100	101-150
240V	0-50	51-100	101-200	201-300

Ampere Rating			American Wire Gage			
More Than		Not more Than				
0	-	6	18	16	16	14
6	-	10	18	16	14	12
10	-	12	16	16	14	12
12	-	16	14	12	Not Recommended	

- **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safe performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
- **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
- **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is defective should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.
- **DO NOT OPERATE** portable electric tools near flammable liquids or in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks might ignite fumes.

Additional Safety Rules for Routers

1. Disconnect plug from power supply before changing bits or making adjustments.
2. Make sure collet nut is securely tightened to prevent router bit from slipping during use.
3. Make sure switch is in the OFF position before plugging into power supply.
4. Use both hands to hold router against the work.
5. Make sure wing nut adjustment lock is securely tightened before turning tool ON.
6. Wear safety glasses or eye shields when using the router.

CAUTION: Use only accessories recommended by Black & Decker. The use of any other attachment or accessory might be hazardous.

IMPORTANT: Your router has been designed and built to give many years of trouble-free service on home woodworking projects. **The cutting of metals is not recommended and should be avoided.**

SAVE THESE INSTRUCTIONS FOR FUTURE USE

Motor

Be sure your power supply agrees with nameplate marking.

120 volts AC only means your tool may be operated only with alternating current and **never** with direct current.

Voltage decrease of more than 10% will cause loss of power and overheating. All tools are factory tested; if this tool does not operate, check the power supply.

General Operating Instructions

Router is shown assembled for "Right Handed" operation. If "Left Handed" operation is desired loosen wing nut, lift motor housing out of handle frame. Turn 180° and lower motor back into handle frame. Wing nut and screw may also be turned 180° if desired. Retighten wing nut before use. See Figure 1.

ATTACHING BITS AND CUTTERS

IMPORTANT: ALWAYS DISCONNECT POWER CORD FROM ELECTRICAL SOURCE BEFORE CHANGING BITS OR CUTTERS.

Your router consists of two major parts: the motor and the base. The motor housing is specially designed with a flat top that forms a firm support when router is in an inverted position for the purpose of attaching bits or cutters. This extra convenience feature leaves both of the operator's hands free to use the necessary wrenches.

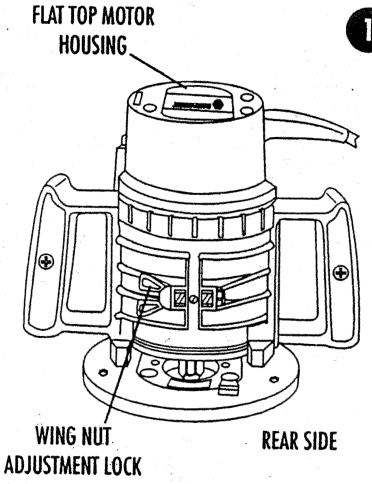
NOTE: Some may prefer to lay the router over on its side during bit changing.

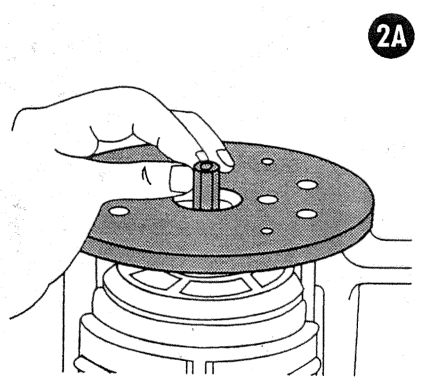
The shank of the bit or cutter should be inserted as far as possible, then pull bit out 1/16". Use the two open-end wrenches provided to install and remove bits. One wrench is fitted to the flats on the shaft adjacent to the motor housing, the other is used to turn the collet nut. See Figure 2. Tighten collet nut firmly before use.

