Instruction manual

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http://www.porter-cable.com



Tilt-Base Laminate Trimmer



MODEL 319

Consisting of MODEL 3191 Base MODEL 3102 Motor

IMPORTANT

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

housing of t	the tool. R	o. plate is located on the main second these numbers in the or for future reference.	n ə
Model No			-
Туре			_
Serial No			

Part No. 874110-894

SAFETY INSTRUCTIONS

GROUNDING INSTRUCTIONS

This tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with an approved three-conductor cord and three-prong grounding type plug to fit the proper grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal.

If your unit is for use on less than 150 Volts, the power cord is equipped with a plug that has two flat, parallel current-carrying prongs and one longer, round or "U"-shaped, ground prong which requires a mating 3-conductor grounded type receptacle, as shown in Fig. 1.

An adapter, shown in Fig. 2, is available for connecting 3-prong grounding type plugs that are used on units less than 150 Volts to 2-prong receptacles. THIS ADAPTER IS NOT ALLOWED IN CANADA. The green colored rigid ear, lug, etc., must be connected to a permanent ground such as a properly grounded outlet box, as shown in Fig. 2.

If your unit is for use on 150 to 250 Volts, the power cord is equipped with a plug that has two flat current carrying prongs in tandem, and one round or "U"-shaped, longer ground prong, as shown in Fig. 3. This plug is used only with the proper mating 3-conductor grounding type receptacle, as shown in Fig. 3. No adapter is available for this type plug.

IN ALL CASES, MAKE SURE THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED.

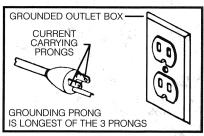


Fig. 1

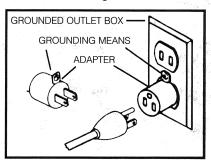


Fig. 2

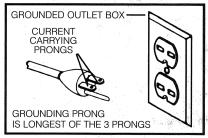


Fig. 3

NEVER REMOVE GROUNDING PRONG FROM POWER PLUG.

EXTENSION CORDS

Use only three-wire extension cords which have three-prong groundingtype plugs and three-pole receptacle which accept the tool's plug. Replace damaged or worn cord immediately. DO NOT ATTEMPT TO REPAIR POWER CORD.

IMPORTANT SAFETY INSTRUCTIONS

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

READ AND FOLLOW ALL INSTRUCTIONS.

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 for which it was designed. If you have any 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 P. O. Box 2468 Jackson, TN 38302-2468

- 1. KEEP WORK AREA CLEAN. Cluttered areas and benches invite injuries.
- **2. AVOID DANGEROUS ENVIRONMENT.** Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep area well lit. Avoid chemical or corrosive environment. Do not use tool in presence of flammable liquids or gases.
- 3. GUARD AGAINST ELECTRIC SHOCK. Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
- **4. KEEP CHILDREN AWAY.** Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
- **5. STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place out of reach of children.
- **6. DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
- 7. **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 for example do not use a circular saw for cutting tree limbs or logs.
- **8. DRESS PROPERLY.** Do not wear loose clothing or jewelry. Loose clothing, draw strings and jewelry 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.
- **9. USE SAFETY GLASSES.** Wear safety glasses or goggles while operating power tools. Also face or dust mask if operation creates dust. All persons in the area where power tools are being operated should also wear safety glasses and face or dust mask.
- 10. DON'T ABUSE CORD. Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges. Have damaged or worn power cord and strain reliever replaced immediately. DO NOT ATTEMPT TO REPAIR POWER CORD.

- 11. 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.
- 12. DON'T OVERREACH. Keep proper footing and balance at all times.
- 13. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for better and safer 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. Have all worn, broken or lost parts replaced immediately. Keep handles dry, clean and free from oil and grease.
- **14. DISCONNECT TOOLS** when not in use, before servicing, and when changing accessories such as blades, bits, cutters, etc.
- **15. REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
- **16. AVOID UNINTENTIONAL STARTING.** Do not carry a plugged-in tool with finger on switch. Be sure switch is off when plugging in. Keep hands, body and clothing clear of blades, bits, cutters, etc. when plugging in the tool.
- 17. OUTDOOR USE EXTENSION CORDS. When tool is used outdoors, use only extension cords marked "Suitable for use with outdoor appliances store indoors when not in use."
- **18. STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired or while under the influence of medication, alcohol or drugs.
- 19. 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 damaged 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.
- 20. WEAR EAR PROTECTION to safeguard against possible hearing loss.

SAVE THESE INSTRUCTIONS

ADDITIONAL SAFETY RULES FOR LAMINATE TRIMMERS

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- 1. **NEVER ADJUST** depth of cut while motor is running. A slip at this time may cause personal injury, or damage to cutter or workpiece.
- 2. BE SURE CORD SET IS FREE and will not "hang up" during trimming.
- 3. **KEEP HANDS CLEAR OF CUTTER** when motor is running to prevent personal injury.
- 4. MAINTAIN FIRM GRIP on trimmer when starting motor to resist starting torque.
- **5. STAY ALERT** and keep cutter clear of all foreign objects while motor is running.

