

# Instruction manual

**ESPAÑOL: PÁGINA 19**  
**FRANÇAISE : PAGE 39**

## Routers



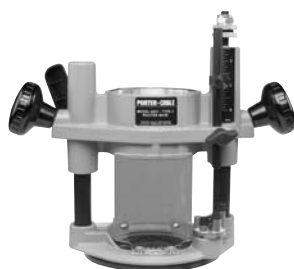
**MODEL 690LR**  
Including  
Motor and 1001 Base



**MODEL 691**  
Including  
Motor and 6911 Base



**MODEL 690LRVS**  
Including  
Motor and 1001 Base



**6931 BASE**

### IMPORTANT

Please make certain that the person who is to use this equipment carefully reads and understands these instructions before starting operations.

The Model and Serial No. plate is located on the main housing of the tool. Record these numbers in the spaces below and retain for future reference.

Model No. \_\_\_\_\_

Type \_\_\_\_\_

Serial No. \_\_\_\_\_

**PORTER-CABLE**  
PROFESSIONAL POWER TOOLS

## SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols below. Please read the manual and pay attention to these sections.

### **⚠ DANGER**

indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

### **⚠ WARNING**

indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

### **⚠ CAUTION**

indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

### **CAUTION**

used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

### **⚠ WARNING**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints
- crystalline silica from bricks and cement and other masonry products
- arsenic and chromium from chemically-treated lumber

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, always wear MSHA/NIOSH approved, properly fitting face mask or respirator when using such tools.

## GENERAL SAFETY RULES



**⚠ WARNING** READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT. Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury or property damage.

**SAVE! IMPORTANT SAFETY INSTRUCTIONS SAVE!**

### WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

### ELECTRICAL SAFETY

1. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
2. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.

- 3. Don't expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- 4. Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
- 5. When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W".** These cords are rated for outdoor use and reduce the risk of electric shock.

## **PERSONAL SAFETY**

- 1. Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- 2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
- 3. Avoid accidental starting. Be sure switch is OFF before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch ON invites accidents.
- 4. Remove adjusting keys or wrenches before turning the tool ON.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- 5. Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enable better control of the tool in unexpected situations.
- 6. Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
- 7. Use certified safety equipment.** Eye protection equipment should comply with ANSI Z87.1 standards, hearing equipment should comply with ANSI S3.19 standards, and dust mask protection should comply with MSHA/NIOSH certified respirator standards.

## **TOOLS USE AND CARE**


- 1. Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- 2. Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- 3. Do not use tool if switch does not turn it ON or OFF.** A tool that cannot be controlled with the switch is dangerous and must be repaired.
- 4. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- 5. Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.

- 6. Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
- 7. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
- 8. Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

## SERVICE

- 1. Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 2. When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance Section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.









## ADDITIONAL SPECIFIC SAFETY RULES

- 1.  DANGER HOLD TOOL BY INSULATED GRIPPING SURFACES WHEN PERFORMING AN OPERATION WHERE THE CUTTING TOOLS MAY CONTACT HIDDEN WIRING OR ITS OWN CORD.** Contact with a “live” wire will make exposed metal parts of the tool “live” and shock the operator.
- 2. TIGHTEN COLLET NUT SECURELY** to prevent the bit from slipping.
- 3. PROVIDE CLEARANCE** under workpiece for router bit when through-cutting.
- 4. CHECK TO SEE THAT THE CORD** will not “hang up” during operation.
- 5. CLEAR THE ROUTER BIT AREA** before starting motor.
- 6. MAINTAIN FIRM GRIP ON TOOL** to resist starting torque.
- 7. KEEP HANDS CLEAR OF BIT WHEN MOTOR IS RUNNING** to prevent personal injury.
- 8. LET THE MOTOR COME TO A COMPLETE STOP** before putting the tool down.
- 9. NEVER TOUCH ROUTER BITS AFTER USE.** They may be extremely hot.
- 10. AVOID “CLIMB-CUTTING”.** (See section “USING THE TOOL” in this manual). “Climb-cutting” increases the chance for loss of control resulting in possible personal injury.
- 11. DO NOT HAND-HOLD THE ROUTER IN AN UPSIDE-DOWN OR HORIZONTAL POSITION.** The motor can separate from the base if not properly attached according to the instructions (See “ATTACHING THE MOTOR TO THE ROUTER” section).
- 12. SOME WOOD CONTAINS PRESERVATIVES WHICH CAN BE TOXIC.** Take extra care to prevent inhalation and skin contact when working with these materials. Request, and follow, any safety information available from your material supplier.

