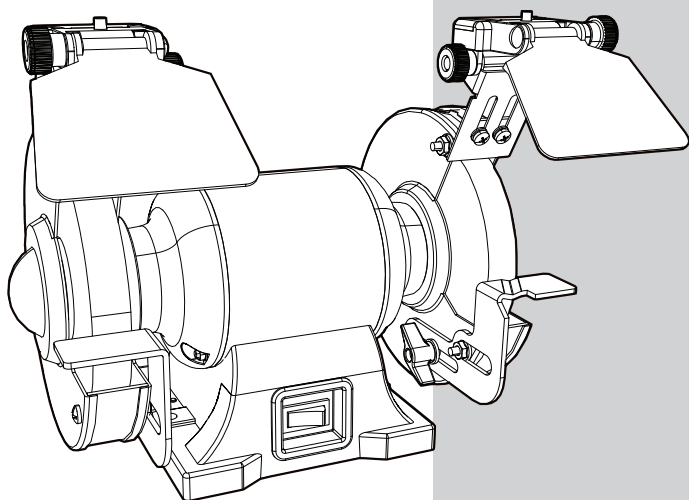


PORTER CABLE®

**6 IN. (150 MM) SINGLE SPEED
BENCH GRINDER**

**SEULE VITESSE MEULEUSE
D'ÉTABLI 6 PO (150 MM)**

**UNA SOLA VELOCIDAD
AMOLADORA DE BANCO
DE 6 PULG. (150 MM)**



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
PCXB515BG**

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PRODUCT SPECIFICATIONS

MOTOR

Power Source 120 V AC, 60 Hz, 2.1 A

Speed 3450 RPM

Type Induction

Shaft Diameter 1/2 in. (12.7 mm)

WHEEL

Diameter 6 in. (150 mm)

Face 3/4 in. (20 mm)

Hole 1/2 in. (12.7 mm)

WORK LIGHT

LED

WARNING

To avoid electrical hazards, fire hazards or damage to the tool, use proper circuit protection. Use a separate electrical circuit for your tools. The grinder is wired at the factory for 120 Volt operation. It must be connected to a 120 V, 10 AMP branch circuit and use a 10 AMP 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.

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 THE MOVING PART AND CUTTING SURFACE: Failure to keep your hands away from the moving part and cutting surface 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.

NOTICE

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



WARNING

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

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, 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.


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.**
- **Read all instructions before operating product. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.**

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 9 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 break.


13.  **WEAR A FACE MASK OR DUST MASK.** Sawing 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 medication that could affect your ability to use the tool properly.
25. Dust generated from certain materials can be hazardous to your health. Always operate saw in well-ventilated area and provide for proper dust removal.
26.  **WARNING**
People with electronic devices, such as pacemakers, should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.
27.  **WEAR HEARING PROTECTION**
to reduce the risk of induced hearing loss.

BENCH GRINDER SAFETY

1.  Wear eye protection that complies with ANSI Z87.1 specifications.
2. Use grinding wheels suitable for the speeds of the grinder.
3. Stand beside the bench grinder during start-up, not facing directly in front.
4. Do not remove the wheel guard.
5. Do not use the grinding wheel to cut anything.
6. Do not use anything to stress the grinding wheel.
7. Use a grinding wheel dressing tool to shape or remove glaze from grinding wheels.
8. Adjust distance between wheel and tool rest to maintain 1/8 inch (3.2 mm) or less separation as the diameter of the wheel decreases with use.
9. Connect to a supply circuit protected by a circuit breaker or time-delay fuse.
10. Secure the bench grinder to its supporting surface to prevent the grinder from tipping over, sliding, or walking on its supporting surface.
 - A. Replace a cracked wheel immediately.
 - B. Always use the guards and eye shields.
 - C. Do not overtighten the wheel nut.
 - D. Use only flanges furnished with this grinder.
11. Always inspect grinding wheels prior to use for cracks, missing pieces, etc. Replace wheel immediately before use.
12. **USE ONLY GRINDING WHEELS** that comply with ANSI B7.1 and rated greater than 3450 RPM.
13. **GUARD AGAINST ELECTRICAL SHOCK** by preventing body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
14. **DO NOT** use wheels with incorrect size holes. **NEVER** use wheel washers or wheel screws that are defective or incorrect, and **NEVER** touch a grinding wheel or other moving parts.
15. **NEVER** reach to pick up a workpiece, a piece of scrap, or anything else that is in or near the grinding path of the wheel.
16. **AVOID AWKWARD OPERATIONS AND HAND POSITIONS** where a sudden slip could cause your hand to move into the wheel. **ALWAYS** make sure you have good balance.
17. **NEVER** stand or have any part of your body in line with the path of the wheel.
18. **DO NOT USE TOOL IF SWITCH DOES NOT TURN IT ON AND OFF.** Have defective switches replaced by an authorized service center.
19. **DO NOT TURN THE MOTOR SWITCH ON AND OFF RAPIDLY.** This could cause the wheel to loosen and create a hazard. Should this ever occur, stand clear and allow the wheel to come to a complete stop. Disconnect your grinder from the power supply and retighten the wheel nut securely.
20. **RISK OF INJURY DUE TO ACCIDENTAL STARTING.** Do not use in an area where children may be present.
21. **NEVER START THE GRINDER** when the wheel is in contact with the workpiece.
22. **SECURE WORK.** Always hold the workpiece firmly against the work rest.
23. **DO NOT USE THE BENCH GRINDER** if the flange nut or clamp nut is missing or if the spindle shaft is bent.
24. **FREQUENTLY** clean grinding dust from beneath the grinder.

