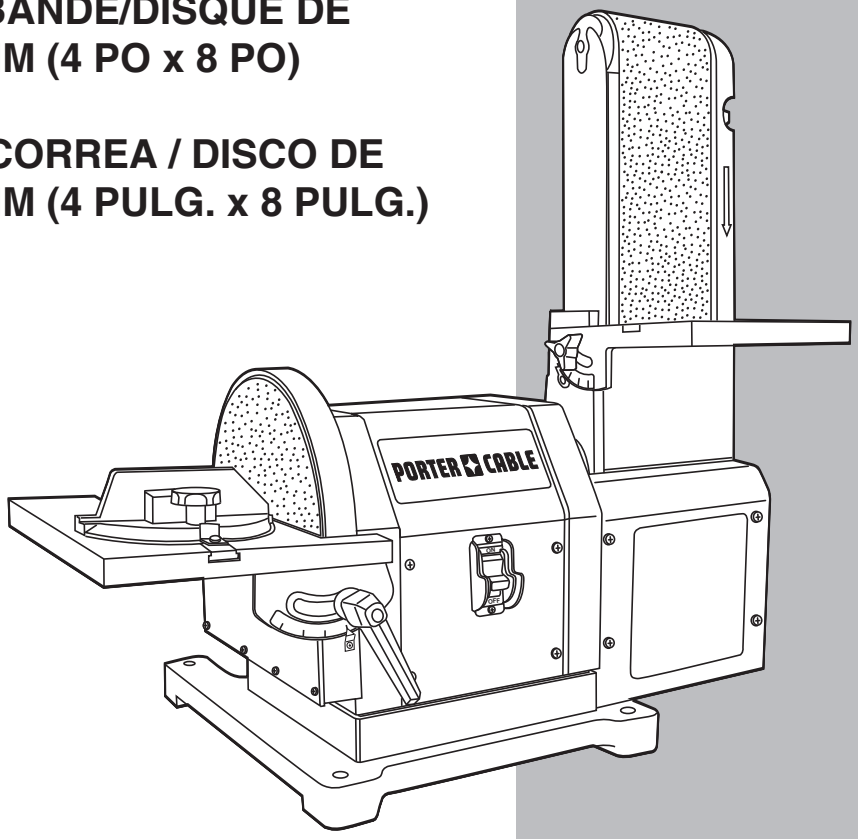
PORTER CABLE®

4 IN. x 8 IN. (102 MM x 203 MM) BELT / DISC SANDER

PONCEUSE À BANDE/DISQUE DE 102 MM x 203 MM (4 PO x 8 PO)

LIJADORA DE CORREA / DISCO DE 102 MM x 203 MM (4 PULG. x 8 PULG.)



Instruction Manual
Manuel d'instructions
Manual de instrucciones

www.portercable.com

INSTRUCTIVO DE OPERACIÓN, CENTROS DE SERVICIO Y PÓLIZA DE GARANTÍA.
⚠ **ADVERTENCIA**: LÉASE ESTE INSTRUCTIVO ANTES DE USAR EL PRODUCTO.

CATALOG NUMBER
PCB420SA

TABLE OF CONTENTS

PRODUCT SPECIFICATIONS

MOTOR		**BELT**	
Amps	5 AMP	Speed	2160 FPM (No load)
Voltage	120 V	Size	4 in. wide x 36 in. long (102 mm x 914 mm)
Hz	60		
Horsepower	3/4 HP (Max. Developed)	**DISC**	
Speed	3450 RPM (No load)	Speed	3450 RPM (No load)
Type	Induction	Size	8 in. diameter (203 mm)
BELT WORKTABLE	6-11/16 in. x 4-15/16 in. (170 mm x 125 mm)	**DISC WORKTABLE**	10-25/64 in. x 5-29/32 in. (264 mm x 150 mm)
MITER GAUGE	0 ~ 60° Right / Left	**DUST EXHAUST PORT**	2-1/2 in. O.D. (63.5 mm)

⚠ WARNING

To avoid electrical hazards, fire hazards or damage to the tool, use proper circuit protection. Use a seperate electrical circuit for your tools. This sander is wired at the factory for 110-120 Volt operation. It must be connected to a 110-120 Volt / 5 Ampere time delay fuse or circuit breaker. To avoid shock or fire, replace power cord immediately if it is worn, cut or damaged in any way.

CALIFORNIA PROPOSITION 65

⚠ WARNING

Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals know 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, and**
- **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, such as those dust masks that are specially designed to filter out microscopic particles.
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 disperse 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.

SAFETY GUIDELINES - DEFINITIONS

WARNING ICONS
Your power tool and its Instruction Manual may contain "WARNING ICONS" (a picture symbol intended to alert you to, and/or instruct you how to avoid, a potentially hazardous condition). Understanding and heeding these symbols will help you operate your tool better and safer. Shown below are some of the symbols you may see.

SAFETY ALERT: Precautions that involve your safety.

PROHIBITION

WEAR EYE PROTECTION: Always wear safety goggles or safety glasses with side shields.

WEAR RESPIRATORY AND HEARING PROTECTION: Always wear respiratory and hearing protection.

READ AND UNDERSTAND INSTRUCTION MANUAL: To reduce the risk of injury, user and all bystanders must read and understand instruction manual before using this product.

KEEP HANDS AWAY FROM BLADE: Failure to keep your hands away from the blade will result in serious personal injury.

SUPPORT AND CLAMP WORK

⚠ DANGER **DANGER:** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING **WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION **CAUTION:** Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

SANDING LEAD BASED PAINT:
Sanding of lead based paint is NOT RECOMMENDED due to the difficulty of controlling the contaminated dust. The greatest danger of lead poisoning is to children and pregnant women. Since it is difficult to identify whether or not a paint contains lead without a chemical analysis, we recommend the following precautions when sanding any paint:
PERSONAL SAFETY:
- No children or pregnant women should enter the work area where the paint sanding is being done until all clean up is completed.
- A dust mask or respirator should be worn by all persons entering the work area. The filter should be replaced daily or whenever the wearer has difficulty breathing.

NOTE: Only those dust masks suitable for working with lead paint dust and fumes should be used. Ordinary painting masks do not offer this protection. See your local hardware dealer for the proper (NIOSH approved) mask.
- NO EATING, DRINKING or SMOKING should be done in the work area to prevent ingesting contaminated paint particles. Workers should wash and clean up BEFORE eating, drinking or smoking. Articles of food, drink, or smoking should not be left in the work area where dust would settle on them.

ENVIRONMENTAL SAFETY:
- Paint should be removed in such a manner as to minimize the amount of dust generated.
- Areas where paint removal is occurring should be sealed with plastic sheeting of 4 mils thickness.
- Sanding should be done in a manner to reduce tracking of paint dust outside the work area.

CLEANING AND DISPOSAL:
- All surfaces in the work area should be vacuumed and thoroughly cleaned daily for the duration of the sanding project. Vacuum filter bags should be changed frequently.
- Plastic drop cloths should be gathered up and disposed of along with any dust chips or other removal debris. They should be placed in sealed refuse receptacles and disposed of through regular trash pick-up procedures. During clean up, children and pregnant women should be kept away from the immediate work area.
- All toys, washable furniture and utensils used by children should be washed thoroughly before being used again.

POWER TOOL SAFETY

GENERAL SAFETY INSTRUCTIONS BEFORE USING THIS POWER TOOL

Safety is a combination of common sense, staying alert and knowing how to use your power tool.

⚠ WARNING

To avoid mistakes that could cause serious injury, do not plug the tool in until you have read and understood the following.

1.  **READ** and become familiar with the entire Instruction Manual. **LEARN** the tool's application, limitations and possible hazards.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **REMOVE ADJUSTING KEYS AND WRENCHES**. Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning ON.
4. **KEEP WORK AREA CLEAN**. Cluttered areas and benches invite accidents.
5. **DO NOT USE IN DANGEROUS ENVIRONMENTS**. Do not use power tools in damp locations, or expose them to rain or snow. Keep work area well lit.
6. **KEEP CHILDREN AWAY**. All visitors and bystanders should be kept a safe distance from work area.
7. **MAKE WORKSHOP CHILD PROOF** with padlocks, master switches or by removing starter keys.
8. **DO NOT FORCE THE TOOL.** It will do the job better and safer at the rate for which it was designed.
9. **USE THE RIGHT TOOL**. Do not force the tool or an attachment to do a job for which it was not designed.
10. **USE PROPER EXTENSION CORDS**. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will result in a drop in line voltage and in loss of power which will cause the tool to overheat. The table on page 6 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.
11. **WEAR PROPER APPAREL**. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
12.  **ALWAYS WEAR EYE PROTECTION**. Any power tool can throw foreign objects into the eyes and could cause permanent eye damage. **ALWAYS** wear Safety Goggles (not glasses) that comply with ANSI Safety standard Z87.1. Everyday eyeglasses have only impact–resistant lenses. They **ARE NOT** safety glasses.

