



371

### 2 1/2" x 14" Compact Belt Sander

**PORTER-CABLE**

#### **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 mains-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 only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole receptacles that accept the tool's plug.
  - 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 ampere 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

##### Ampere Rating      Gauge of wire in AWG units

From 0 to 6 amps	18	16	16	14
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#### **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-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal 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 in unexpected situations.
- 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.

- 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) Do not force the 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 less likely to bind and are easier to control.
  - 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**

**WARNING:** To reduce the risk of injury:

- Hold tool by 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 make exposed metal parts of the tool "live" and shock the operator.
- Do not sand metal of any kind with your belt sander. Sparks may be generated by sanding screws, nails or other metals which may ignite dust particles.
- Do not wet sand with this sander. Liquids may enter the motor housing and cause electric shock.
- Do not operate this tool for long periods of time. Vibration caused by the operating action of this tool may cause permanent injury to fingers, hands, and arms. Use gloves to provide extra cushion, take frequent rest periods, and limit daily time of use.
- Clean out your tool often, especially after heavy use. Dust and grit containing metal particles often accumulate on interior surfaces and could create a risk of serious injury, electric shock or electrocution. ALWAYS WEAR SAFETY GLASSES.
- Ventilate your work area adequately when performing sanding operations.
- Make sure the sanding belt is not contacting the workpiece before the switch is turned on.
- Be sure to clamp or secure sander if it is inverted and bench mounted for use as a table sander. When using any accessory that converts a belt sander in this manner, be sure to read and follow all instructions included with the accessory. Always use the included safety features with the accessory, such as the edge stop or guide, when sanding short or small workpieces. Fingers or clothing can be dragged into pulley and housing area if guards are not in place. Also, be aware of the switch location and know how to shut off the tool in emergency situations.

**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 paints,
- crystalline silica from bricks and cement and other masonry products, and
- 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. Allowing 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:** Wear appropriate hearing protection during use. (ANSI S12.6 (S3.19)) Under some conditions and duration of use, noise from this product may contribute to hearing loss.

#### **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
---.....direct current	No.....no load speed
(I).....Class I Construction (grounded)	(E).....earthing terminal
(II).....Class II Construction (double insulated)	▲.....safety alert symbol
BPM.....beats per minute	.../min.....revolutions or reciprocations per minute

#### **ADDITIONAL SAFETY RULES FOR PAINT REMOVAL**

**WARNING:** Extreme care should be taken when removing paint. The peelings, residue, and vapors of paint may contain lead, which is poisonous. Exposure to even low levels of lead can cause irreversible brain and nervous system damage. Young and unborn children are particularly vulnerable. Before beginning any paint removal process you should determine whether the paint you are removing contains lead. This can be done by your local health department or by a professional who uses a paint analyzer to check for lead.

**Lead-based paint should only be removed by a professional.**

Persons removing paint should follow these guidelines:

1. **Keep the work area well ventilated.** Open the windows and put an exhaust fan in one of them. Be sure the fan is moving air from inside to outside.
2. **Remove or cover any carpets, rugs, furniture, clothing, cooking utensils, and air ducts.** Such preventive safety measures reduce the risk of exposure.
3. **Place drop cloths in the work area to catch any paint chips or peelings.** Wear protective clothing such as extra work shirts, overalls and hats. Such preventive safety measures reduce the risk of exposure.
4. **Work in one room at a time.** Furnishings should be removed or placed in the center of the room and covered. Work areas should be sealed off from the rest of the dwelling by sealing doorways with drop cloths.
5. **Children, pregnant (or potentially pregnant) women and nursing mothers should not be present in the work area until the work is done and all cleanup is complete.** Such preventive safety measures reduce the risk of injury.
6. **Wear a dust respirator or a dual filter (dust and fume) respirator mask which has been approved by the Occupational Safety and Health Administration (OSHA), the National Institute of Safety and Health (NIOSH), or the United States Bureau of Mines.** These masks and replaceable filters are readily available at major hardware stores. Be sure the mask fits. Beards and facial hair may keep the masks from sealing properly. Change filters often. DISPOSABLE PAPER MASKS ARE NOT ADEQUATE.
7. **Keep food and drink out of the work area.** Wash hands, arms, and face and rinse mouth before eating or drinking. Do not smoke or chew gum or tobacco in the work area.
8. **Clean up all removed paint and dust by wet mopping the floors.** Use a wet cloth to clean all walls, sills and any other surfaces where paint or dust is clinging. DO NOT SWEEP, DRY DUST OR VACUUM. Use a high phosphate detergent or trisodium (TSP) to wash and mop areas.
9. **At the end of each work session, put the paint chips and debris in a double plastic bag, close it with tape or twist ties and dispose properly.** Such preventive safety measures reduce the risk of exposure.
10. **Remove protective clothing and work shoes in the work area to avoid carrying dust into the rest of the dwelling.** Wash work clothes separately. Wipe shoes off with a wet rag, then wash that rag with the work clothes. Wash hair and body thoroughly with soap and water.