**▲ WARNING**

**THERE ARE CERTAIN APPLICATIONS FOR WHICH THIS TOOL WAS DESIGNED.** Porter-Cable strongly recommends that this tool NOT be modified and/or used for any application other than that for which it was designed. If you have questions relative to its application, DO NOT use the tool until you have written Porter-Cable and we have advised you.

Technical Service Manager  
 Porter-Cable Corporation  
 4825 Highway 45 North  
 Jackson, TN 38305

<b>SYMBOL</b>	<b>DEFINITION</b>
V	..... volts
A	..... amperes
Hz	..... hertz
W	..... watts
kW	..... kilowatts
μF	..... microfarads
l	..... liters
kg	..... kilograms
N/cm <sup>2</sup>	..... newtons per square centimeter
Pa	..... pascals
h	..... hours
min	..... minutes
s	..... seconds
	..... alternating current
3 	..... three-phase alternating current
3N 	..... three-phase alternating current with neutral
	..... direct current
$n_0$	..... no load
	..... alternating or direct current
	..... Class II Construction
	..... splash-proof construction
	..... watertight construction
.../min	..... revolutions or reciprocation per minute

**REPLACEMENT PARTS**

When servicing use only identical replacement parts.

**MOTOR**

Many Porter-Cable tools will operate on either D.C., or single phase 25 to 60 cycle A.C. current and voltage within plus or minus 5 percent of that shown on the specification plate on the tool. Several models, however, are designed for A.C. current only. Refer to the specification plate on your tool for proper voltage and current rating.

**CAUTION**

Do not operate your tool on a current on which the voltage is not within correct limits. Do not operate tools rated A.C. only on D.C. current. To do so may seriously damage the tool.

**EXTENSION CORD SELECTION**

If an extension cord is used, make sure the conductor size is large enough to prevent excessive voltage drop which will cause loss of power and possible motor damage. A table of recommended extension cord sizes will be found in this section. This table is based on limiting line voltage drop to 5 volts (10 volts for 230 volts) at 150% of rated amperes.

If an extension cord is to be used outdoors it must be marked with the suffix W-A or W following the cord type designation. For example – SJTW-A to indicate it is acceptable for outdoor use.

RECOMMENDED EXTENSION CORD SIZES FOR USE WITH PORTABLE ELECTRIC TOOLS

		Length of Cord in Feet									
		115V	25 Ft.	50 Ft.	100 Ft.	150 Ft.	200 Ft.	250 Ft.	300 Ft.	400 Ft.	500 Ft.
		230V	50 Ft.	100 Ft.	200 Ft.	300 Ft.	400 Ft.	500 Ft.	600 Ft.	800 Ft.	1000 Ft.
Nameplate Ampere Rating	0-2	18	18	18	16	16	14	14	12	12	
	2-3	18	18	16	14	14	12	12	10	10	
	3-4	18	18	16	14	12	12	10	10	8	
	4-5	18	18	14	12	12	10	10	8	8	
	5-6	18	16	14	12	10	10	8	8	6	
	6-8	18	16	12	10	10	8	6	6	6	
	8-10	18	14	12	10	8	8	6	6	4	
	10-12	16	14	10	8	8	6	6	4	4	
	12-14	16	12	10	8	6	6	6	4	2	
	14-16	16	12	10	8	6	6	4	4	2	
	16-18	14	12	8	8	6	4	4	2	2	
18-20	14	12	8	6	6	4	4	2	2		

**FUNCTIONAL DESCRIPTION****FOREWORD**

Porter-Cable routers are designed for continuous, rugged operation to handle the most demanding production applications.

**SELECTING THE BIT**

These Porter-Cable routers are furnished with 1/4" and 1/2" diameter collets to accommodate bits with 1/4" or 1/2" diameter shanks installed directly into the power unit collet. An accessory collet is available that will allow the use of bits having 3/8" diameter shanks.

**▲ WARNING**

**Do not use router bits with a diameter in excess of 2-1/8" in this tool.**

**▲ WARNING**

**ALWAYS disconnect this tool from the power source when preparing the tool for use, when making adjustments, and when the tool is not in use.**

