

Instruction Manual Manuel d'utilisation Manual de Instrucciones



MODEL 314

Trim Saw

Scie à Araser

Sierra Recortadora

PORTER CABLE®

INSTRUCTIVO DE OPERACIÓN, CENTROS
DE SERVICIO Y PÓLIZA DE GARANTÍA.

ADVERTENCIA: LÉASE ESTE INSTRUCTIVO
ANTES DE USAR EL PRODUCTO.

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DEFINITIONS - SAFETY GUIDELINES

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.

General Safety Rules

WARNING: Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your man-made-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) Work area safety

- a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b) 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.
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) Electrical safety

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock. Use of damaged or extended cords increases the risk of electrical shock. Use of 3-pronged receptacles that accept the 2-pronged plug will not reduce risk of electric shock.
- e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. 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. Use of a cord suitable for outdoor use reduces the risk of electric shock. 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 following table shows the correct size to use depending on cord length and nameplate amperage rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Minimum Gauge for Cord Sets

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

3) Personal safety

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-slip safety shoes, hard hat, or hearing protection used for appropriate conditions may prevent injuries.
- c) Avoid accidental starting. Be sure the switch is in the off-position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool when unexpected situations occur.
- f) Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts. Air vents often cover moving parts and should also be avoided.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.

4) Power tool use and care

- a) Use the right power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are easier to control and are easier to operate.
- g) Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

5) Service

- a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

ADDITIONAL SPECIFIC SAFETY RULES

Safety Instructions for All Saws

DANGER

- a) Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing. If both hands are holding the saw, they cannot be cut by the blade.
- b) Do not reach underneath the workpiece. The guard cannot protect you from the blade below the workpiece.

- c) Adjust the cutting depth to the thickness of the workpiece. Less than a full tooth of the blade teeth should be visible below the workpiece.
- d) Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform. It is important to support the work properly to minimize body exposure, blade binding, or loss of control.
- e) Hold power tool with insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will also make exposed metal parts of the power tool "live" and shock the operator.
- f) When ripping always use a rip fence or straight edge guide. This improves the accuracy of cut and reduces the chance of blade binding.
- g) Always use blades with correct size and shape (diamond versus round) of arbor holes. Both types that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
- h) Never use damaged or incorrect blade washers or bolt. The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.
- i) Keep your body positioned to either side of the blade, but not in line with the saw blade. KICKBACK could cause the saw to jump backwards (see Causes and Operator Prevention of Kickback and KICKBACK).
- j) **CAUTION:** Blade coast after turn off. Serious personal injury may result.
- k) Avoid cutting nails. Inspect for and remove all nails from lumber before cutting.

CAUSES AND OPERATOR PREVENTION OF KICKBACK:

- a) Kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrollable saw to lift up and out of the workpiece toward the operator.
- b) When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator.
- c) If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions that can be avoided by taking proper precautions as given below:

- a) **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces.** Position your body to either side of the blade, but not in line with the blade. Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.
- b) **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.** Investigate and take corrective actions to eliminate the cause of blade binding.
- c) **When restarting a saw in the workplace, center the saw blade in the kerf and check that saw teeth are not engaged into the material.** If saw blade is binding, it may walk up or kickback from the workpiece.
- d) **Support large panels to minimize the risk of blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.
- e) **Do not use dull or damaged blades.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.
- f) **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.** If blade adjustment shifts while cutting, it may cause binding and kickback.
- g) **Use extra caution when making a "plunge cut" into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.

LOWER GUARD SAFETY INSTRUCTIONS

- a) **Check lower guard for proper closing before each use.** Do not operate the saw if lower guard does not close firmly or close instantly. Never clamp or tie the lower guard into the open position. If saw is accidentally dropped, lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- b) **Check the operation of the lower guard spring.** If the guard and the spring are not operating properly, they must be serviced before use. Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- c) **Lower guard should be retracted manually only for special cuts such as "plunge cuts" and "compound cuts".** Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released. For all other sawing, the lower guard should operate automatically.
- d) **Always observe that the lower guard is covering the blade before placing saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

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

- lead from lead-based paint.
- crystalline silica from bricks and cement and other masonry products.
- arsenic and chromium from chemically-treated lumber (CCA).