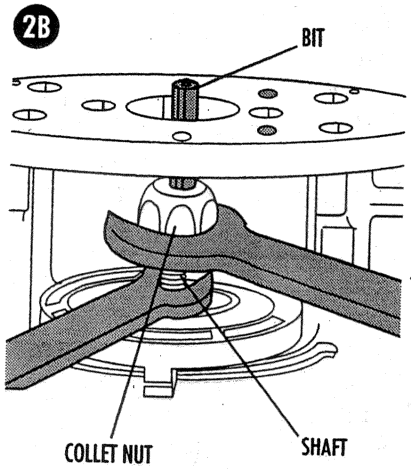
CAUTION: Never tighten collet nut without a 1/4" (.250") shank size bit inserted into collet. To do so may break or damage collet.

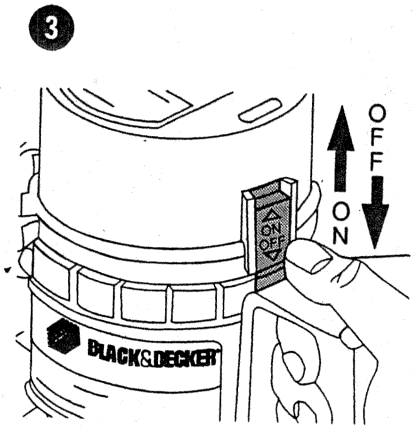
STARTING AND STOPPING THE ROUTER MOTOR

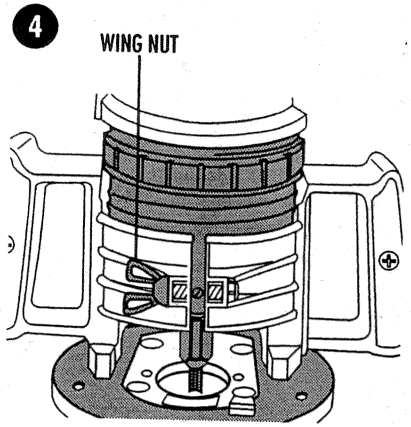
1. **Always make sure the switch of OFF before plugging the cord into the power supply.**
2. Grasp the router with both hands on the handles.
3. Extend thumb over to the slide switch. Pushing slide UP turns motor ON. Pushing slide DOWN turns motor OFF (Figure 3).

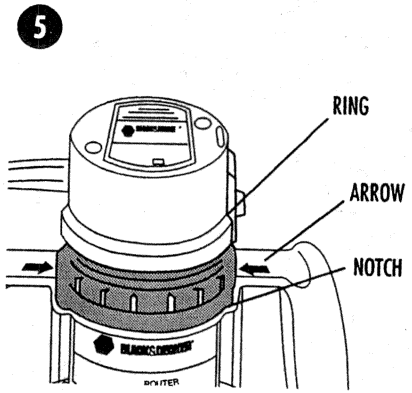












4. Practice operating the switch a few times without the cord connected to the power supply. This will allow you to get the feel of the switch action.

DEPTH OF CUT ADJUSTMENTS

TURN OFF AND UNPLUG ROUTER

1. **Never make adjustments when the motor is running.**
2. Place router on a flat surface and loosen large wing nut.
3. Push motor housing down until tip of bit touches the flat surface (Figure 4). It may be necessary to rotate adjustment ring counterclockwise to permit this.
4. Tighten wing nut to clamp motor housing.
5. Rotate adjustment ring clockwise (downward) until it stops. The bit is now set for a zero cutting depth.
6. Note the location of the adjustment ring relative to the pointer arrows on the tops of the handles (Figure 5). For each full turn of the ring counterclockwise the bit is lowered 1/4" (6.4 mm). Each notch equals 1/64".
7. Loosen wing nut and push motor housing down until it stops. Retighten wing nut.
8. It is recommended that you make some sample cuts on scrap lumber to check cutting depth and make sure cut looks good.

USING THE ROUTER

1. **Make sure that the material to be cut is clamped down and is stable enough to support the router during operation.**
2. Use both hands on the handles to control the router.
3. Since the bit rotates clockwise, more efficient cutting will result if you move the router from left to right as you stand facing the work (Figure 6).

4. Move the router counterclockwise when cutting outside edges. Move clockwise when cutting inside edges. See Figure 6.

FEEDING SPEED AND RATE OF CUT

The router bit rotates at very high speed and may heat up if the router is moved too slowly through the wood. Also the wood will show burn marks.