# ASSEMBLY

## 1001 BASE

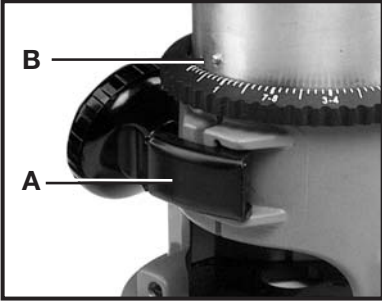


Fig. 1

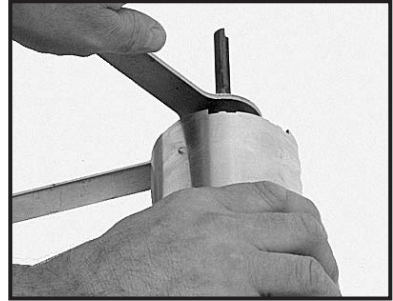


Fig. 2

## INSTALLING AND REMOVING THE BIT

**⚠ WARNING** DISCONNECT TOOL FROM POWER SOURCE.

1. To remove motor unit from base unit:
  - (a) Open the clamp (A) Fig. 1.
  - (b) While holding base, turn power unit COUNTER-CLOCKWISE until the lower pin (B) in the motor housing is disengaged from groove in base.
  - (c) Lift power unit free from base unit.
2. Clean and insert the shank of the bit into the collet until the shank bottoms, then back it out approximately 1/16".
3. Lay the power unit on its side on a bench with the collet pointing AWAY from you.
4. Place one wrench on the flats of the chuck with the opposite end of the wrench resting on the bench to your left (Fig. 2).
5. Place other wrench on the collet and tighten COUNTER-CLOCKWISE. Tighten firmly.
6. To remove the bit, reverse the procedure.

**CAUTION** Avoid possible damage to collet. Never tighten collet without a bit.

## INSTALLING THE MOTOR

**⚠ WARNING** DISCONNECT TOOL FROM POWER SOURCE.

1. Open the clamp (A) Fig. 1 and set the power unit in the base unit.
2. Align the lower pin of the power unit (B) Fig. 1 with the groove in the base.
3. Rotate the power unit CLOCKWISE into the base until the upper guide pins are set in the groove of the base.
4. Close the clamp.

## ADJUSTING DEPTH OF CUT

**⚠ WARNING** DISCONNECT TOOL FROM POWER SOURCE.

1. Open the clamp (A) Fig. 3.
2. Hold the base (E) and turn the power unit (F) Fig. 3 COUNTER-CLOCKWISE until the tip of the bit is above the bottom of the base.
3. Set the tool on a flat surface.
4. Turn the power unit (F) Fig. 3 CLOCKWISE until bit touches the work.
5. Close the clamp (A) Fig. 3.
6. Rotate the depth adjusting ring (B) Fig. 3 until the zero-line (C) is opposite the index line (D) on the housing.
7. Open the clamp (A) Fig. 3.
8. Tip the router so that the bit is clear of the work surface. Turn the power unit (F) Fig. 3 CLOCKWISE until the index line (D) on the motor housing reaches the desired depth indicated on the ring.
9. Close the clamp (A) Fig. 3.

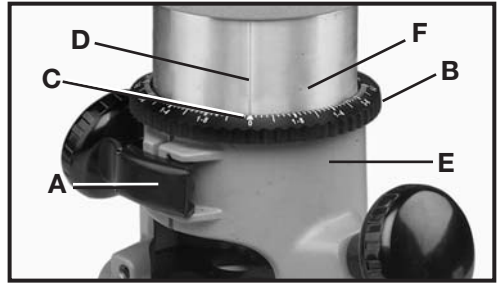


Fig. 3

**NOTE:** Setting the index line to 1/4" on the ring means the cutting edge of the bit is exposed 1/4" below the base.

## ADJUSTING SUB-BASE ALIGNMENT (All Routers)

Applications using a templet guide require the bit to be centered in the guide. This, in turn, requires the center hole in the sub-base to be in line with the collet of the motor unit. Your model has an adjustable sub-base which has been aligned at the factory. If the sub-base has been removed and/or readjustment is required, use the following procedure:

**⚠ CAUTION**

Be sure power switch is in "OFF" position and tool is disconnected from power source to avoid accidental starting of motor which could result in injury.

1. Loosen the sub-base mounting screws (C) Fig. 4 just enough to allow the sub-base (D) to move.
2. Open the clamp (A) Fig. 4, and adjust the power unit so that the collet nut (B) engages the center hole in the sub-base (D). Allow the sub-base to center itself on the collet nut. Close the clamp (A).
3. Tighten the sub-base mounting screws (C) Fig. 4 securely.