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, such as those dust masks that are specially designed to filter out microscopic particles.

WARNING: Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling, and other construction activities. Wear protective clothing and wash exposed areas with soap and water. Avoid dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals.

WARNING: Use of this tool can generate and/or disburse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.

WARNING: ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. ALWAYS WEAR CERTIFIED SAFETY EQUIPMENT:

- ANSI Z87.1 eye protection (CAN/CSA Z94.3)
- ANSI S12.6 (S3.19) hearing protection
- NIOSH/OSHA/MSHA respiratory protection

SYMBOLS

The label on your tool may include the following symbols. The symbols and their definitions are as follows:

V.....volts	A.....amperes
Hz.....hertz	W.....watts
min.....minutes	~.....alternating current
---	no load speed
(I)	Class I Construction
(G)	(grounded)
(II)	Class II Construction
(double insulated)	▲.....safety alert symbol
BPM.....beats per minute	/min.....revolutions or reciprocations per minute
RPM.....revolutions per minute	RPM.....revolutions per minute

SAVE THESE INSTRUCTIONS

MOTOR

Be sure your power supply agrees with nameplate marking. 120 Volts AC means your saw will operate on alternating current. As little as 10% lower voltage can cause loss of power and can result in overheating. All Porter Cable tools are factory-tested; if this tool does not operate, check the power supply.

WARNING: Accessories must be rated for at least the speed recommended on the tool warning label. Accessories running over rated speed can fly apart and cause injury. Accessory ratings must always be above tool speed as shown on tool nameplate.

WARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

CAUTION: Avoid contact with the blade teeth to prevent personal injury.

OPERATION

BLADE SELECTION

Your Porter-Cable circular saw is designed for use with 4 1/2" diameter blades that have a 3/8" diameter bore. Carbide must be rated for 4500 RPM operation (or higher).

A combination blade is furnished with your saw and is an excellent blade for all general ripping and crosscutting operations. When crosscutting and smoothness of cut is an important factor, use a thin kerf saw. Fine tooth blade cutting plywood and masonite. Special blades are available for cutting plywood and "problem materials" (metal, laminates, and gauge-size sheet steel). **DO NOT** use any abrasive wheels.

TO CHANGE SAW BLADES

WARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

CAUTION: Avoid contact with the blade teeth to prevent personal injury.

To remove the blade, place the teeth of the blade against the edge of a board and loosen the blade retaining screw by turning it counter-clockwise with the provided wrench. Remove the blade retaining screw and the outer flange. Hold the lower blade guard open and remove the blade. Before installing a new blade, remove the inner flange and wipe it clean. Also remove any sawdust that may have accumulated in the guards, around the saw arbor, and from the lower blade guard spring. Check the lower blade guard to ensure that it is in working order.

CAUTION: If lower blade guard movement is sluggish or binding exists, return the saw to your nearest AUTHORIZED PORTER-CABLE SERVICE STATION or PORTER-CABLE SERVICE CENTER for repair. NEVER use your saw if the lower blade guard is not in working order.

Clean and replace the outer flange, making certain the square hole mates with the squared end of the saw arbor. Install the blade with the teeth pointing "**UP**" at the front of the saw. Firmly tighten the blade retaining screw.

INSTALLING THE PLEXIGLASS BLADE

WARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

CAUTION: Avoid contact with the blade teeth to prevent personal injury.

Use the following installation procedure **ONLY** for cutting plexiglass. Install a special plexiglass-cutting blade with the teeth pointing "**DOWN**" at the front of the saw.

BLADE

WARNING: To minimize the risk of eye injury, always wear ANSI Z87.1 approved eye protection. Carbide is a hard but brittle material. Foreign objects in the work piece such as wire or nails can cause tips to crack or break. Only operate saw when proper saw blade guard is in place. Mount blade securely in proper rotation before using, and always use a clean, sharp blade.