25. **DO NOT OPERATE THIS TOOL WHILE UNDER THE INFLUENCE OF DRUGS, ALCOHOL OR ANY MEDICATION.**
26. **ALWAYS STAY ALERT.** Do not allow familiarity (gained from frequent use of your grinder) to cause a careless mistake. **ALWAYS REMEMBER** that a careless fraction of a second is sufficient to inflict severe injury.
27. **STAY ALERT AND EXERCISE CONTROL.** Watch what you are doing and use common sense. Do not operate the tool when you are tired. Do not rush.
28. **SAVE THESE INSTRUCTIONS.** Refer to them frequently and use them to instruct other users. If you loan someone this tool, loan them these instructions also.
29. **ALWAYS EASE THE WORKPIECE AGAINST THE ABRASIVE WHEEL** when starting to grind. A harsh impact can break the wheel. Use light pressure when starting to grind. Too much pressure on a cold wheel can cause the wheel to crack.
30. **USE ONLY FLANGES** furnished with this bench grinder.
31. **IF ANY PART OF THIS GRINDER IS MISSING** or should break, bend, fail in any way, or should any electrical component fail to perform properly, shut off the power switch, remove the machine plug from the power source and have damaged, missing, or failed parts replaced before resuming operation.
32. **SAFETY SHIELD AND SPARK DEFLECTOR.** The safety shields and spark deflectors are adjustable for operator convenience. Operating the grinder without these features attached could result in serious injury. Do not grind with the safety shield raised. Always wear safety glasses for personal protection.
33. **WORK REST.** The work rests are independently adjustable to compensate for wheel wear. Before grinding, make certain the work rests are adjusted properly. Generally, the object being ground is done slightly above the center of the grinding wheel.
34. Lawn mower blades are usually sharpened on only one edge and dressed up slightly on the other. Perform this sharpening process on both cutting ends of the blade. After sharpening, balance the blade by removing additional material.

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 separate electrical circuit for your tool. Your grinder is wired at the factory for 120 V operation. Connect to a 120 V, 2.1 Amp circuit and use a 2.1 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 2.1 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 ft. 45.72 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 receptacle box.

⚠ 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

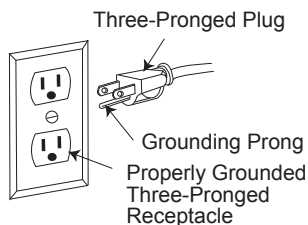
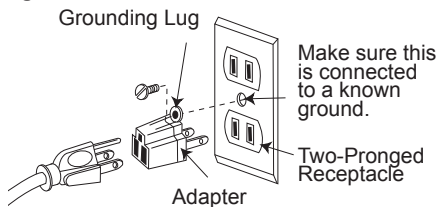


Fig. 2



TOOLS NEED FOR ASSEMBLY

Not Supplied



Phillips Screwdriver



Adjustable Wrench

CARTON CONTENTS

UNPACKING AND CHECKING CONTENTS

Carefully unpack the grinder and all its parts, and compare against the list below and the illustration to the right. With the help of an assistant place the grinder on a secure surface and examine it carefully.