    NOTE: Glasses or goggles not in compliance with ANSI Z87.1 could seriously injure you when they
13.  **WEAR A FACE MASK OR DUST MASK**. Sanding operation produces dust.
14.  **SECURE WORK**. Use clamps or a vise to hold work when practical. It is safer than using your hand and it frees both hands to operate the tool.
15. **DISCONNECT TOOLS FROM POWER SOURCE** before servicing, and when changing accessories such as blades, bits and cutters.
16. **REDUCE THE RISK OF UNINTENTIONAL STARTING**. Make sure switch is in the OFF position before plugging the tool in.
17. **USE RECOMMENDED ACCESSORIES**. Consult this Instruction Manual for recommended accessories. The use of improper accessories may cause risk of injury to yourself or others.
18. **NEVER STAND ON THE TOOL**. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
19. **CHECK FOR 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.
20. **NEVER LEAVE THE TOOL RUNNING UNATTENDED. TURN THE POWER "OFF".** Do not walk away from a running tool until the blade comes to a complete stop and the tool is unplugged from the power source.
21. **DO NOT OVERREACH**. Keep proper footing and balance at all times.
22. **MAINTAIN TOOLS WITH CARE**. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
23. **DO NOT** use power tool in presence of flammable liquids or gases.
24. **DO NOT** operate the tool if you are under the influence of any drugs, alcohol or medicationn that could affect your ability to use the tool properly.
25. Dust generated from certain materials can be hazardous to your health. Always operate sander in well-ventilated area and provide for proper dust removal.
26.  **WEAR HEARING PROTECTION** to reduce the risk of induced hearing loss.

BELT / DISC SANDER SAFETY

1. **USE** sander on horizontal surfaces only. Operating the sander when mounted on non-horizontal surfaces might result in motor damage.

2. **TO STOP** it from tipping over or moving when in use, the sander must be securely fastened to a bench top or supporting surface.

3. **PLACE** the sander so neither the user nor bystanders are forced to stand in line with the abrasive belt or disc.

4. **MAKE SURE** the sanding belt is installed in the correct direction. See directional arrow on back of belt.

5. **ALWAYS** have the tracking adjusted properly so the belt does not run off the pulleys.

6. **DO NOT USE** sanding belts or discs that are damaged, torn or loose. Use only correct size sanding belt and disc. Narrower belts uncover parts that could trap fingers.

7. **MAKE SURE** there are no nails or foreign objects in the part of the workpiece to be sanded.

8. **ALWAYS HOLD** the workpiece firmly when sanding. Keep hands away from sanding belt or disc. Sand only one workpiece at a time.

9. **ALWAYS HOLD** the workpiece firmly on the table when using the disc sander and when using the belt sander.

10. **ALWAYS SAND ON THE DOWNWARD SIDE** of the sanding disc when using the disc sander. Sanding on the upward side of the disc could cause the workpiece to fly out of position, resulting in injury.

11. **ALWAYS** maintain a minimum clearance of 1/16 inch (1.6 mm) or less between the table or backstop and the sanding belt or disc.

12. **DO NOT** sand pieces of material that are too small to be safely supported.

13. **KEEP** fingers away from where the belt goes into the dust trap.

14. **WHEN** sanding a large workpiece, provide additional support at table height.

15. **DO NOT** sand with the workpiece unsupported. Support the workpiece with the backstop or table. Plan your work support.

16. **NEVER USE ANOTHER PERSON** as additional support for a workpiece longer or wider than the table.

17. **ALWAYS** remove scrap pieces and other objects from the table, backstop or belt before turning the sander ON.

18. **NEVER** perform layout, assembly or set-up work on the table while the sander is operating.

19. **NEVER** use solvents to clean plastic parts. Solvents could dissolve or otherwise damage the material. Use only a soft damp cloth to clean plastic parts.

20. **SHOULD** any part of your sander be missing, damaged, or fail in any way, or any electrical components fail to perform properly, shut off switch and remove plug from power source outlet. Replace missing, damaged or failed parts before resuming operation.

21. **NEVER PULL THE POWER CORD** out of the receptacle by pulling on the cord. Keep cords away from heat, oil and sharp edges.

22. **HAVE AN ELECTRICIAN REPLACE OR REPAIR** damaged or worn cords immediately.

23. This tool is not approved for use for any material other than wood and wood products.

ELECTRICAL REQUIREMENTS AND SAFETY

POWER SUPPLY AND MOTOR SPECIFICATIONS

⚠ WARNING

To avoid electrical hazards, fire hazards, or damage to the tool, use proper circuit protection. Use a seperate electrical circuit for your tool. Your sander is wired at the factory for 120 V operation. Connect to a 120 V, 5 Amp circuit and use a 5 Amp time delay fuse or circuit breaker. To avoid shock or fire, if power cord is worn, cut, or damaged in any way, have it replaced immediately.

GROUNDING INSTRUCTIONS

⚠ WARNING

This tool must be grounded while in use to protect the operator from electrical shock.

IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides a path of least resistance for electric currents and reduces the risk of electric shock. This tool is equipped with an electrical cord that has an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching receptacle that is properly installed and grounded in accordance with all local codes and ordinances.

DO NOT MODIFY THE PLUG PROVIDED. If it will not fit the receptacle, have the proper receptacle installed by a qualified electrician.

IMPROPER CONNECTION of the equipment grounding conductor can result in risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electrical cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal.

CHECK with a qualified electrician or service person if you do not completely understand the grounding instructions, or if you are not certain the tool is properly grounded.

USE only 3-wire extension cords that have three-pronged grounding plugs with three-pole receptacles that accept the tool's plug. Repair or replace damaged or worn cords immediately.

Use a separate electrical circuit for your tool. This circuit must not be less than #18 wire and should be protected with a 5 Amp time lag fuse. Before connecting the motor to the power line, make sure the switch is in the off position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.

GUIDELINES FOR EXTENSION CORDS

USE THE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. Use an extension cord 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, overheating and burning out of the motor. The table below 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.

Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified technician before using it. Protect your extension cords from sharp objects, excessive heat and damp or wet areas.

MINIMUM GAUGE FOR EXTENSION CORDS (AWG)

(When using 120 volts only)

Ampere Rating		Total length of Cord				
More Than	Not More Than	25 (7.62	50 15.24	100 30.48	150 45.72	ft. m)
		AWG- American Wire Gauge				
0	6	18	16	16	14	
6	10	18	16	14	12	
10	12	16	16	14	12	
12	16	14	12	Not Recommended		

⚠ WARNING

This tool is for indoor use only. Do not expose to rain or use in damp locations.

This tool is intended for use on a circuit that has a receptacle like the one illustrated in Fig. 1. Fig. 1 shows a three-pronged electrical plug and receptacle that has a grounding conductor. If a properly grounded receptacle is not available, an adapter (Fig. 2) can be used to temporarily connect this plug to a two-contact grounded receptacle. The adapter (Fig. 2) has a rigid lug extending from it that MUST be connected to a permanent earth ground, such as a properly grounded

⚠ CAUTION

In all cases, make certain the receptacle is properly grounded. If you are not sure, have a qualified electrician check the receptacle.

Fig. 1

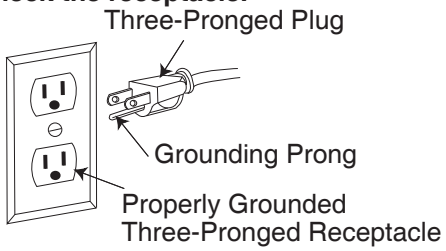
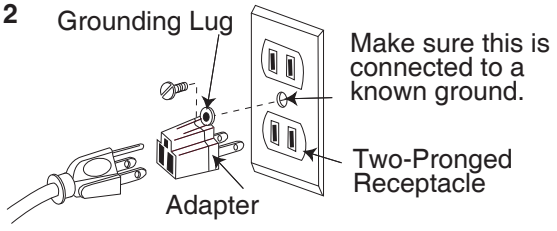


Fig. 2

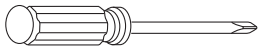


TOOLS NEEDED FOR ASSEMBLY

Supplied

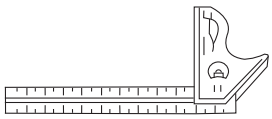
5 mm hex key

Not Supplied

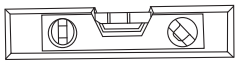


Phillips screwdriver

Adjustable wrench



Combination square



Level

CARTON CONTENTS

UNPACKING AND CHECKING CONTENTS

Carefully unpack the belt / disc sander and all its parts, and compare against the list below and the illustration on the next page. Place the belt / disc sander on a secure surface and examine it carefully.