Feeding the router too fast or with too much cutting depth with large bits or decorating bits, will overload the motor. Use two or more passes for extra-large cuts (over 1/4" (6mm) deep), especially in hard woods.

Become familiar with the sound and feel of your new router by making practice cuts in scrap lumber.

Helpful Hints for Making Your Own Moulding

Many types of novel and decorative wood molding can be easily accomplished with the B&D router, using either bits or cutters. Such molding cuts can be made directly along the edge of the work, such as table and desk tops, bookcase shelves, etc.; or they can be made separately.

Figure 7 illustrates two types of molding made with the router, using the pilot part of the bit to guide tool along the edge of the work. After the molding is shaped with the router, a saw is used to cut the molding from the lumber.

Moldings of this type are extremely useful in baseboard work, picture-framing, paneling, etc. By using various combinations of bits and cutters, the unique designs possible are limitless.

Figure 8 shows a molded edge being applied to the edge of a table top, using a bit with a pilot end to guide the tool. Use two or more passes to produce deep cuts.

T-SQUARE GUIDE

A simple device for guiding the router when making straight cuts on flat surfaces is the home-made T-square Figure 9. This T-square can be

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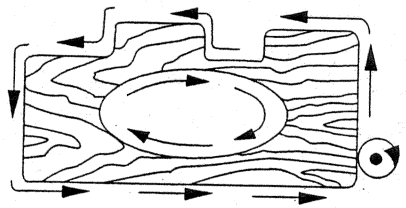

ROUTER TRAVEL SHOULD FOLLOW ARROWS

BIT ROTATION (VIEW FROM TOP OF ROUTER)

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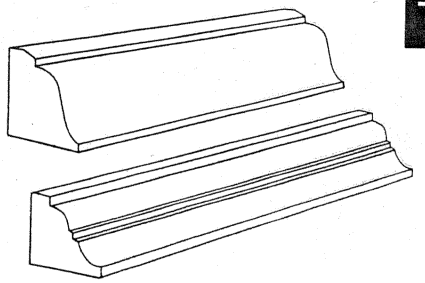

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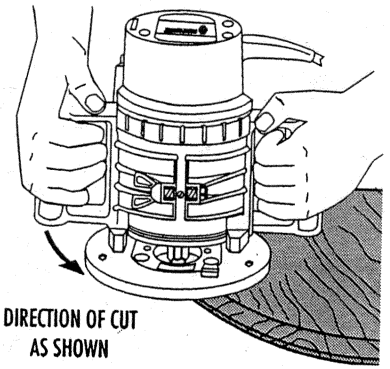

DIRECTION OF CUT AS SHOWN

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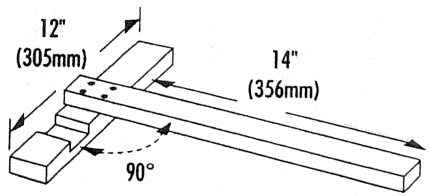
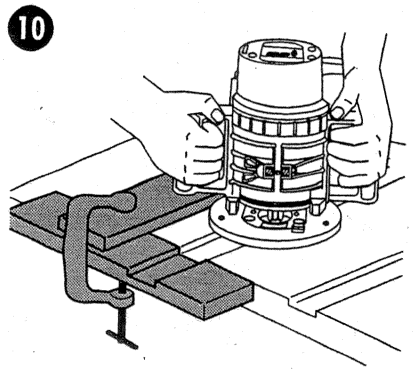
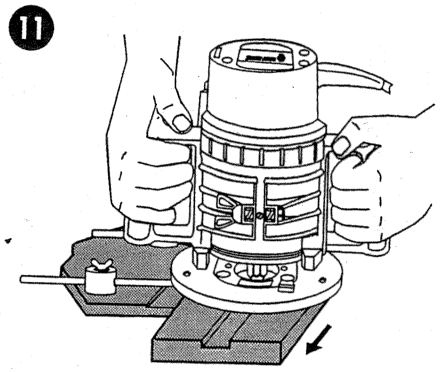
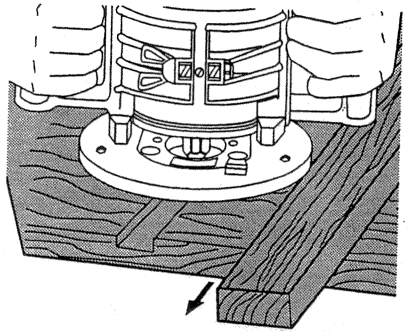
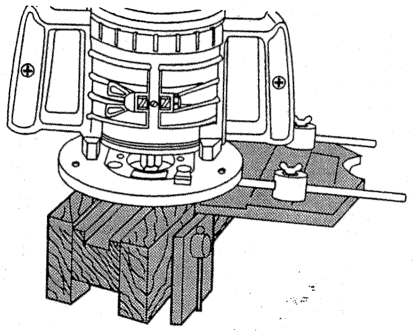