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- **6. BE SURE** motor has completely stopped before setting machine down between operations.
- 7. 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.

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 below. 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 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

				Le	ngth of C	ord in Fe	et	-		
	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

OPERATING INSTRUCTIONS

FOREWORD

The Porter-Cable Model 319 Laminate Trimmer is designed for flush and bevel trimming laminated plastics, phenolics, and other similar materials that have a bonding agent too hard to be trimmed with ordinary tools.

The Model 319's tilt-base enables this trimmer to trim into corners inaccessible to standard trimmers, and to trim laminated surfaces joining at angles of 45° to 90°. This feature eliminates the need for hand-trimming in many applications.

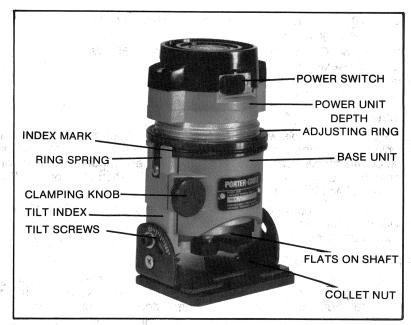


Fig. 1

TO INSTALL BIT

- 1. **CAUTION:** Be sure machine is DISCONNECTED from power source.
- 2. Remove Power Unit from Base Unit as follows:
 - a) Loosen Clamping Knob (Fig. 1).
 - b) Grasp Power Unit and pull straight up and out of the Base Unit. This will also release the Depth Adjusting Ring from Ring Springs.
- 3. Lay Power Unit on bench with Collet toward you.
- 4. Clean and insert 7/16" to 1/2" of the bit shank into the collet.

CAUTION: A minimum of 7/16" of bit shank must be inside of collet.

- 5. Place one wrench on flats of shaft directly above Collet Nut. Let far end of wrench rest on bench to your RIGHT.
- 6. Place other wrench on Collet Nut and turn clockwise to tighten. TIGHTEN SECURELY.

TO REMOVE BIT

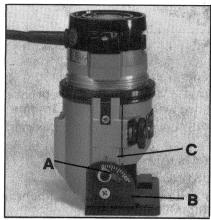
- Repeat Steps 1 thru 3 under TO INSTALL BIT.
- 2. Place one wrench on flats of shaft directly above Collet Nut. Let far end of wrench rest on bench to your LEFT.
- 3. Place other wrench on Collet Nut and turn counterclockwise and loosen only enough to allow removal of bit. NEVER TIGHTEN COLLET NUT WITHOUT BIT IN COLLET. This may allow Collet to deform and weaken clamping ability.

ADJUSTING BIT EXPOSURE

- 1. CAUTION: DISCONNECT machine from power source.
- 2. With Power Unit removed from Base Unit, turn Depth Adjusting Ring to within three threads from top of Power Unit.
- 3. Insert Power Unit into Base Unit, aligning one of the grooves in the motor housing with the pin protruding from inner wall of the base, until Ring Springs snap into groove in Depth Adjusting Ring.
- 4. Viewing Power Unit from top, turn Depth Adjusting Ring clockwise to decrese depth of cut, or counterclockwise to increase depth of cut until desired depth is obtained.

NOTE: For convenience in making slight adjustments, a marker will be found on the base next to the Ring Spring, and the top of the Depth Adjusting Ring is graduated with eight equally spaced lines each representing 1/64" change in depth of cut when rotated in relation to the marker. One complete turn of the ring changes the depth of cut 1/8".

5. Using only finger pressure, tighten clamping knob.



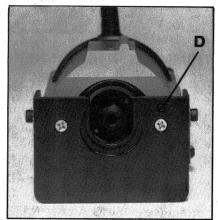


Fig. 2

CONVENTIONAL LAMINATE TRIMMING WITH "SELF-PILOTING" BITS

- 1. CAUTION: DISCONNECT trimmer from power source.
- 2. Loosen two tilt locking screws (A) Fig. 2 (one on each side of base) using the 5/32" Allen wrench furnished with your Laminate Trimmer.
- 3. Adjust base (B) Fig. 2 to align "0" degree mark with index mark (C) Fig. 2.
- 4. Tighten the two tilt locking screws (A) Fig. 2.
- 5. Adjust bit exposure (see ADJUSTING BIT EXPOSURE).
- 6. Make a practice cut on scrap material to verify adjustment is correct (see USING A LAMINATE TRIMMER).

NOTE: This trimmer is equipped with an adjustable positive stop at the "O" degree position. After making a preliminary setting and practice cut following the above steps; check the accuracy of the cut. Turn set screw (D) Fig. 2, inward or outward as required to produce a true "O" degree cut. With the set screw (D) accurately positioned, the base will return to the same "O" degree setting without need for visual alignment of the graduation markings.