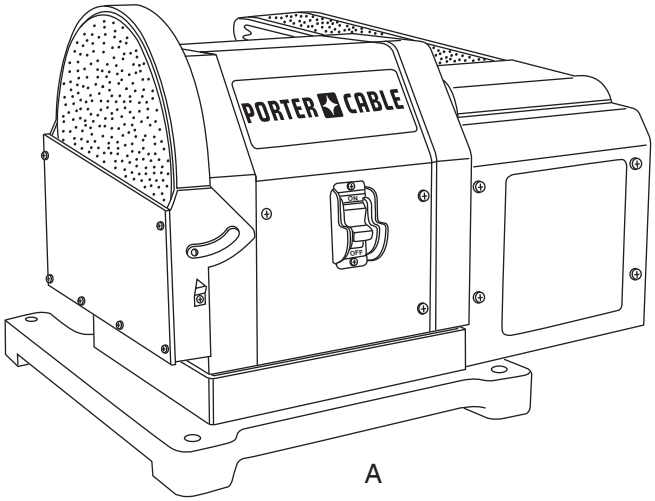
⚠ WARNING

- To avoid injury from unexpected starting or electrical shock, do not plug the power cord into a source of power during unpacking and assembly. This cord must remain unplugged whenever you are adjusting/ assembling the sander.
- The sander is heavy and should be lifted with care. To avoid injury, get assistance to help lift the sander.
- If any part is missing or damaged, do not attempt to assemble the sander, or plug in the power cord until the missing or damaged part is correctly replaced.

TABLE OF LOOSE PARTS

ITEM	DESCRIPTION	QUANTITY
A.	Belt / disc sander	1
B.	Miter gauge	1
C.	Disc worktable	1
D.	Belt worktable	1
E.	Hardware bag	
	Handles & washers	2 each
	Knob & washer	1 each
	Hex key	1
F.	Dust exhaust port	1
G.	Bag clamp	1
H.	Dust bag	1

UNPACKING YOUR BELT / DISC SANDER



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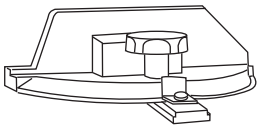

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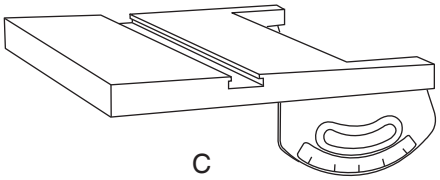

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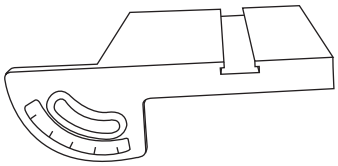

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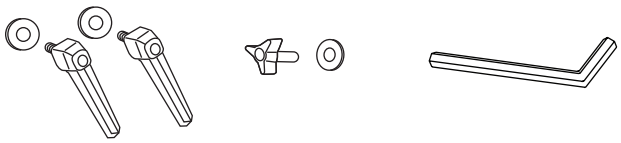

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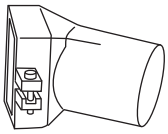

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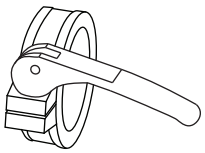

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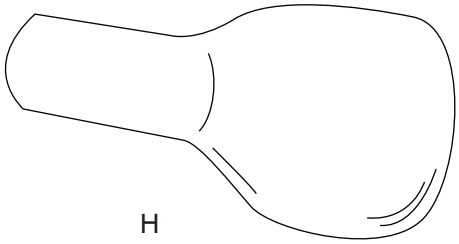
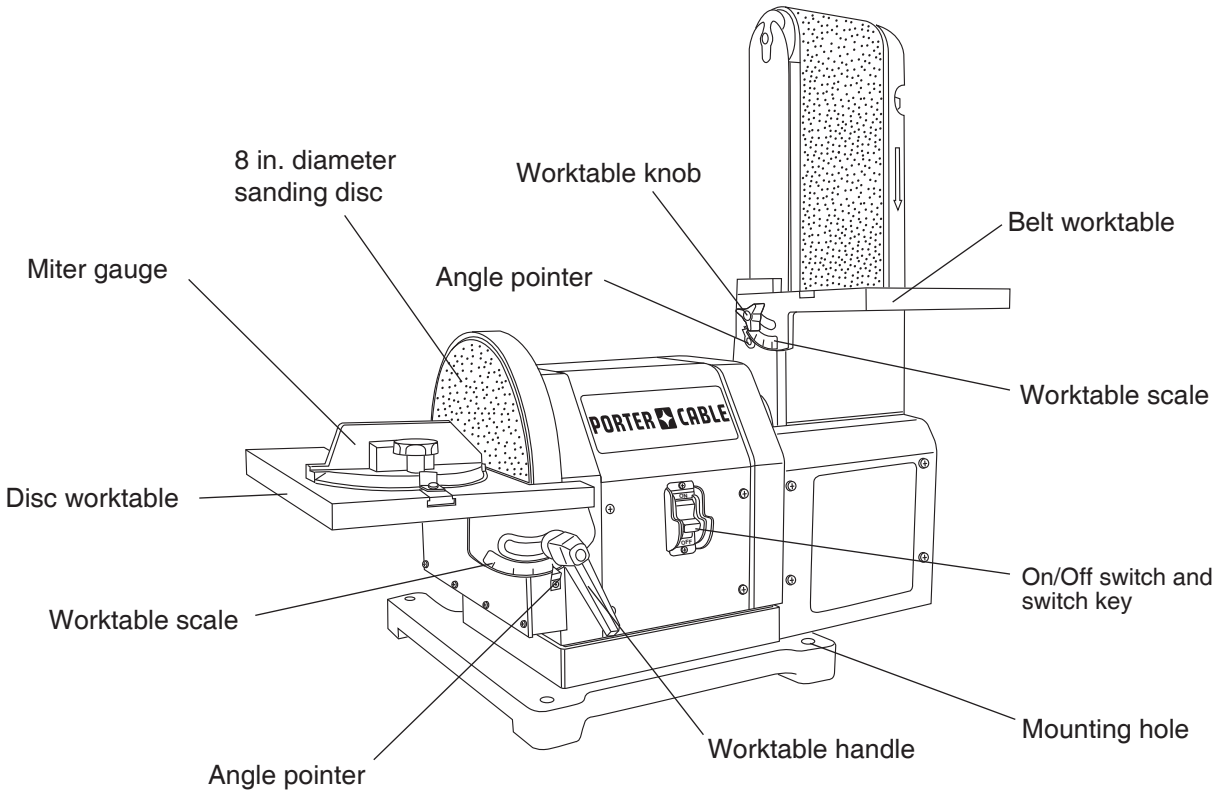
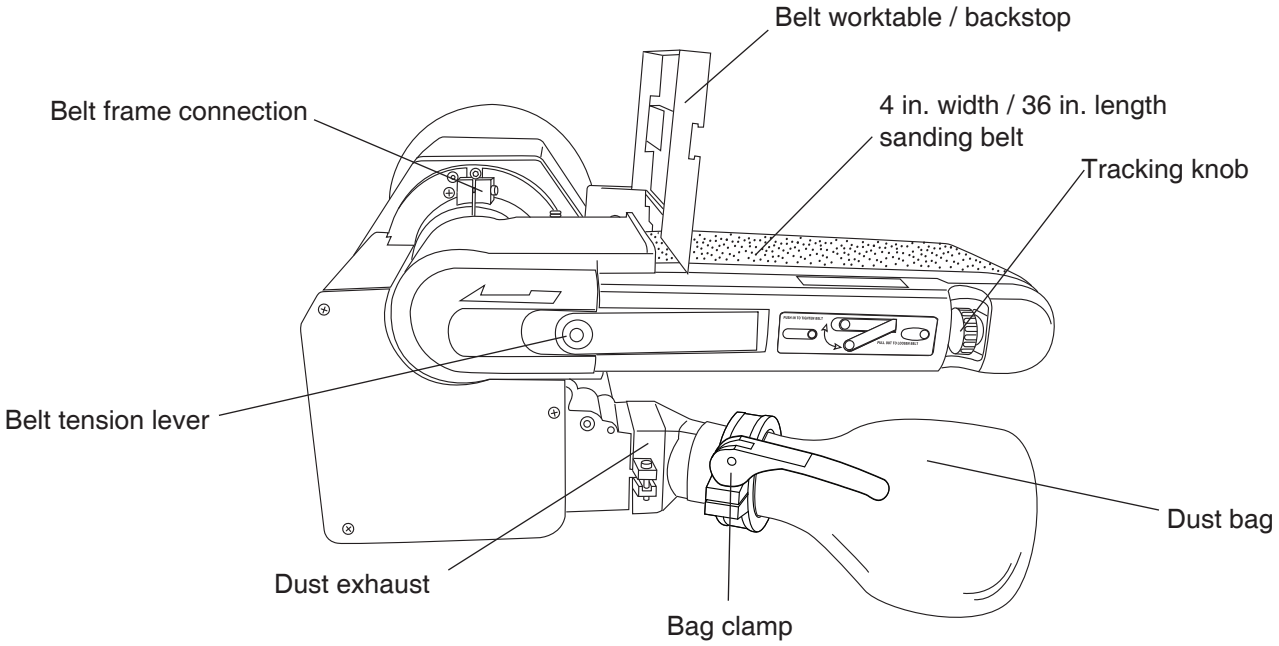


H

KNOW YOUR BELT / DISC SANDER





ASSEMBLY AND ADJUSTMENTS

Estimated Assembly Time: 10 - 20 minutes.