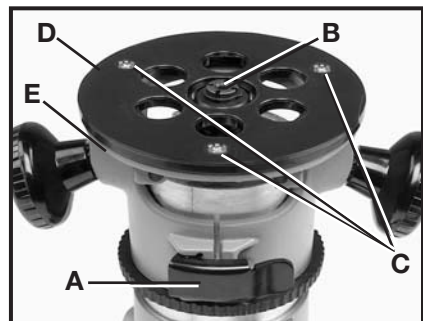


Fig. 4

# 6931 PLUNGE BASE

## INSTALLING THE MOTOR

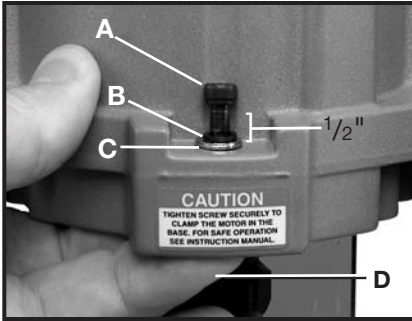


Fig. 5A

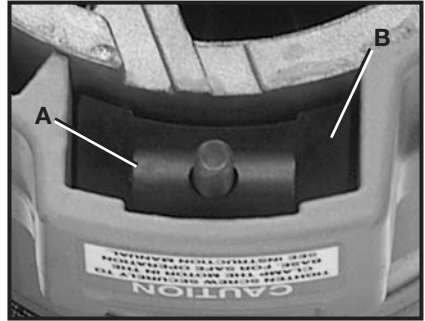


Fig. 5B

### **⚠ WARNING** DISCONNECT TOOL FROM POWER SOURCE.

1. Support motor clamp (Fig. 5A) and loosen motor clamp screw approximately 1/2" with the hex wrench (furnished).
2. Insert motor unit into the base with switch positioned at front of left handle, and align the four pins (A) Fig. 6 in the motor case with the slots (B) Fig. 6 in the base.
3. Seat the motor in the base and tighten the motor clamp screw.

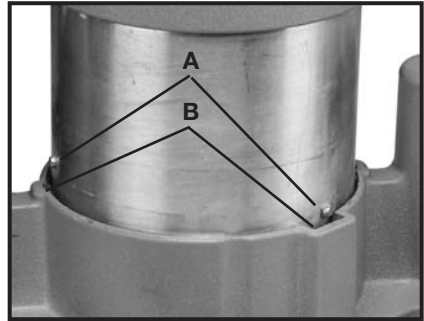


Fig. 6

## REMOVING MOTOR

### **⚠ WARNING** DISCONNECT TOOL FROM POWER SOURCE.

1. Remove clamp screw (A) Fig. 5A, flat washer (B), lock washer (C), and clamp-locking nut (A) Fig. 5B.
2. Insert hex wrench (A) Fig. 7 to contact locking plate. Tap lightly to release and remove locking plate.
3. Slide motor out of base.
4. Reassemble clamp screw, lock washer, flat washer, locking plate and clamp locking nut to the base and tighten lightly to prevent loss.

## INSTALLING AND REMOVING THE BIT

- ⚠ WARNING** Be certain that the power switch is in the "OFF" position and tool is disconnected from power source to avoid accidental starting of motor which could result in injury.

1. Stand router upside down on its motor cap (Fig. 8).
2. Clean and insert shank of bit into collet until the shank bottoms. Then back it out approximately 1/16" .
3. Place one wrench on flats on chuck and one wrench on collet nut (Fig. 8). Tighten firmly.
4. To remove the bit, reverse the procedure.



Fig. 7

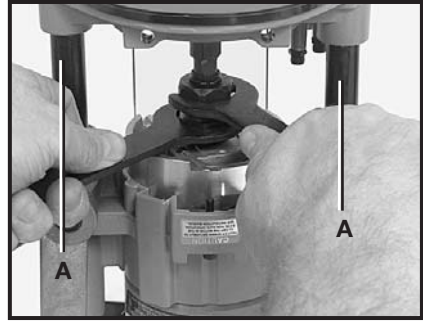


Fig. 8

**CAUTION**

Do not allow the wrenches to contact the columns (A) Fig. 9. Columns could be damaged, restricting the plunge action.

**CAUTION**

Avoid possible damage to collet. Never tighten collet without a bit.

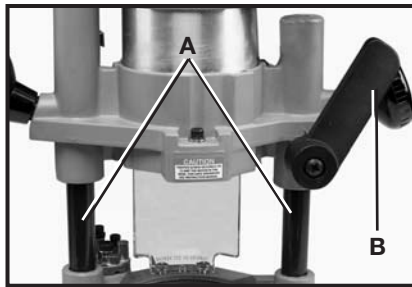


Fig. 9

## ADJUSTING THE PLUNGE BASE

**⚠ WARNING**

**DISCONNECT TOOL FROM POWER SOURCE.**

1. Loosen depth rod locking knob (A) Fig. 10, and depth indicator knob (D) Fig. 10, allowing the depth rod (E) Fig. 10 to contact one of the turret stops (B) Fig. 10. Normally the deepest desired cut is set with the depth rod resting on the shortest turret stop (A) Fig. 11. The other two fixed stops (B) Fig. 11 provide reduced cutting depths of 1/4" and 1/2" respectively. The three adjustable stops (C) Fig. 11 may be adjusted to any desired height. Any combination of fixed and/or adjustable stops may be utilized to achieve the desired depths required for a particular job.