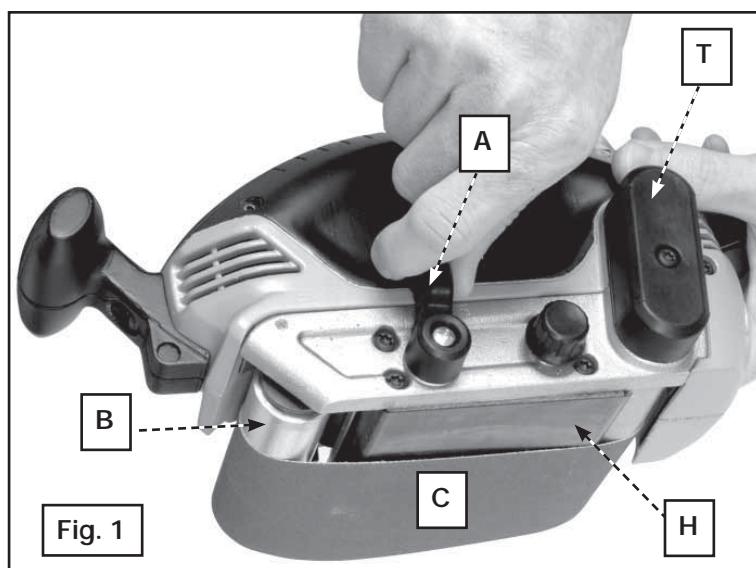


Fig. 1

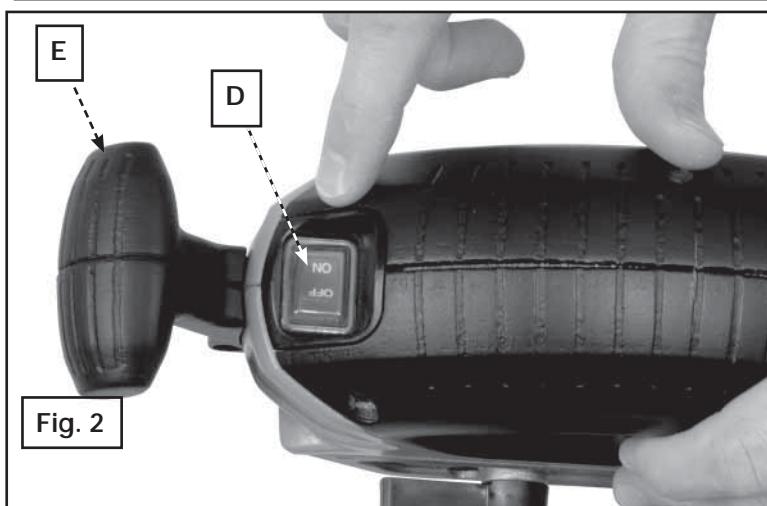


Fig. 2

## SAVE THESE INSTRUCTIONS!

### MOTOR

**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.

### ASSEMBLY

#### REPLACING THE SANDING BELT

**WARNING:** To reduce the risk of injury, be sure sander is turned off and disconnected from the power supply when changing the sanding belt. Before reconnecting the tool, make sure the switch (D) Fig. 2 is in the off position.