⚠ WARNING

To avoid injury, always keep the plug disconnected from the power source and the switch turned OFF until the sander is completely assembled and adjusted properly.

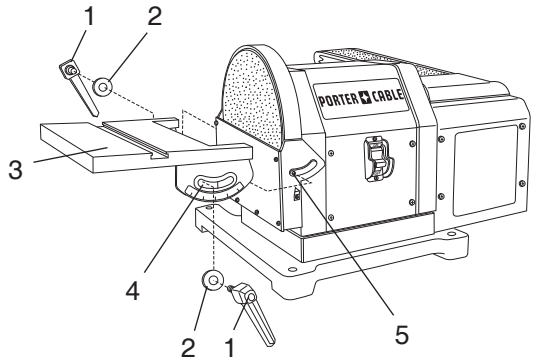
MOUNTING WORKTABLE ON DISC (FIG. A, B)

The larger worktable is used with the sanding disc. It should be used to support workpieces in all sanding operations except inside curve applications.

1. **Bag "E" -** Locate worktable handles (1) and washers (2) in parts bag.
2. Place the worktable (3) onto the sander frame, aligning the semi-circle slot (4) with the threaded hole (5).
3. Place a washer (2) on threaded shaft of each worktable handle (1), insert through semi-circular slot (4), and tighten into threaded hole (5). Repeat on other side of table.
4. Adjust worktable to level or any angle between 0° and 45° for sanding.

NOTE: Always check to make sure the handles are tight before beginning any sanding operation.

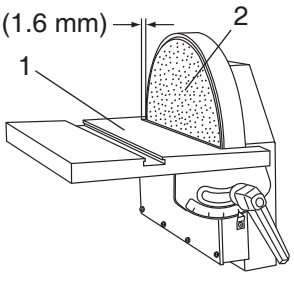
Fig. A



⚠ CAUTION

To avoid trapping the workpiece or fingers between the worktable (1) and sanding disc (2) , the worktable edge should be positioned a maximum of 1/16 in. (1.6 mm) from sanding disc plate as shown in Fig. B.

Fig. B

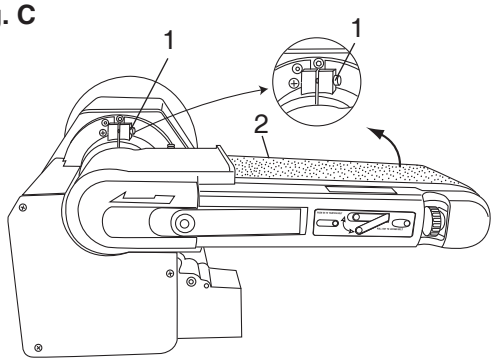


MOUNTING WORKTABLE ON BELT (FIG. C, D)

The small worktable is used with the sanding belt. It should be used to support workpieces in all sanding operations except inside curve applications.

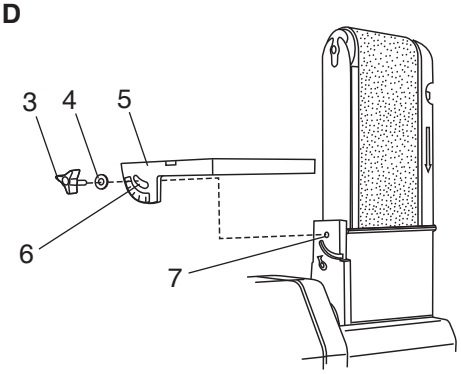
1. Loosen the inner hex screw (1) using the 5 mm hex key, and raise the belt bed (2) in the vertical position. Tighten the inner hex screw (1).

Fig. C



2. **Bag "E" -** Locate worktable knob (3) and washer (4) in parts bag.
3. Place the worktable (5) onto the sander frame, aligning the semi-circle slot (6) with the threaded hole (7).
4. Place washer (4) on threaded shaft of worktable knob (3), insert through semi-circular slot (6), and tighten into threaded hole (7).
5. Adjust worktable to level or any angle between 0° and 45° for sanding.

Fig. D



⚠ CAUTION

To avoid trapping the workpiece or fingers between the worktable and sanding belt, the worktable edge should be positioned a maximum of 1/16 in. (1.6 mm) from sanding belt.

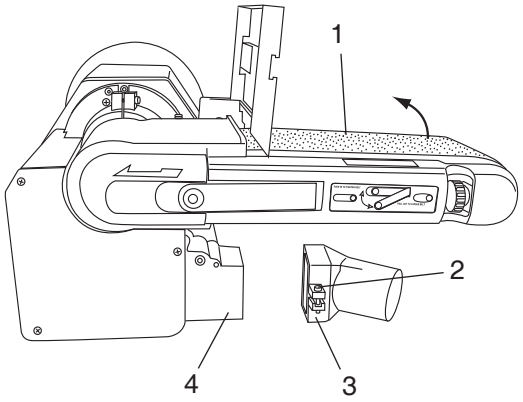
INSTALLING DUST EXHAUST AND DUST BAG (FIG. E, F)

⚠ CAUTION

Sanding operations are inherently dusty. To help minimize the amount of dust that escapes into the surrounding air, this sander is equipped with a dust exhaust and dust bag. It is strongly recommended that users attach the dust exhaust and the dust bag when using this belt / disc sander. **Use of a mask or respirator is still recommended even when a dust-collection system is in use.**

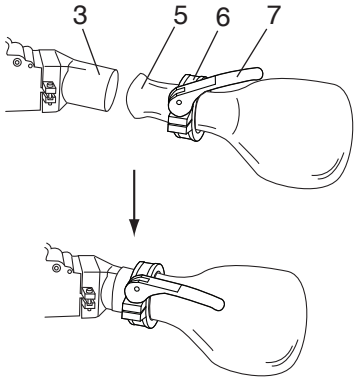
1. Raise the belt bed (1) and secure in the vertical position.
2. Loosen the inner hex screw (2) using the 5 mm hex key, attach the dust exhaust (3) on the dust port (4) of the sander, and tighten the inner hex screw (2).

Fig. E



3. Insert the opening of dust bag (5) through the bag clamp (6), and release the clamp handle (7).
4. Attach the the opening of dust bag (5) to the dust exhaust (3), slide the bag clamp (6) over the bag and exhaust and lock the bag clamp (6) to secure the dust bag (5).

Fig. F



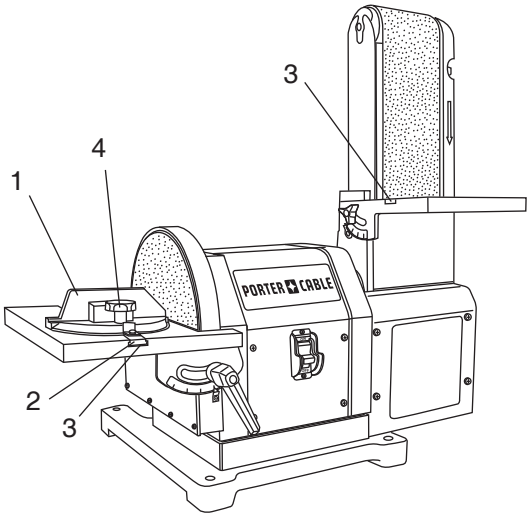
NOTE: Turn the clamp handle (7) clockwise a full turn or two before locking to give a tight fit. Do not overtighten.

MITER GAUGE (FIG. G)

A miter gauge (1) is supplied with your sander and can be used with both sanding tables. The miter gauge body can be adjusted from 0° to 60° right or left for angle or miter sanding.

1. Install the miter bar (2) into the table slot (3) as shown.
2. Loosen lock knob (4) and then rotate miter gauge body to the desired angle.
3. Tighten lock knob.