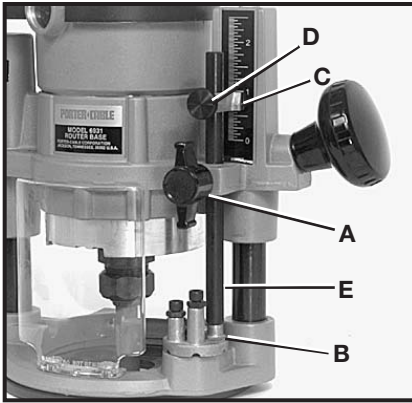


Fig. 10

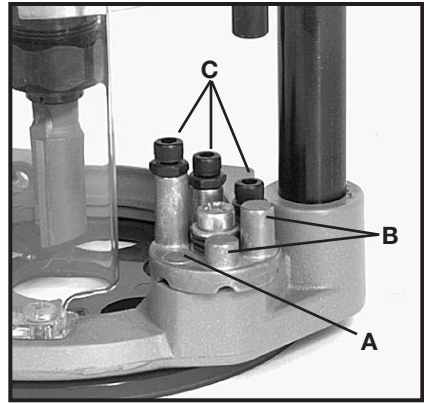


Fig. 11

2. Release plunge mechanism by pulling the locking lever (B) Fig. 9 to the left. Lower the plunge mechanism until the router bit touches the work surface. Release the lever and push it to the right to lock the mechanism in this position.
3. Tighten depth-rod locking knob.
4. Position depth indicator (C) Fig. 10 at the "0" position and tighten the knob.
5. Loosen depth-rod locking knob (A) Fig 10, and raise until indicator aligns with the graduation representing the desired depth of plunge. (The example in Fig. 12 shows setting for 1" plunge.)
6. Turn lower-travel limiting nut (A) Fig. 13 until it is approximately 1/4" above the top of the plunge housing (Fig. 13). While holding lower nut, turn upper nut until it "jams" against the lower nut.

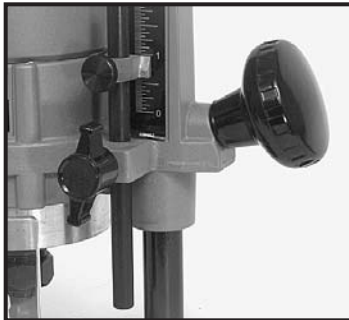


Fig. 12

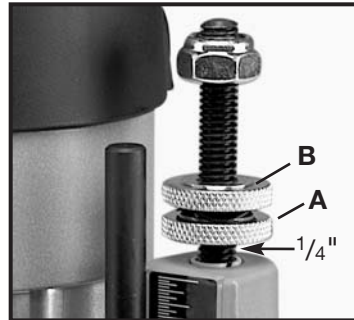


Fig. 13

**CAUTION**

The travel limiting nuts must always be "jammed" together to prevent movement (caused by vibration) which could prevent full bit retraction.

**CAUTION**

The travel limiting nuts must always be set so that bit can be retracted into the base of the router, clear of the workpiece.

**CAUTION**

DO NOT attempt to increase the plunge travel by readjusting the stop nut. Increasing the travel beyond 2-1/2" can cause the mechanism to jam.

## ADJUSTING THE PLUNGE LOCKING LEVER

The plunge-locking mechanism may be adjusted to reposition lever (in locked position), or to compensate for wear.

To adjust:

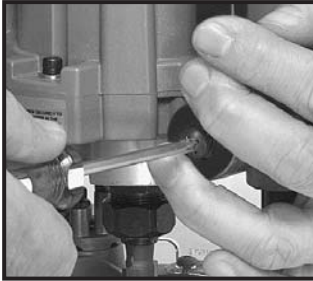


Fig. 14

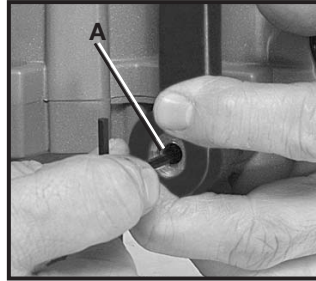


Fig. 15

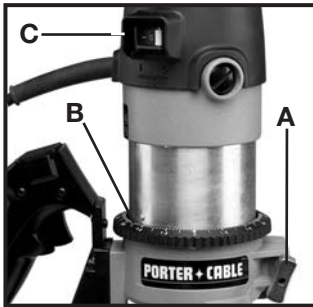


Fig. 16

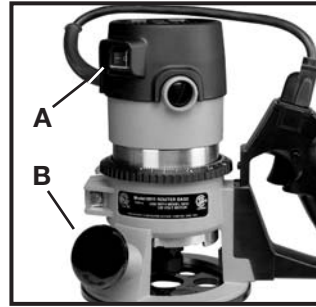


Fig. 17

### **⚠ WARNING** DISCONNECT TOOL FROM POWER SOURCE.

1. While holding lever in upright position (Fig. 14), remove retaining screw. Continue to hold lever through remaining steps.
2. Insert 1/8" hex wrench (A) Fig. 15 (not furnished) into adjustment screw and turn counter-clockwise approximately 1/2 turn.
3. Move lever to desired locked position and tighten adjustment screw.
4. Remove hex wrench and replace retaining screw.