To replace the belt:

1. Rotate the belt release lever (A) Fig. 1 up until front wheel of the sander (B) Fig. 1 retracts and releases the tension on the abrasive belt (C).
2. Remove the worn out belt.
3. Slip a new belt around the wheels. Sanding belts without arrows can go either direction. If the belt is unidirectional and has arrows printed on its inside, make sure to point these arrows in the direction of wheel rotation. (Wheel rotation would be clockwise when looking into the open side of the sander).
4. Rotate the belt release lever (A) Fig. 1 down into position to reapply tension to the belt.

### OPERATION

#### SWITCH OPERATION

To turn unit on, depress the side of the dust-protected switch (D) Fig. 2 that reads "ON" and corresponds to the symbol "I." To turn the unit off, depress the side of the switch that reads "OFF" and corresponds with the symbol "O."

**WARNING:** To reduce the risk of injury, make sure the sander is not resting on the workpiece when the switch is turned on.

**CAUTION:** To reduce the risk of injury, check to see that the belt guard (T) Fig. 1 is in place, secured, and working correctly.

#### FRONT HANDLE

The front auxiliary handle is removable to allow the sander into tight spaces. The unit comes with the handle (E) Fig. 2 installed as shown. To remove the handle, loosen the screw (S) Fig. 4 in the center of the handle using a flat head screwdriver and then remove handle and screw.

**NOTE:** The handle must be properly seated over the mounting surface before tightening the screw.

#### TRACKING THE BELT

**WARNING:** Severe laceration hazard. Properly adjust the tracking of the belt to avoid it overhanging the housing. A running belt overhanging the housing can cause severe lacerations.

Make sure the sanding belt is tracking properly on your unit. To do this:

1. Grasp unit in your hand and hold with the belt facing you.
2. Turn on switch (D) Fig. 2 to start the belt.
3. Turn the tracking knob (G) Fig. 3 counterclockwise (turning towards the front of the sander) to move the belt toward the housing. Turn the knob clockwise (towards the power cord) to move it away from the housing.
4. NOTE: The belt should be aligned with the flush edge of the platen (H) Fig. 1 while the sander is in operation.
5. Turn switch off and make sure the belt has come to a complete stop before setting unit down.

#### PROPER HAND POSITION

This can be a one-handed tool. Proper hand position would be to have one hand on the rubber portion of the body, as shown in Fig. 6. If needed, the other hand can grip the auxiliary handle (E) Fig. 2.

**WARNING:** Severe abrasion hazard. Keep hands and fingers clear of moving sanding belt. Failure to do so could result in the sanding of the hands or fingers possibly causing serious injury.

**WARNING:** Severe pinching hazard. Keep hands and fingers clear of front roller at all times. Failure to do so could result in fingers getting pinched, causing possible serious injury.

**WARNING:** Severe abrasion hazard. Do not let the fingers rest over the front or right edge of the sander. If the sanding belt were to run off, or if it were not properly adjusted, your fingers could come in contact with the moving sanding belt resulting in possible serious injury.

**CAUTION:** Make sure all air vents on the sander (L) and (M) Fig. 3 are not covered during use.

#### OPERATING THE SANDER

Before sanding a workpiece, make sure it is secured or clamped down.

**WARNING:** To reduce the risk of injury, always secure work to prevent it from being thrown back towards the user.

#### VACUUM ADAPTER

**WARNING:** Empty dust collection system frequently, especially when sanding resin-coated surfaces such as polyurethane, varnish, shellac, etc. Dispose of coated dust particles according to the finish manufacturer's guidelines, or place in a metal can with a tight fitting metal lid. Remove coated dust particles from the premises daily. The accumulation of fine sanding dust particles may self ignite and cause fire.

**WARNING:** Shock hazard. The use of a vacuum hose and vacuum adapter with the belt sander may generate static electricity that could result in startling static discharge.

**WARNING:** Do not use a dust collection device when sanding metal. Doing so creates a fire hazard, which may cause serious personal injury and/or damage to the tool.

Your belt sander is equipped with a dual hose adapter. The adapter can be attached to both 1" (inside diameter) and 35 mm (outside diameter) shop vacuum hoses for dust collection. Insert the adapter (J) Fig. 5 into the dust port (K) and turn it 1/8 turn clockwise to secure the adapter to the sander. Then, attach the appropriate vacuum hose to the adapter.



