Your BOSCH [illegible] e Router is equipped with a spindle lock which will prevent the armature shaft from turning when removing or inserting a router bit in the collet. To use, simply turn the armature shaft to align the flats with the spindle lock, and press the spindle lock firmly with your finger to engage it. (See Figure 2). The spindle lock will then hold the armature shaft so that you may use the wrench supplied with your router to tighten or loosen the collet nut.

Your BOSCH router is equipped with a precision self releasing collet which grips the bit firmly. To install a bit, insert into the collet as far as it will go and back it out until the cutters are 1/8" to 1/4" away from the collet face.

CAUTION: To minimize run-out and ensure proper gripping, the bit should be inserted into the collet as far as possible, and never less than 5/8".

With the bit inserted and the spindle lock fully engaged, tighten the collet nut firmly in a clockwise direction (viewed from under the router) with the wrench supplied. To avoid damaging the collet, never tighten the nut unless a bit of the proper shank size is inserted into the collet.

To remove the bit, use the spindle lock as described above, and turn the collet nut in a counterclockwise direction. Once the collet nut is loosened from the shaft, continue to turn the nut until it pulls the collet free from its taper, and the bit can be removed.

WARNING: Do not use router bits greater than 1 5/8" in diameter, as they will not fit through the base casting.

Changing the collet chuck assembly (figure 3)

The collet (3) is secured in the collet chuck assembly by means of a ring (2) which fits into a groove inside the collet nut (1). To change the assembly, remove the bit as described above, and continue to turn the collet nut counterclockwise to free the assembly from the armature shaft. The new collet chuck assembly may then be inserted into the shaft, and the collet nut should be threaded lightly into place with the fingers. A bit may then be installed as described above.

1. Collet nut
2. Ring
3. Collet

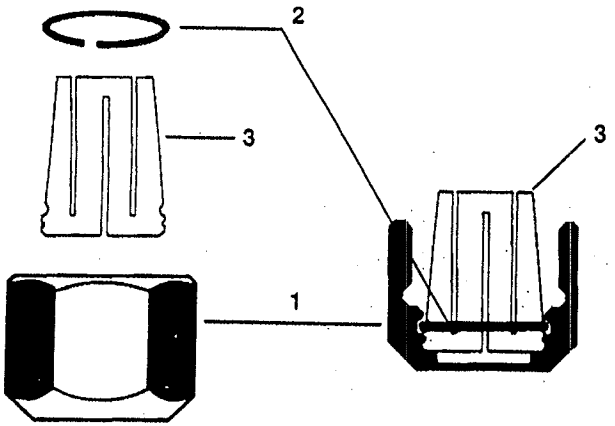


Figure 3

Collet chuck care

The following steps should be taken periodically with the collet chuck assembly to assure smooth operation and longer bit life:

CAUTION: Always disconnect the tool from the power source before installing bits accessories or making any adjustments.

1. Remove the collet chuck assembly from the armature shaft.
2. Clean the internal taper and the threads on the end of the armature shaft with tissue or a fine brush.
3. Blow any dust residue out of the collet chuck with dry compressed air.
   CAUTION: Wear eye protection when performing this step.
4. Be certain that the collet ring is properly seated in the inner groove of the nut, (Figure 3) and insert the collet chuck assembly back into the armature shaft as described earlier.

OPERATING THE TOOL

Following a few simple tips will reduce wear on the tool and it will reduce the chance of injury to the operator. However, these instructions are not intended to teach a novice how to operate this tool. If you are not familiar with the operation of this tool, it is best to obtain instruction from a skilled user, or take a class at a local junior or community college.

CAUTION: Always disconnect the tool from the power source before installing bits, accessories or making any adjustments.

With the switch in the "off" position, become familiar with handling the tool. Notice the location of the switch, handles, depth rod, locking knob, revolving depth stop, locking lever and fine adjustment. See figures 1-A and 1-B.

It is best to try the router on sample material to learn how to recognize the "sound" and "feel" of the motor when it is operating at the most efficient load.

When the router is used for routing, shaping, planing and related work in wood and plastics, etc., the best results are achieved if the depth of cut and the feed rate are regulated to keep the motor operating at a high speed. Soft materials require a faster feed rate than hard materials.