easily made out of scrap lumber, but make sure its edges are perfectly smooth and straight. It is placed on the surface being routed and held in position by means of a clamp, as in Figure 10. The base of the router is guided firmly along the edge of the T-square to make a straight cut. Measurements shown in illustration are ideal for most applications with the B&D router. They may, however, be altered to suit your specific needs.

MAKING GROOVES OR DADO CUTS

Grooves or dadoes, frequently used in making shelving or furniture, can be easily and neatly cut with your router. Two important points to remember are:

1. Do not allow the router to drift away from its guide.
2. The router base place must always have a solid, level surface to ride on so that it won't rock on the workpiece. See Figures 11, 12 and 13 for examples of how to cut grooves.

To cut a groove, Figure 11, it is necessary to guide the router. Here a No. 76-230 straight & circular guide is being used. This guide is standard equipment with No. 7605 router kit.

If cut must be farther from edge, a clamped wood strip or a home-made T-square works fine. Figure 12.

To cut a groove in a narrow piece, clamp it between two other pieces which provide support for the router base. A difficult cut made easy with the straight & circular guide. Figure 13.

STRAIGHT & CIRCULAR GUIDE

Standard equipment with No. 7605 router kit; available at extra cost for Nos. 76 & 7605 routers.

The straight and circular guide is the most popular device used with the router. It enables the operator to make straight, curved or angular cuts with convenience and accuracy.

To assemble, position nuts and screws as shown in Figure 14 and

thread screws about two turns into nuts. Do not tighten screws at this point.

Slide rods over nuts as shown in Figure 15.

To assemble guide to router base plate, turn off and unplug router. Insert hex nuts into recesses in underside of base plate (Figure 16). Place wing screws and clamps into holes and recesses on top of base plate and start screws into nuts a few turns only. Slide ends of the rods into channels under clamps and tighten wing screws (Figure 17).

The distance between the router bit and the guide is adjusted inward or outward on the rods, and retightening wing screws.

MEASURING

TURN OFF AND UNPLUG ROUTER

For added accuracy, this B&D router guide features a slotted recess along its bottom that permits the insertion of a rule or scale for use in adjusting the edge of the guide in perfect relation to the cutting edge of the bit. Figure 18 shows how this measurement is made.

MAKING STRAIGHT CUTS

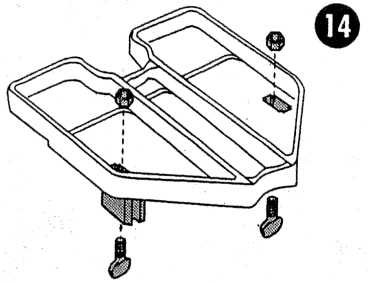
When routing along the edge, or parallel to the edge, of straight pieces, hold guide against the straight edge of the work as the router is fed along cutting line as in Figure 19.