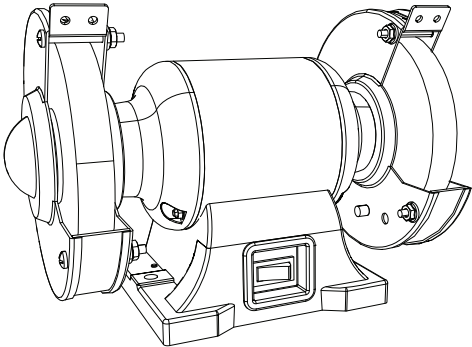
WARNING

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

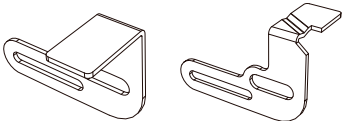
TABLE OF LOOSE PARTS

ITEM	DESCRIPTION	Q'TY
A.	Bench grinder	1
B.	Left / Right tool rest	1 each
C.	Tool rest lock knob and washer	2 each
D.	Eye shield	2
E.	Eye shield lock knob and bolt	2 each
F.	LED work light and composite screw	2 sets
G.	LED work light battery	4

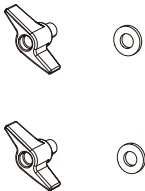
UNPACKING YOUR BENCH GRINDER



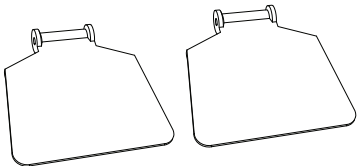
A



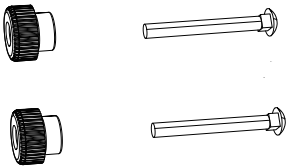
B



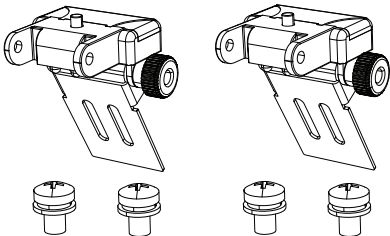
C



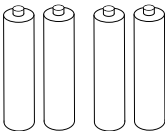
D



E

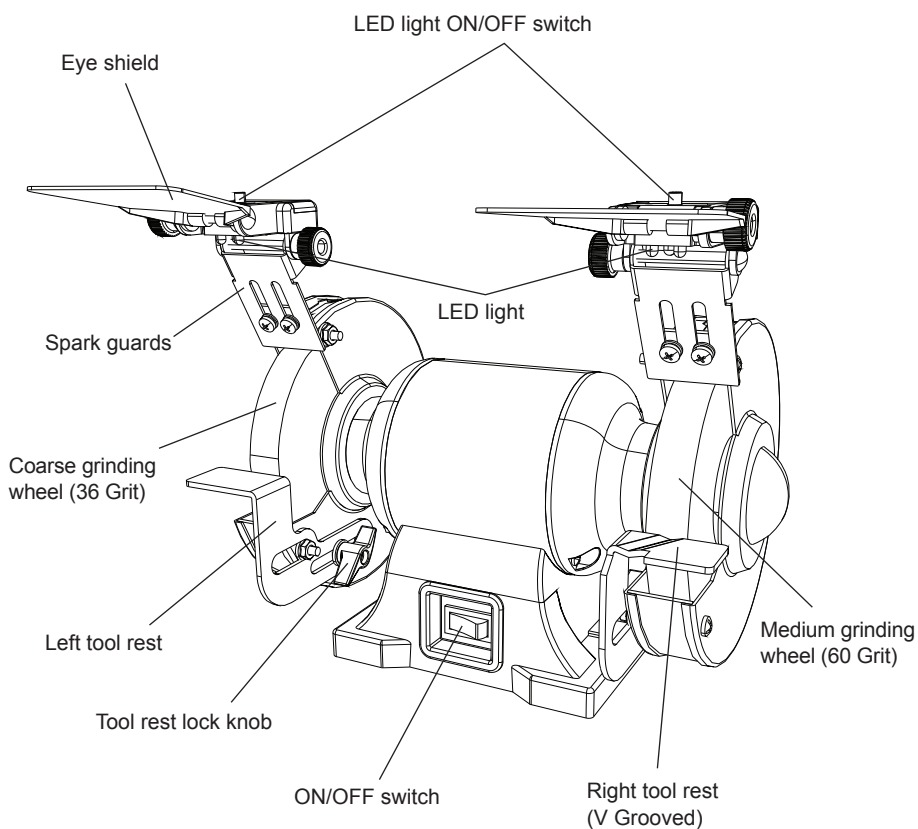


F



G

KNOW YOUR BENCH GRINDER



GLOSSARY OF TERMS

WHEEL GUARD - Covers the grinding wheels and protects against accidental contact.

WHEEL COVER - Covers the grinding wheels and provides access for routine maintenance.

MOTOR HOUSING - Contains the electrical motor.

MOUNTING FEET - Helps to minimize vibration of the grinder.

EYE SHIELD MOUNTS - Supports the eye shields.

EYE SHIELDS - Protective Lexan see-thru shields to prevent any loose debris from contacting the operator.

SPARK ARRESTORS - Prevents hot sparks and debris from contacting the operator.