## ATTACHING THE POWER UNIT TO THE "D" HANDLE

### **⚠ WARNING** DISCONNECT BOTH POWER CORDS (base and motor) FROM POWER SOURCE.

1. Loosen the clamp screw (A) Fig. 16 to set the power unit in the base unit.
2. With the motor switch (C) Fig. 16 in the "ON" position, insert the motor unit into the base aligning the lower pin (B) with the groove in the base.
3. Rotate the motor unit into the base CLOCKWISE until the motor switch (A) Fig. 17 is directly above the knob handle (B) Fig. 17.
4. Connect the motor unit cord to the outlet in handle (C) Fig. 17.
5. Continue rotating the motor unit into the base until upper guide pins set rigidly into base.
6. Tighten the clamp screw firmly.

## ADJUSTING DEPTH OF CUT

**▲WARNING** DISCONNECT TOOL FROM POWER SOURCE.

1. Loosen the clamp screw (A) Fig. 18.
2. Hold the base (E) and turn the motor unit (F) Fig. 18 **COUNTER-CLOCKWISE** until the tip of the bit is above the bottom of the base.
3. Set the router on a flat surface.
4. Turn the motor unit (F) Fig. 18 **CLOCKWISE** until bit touches the wood surface.
5. Tighten the clamp screw (A) Fig. 18.
6. Rotate the depth adjusting ring (B) Fig. 18, until the zero-line (C) is opposite the index line (D) on the housing.
7. Loosen the clamp screw (A) Fig. 18.
8. Tip the router so that the bit is clear of the wood surface. Turn the motor unit (F) Fig. 18 **CLOCKWISE** until the index line (D) on the motor housing reaches the desired depth indicated on the ring.
9. Tighten the clamp screw (A) Fig. 18 firmly.

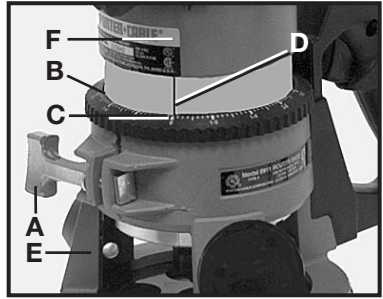


Fig. 18

**NOTE:** Setting the index line to 1/4" on the ring means the cutting edge of the bit is exposed 1/4" below the base.

## INSTALLING AND REMOVING THE BIT

**▲WARNING** DISCONNECT TOOL FROM POWER SOURCE.

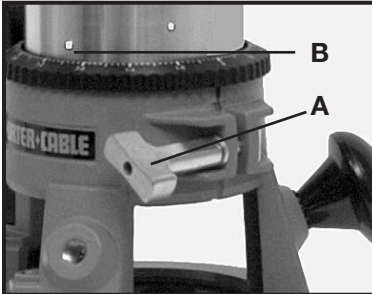


Fig. 18B

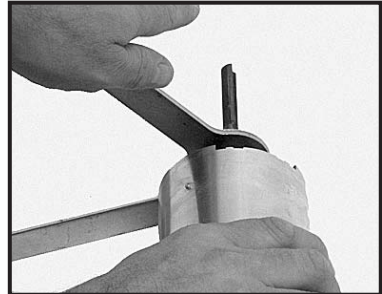


Fig. 18C

1. Remove the motor unit from the base unit:
  - (a) Loosen the clamp screw (A) Fig. 18B.
  - (b) While holding the base, turn the motor unit **COUNTER-CLOCKWISE** until the lower pin (B) in the motor housing is disengaged from the groove in the base.
  - (c) Lift the motor unit from the base unit.
2. Clean and insert the shank of the bit into the collet until the shank bottoms. Then back it out approximately 1/16".
3. Lay the motor unit on its side on a supporting surface with the collet pointed **AWAY** from you.

- Place one wrench on the flats of the chuck with the opposite end of the the wrench resting on the bench to your left (Fig. 18C).
- Place the other wrench on the collet and tighten COUNTER-CLOCKWISE (Fig. 18C). Tighten firmly.
- To remove the bit, reverse the procedure.