Fig. 3

TRIMMING INTO CORNERS

- 1. CAUTION: DISCONNECT trimmer from power source.
- 2. Loosen two tilt locking screws (A) Fig. 4 (one on each side of base) using the 5/32" Allen wrench furnished with your Laminate Trimmer.
- 3. Adjust base (B) Fig. 4, to align "45" degree mark with index mark (C) Fig. 4.
- 4. Tighten the two tilt locking screws (A) Fig. 4.
- 5. Adjust bit exposure (see ADJUSTING BIT EXPOSURE).
- 6. Make a practice cut on scrap material to verify adjustment is correct (see USING A LAMINATE TRIMMER).

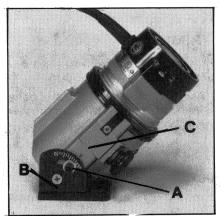




Fig. 4

TRIMMING "ODD ANGLE" CORNERS

- 1. CAUTION: DISCONNECT trimmer from power source.
- 2. Loosen two tilt locking screws (A) Fig. 5 (one on each side of base) using the 5/32" Allen wrench furnished with your Laminate Trimmer.
- 3. The base (B) Fig. 5, may now be adjusted to any angle between "0" degrees and "45" degrees to match the angle of the corner to be trimmed. Align the appropriate angle mark with the index mark (C) Fig. 5.
- 4. Tighten the two tilt locking screws (A) Fig. 5.
- 5. Adjust bit exposure (see ADJUSTING BIT EXPOSURE).
- 6. Make a practice cut on scrap material to verify adjustment is correct (see USING A LAMINATE TRIMMER).

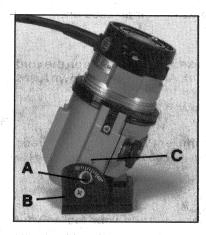




Fig. 5

USING A LAMINATE TRIMMER

- 1. Material to be trimmed must over hang the base material by at least 1/8",
- CAUTION: Always wear safety glasses while operating a laminate trimmer.
- 3. CAUTION: Be sure trimmer is disconnected from power source.
- 4. Firmly grasp motor housing being sure switch is in the "OFF" position.
- 5. Verify bit is clear of foreign objects and cord will not "hang up" on any obstructions.
- 6. Be sure work piece is firmly held in place. Use clamps where necessary to secure work piece.
- 7. Plug in power supply cord. Be alert to resist starting torque of motor. Turn motor "on".
- 8. Allow motor to reach "full speed". Place base of trimmer on surface to be trimmed and feed into work until bit pilot contacts base material. When guiding on a previously laminated surface, always wax or lubricate the area that trimmer will guide against.

NOTE: While operating this trimmer at any tilt setting other than "0" degrees, the long side of the base must be kept perpendicular to the piloting surface to prevent possible work spoilage.

- 9. Feed from left to right with a smooth steady motion.
- 10. At completion of trimming operation, turn switch "OFF". Allow motor to come to a complete stop before laying trimmer down.

MAINTENANCE

KEEP TOOL CLEAN

Perodically blow out all air passenges with compressed air. Remove built up grime resulting from working green or sappy woods.

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

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; worn parts replaced, when necessary; relubricated with fresh lubricant, if required; reassembled with new brushes; and performance tested.

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 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

The testing of these tools has been accomplished with the use of the following accessories ONLY. For safest operation, it is recommended that ONLY these accessories be used with this product.

WARNING: Since accessories other than those listed have not been tested with this product, use of such accessories could be hazardous.

FLUSH CUT TRIMMING BIT

Solid Carbide, Self Pilot - Makes self-trim flush cut.

		В	C	D
D. 1		Flute	Shank	Shank
Bit No.	Bevel	Length	Diameter	Length
43216	Flush	3/8"	1/4"	1 5⁄8"

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, P.O. Box 2468, Jackson, Tennessee 38302-2468; 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.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

PORTER-CABLE SERVICE CENTERS

Parts and Repair Service for Porter-Cable Power Tools are Available at These Locations

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Tempe 85282 (Phoenix) 2400 West Southern Avenue Suite 105 Phone: (602) 437-1200 Fax: (602) 437-2200

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WASHINGTON

Renton 98055 (Seattle) 268 Southwest 43rd Street Phone: (425) 251-6680 Fax: (425) 251-9337

Authorized Service Stations are located in many large cities.

Telephone 800-487-8665 or 901-541-6042 for assistance locating one.

DELTA SERVICE CENTERS

ALBERTA

Bay 6, 2520-23rd St. N.E. Calgary, Alberta T2E 8L2 Phone: (403) 735-6166 Fax: (403) 735-6144

BRITISH COLUMBIA 8520 Baxter Place

Burnaby, B.C. V5A 4T8 Phone: (604) 420-0102

Phone: (604) 420-010 Fax: (604) 420-3522

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Printed in U.S.A.