TOOL REST ADJUSTABLE SUPPORTS - Let the operator position the tool rest closer to the wheel as the wheel decreases in diameter due to wear.

TOOL RESTS - Used to support the workpiece that is being ground Adjustable to provide angled surfaces.

GRINDING WHEEL 60 GRIT - Used to remove light material from workpiece.

GRINDING WHEEL 36 GRIT - Used to remove heavy material from workpiece.

ON / OFF SWITCH - Used to turn "ON" and turn "OFF" the grinder.

MOUNTING PAD - Used to secure the grinder to a workbench or suitable work surface.

GRINDING WHEEL IDENTIFICATION

LABEL - Provides information on wheel size, grit and maximum rpm.

FLANGES - Used to secure the grinding wheels to the grinder and distribute the load of the lock nuts.

LOCK NUT - Used to secure the grinding wheels to the grinder.

ASSEMBLY AND ADJUSTMENTS

Estimated Assembly Time: 10 - 20 Minutes.

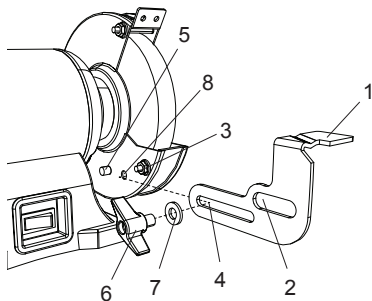
⚠ WARNING

- To avoid injury, do not connect this bench grinder to the power source until it is completely assembled and adjusted, and you have read and understood this Instruction Manual.
- 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.

INSTALLING TOOL RESTS (FIG. A)

1. **Bag "B"** - Attach the right tool rest (1) to the grinder as the upper slot (2) to the nut (3) and lower slot (4) to the protrude cylinder (5).
2. **Bag "C"** - Place the lock knob (6) through the washer (7) and lower slot (5) into the hold (8) to lock the tool rest (1) in place.
NOTE: The V grooved tool rest must mounts on the right side of grinder.
3. Repeat the above steps for installing the left tool rest.
NOTE: When in use, the tool rests should be adjusted to within 1/8 in. (3.2 mm) of the grinding wheel or other accessory being used.

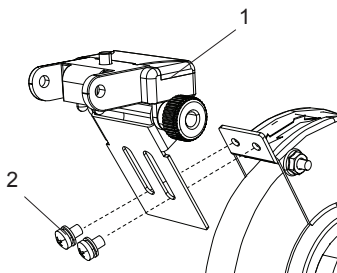
Fig. A



INSTALLING THE LED LIGHT AND EYE SHIELD ASSEMBLY (FIG. B, C)

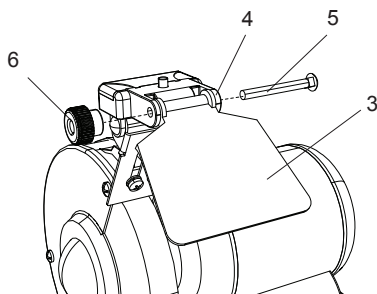
1. **Bag "F"** - Tighten the LED light assembly (1) to grinder with two composite screws (2) using a Philips screwdriver. (Fig. B)

Fig. B



2. **Bag "D"** - Attach one eye shield (3) to the support bracket (4) of the LED light assembly.
3. **Bag "E"** - Tighten the eye shield (3) by using a carriage bolt (5) and lock knob (6) as the way shown in Fig. C.
4. Repeat the above steps for installing the other LED light and eye shield assembly.
NOTE: Adjust eye shields to appropriate distance from tool rests avoiding interference when operation.

Fig. C



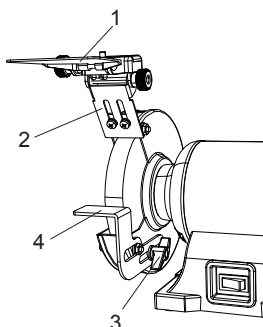
CHANGING GRINDING WHEELS (FIG. D, E, F, G, H)

⚠ CAUTION

Turn off and unplug the bench grinder.
Use only grinding wheels that measure 6 in. (150 mm) in diameter. This tool has 1/2 in. (12.7 mm) arbors on both sides.

1. Raise the eye shield (1) out of the way and adjust the spark guard (2) in its highest setting.
2. Loosen the knob (3) and remove the tool rest assembly (4).

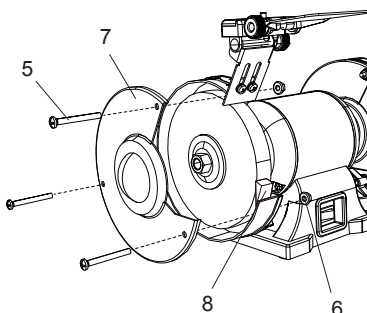
Fig. D



3. Remove three screws (5) and lock nuts (6) from the left side wheel cover and then remove the outer cover (7).
4. To prevent wheel rotating, place a wood wedge (8) (not supplied) between the wheel and the wheel cover as shown in Fig. E.