**CAUTION** Avoid possible damage to collet. Never tighten collet without a bit.

## CONNECTING TO POWER SOURCE

**CAUTION** Before connecting tool to power source, **CHECK TO SEE THAT THE SWITCH IS IN THE “OFF” POSITION.** Also, check the power circuit to see that it is the same as that shown on specification plate of the tool.

## STARTING AND STOPPING THE MOTOR



Fig. 19

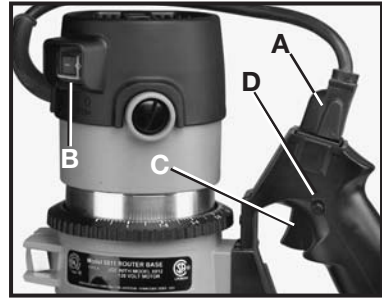


Fig. 20

**CAUTION** Before starting the tool, clear the work area of all foreign objects. Also keep firm grip on tool to resist starting torque.

To start the tool, move the rocker switch (A) Fig. 19 to the “ON” or “1” position. To stop the tool, move the rocker switch to the “OFF” or “0” position.

**CAUTION** To avoid personal injury and/or damage to finished work, always allow the power unit to come to a COMPLETE STOP before putting the tool down.

## STARTING AND STOPPING THE MOTOR - “D” Handle

**CAUTION** Before starting the tool, clear the work area of all foreign objects. Also keep a firm grip on the tool to resist starting torque.

Check to see that the motor unit power cord (A) Fig. 20 is plugged into the handle, and that the switch (B) on the motor is set to the “ON” position. The starting and stopping of the motor is then controlled by pressing and releasing the trigger switch (C) Fig. 20 in the handle of the base.

To allow the tool to run without continually pressing the trigger (C) Fig. 20, press the trigger (C) into the handle and engage the switch locking button (D) on the side of the handle. While holding the button in, slowly release the trigger. To stop the tool, squeeze the trigger into the handle and release.

**▲ CAUTION**

To avoid injury and/or damage to finished work, always allow motor to come to a COMPLETE STOP before putting the tool down.

**SOFT START**

The Model 690LRVS has a “Soft Start” feature designed to minimize startup reaction torque.

**VARIABLE STARTING SPEED CONTROL (690LRVS)**

This router is equipped with a variable speed control (A) Fig. 21 with an infinite number of speeds between 10,000 and 27,000 RPM.

The speed is adjusted by turning the speed control knob (A), labeled 1 through 4, with 1 being the slowest speed and 4 being the highest.



Fig. 21

**USING THE TOOL**

**IMPORTANT:** Before using the tool, consider the kind and total amount of material to be removed. More than one cut may be necessary to avoid overloading the power unit. Before beginning the cut on the actual workpiece, make a sample cut on a piece of scrap lumber. This will allow you to see the finished cut and to check dimensions.

**▲ CAUTION**

Always be sure the work is rigidly clamped or otherwise secured before making a cut.

Generally speaking, when working on a bench, the workpiece should be held on the bench by wood clamps. When routing edges, hold the router firmly down and against the work with both guiding knobs.

Since the cutter rotates clockwise (when viewing router from top), the router should be moved from left to right as you stand facing the work. When working on the inside of a templet, move the router in a clockwise direction.

When working on the outside of a templet, move the router in a counter-clockwise direction.

**▲ WARNING**

Avoid “Climb-Cutting” (cutting in direction opposite that shown in Fig. 22). “Climb-Cutting” increases the chance for loss of control resulting in possible injury. When “Climb-Cutting” is required (backing around a corner), exercise extreme caution to maintain control of router.

The speed and depth of cut will depend largely on the workpiece. Keep the cutting pressure constant but do not crowd the router so the motor speed slows excessively. On exceptionally hard woods or problem materials, more than one pass at various settings may be necessary to get the desired depth of cut.

When making cuts on all four edges of the workpiece, make the first cut on the end of the piece across the grain. If chipping of wood occurs at the end of a cut, it will be removed when making the next cut parallel with the grain.

Periodically wipe columns clean with a dry cloth. DO NOT lubricate the columns.

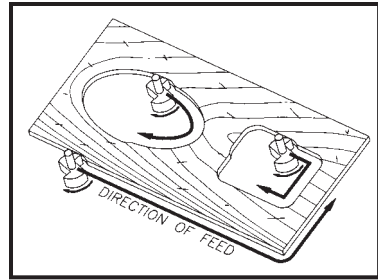


Fig. 22

## THE EDGE GUIDE

An edge guide is available as an accessory to aid in routing operations such as straight edge planing, parallel grooving, dado, or slotting operations.