Fig. G



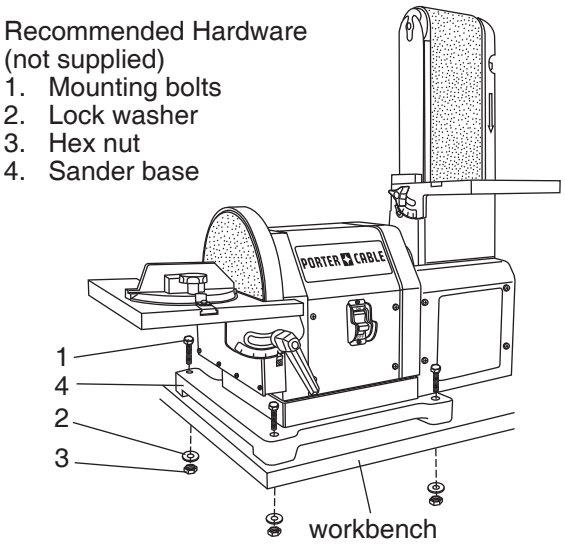
MOUNTING BELT / DISC SANDER TO WORKBENCH (FIG. H)

⚠ CAUTION

If during operation there is any tendency for the sander to tip over, slide or walk on the supporting surface, it is recommended that you mount the sander on a flat and level workbench or stand to avoid any movement during operation. Four mounting holes are located on the base of the sander for this purpose.

1. Place the sander on a surface that is level but also provides enough room on all sides for the workpiece and for the operator (or bystanders) to not be standing in line with the wood while using the tool. Allow room for the belt to be positioned horizontally or vertically.
2. The hardware to mount this sander is NOT supplied with the sander.

Fig. H



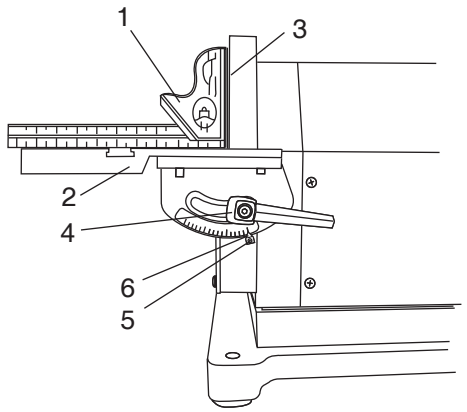
⚠ WARNING

To avoid injury, always keep the plug disconnected from the power source and the switch turned OFF until the sander is completely assembled and adjusted properly.

ADJUSTING DISC TABLE SQUARE WITH SANDING DISC (FIG. I)

1. Using a combination square (1), place one side of the square on the disc table assembly (2) with the other side against the sanding disc (3), and check to see if the disc table is 90° to the disc.
2. If the disc table surface is not 90° to the disc, loosen the table lock handle (4), adjust table square with disc and tighten the table lock handle (4).
3. Loosen the screw (5) and secure the scale pointer (6) at 0°.

Fig. I



⚠ CAUTION

To avoid trapping the workpiece or fingers between the worktable and sanding disc, the worktable edge should be positioned a maximum of 1/16 in. (1.6 mm) from sanding disc plate.

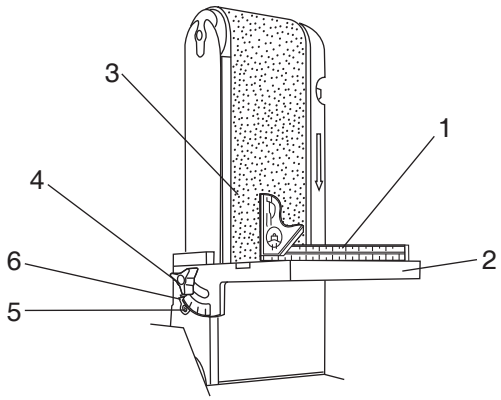
ADJUSTING DISC TABLE ANGLE (FIG. I)

1. The disc table (2) can be tilted from 0° to 45° by loosening the table lock handles (4) at the both sides of disc table.
2. Tilt the disc table to the desired angle.
3. Tighten table lock handles.

ADJUSTING BELT TABLE SQUARE WITH SANDING BELT (FIG. J)

1. Using a combination square (1), place one side of the square on the belt table assembly (2) with the other side against the sanding belt (3), and check to see if the belt table is 90° to the belt.
2. If the belt table surface is not 90° to the belt, loosen the table lock knob (4), adjust table square with belt and tighten the table lock knob (4).
3. Loosen the screw (5) and secure the scale pointer (6) at 0°.

Fig. J



⚠ CAUTION

To avoid trapping the workpiece or fingers between the worktable and sanding belt, the worktable edge should be positioned a maximum of 1/16 in. (1.6 mm) from sanding belt.

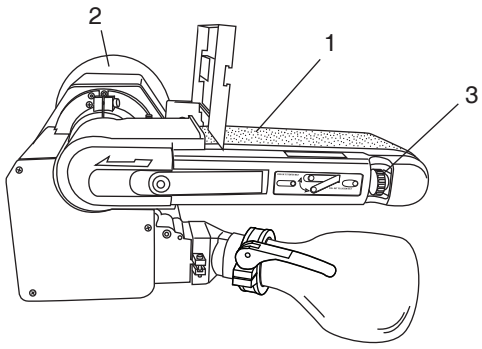
ADJUSTING BELT TABLE ANGLE (FIG. J)

1. The belt table (2) can be tilted from 0° to 45° by loosening the table lock knob (4) at the left sides of belt table.
2. Tilt the belt table to the desired angle.
3. Tighten table lock knob.

TO PROPERLY TRACK THE SANDING BELT (FIG. K)

1. Plug in the sander.
2. Turn power switch ON, then immediately OFF, noting whether the belt (1) tends to slide off its track, and to which side (front or back) of the sander.
3. If the sanding belt does not slide to either side, it is tracking properly.
4. Viewed from the switch end, if the sanding belt runs toward the disc (2), slightly turn the tracking knob (3) clockwise (down).
5. Viewed from the switch end, if the sanding belt runs away from the disc, slightly turn the tracking knob counterclockwise (up).
6. Turn power switch ON, then immediately OFF again, again taking note of any belt movement.
7. Readjust tracking knob another 1/4 turn, as necessary.

Fig. K



OPERATION

⚠ CAUTION

The belt/disc sander is designed to perform sanding operations on surface, and edge grain. The sander will also perform freehand forming and contouring operations. The following suggestions are recommended for best results and safest use.

1. Always apply light pressure allowing the abrasive to remove the material slowly.
2. The workpiece should be moved, continuously, to avoid burning.
3. Avoid sanding small pieces of wood which will position the fingers close to the abrasive belt or disc.

ON/OFF SWITCH (FIG. L)

⚠ WARNING

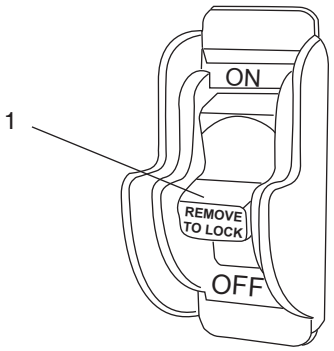
To avoid injury, always keep the plug disconnected from the power source and the switch turned OFF until the sander is completely assembled and adjusted properly.

The ON/OFF power switch is located on the front of the sander, and incorporates a removable safety switch (1).

1. To turn the machine “ON”, move the switch up to the “ON” position.
2. To turn the machine “OFF”, move the switch down to the “OFF” position.

In situations where the sander may be left unattended, the operator has the option of removing the “black” safety portion of the ON/OFF switch to render the sander inoperable. When the operator is ready to use the machine again, the “black” safety portion of the switch may be reinstalled simply by inserting it into the opening in the switch and pushing it in until it “seats.”

Fig. L



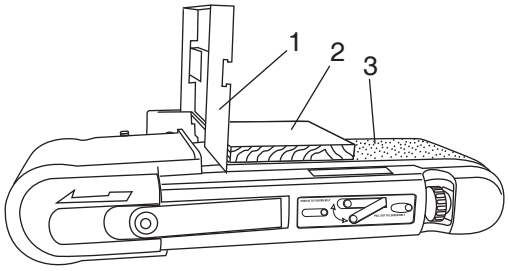
BELT HORIZONTAL SANDING (FIG. M)

⚠ CAUTION

To avoid trapping the workpiece or fingers between the worktable and sanding belt, the worktable edge should be positioned a maximum of 1/16 in. (1.6 mm) from sanding belt.

When using the sanding belt in the horizontal position, to perform surface or edge sanding, the belt worktable (1) must always be used. Always hold the workpiece (2) firmly keeping your fingers away from the sanding belt . Always keep the end of the workpiece against the belt worktable (1) and move the work evenly across the sanding belt. Apply only enough pressure to allow the sanding belt to remove material. Use extra caution when sanding very thin pieces.