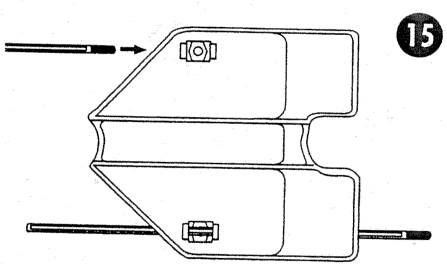
MAKING CURVED CUTS

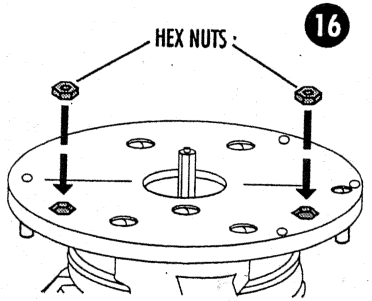
To accurately guide the router along curved or angular edges, use two points of contact against the edge of the material. Figure 20 illustrates this operating position to put a decorative edge around a circular table top.

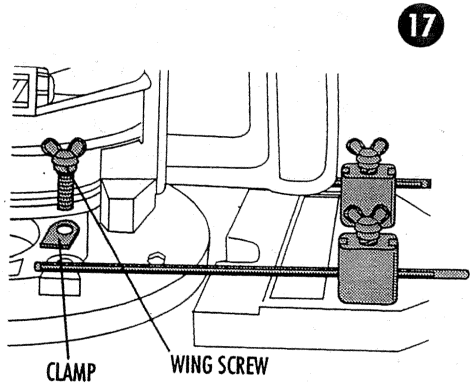
MAKING INSIDE CUTS

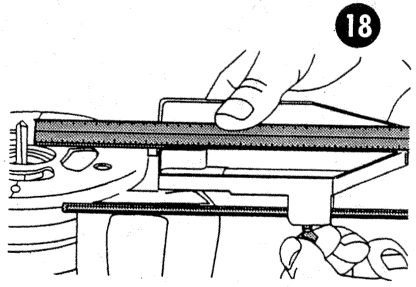
To route along inside edges such as rabbeting for screens, the straight and circular guide is attached in the reverse position as illustrated in Figure 21.