NOTE: Using a metal object, like a screwdriver, is not recommended as it may damage the grinding wheel.

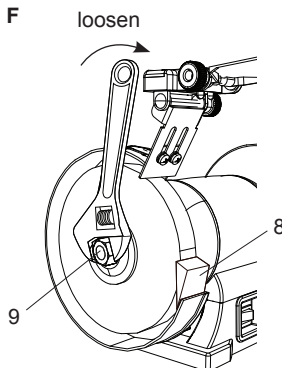
Fig. E



5. Loosen the hex nut (9) by an adjustable wrench as shown in Fig. F.

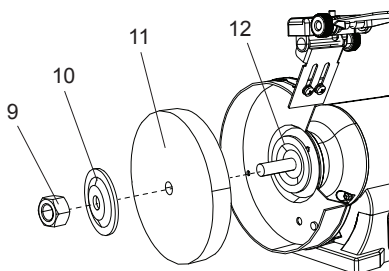
NOTE: The nut on the left side of the grinder has a standard left-hand thread (turn clockwise to loosen). The one on the right side has a right-hand thread (turn counterclockwise to loosen). Both wheel nuts tighten when turning toward the rear of the grinder and loosen when turning toward the front of the grinder.

Fig. F



6. Remove the hex nut (9), the outside wheel flange (10) and the wheel (11).

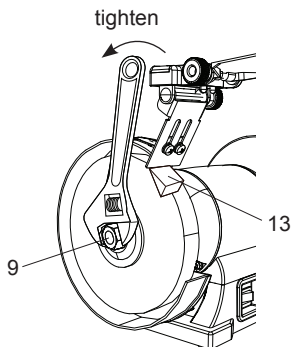
Fig. G



7. Inspect the wheel (11) for cracks, chips or any other visible damage (other than normal wear) and discard if such damage is found. Inspect the blotter/cardboard disc for damage. If the blotter is missing or severely damaged, replace it with a piece of thin cardboard or blotter paper cut in the same shape. **NEVER USE A GRINDING WHEEL WITHOUT A BLOTTER.**
8. Install the new wheel and make sure both wheel flanges (10, 12) are in place with the concave sides toward wheels.

9. To prevent wheel rotating, place a wood wedge (13) (not supplied) between the wheel and the wheel cover as shown in Fig. H.

Fig. H



10. Tighten the hex nut (9) by an adjustable wrench.
NOTE: Do not overtighten the nut as this can crack the grinding wheel.
11. Replace the wheel cover (7) and screws (5).
12. Reinstall and adjust the tool rest to 1/16 in. (1.6 mm) away from the wheel and tighten securely.
13. Adjust the eye shield (1) to a point between your eyes and the wheel.

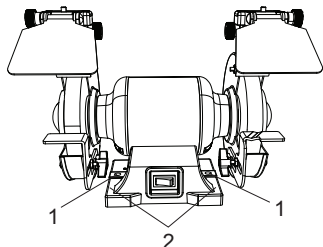
MOUNTING THE TOOL ON A WORKBENCH (FIG. I)

NOTE: FIRMLY BOLT THE GRINDER TO A WORK BENCH OR LEG STAND to gain maximum stability for your machine.

1. Using the base of the bench grinder as a template, mark the bench through two holes (1) in the casting.
2. Bolt the bench grinder on the bench with bolts, washers and nuts.

NOTE: The mentioned fasteners are not supplied with the machine.

Fig. I



TRANSPORTING THE GRINDER (FIG. J)

⚠ WARNING

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

In order to conveniently carry the bench grinder from place to place, hold the left and right side of the grinder base (2) for transportation.

CHANGE BATTERIES (FIG. J)

⚠ WARNING

Unplug your grinder. Failure to unplug your saw could result in accidental starting and causing possible serious personal injury.

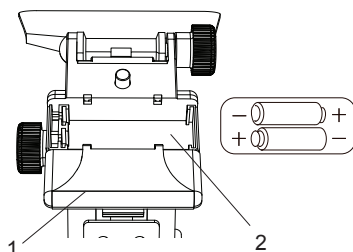
1. Bag "G" - Open the battery cover (1).
2. Insert two AAA batteries into the case (2).
If replacing the batteries, take out the old batteries and replace with new AAA batteries. Dispose off old batteries properly.
3. Replace the battery cover (1).