To attach, insert guide rods (A) in holes in base Fig. 23, and secure with screws (B). The guide (C) is adjusted on the rods and secured the desired position with thumb screws (D).

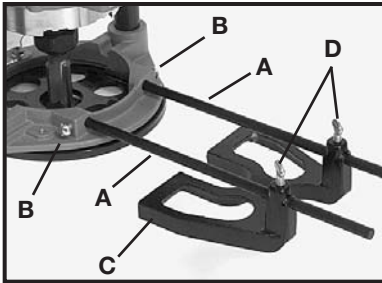


Fig. 23

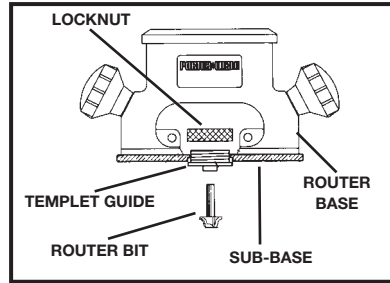


Fig. 24

## TEMPLET GUIDES

A wide variety of templet guides is available for use in pattern and templet routing operations. A typical combination bit, templet guide, and locknut are illustrated in Fig. 24.

**⚠ WARNING DISCONNECT TOOL FROM POWER SOURCE.**

To install, insert templet guide in center hole in router base and secure in place with a locknut. Before connecting router to power source, install the bit, adjust the depth of cut, and rotate the router chuck by hand to ensure that bit or collet do not contact the templet guide.

# MAINTENANCE

## KEEP TOOL CLEAN

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

**▲ CAUTION** Wear safety glasses while using compressed air.

## FAILURE TO START

Should your tool fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line.

## LUBRICATION

This tool has been lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions. No further lubrication is necessary.

## BRUSH INSPECTION AND LUBRICATION

For your continued safety and electrical protection, brush inspection and replacement on this tool should ONLY be performed by an AUTHORIZED PORTER-CABLE SERVICE STATION or a PORTER-CABLE/DELTA FACTORY SERVICE CENTER.

At approximately 100 hours of use, take or send your tool to your nearest authorized Porter-Cable Service Station to be thoroughly cleaned and inspected. Have worn parts replaced and lubricate with fresh lubricant. Have new brushes installed, and test the tool for performance.

Any loss of power before the above maintenance check may indicate the need for immediate servicing of your tool. DO NOT CONTINUE TO OPERATE TOOL UNDER THIS CONDITION. If proper operating voltage is present, return your tool to the service station for immediate service.

## SERVICE AND REPAIRS

All quality tools will eventually require servicing or replacement of parts due to wear from normal use. These operations, including brush inspection and replacement, should ONLY be performed by either an AUTHORIZED PORTER-CABLE SERVICE STATION or a PORTER-CABLE/DELTA FACTORY SERVICE CENTER. All repairs made by these agencies are fully guaranteed against defective material and workmanship. We cannot guarantee repairs made or attempted by anyone other than these agencies.

Should you have any questions about your tool, feel free to write us at any time. In any communications, please give all information shown on the nameplate of your tool (model number, type, serial number, etc.).

## ACCESSORIES

A complete line of accessories is available from your Porter-Cable • Delta Supplier, Porter-Cable • Delta Factory Service Centers, and Porter-Cable Authorized Service Stations. Please visit our Web Site [www.porter-cable.com](http://www.porter-cable.com) for a catalog or for the name of your nearest supplier.

### **▲ WARNING**

Since accessories other than those offered by Porter-Cable • Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Porter-Cable • Delta recommended accessories should be used with this product.

### **PORTER-CABLE LIMITED ONE YEAR WARRANTY**

Porter-Cable warrants its Professional Power Tools for a period of one year from the date of original purchase. We will repair or replace at our option, any part or parts of the product and accessories covered under this warranty which, after examination, proves to be defective in workmanship or material during the warranty period. For repair or replacement return the complete tool or accessory, transportation prepaid, to your nearest Porter-Cable Service Center or Authorized Service Station. Proof of purchase may be required. This warranty does not apply to repair or replacement required due to misuse, abuse, normal wear and tear or repairs attempted or made by other than our Service Centers or Authorized Service Stations.

ANY IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WILL LAST ONLY FOR ONE (1) YEAR FROM THE DATE OF PURCHASE.

To obtain information on warranty performance please write to: PORTER-CABLE CORPORATION, 4825 Highway 45 North, Jackson, Tennessee 38305; Attention: Product Service. THE FOREGOING OBLIGATION IS PORTER-CABLE'S SOLE LIABILITY UNDER THIS OR ANY IMPLIED WARRANTY AND UNDER NO CIRCUMSTANCES SHALL PORTER-CABLE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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