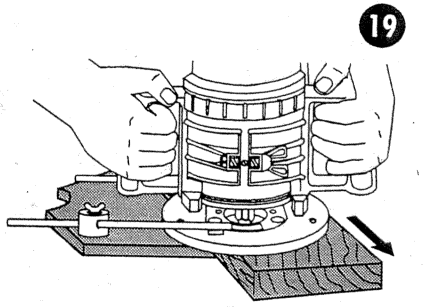


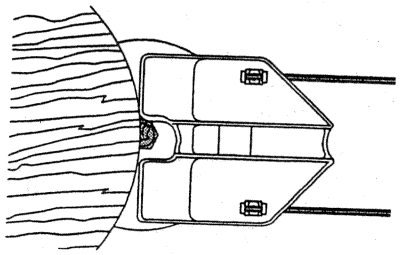


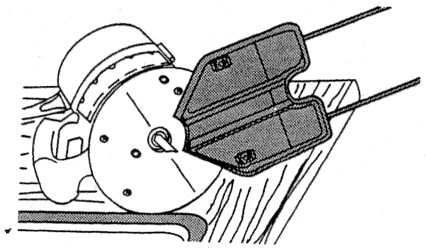


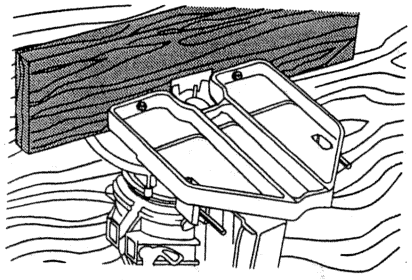


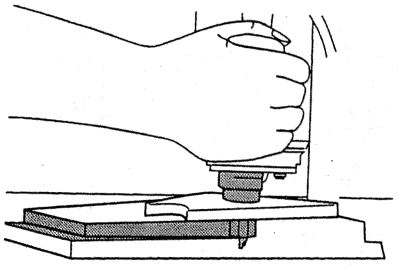


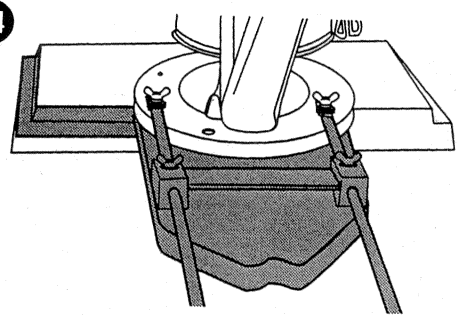












ADDING STRAIGHTEDGE LENGTH

There are times when the length of the guide may be insufficient to give the router ample support. When such is the case a piece of smooth lumber, about 8"-10" (203-254mm) long and 2"-3" (51-76mm) wide, may be attached to the front end of guide as in Figure 22 using two wood screws. Two holes must be drilled in the straight edge of the guide for this purpose.

MAKING RABBET CUTS

Rabbet cuts are used for making rabbeted drawer fronts, cabinet doors and many other types of joints. Figure 23 shows how this operation is performed, using a rabbeting bit.

In Figure 24 a straight bit is used, which would be placed in the collet and adjusted to the required depth of cut. The router may be controlled by means of the straight and circular guide, which is adjusted to the desired width of the rabbet cut.

When making rabbet cuts, it is usually better to make them across the end grain of the lumber first, and then along the grain. This procedure tends to eliminate chipping at the edges.

Router & Shape Guide

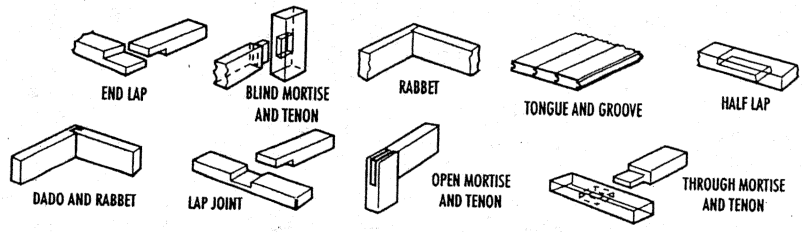
Available at extra cost from your dealer

Designed to use with your router and a Black & Decker WORKMATE® Work Center and Vise. The 7600 and 7604 routers have three evenly spaced shape guide mounting holes in their base plates, as shown in Figure 25. Using three #8-32x5/8" machine screws and hex nuts, install the router directly to the router & shape guide mounting plate. DO NOT REMOVE THE BASE PLATE FROM 7600 OR 7604 ROUTERS.

NOTE: Benchtop Workmates require the use of Type 2 router & shape guides. Type 1 or Type 2 can be used with all other Workmates.

- Use for routing edges, beading, free hand routing of fancy designs, etc.
- Work is guided by fence, router is rigidly held.
- Adjustable width and depth.
- Maximum wood thickness 1-5/8" (41mm).
- Maximum diameter of cutter 1" (25mm).
- Makes routing easier.

Some Typical Cuts and Joints



Laminate Trimming

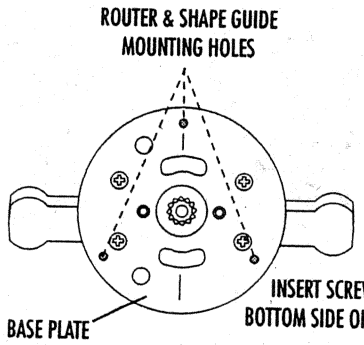
Laminated plastics on the market today are much too hard to be cut or shaped with ordinary router bits. Only carbide tipped cutters will produce a clean, professional quality edge without chipping.

Since plastic laminates are expensive, always practice on scrap material first. Then put your router to the actual project.

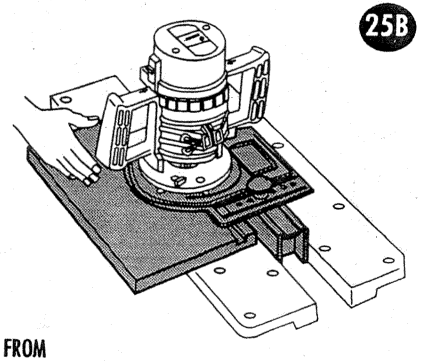
Carbide tipped flush trimming cutter is shown in cutting position in Figure 26. The laminate or veneer edge can be trimmed flush and square. Carbide tipped 22° bevel trimming cutter is shown in cutting position in Figure 27. The counter top can be neatly beveled.