NOTE: Replace with batteries that have a rating of 1.5 volts (Number 4 series and AAA size or equivalent). When replacing the batteries, the battery guide should be thoroughly cleaned. Use a soft paintbrush or similar device, to remove all sawdust and debris.

⚠ WARNING

Do not mix old and new batteries. Do not mix alkaline, standard (carbon - zinc), or rechargeable (nickel - cadmium) batteries.

Fig. J



OPERATION

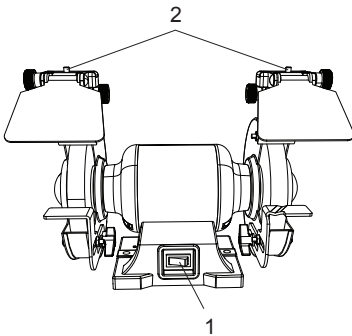
STARTING AND STOPPING THE GRINDER (FIG. K)

⚠ WARNING

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

The ON/OFF switch (1) is located on the front of the grinder. To turn the grinder on, press the switch (1) to the "I" position. To turn the grinder off, press the switch (1) to the "O" position.

Fig. K



USING THE LED LIGHT (FIG. K)

1. Press the LED light switch (2) down to turn the LED light "ON".
2. Press the LED switch (2) again to turn the LED light "OFF".

GENERAL OPERATION

⚠ WARNING

Keep all bystanders a safe distance away from the tool and not in direct line, front or back of the grinder.

1. Your bench grinder has a medium wheel (60 grit) for medium material removal and general purpose grinding, and a coarse wheel (36 grit) for fast material removal.
2. To operate the bench grinder, always wear safety glasses and turn the tool on while standing at the side and not in front of the grinder. Allow it to reach full speed before grinding.

3. Hold the workpiece firmly against the tool rest. Hold very small pieces with pliers or other suitable clamps.
4. Feed the workpiece smoothly and evenly into the grinding wheel.
5. Move the workpiece slowly and avoid jamming the workpiece against the wheel. If the wheel tends to slow down from excessive force, you should occasionally release the pressure to let the wheel return to full speed.
6. The grinding wheels supplied with this unit are designed for different types of steel, wrought iron, and bronze.
7. Never sharpen or grind anything made of aluminum, brass, copper, wood, plastic or any other non-metallic materials.

⚠ WARNING

Grind only on the face of the grinding wheel and never the side of it.

⚠ CAUTION

Prolonged grinding will cause most materials to become hot. Use care when handling such materials.

SCISSORS

If possible, take the scissors apart to make the sharpening operation easier and safer. Remove material only from the outside surface and work from the heavy end of the blade toward the tip.

KNIVES

Remove metal from both faces of most knives, working from the heavy end of the blade toward the tip.

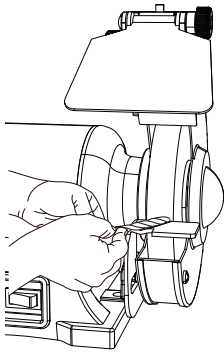
SCREWDRIVERS

The end of a properly sharpened screwdriver will be a perfect rectangle, absolutely flat and perpendicular to the center line of the shank. The two sides and two faces will taper outward from the edge of the shoulder or shank. They should be flat with intersecting faces perpendicular. Hold each face of the screwdriver against the wheel to true it up, then ease the end straight into the stone to grind it true.

TWIST DRILL BITS (FIG. L)

Drill bits are best sharpened on a sharpening jig, available at most hardware stores, but can be “dressed up” on your grinder. Begin on one side of the point at the existing angle, then twist the bit while maintaining a constant angle with grinding surface. Sharpen only the tip. This technique requires considerable practice, so take your time and make a few “dry runs” first with the grinder off. Be sure to maintain the original cutting edge angle as this is important to the efficiency of your bits. One tool rest has a V-groove that is correctly angled for most drill bits.

Fig. L



LAWN MOWER BLADES

Lawn mower blades are usually sharpened on only one side and dressed up slightly on the other. After sharpening, be sure to balance the blade by removing additional material from the heavy end. There are a number of inexpensive cone balancers on the market for this purpose. Unbalanced blades can cause serious crank shaft damage to your lawn mower. Always remove spark plug wires from the mower before servicing the blades to prevent accidental starting.

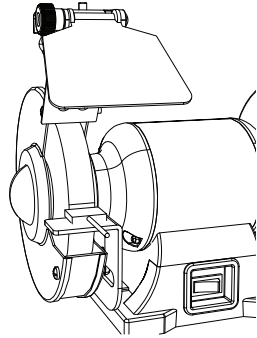
DRESSING A GRINDING WHEEL (FIG. M)

Bring the dressing tool forward on the tool rest until it touches the high point on the face of the wheel. Dress the wheel by moving the dressing tool back and forth. Repeat this operation until the face of the grinding wheel is clean and the corner of the wheel is square.