1. **Plunge mechanism.**
   To release the plunge lock, grasp the handles firmly with both hands and press lever L with the thumb of the left hand. (see Figure 1B) The motor may then be raised or lowered to the desired position. Lever L is spring-loaded, and will hold the router motor in position when pressure on the lever is released. When plunging, always apply uniform firm pressure to both handles to avoid cocking the motor on the posts.

2. Adjusting the depth of cut

Your BOSCH router is equipped with a powerful motor, and has a long usable depth of plunge which makes it suitable for many different operations. However, it is often desirable to make heavy cuts (such as deep grooves) in successive passes, or to make precise adjustments to the cutter position. For these purposes, a revolving stepped depth turret and a fine-adjustment mechanism have been provided.

2.1 Depth indicator and revolving depth turret (Figure 1A and 1B)

The depth indicator rod (E) and the revolving depth turret (F) are used to control cutting depth. They are used as follows; Install the bit and set the router on a level surface. Grasp the router handles with both hands, depress the plunge lock lever, gently lower the motor until the tip of the router bit just contacts the level surface the router is sitting on, and release the lever to hold the motor in place. In this position, the router is set in the "zero" position, from which further depth adjustments can be accurately made as follows;

To set a desired depth of cut, rotate the stepped turret (F) until the lowest step is aligned with the depth indicator rod (E). Loosen knob (D) and lower the depth indicator rod (E) until it contacts the lowest step of the turret, and slide the indicator (C) until the red indicator is aligned with the zero position on the depth scale (B). (See figures 1A and 4) The "zero" position will now indicate the point at which the bit just contacts the work, and is used as a reference point to set the desired depth of cut using the depth scale provided. To set a desired cutting depth, slide the depth indicator rod up until the red depth indicator line attains the desired cutting depth, and secure the rod in position by firmly tightening knob (D). The desired depth of cut may now be achieved by plunging the router until the depth indicator rod contacts the stop on the turret.

If a further check of the depth setting is desired, carefully support the router on the edge of a workbench or table as shown in Figure 5, and plunge the router down until the

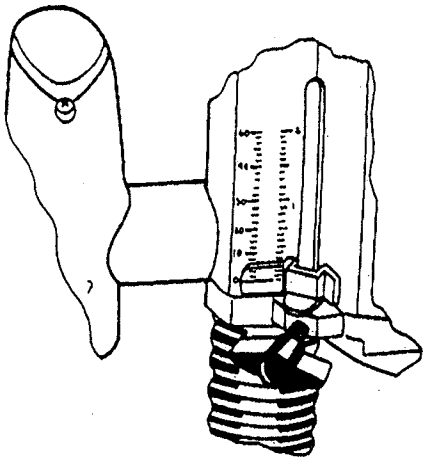


Figure 4

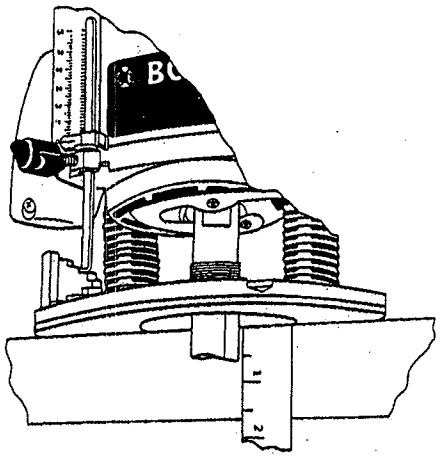


Figure 5

depth stop rod contacts the depth stop turret. Release the locking lever to hold the setting, and measure the distance that the tip of the cutting edge of the bit protrudes from the base of the tool: this should equal the depth setting you have selected.

It is often desirable to make several progressively deeper cuts instead of one heavy cut and for this purpose, the revolving depth stop (F) has eight flats. Once the desired final depth has been set on the lowest turret setting with the depth rod (C), it is possible to make progressively deeper cuts by starting with a higher flat on the turret, and rotating to progressively lower stops as desired until the final depth (lowest step or flat) is reached See Figure 6.

CAUTION: After all adjustments have been made make certain that the collet nut and all adjustment devices are securely tightened before turning on the router. To be certain that your depth settings are accurate, you may want to make test cuts in scrap material before beginning work.