Fig. M



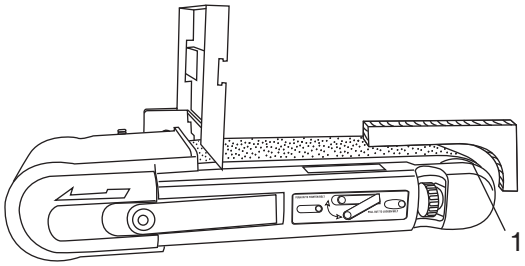
SANDING INSIDE CURVES (FIG. N)

⚠ CAUTION

To avoid injury, do not apply the end of the workpiece to the idler drum (1). This could cause the workpiece to fly up or cause kickback.

With care, freehand sanding of inside curves can be accomplished on the idler drum (1). Never attempt to sand the ends of a workpiece on the idler drum (1).

Fig. N



BELT VERTICAL SANDING (FIG. O, P)
Your belt / disc sander - belt station can sand vertically as well as horizontally. Depending on operator needs and the workpiece, the worktable can be used with either the horizontal or vertical position.

To change from one position to the other:
1. Locate the 5 mm hex key.
2. Loosen the inner hex screw (1) by turning it counter-clockwise.
3. Manually move the work support station into the vertical or horizontal position, as required.
4. Retighten the inner hex screw (1) by turning it clockwise.

Fig. O

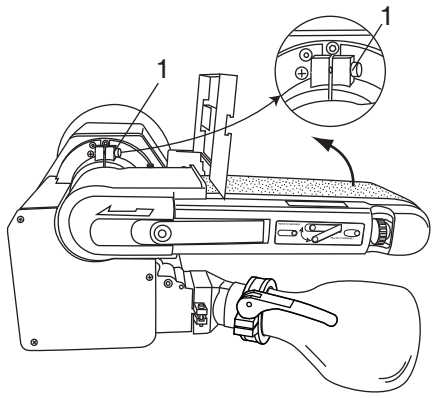
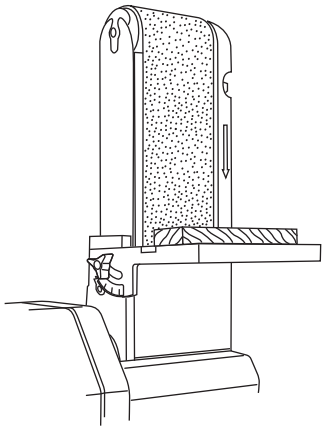


Fig. P



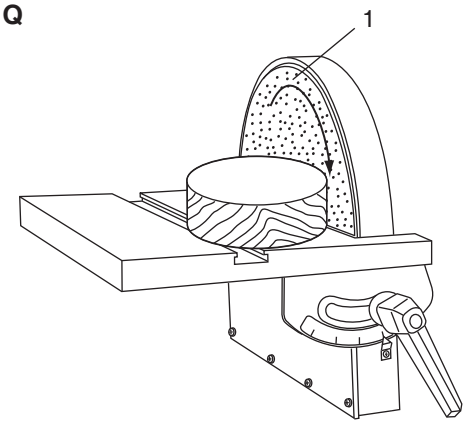
SANDING OUTSIDE CURVES (FIG. Q)

⚠ CAUTION

- **Always sand on the right (downward) side of the sanding disc (1) as shown. Sanding on the left (upward) side of the sanding disc could cause the workpiece to fly up which could be hazardous.**
- **The edge of the table must be positioned a maximum of 1/16 in. (1.6 mm) from the sanding disc to avoid trapping the workpiece or fingers between the disc table and sanding disc.**

Freehand sanding of outside curves should be done on the sanding disc (1). Keep fingers a minimum of 1 in. (25.4 mm) from the sanding disc.

Fig. Q



OPERATING DUST EXHAUST AND DUST BAG (FIG. R)

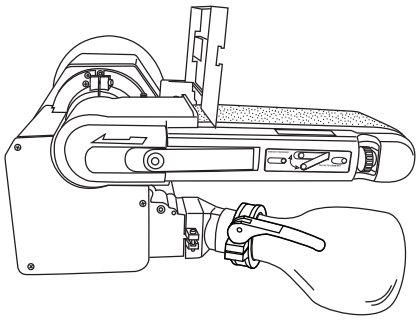
⚠ CAUTION

Sanding operations are inherently dusty. To help minimize the amount of dust that escapes into the surrounding air, this sander is equipped with a dust exhaust and dust bag. It is strongly recommended that users attach the dust exhaust and the dust bag when using this belt/disc sander. **Use of a mask or respirator is still recommended even when a dust-collection system is in use.**
NOTE: The dust port will also accept a standard 2-1/4 in. (57.2 mm) dry/wet vacuum hose adaptor. Do not operate the sander without first turning on the dry-wet vacuum.

⚠ WARNING

FIRE HAZARD. Collected sanding dust from sanding surface coatings (polyurethane, linseed oil, etc.) can self-ignite in dust collector bag or elsewhere and cause fire. To reduce risk, empty bag frequently and strictly follow sander manual and coating manufacturer's instructions.

Fig. R



⚠ WARNING

This tool is not approved for use for any material other than wood and wood products.

MAINTENANCE

⚠ WARNING

- **For your safety, turn switch OFF and remove the power cord from the electrical outlet before adjusting or performing maintenance on your sander.**
- **To avoid electric shock or fire, all repairs to the electrical components should be done by a qualified service technician. Before each use check for damaged, missing, or worn parts; check for alignment of moving parts, binding, improper mounting, or any other conditions that may affect the operation. Should any of these conditions exist, do not use the sander until properly repaired or parts are replaced. Frequently blow or vacuum dust from all sander parts and motor housing.**

REPLACING SANDING DISC (FIG. S, T)

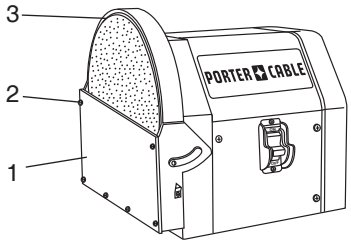
⚠ WARNING

To avoid injury, turn switch OFF and disconnect the plug from the power source before removing and installing sanding belt.

A sanding disc is pre-mounted at the factory. Use only sanding discs that measures 8 in. (203 mm) in diameter.

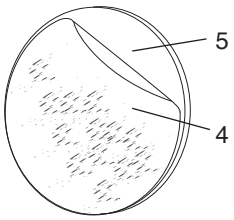
1. Remove the disc worktable (See Fig. A on page 10), and then remove the disc cover (1) by removing six screws (2).
2. Remove the existing disc, and clean any residue left on disc plate (3). Only use mineral spirits to remove this residue.

Fig. S



3. Peel the plastic (4) back from new sanding disc (5) and carefully press sanding disc firmly in position around the sanding plate. Make sure the disc is centered on the plate.
4. Reinstall the disc cover, tighten screws and place sanding table back on unit.

Fig. T



REPLACING SANDING BELT (FIG. U, V)

⚠ WARNING

To avoid injury, turn switch OFF and disconnect the plug from the power source before removing and installing sanding belt.

Use only sanding belts that measures 4 in. (102 mm) in width / 36 in. (914 mm) in length.

1. Remove the belt worktable. (See Fig. D on page 10)
2. Position the belt work support frame horizontally as shown in Fig. U. Loosen the inner hex screw (1) using a 5 mm hex wrench, turning it counterclockwise. Do not remove the screw.
3. Remove the two screws (2, 3) using a phillips head screwdriver, and pull out the tension lever (4) to release the tension of the sanding belt (5). Remove the belt exhaust cover (6).
4. Remove the sanding belt (5) from both sanding drums (7).
5. Place new sanding belt over sanding drums. Make sure the belt arrow located on the inside of the belt is pointed in the right direction.
6. Replace the belt exhaust cover (6) in position. **NOTE:** Stretch the belt from the right side to make top and lower side of the belt flat and tight as shown in Fig. V for keeping the belt exhaust cover (6) away from interferring with the sanding belt when placing the belt exhaust cover on.
7. Replace and tighten the two screws (2, 3) and push the tension lever (4) in to apply belt tension.
8. Push the belt by hand and check if the sanding belt tends running to one side or the other of the two drums.
9. View from the switch end of sander, if the sanding belt runs toward disc, slightly turn the tracking knob (8) clockwise (down).
10. View from the switch end of sander, if the sanding belt runs away from the disc, slightly turn the tracking knob (8) counterclockwise (up).
11. Plug in the sander and turn the switch ON and OFF quickly to check if the sanding belt moves to either side. Re-adjust and fine-tune the tracking knob if necessary.