NOTE: A wheel dressing tool is NOT provided with the grinder.

NOTE: DO NOT use the wheel dressing tool on wire wheels.

Fig. M



INSTALLING WIRE WHEEL (Not included)

When replacing the grinding wheel with a wire wheel, it is necessary to place a spacer (not included) on the spindle shaft BEFORE installing the inner flange, wheel, outer flange and wheel nut.

MAINTENANCE

WARNING

For your own safety, turn switch “OFF” and remove plug from power source outlet before adjusting and maintaining your bench grinder. If power cord is worn, cut or damaged in any way, have it replaced immediately.

GENERAL MAINTENANCE

1. Regularly check the tool and use a soft brush to remove accumulated dust.
2. Use only mild soap and damp cloth to clean the tool. Do not use alcohol, petrol or other similar cleaning agents.
3. Do not make contact with the grinding wheels with any damp cloth.
4. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.
5. Wear safety goggles to protect your eyes while cleaning.
6. Always make sure the eyeshields are transparent and not blocking the view of the grinding wheel.
7. In normal use, grinding wheels may become cracked, grooved, rounded at the edges, chipped, out of true or loaded with foreign material. Cracked wheels should be replaced IMMEDIATELY. While any of the other conditions can be remedied with a dressing tool (included), new wheels sometimes require dressing to make them round.
8. If you must replace a wheel be sure to obtain one with a safe rated speed at least as high as the “NO LOAD” RPM marked on your grinder’s nameplate. Replacement wheels must have a 1/2 in. (12.7 mm) center hole, 6 in. (150 mm) diameter and should be a maximum of 3/4 in. (20 mm) wide. Test new wheels for cracks and maintain the existing sequence of retaining hardware. Be sure the tool is unplugged before attempting repairs.
9. If replacing the batteries, take out the old batteries and replace with new AAA batteries. When replacing the batteries, the battery guide should be thoroughly cleaned. Use a soft paintbrush or similar device, to remove all sawdust and debris. Dispose off old batteries properly. Do not mix old and new batteries. Do not mix alkaline, standard (carbon - zinc), or rechargeable (nickel - cadmium) batteries. Batteries are to be inserted with the correct polarity. Do not charge the battery which is not a rechargeable battery.

WARNING

- **Never use caustic agents to clean the plastic parts of the tool.**
- **Water must never come into contact with the grinder.**
- **The use of any other accessories is not recommended and may result in serious injury.**

ACCESSORIES AND ATTACHMENTS

AVAILABLE 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 accessory.

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, Inc. 684 Huey Road, Rock Hill, SC 29730, - 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.	<ol style="list-style-type: none">1. Not plugged into power outlet.2. Switch is not in ON position.3. Motor cord cut or abraded.4. Plug on cord is faulty.5. Faulty motor.6. Fuse on circuit breaks open.	<ol style="list-style-type: none">1. Plug it into the power outlet.2. Turn the switch ON.3. Contact Porter-Cable Service Center or Authorized Service Station for repair or replacement.4. Contact Porter-Cable Service Center or Authorized Service Station for repair or replacement.5. Contact Porter-Cable Service Center or Authorized Service Station for repair or replacement.6. Re-set; may be too many machines on line.
Grinding wheel vibrates or shakes.	<ol style="list-style-type: none">1. Grinding wheel is not fixed properly.2. Other.	<ol style="list-style-type: none">1. Adjust grinding wheel properly. See ADJUSTMENT section.2. Contact Porter-Cable Service Center or Authorized Service Station for repair or replacement.

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.