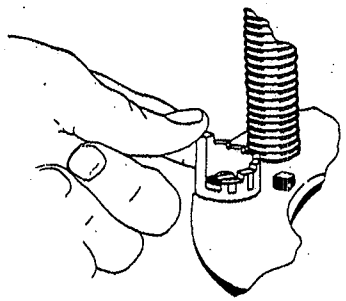


Figure 6

Using the fine adjustment (Figure 7)

Your BOSCH plunge router is equipped with a true micrometer-type fine adjustment mechanism, which can be used in any plunge position and provides precise adjustment of the bit position for unmatched accuracy. When the tool is plunged to the approximate position desired, this device may be adjusted to precisely adjust the final cutter position.

To use the fine adjustment, turn the knob (M) clockwise to lower the bit or counterclockwise to raise it, as indicated by the arrow molded into the top of the knob. To allow precise settings, the indicator ring (N) is graduated in English and Metric increments, and each line is equal to 1/10 mm or .004". The indicator ring may be reset to zero without moving the fine-adjustment knob, to allow the user to begin the adjustment from any reference point desired.

The fine-adjustment mechanism has a total adjustment range of 5/8", which is indicated by the two lines (W) cast into the back of the motor housing. (See Figure 8) Whenever the fine-adjustment is used, be certain that the indicator line (U) is positioned between these lines to ensure that there will be enough travel in the desired direction after the router is plunged into position. For example, if line (U) is directly between the two lines (W), the fine-adjustment would be able to adjust the bit 5/16" up or down, as the full 5/8'

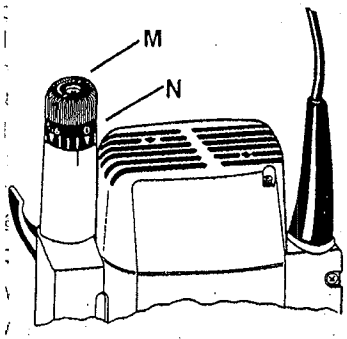


Figure 7

range of travel would be divided approximately in half. Note that when the router is plunged to maximum depth or is fully retracted to the top of the posts, the fine adjustment mechanism will not move the motor further down or up, as the full extension of the travel has been reached at these points.

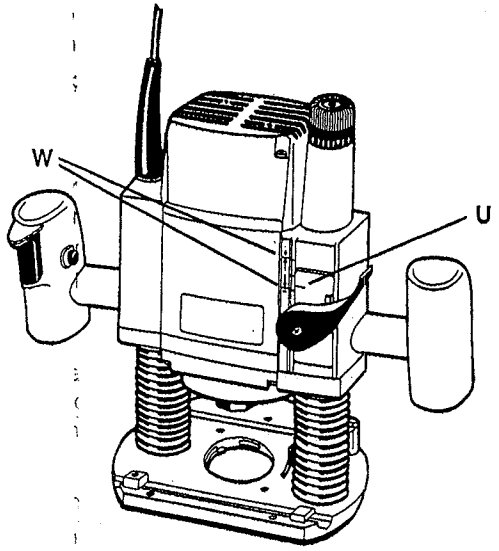


Figure 8

OPTIONAL ACCESSORIES

Templet guides

Your BOSCH plunge router is equipped with an exclusive quick-change templet guide mechanism, which firmly grips the guides with a spring-loaded ring built into the base.

(See Figure 9) To change the templet guide, retract the ring by pressing the small lever on top of the base (Fig. Q in Pos. 1A), insert the guide into the recess underneath, and release the lever to grip the templet guide firmly in place. (Figure 10) Note that there are four cutaways on the outer edge of the guides, which correspond to two cast-in bosses in the templet guide recess. When inserted, any pair of these cutaways may be lined up with these bosses in the base to hold the templet guide in position for the ring to grip the templet guide properly.