Fig. U

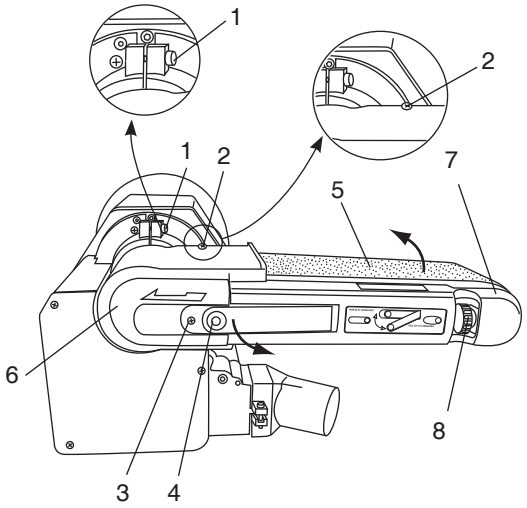
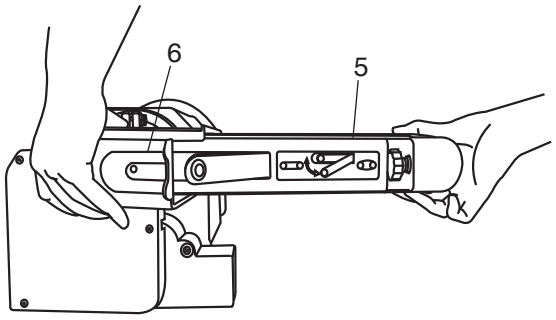


Fig. V



LUBRICATION

Ball bearings are grease packed at the factory and require no further lubrication. Use a paste wax to ensure smooth operation on all moving table parts. Do not use any lubrication on the belt platen as this might end up on the wheels, causing them to slip.

TROUBLESHOOTING GUIDE

⚠ WARNING

To avoid injury from an accidental start, turn the switch OFF and always remove the plug from the power source before making any adjustments.

REPLACEMENT PARTS

Use only identical replacement parts. For a parts list or to order parts, visit our service website at www.portercable.com. You can also order parts from your nearest Porter-Cable Factory Service Center or Porter-Cable Authorized Warranty Service Center. Or, you can call our Customer Care Center at (888) 609-9779.

SERVICE AND REPAIRS

All quality tools will eventually require servicing and/or replacement of parts. For information about Porter-Cable, its factory service centers or authorized warranty service centers, visit our website at www.portercable.com or call our Customer Care Center at (888) 609-9779. All repairs made by our service centers are fully guaranteed against defective material and workmanship. We cannot guarantee repairs made or attempted by others.

You can also write to us for information at Power Tool Specialists, 684 Huey Road, Rock Hill, SC 29730
(888) 609-9779 - Attention: Product Service. Be sure to include all of the information shown on the nameplate of your tool (model number, type, serial number, etc.).

PROBLEM	PROBLEM CAUSE	SUGGESTED CORRECTIVE ACTION
Motor will not run.	1. Defective or broken ON/OFF switch. 2. Defective or damaged switch cord. 3. Defective or damaged switch relay. 4. Burned out motor. 5. Blown house fuse.	1-3 Replace all broken or defective parts before using sander. 4. Contact Porter-Cable Service Center or Authorized Service Station for repair. Any attempt to repair this motor may create a hazard unless repair is done by a qualified technician. 5. Replace house fuse. Turn OFF other appliances and power tools on the same circuit.
Machine slows down while sanding.	1. Operator applying too much pressure to workpiece. 2. Dirt on wheels. 3. Worn or stretched belt.	1. Use less pressure in applying workpiece to sanding surface. 2. Clean wheels. 3. Replace pulley belt.
Motor does not develop full speed.	1. Power line overloaded with lights, other tools, etc. 2. Long/wrong extension cord being used 3. Incorrect fuses or circuit breakers in power line	1. Reduce the load on power line 2. Replace with correct extension cord (see page 6) 3. Install correct fuses or circuit breaker
Sanding belt runs off pulleys.	1. Not tracking properly.	1. Adjust tracking. See “TO PROPERLY TRACK THE SANDING BELT” page 13.
Wood burns while sanding.	1. Sanding disc or belt glazed with sap. 2. Excessive pressure being applied to workpiece.	1. Replace belt or disc. 2. Reduce pressure applied to workpiece.
Motor overheats.	1. Motor overload.	1. Reduce motor load. Allow to cool off before restarting.
Dust Collection not working.	1. Collection bag is full. 2. Dust exhaust is blocked.	1. Empty collection bag. 2. Turn sander off and unplug. Remove bag and use a vacuum to remove sawdust blockage.

For assistance with your product, visit our website at www.portercable.com for a list of service centers, or call the Porter-Cable Customer Care Center at (888) 609-9779.

ACCESSORIES AND ATTACHMENTS

ACCESSORIES

⚠ WARNING

Since accessories, other than those offered by Porter-Cable, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only Porter-Cable recommended accessories should be used with this product.

A complete line of accessories is available from your Porter-Cable Factory Service Center or a Porter-Cable Authorized Warranty Service Center. Please visit our Web Site www.portercable.com for a catalog or for the name of your nearest supplier.

⚠ WARNING

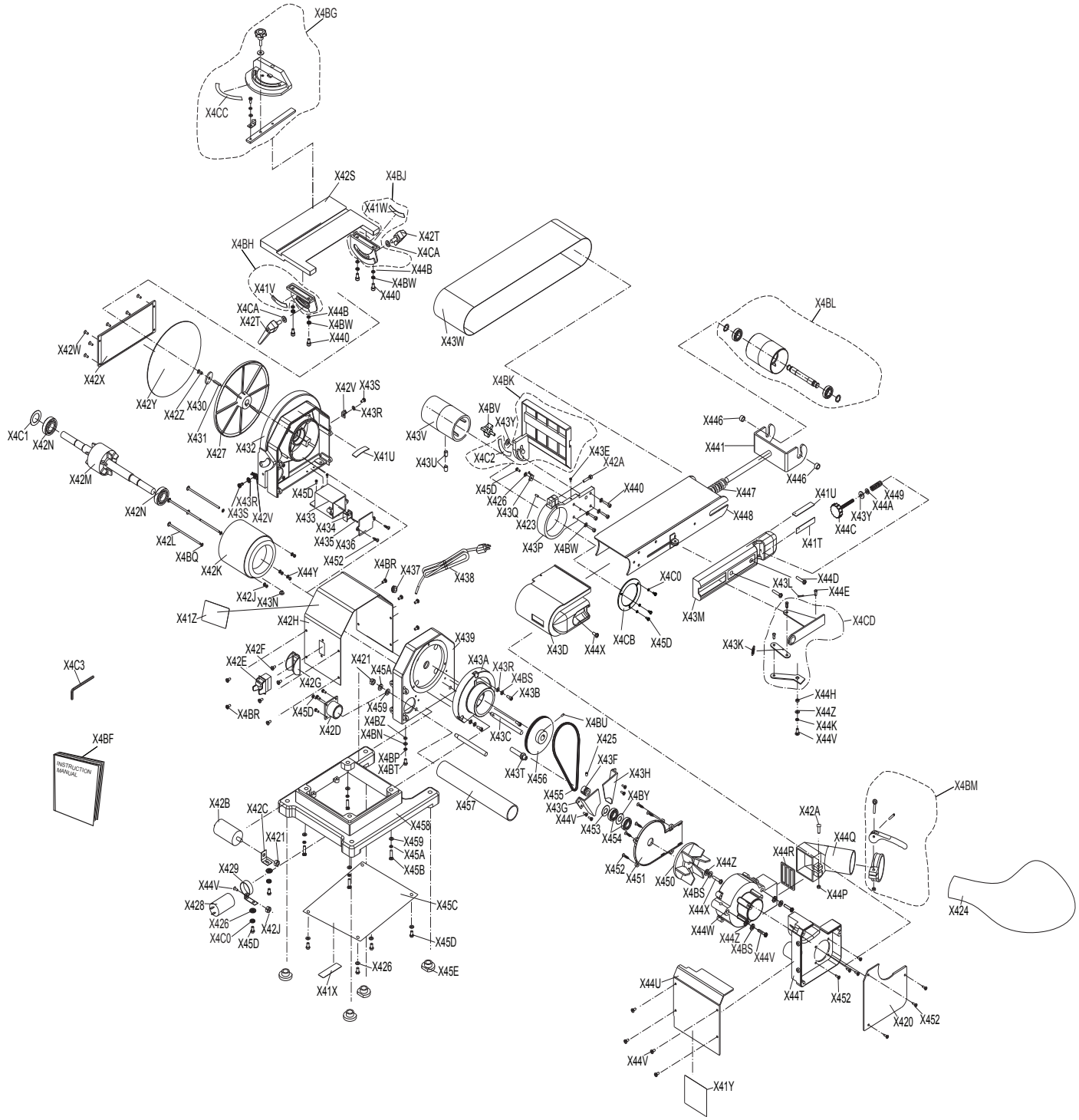
Do not use any accessory unless you have completely read the Instruction Manual for that accesory.