Generally the laminate is precut about 3/16" (5mm) larger than the final dimension to give it overhang. After the glue has hardened, the router removes the overhang. Always make sure the ball bearing is

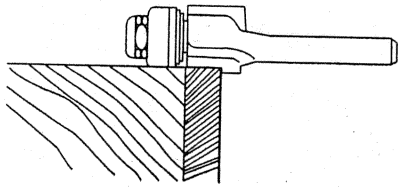
25A



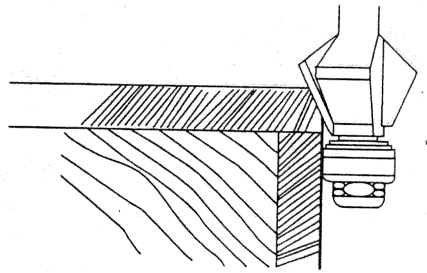
25B



26



27



free turning or it may burn the laminate. Remove any buildup of glue from the bearing before it causes trouble.

Cleaning & Lubrication

Use only mild soap and damp cloth to clean the tool. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

Self-lubricating bearings are used in the tool and periodic relubrication is not required. In the unlikely event that service is ever needed, service center addresses are packed with your tool.

Accessories

Recommended accessories for use with your tool are available at extra cost from your local dealer or authorized service center. A complete listing of service centers is included in this manual. If you need assistance in locating any accessory for your tool, please contact:

Black & Decker (U.S.) Inc.
Consumer Service Department
626 Hanover Pike, P.O. Box 618
Hampstead, MD. 21074-0618

CAUTION: The use of any accessory not recommended for use with this tool could be hazardous.

Important

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment (including brush inspection and replacement) should be performed by authorized service centers or other qualified service organizations, always using identical replacement parts.

Full Two-Year Home Use Warranty

Black & Decker (U.S.) Inc. warrants this product for two years against any defects that are due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to the seller (if a participating retailer) for free replacement (proof of purchase may be required). This unit may also be returned to a Black & Decker service center or authorized service station, listed under "Tools-Electric" in the yellow pages for free replacement or repair at our option. This warranty does not apply to accessories. This warranty gives you specific legal rights and you may have other rights which vary from state to state. Should you have any questions, contact your nearest Black & Decker service center manager.

This product is not intended for commercial use.

Every Black & Decker tool is of the highest quality. If you wish to contact us regarding this product, please call toll free between 8:00 a.m. and 8:00 p.m. ET, seven days a week.

1-800-762-6672

Low Cost Router Bit Sets

40 to 50% savings over buying conventional router bits. Each set is packed in a custom-fitted storage case.

Straight and Circular Guide

Please see pages 6 through 8.

Slot and Circle Guide. (Figure 28)

Equips Router for cutting evenly spaced slots and grooves, discs, holes and concentric designs. Adjusts for diameter or length from 1" to 22" in circle cutting or slot cutting.

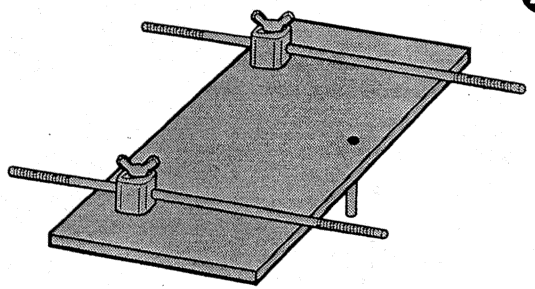
Routermate

Please see pages 8 & 9.

Router Kit Box

Custom-fitted, black plastic carrying case for router. Also has space for 2 wrenches, straight & circle guide and router bits.

28



Black & Decker (U.S.) Inc.,
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Towson, MD 21286 U.S.A.

See 'Tools-Electric'
– Yellow Pages –
for Service & Sales