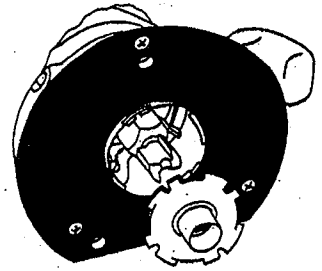


Figure 9

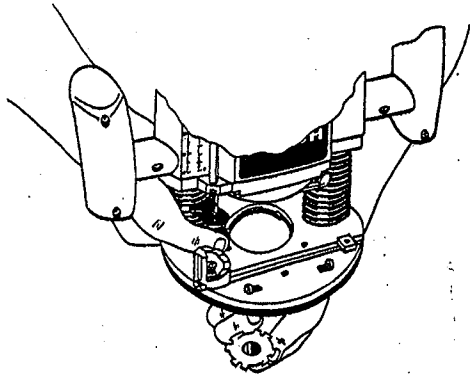


Figure 10

Templet guides are used with a number of special BOSCH accessories, such as hinge templets and dovetail fixtures which are listed in your BOSCH catalog. In addition, special templets are easily prepared for cutting repeated patterns, special designs, inlays, and other applications. A templet pattern may be made of plywood, hardboard, metal or even plastic, and the design can be cut with a router, jigsaw, or other suitable cutting tool. Remember that the pattern will have to be made to compensate for the distance between the router bit and the templet guide, as the final workpiece will differ in size from the templet pattern by that amount, due to the cutter position (See Figure 6). Whenever you are cutting completely around a workpiece, it is advisable to cut across the grain first, so that if a corner should fracture, it can be smoothed out by the bit cutting with the grain on the second pass.

R. Templet Guide
S. Compensating distance between bit and templet pattern.
T. Templet (pattern)

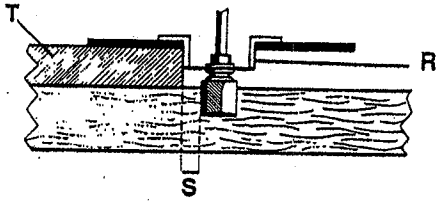


Figure 11

Edge Guide

For many routing operations such as grooving or dadoing, it is necessary to have a means of guiding the tool in a line parallel to a straight edge. One method of obtaining a straight cut is to securely clamp a board or other straightedge to the work surface, and guide the edge of the router sub-base along this path to produce the desired cut.

The use the straight or round edge of the router base to rout a groove or dado at a precise location, clamp a guide strip to the work surface, and guide the router with the edge of the subbase against the strip. When using the round edge of the subbase, it is best not to rotate the router when moving along the guide strip, as this may produce a wavy cut. In any case, a more accurate method of performing this task is to guide the router with the optional edge guide attachment.

The optional router guide is an accessory that is useful for guiding the router parallel to a straight edge to make grooves or decorative edges. (See Figure 12). The router guide attaches to your router by means of two rods and a series of wing nuts and screws to fasten the guide and adjust its position relative to the bit. With the guide installed and adjusted, the router should be fed from left to right on your workpiece, as you would on any edge-forming operation, while maintaining a steady feed pressure, and keeping the guide in contact with the edge of the workpiece at all times. The BOSCH router guide may also be positioned under the router base for edge forming operations where a limited amount of bit exposure is desired.

For extra precision, the BOSCH router guide shown in Figure 12 incorporates a micrometer type fine-adjustment mechanism which can be used to move the guide in precise increments. For proper operation, please refer to the instructions which are shipped with this accessory.