PARTS LIST

4 IN. x 8 IN. (102 MM X 203 MM) BELT / DISC SANDER
PARTS LIST

ID	Description	Size	Qty
X45E	RUBBER FOOT		4
X45D	PHILIPS SCREW	M4×10	16
X45C	BOTTOM PLATE		1
X45B	PHILIPS SCREW (WHITE)	M8×25	4
X45A	LOCK WASHER (WHITE)	D8	6
X459	FLAT WASHER (WHITE)	D8	6
X458	BASE		1
X457	CONNECT TUBE		1
X456	BIG PULLEY		1
X455	POLY-V- BELT		1
X454	COLLECTOR BEARING	6000RZ	2
X453	SPRING WASHER	D26	1
X452	PHILIPS SCREW	ST4.2×15	14
X451	FAN COVER		1
X450	FAN		1
X44Z	BIG WASHER	D5	4
X44Y	STANDARD SPRING WASHER	D5	4
X44X	PHILIPS SCREW	M5×16	2
X44W	FAN HOUSING		1
X44V	PHILIPS SCREW	M5×10	12
X44U	FRONT COVER		1
X44T	DUST STORAGE BOX		1
X44S	PHILIPS SCREW(WHITE)	M5×8	1
X44R	EXHAUST COVER		1
X44Q	DUST EXHAUST		1
X44P	I TYPE HEX NUT	M6	2
X44N	BAG CLAMP		1
X44M	CLAMP HANDLE		1
X44L	SCREW	M6×40	1
X44K	TOOTH LOCK WASHER	D5	2
X44H	SLEEVE		1
X44E	PIN	5×10	1
X44D	PHILIPS SCREW	M5×25	2
X44C	BELT TRACKING KNOB		1
X44B	FLAT WASHER	D6	4
X44A	RUBBER WASHER		1
X449	ADJUST SPRING		1
X448	BELT FRAME/PLATEN		1
X447	TENSION SPRING		1
X446	SLEEVE		2
X445	SPRING WASHER	D12	2
X444	BEARING	6001RZ	2
X443	IDLER SHAFT		1
X442	IDLER PULLEY		1
X441	BELT TENSION ASSEMBLY		1
X440	INNER HEX SCREW	M6×12	8
X43Y	BIG WASHER	D6	3
X43X	MITER GAUGE KNOB		1
X43W	SANDING BELT		1
X43V	DRIVE PULLEY		1
X43U	INNER HEX SCREW	M8×12	2
X43T	COLLECTOR SHAFT		1
X43S	PHILIPS SCREW	M5×8	2
X43R	FLAT WASHER	D5	5
X43Q	WORK TABLE ANGLE POINT		1
X43P	BELT FRAME CONNECT		1
X43N	CORD BUSHING		1
X43M	BELT COVER		1
X43L	PIN	2X10	1
X43K	SPRING WASHER		1
X43H	RIGHT COVER		1
X43G	LEFT COVER		1
X43F	SMALL PULLEY		1
X43E	PHILIPS SCREW & FLAT WASHER ASS'Y	M4×12	1
X43D	BELT EXHAUST COVER		1
X43C	COLLECTOR MOUNTING SHAFT		2
X43B	INNER HEX SCREW	M5×20	3
X43A	BELT MOUNTING PLATE		1
X439	END CAP		1
X438	POWER CORD		1
X437	STRAIN RELIEF		1
X436	WIRE BOX COVER		1
X435	PHILIPS SCREW	ST4.2×28	1
X434	RELAY		1
X433	WIRE BOX COVER		1
X432	LEFT END CAP		1
X431	KEY	5X5X15	1
X430	WASHER		1
X42Z	PHILIPS SCREW	M6×16 left	1
X42Y	DISC PAPER		1
X42X	DISC COVER		1
X42W	PHILIPS SCREW	M4×10	6
X42V	ANGLE POINTER		2
X42U	DISC LEFT SUPPORT		1
X42T	HANDLE ASSEMBLY		2
X42S	DISC WORK TABLE		1
X42R	MITER GAUGE BAR		1
X42Q	MITER GAUGE		1
X42P	DISC RIGHT SUPPORT		1
X42N	BEARING	6203RZ	2
X42M	ROTOR		1
X42L	PHILIPS SCREW	M5×180	4
X42K	STATOR		1
X42J	I TYPE HEX NUT	M5	5
X42H	MOTOR COVER		1
X42G	SWITCH COVER		1
X42F	PHILIPS SCREW	M3×10	2
X42E	SWITCH		1
X42D	TUBE CONNECTOR		1
X42C	CAPACITOR SUPPORT1		1
X42B	CAPACITOR 1	20μF300V	1
X42A	INNER HEX SCREW	M6×25	2
X429	CAPACITOR SUPPORT 2		1
X428	CAPACITOR 2	100μF125V	1
X427	DISC PLATE		1
X426	FLAT WASHER	D4	7
X425	INNER HEX SCREW	M5×8	1
X424	DUST BAG		1
X423	POSITION SHAFT		1
X422	MITER GAUGE POINTER		1
X421	I TYPE HEX NUT	M8	3
X420	DUST BOX COVER		1
X41Z	LOGO LABEL		1
X41Y	WARNING LABEL		1
X41X	WARNING LABEL 2		1
X41W	SCALE LABEL LEFT		1
X41V	SCALE LABEL RIGHT		1
X41U	ROTATION LABEL		2
X41T	BELT TENSION LABEL		1
X4C3	INNER HEX WRENCH	5 MM	1
X4C2	SCALE LABEL		1
X4C1	SPRING WASHER	D40	1
X4C0	STANDARD SPRING WASHER	D4	5
X4CD	TENSION HANDLE ASSEMBLY		1
X4CC	MITER GAUGE ANGLE LABEL		1
X4CB	POSITIONING PLATE		1
X4CA	FLAT WASHER		2
X4BZ	TOOTH LOCK WASHER	D4	1
X4BY	BEARING BUSHING		1
X4BX	SPRING PIN	4X22	1
X4BW	STANDARD SPRING WASHER	D6	8
X4BV	DISC WORK TABLE KNOB		1
X4BU	INNER HEX SCREW	M5×12	1
X4BT	PHILIPS SCREW	M4×10	1
X4BS	STANDARD SPRING WASHER	D5	6
X4BR	PHILIPS SCREW	M5×10	8
X4BQ	FLAT WASHER (WHITE)	D5	5
X4BP	LOCK WASHER (WHITE)	D4	1
X4BN	FLAT WASHER (WHITE)	D4	1
X4BM	BAG CLAMP ASSEMBLY		1
X4BL	IDLER PULLEY ASSEMBLY		1
X4BK	BELT WORKING TABLE ASSEMBLY		1
X4BJ	DISC LEFT SUPPORT ASSEMBLY		1
X4BH	DISC RIGHT SUPPORT ASSEMBLY		1
X4BG	MITER GAUGE ASSEMBLY		1
X4BF	INSTRUCTION MANUAL		1

4 IN. x 8 IN. (102 MM X 203 MM) BELT / DISC SANDER
SCHEMATIC



NOTES

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WARRANTY

THREE YEAR LIMITED WARRANTY

PORTER-CABLE will repair, without charge, any defects due to faulty materials or workmanship for three years from the date of purchase. This warranty does not cover part failure due to normal wear or tool abuse. For further detail of warranty coverage and warranty repair information, visit www.portercable.com or call (888) 609-9779. This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others. This warranty gives you specific legal rights and you may have other rights which vary in certain states or provinces.

In addition to the warranty, PORTER-CABLE tools are covered by our:

1 YEAR FREE SERVICE: PORTER-CABLE will maintain the tool and replace worn parts caused by normal use, for free, any time during the first year after purchase.

90 DAYS MONEY BACK GUARANTEE: If you are not completely satisfied with the performance of your PORTER-CABLE Power Tool for any reason, you can return it within 90 days from the date of purchase with a receipt for a full refund – no questions asked.

LATIN AMERICA: This warranty does not apply to products sold in Latin America. For products sold in Latin America, see country specific warranty information contained in the packaging, call the local company or see website for warranty information.

To register your tool for warranty service visit our website at www.portercable.com.

WARNING LABEL REPLACEMENT
If your warning labels become illegible or are missing, call (888) 609-9779 for a free replacement.

PORTER CABLE.

Power Tool Specialists, Inc.
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