Fig. 3

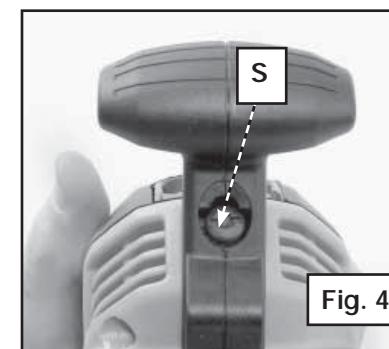


Fig. 4

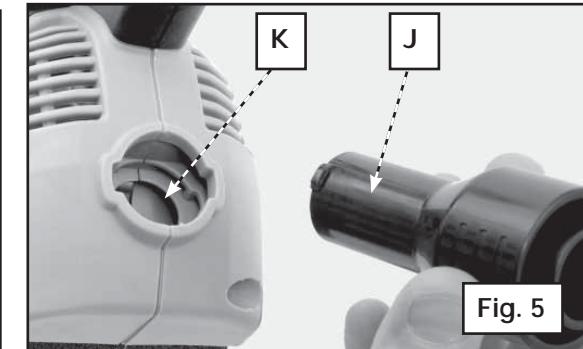


Fig. 5

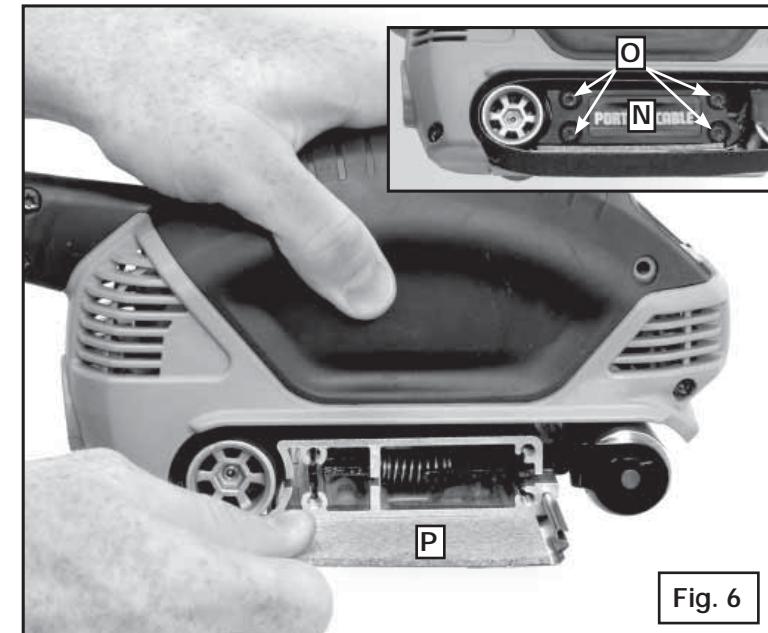


Fig. 6

### MAINTENANCE

**WARNING:** To reduce the risk of injury, turn off and unplug sander before making any adjustments or removing or installing accessories.

#### TO REPLACE THE PLATEN/CORK

The cork under the platen on your belt sander may require replacement at some point during the life of the tool. A new platen/cork is available through your PORTER-CABLE service center.

1. Remove the sanding belt as described in ASSEMBLY.
2. Rotate the belt release lever (A) Fig. 1 down.
3. Remove the plastic cover (N) Fig. 6 (inset) from right side of platen by removing four screws (O).
4. Slide old platen/cork (P) Fig. 6 out.
5. Slide the new platen/cork into the sander and discard the old one.
6. Reinstall the plastic cover and make sure the tracking spring is installed correctly.
7. Install a sanding belt as described in ASSEMBLY.

#### BRUSH INSPECTION

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

At approximately 100 hours of use, take or send your tool to your nearest Porter-Cable Factory Service center or Porter-Cable Authorized Warranty Service Center to be thoroughly cleaned and inspected. Have worn parts replaced and lubricated 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.

#### CLEANING

Periodically blow out all air passages with dry compressed air.

**WARNING:** Wear ANSI Z87.1 safety glasses while using compressed air.

Use only mild soap and a damp cloth to clean the tool.

**CAUTION:** Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

**CAUTION:** Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool.

#### 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. However, it is recommended that, once a year, you take or send the tool to a PORTER-CABLE service center for a thorough cleaning and inspection.

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.

#### 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.