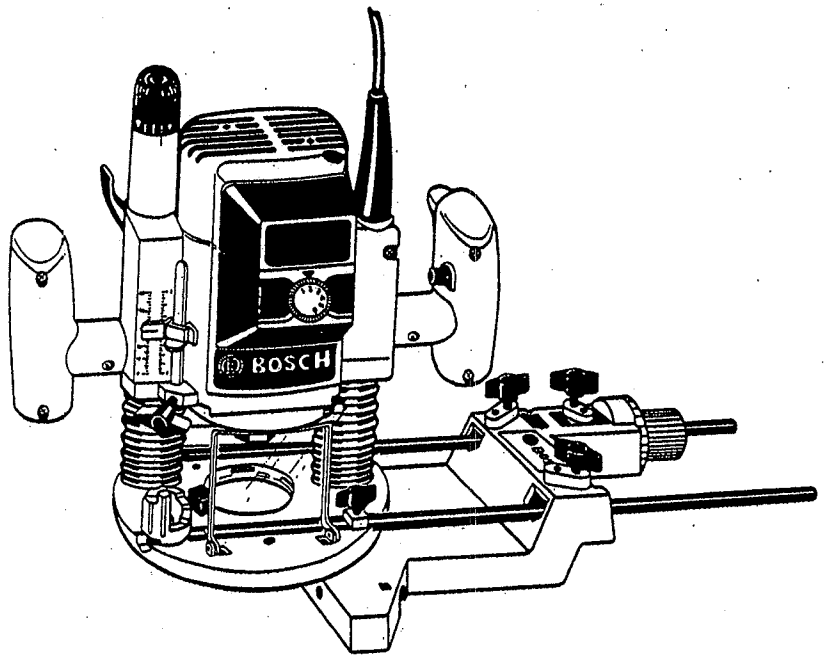
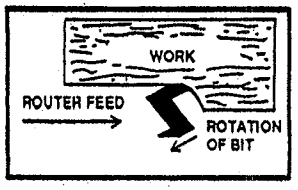


Figure 12

DIRECTION OF FEED

The 1613 and 1614 BOSCH routers rotate in a clockwise direction, as viewed from the top. The correct relationship between direction of bit or cutter rotation and router feed is shown in Figure 13, and it is important to move the router in the proper direction or bit chatter and rough cutting will be the result. As an example, to rout a decorative edge or the front of a table top, you would move the router from left to right to perform the operation, or counterclockwise around the workpiece.

If you were cutting an opening in the center of a panel, you would feed the router in a clockwise direction, so that the edge of the opening would be cut against the rotation of the bit as described, and have a smooth finish.



SHOWN OPERATION FROM TOP OF WORK

Figure 13

RATE OF FE

When routing or doing related work in wood and plastics, the best finishes will result if the depth of cut and feed rate are regulated to keep the motor operating at high speed. Feed the router at a moderate rate.

CAUTION: The router may stall if improperly used or overloaded. Reduce the feed rate to prevent possible damage to the tool. Do not attempt to start the tool when the bit is engaged. Always be sure the collet nut is tightened securely before use.

Always use bits with the shortest cutting length necessary to produce the desired cut. This will minimize router bit run-out and chatter.

SERVICE

We recommend that all tool service be performed by a BOSCH Factory or BOSCH Authorized Service Center. Work performed by unauthorized persons may create a hazard. Contact your dealer or the local Yellow Pages for the nearest BOSCH Factory or BOSCH Authorized Service Center. They are listed under "Tools, Electric" in your Yellow Pages.

WARRANTY

ROBERT BOSCH POWER TOOL CORPORATION
INDUSTRIAL TOOLS WARRANTY

Applicable to the United States and other markets. Supersedes any other warranty Robert Bosch Power Tool Corporation ("BOSCH") warrants new power tools sold by it t be free from defects in material and workmanship subject to the following:

For twelve months, in the U.S. and Canada, and six months in all other countries, afte delivery to the first using purchaser, BOSCH will refund the purchase price of, repair, o replace, at its option, any tool which under normal conditions of use and service prove to be defective in material or workmanship at no charge to the purchaser. No charge wi be made for labor with respect to defects covered by this warranty, provided that the wor is done by BOSCH or any of its authorized service facilities. However, this warranty doe not cover expenses incurred in the removal and reinstallation of any product, whether o not proven defective.

To obtain performance of this warranty, return the tool intact, freight prepaid, to the near est Bosch Factory or Bosch Authorized Service Center along with the purchase receip or other positive proof that the tool is within the warranty period.

This warranty is limited to the first using purchaser and is not transferable. Specifically excluded from this warranty are failures caused by misuse, neglect, abuse, improper operation, or unauthorized service or parts. This warranty sets out the purchaser's exclu sive remedies with respect to products covered by it, whether for negligence or otherwise Neither BOSCH nor any of its affiliates will be liable for consequential or incidental dam ages or other losses or expenses incurred by reason of the use or sale of such products THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OF IMPLIED, WHETHER FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAF PURPOSE OR OTHERWISE. No attempt to alter, amend or extend this warranty shall be effective unless authorized in writing by an Officer of Robert Bosch Power Too Corporation.