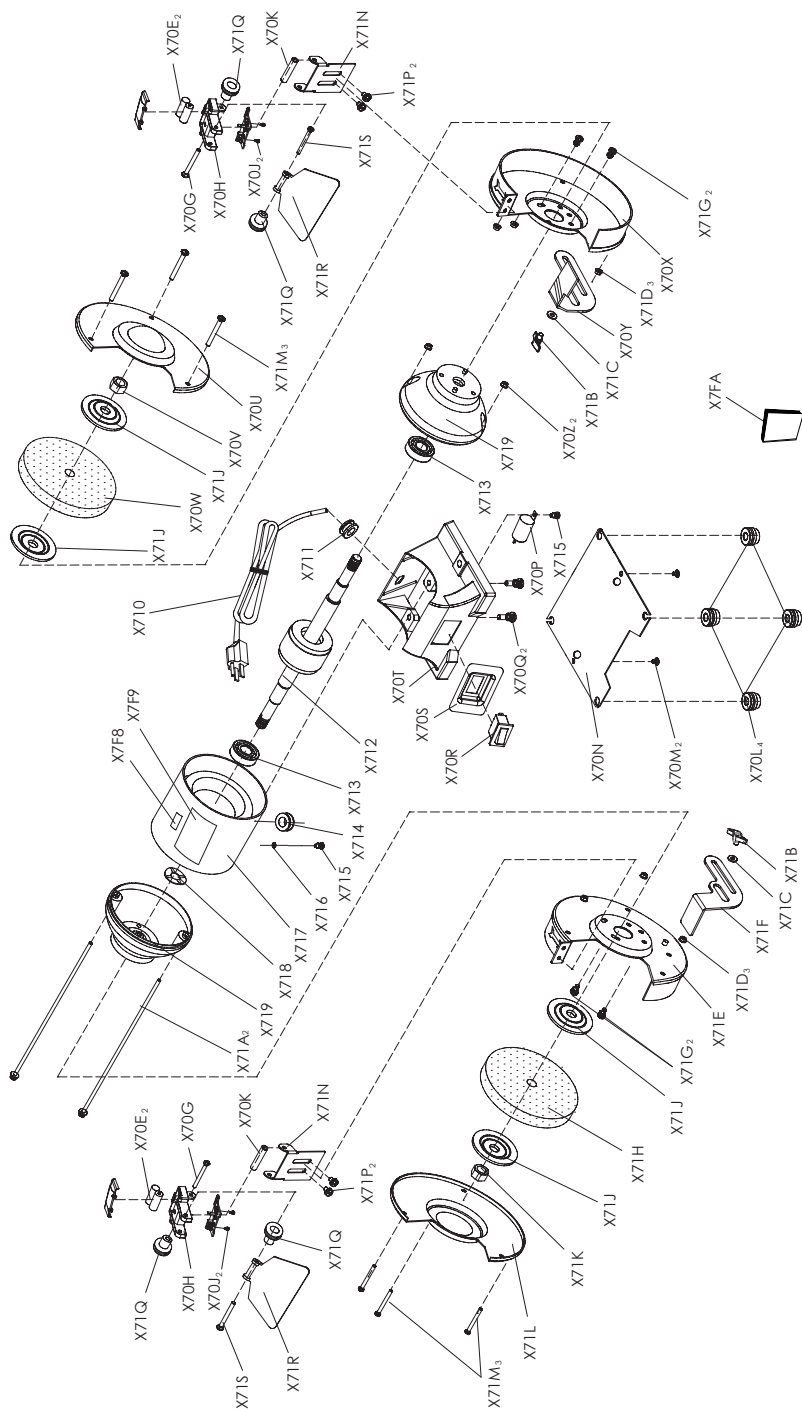
PARTS LIST

6 IN. (150 MM) BENCH GRINDER

PARTS LIST

ID NO.	Description	Size	Q'ty
X71S	SMALL CARRIAGE BOLT	M5*55	2
X71R	EYESHIELD		2
X71Q	EYESHIELD LOCKING KNOB		4
X71P	PHILIPS SCREW WITH SPRING & FLAT WASHER	M5*8	4
X71N	EYESHIELD BRACKET		2
X71M	PHILIPS SCREW	M5*42	6
X71L	RIGHT SAFETY GUARD COVER		1
X71K	HEX NUT, I TYPE		1
X71J	FLANGE		4
X71H	GRINDING WHEEL	Φ150*20*Φ12.7 36#	1
X71G	PHILIPS SCREW AND SPRING WASHER	M5*10	4
X71F	LEFT TOOL REST		1
X71E	LEFT SAFETY GUARD		1
X71D	HEX NUT		6
X71C	FLAT WASHER		2
X71B	LOCKING KNOB	M8*9	2
X71A	PHILIPS SCREW AND FLAT WASHER	M4*118	2
X719	END CAP		2
X718	WAVY WASHER		1
X717	STATOR		1
X716	TOOTHED WASHER		1
X715	PHILIPS SCREW WITH SPRING & FLAT WASHER	M4*8	2
X714	CORD BUSHING		1
X713	BALL BEARING		2
X712	ROTOR		1
X711	CORD CLIP		1
X710	POWER CORD		1
X70Z	HEX NUT		2
X70Y	RIGHT TOOL REST		1
X70X	RIGHT SAFETY GUARD		1
X70W	GRINDING WHEEL	Φ150*20*Φ12.7 60#	1
X70V	HEX NUT, I TYPE		1
X70U	RIGHT SAFETY GUARD COVER		1
X70T	BASE		1
X70S	SWITCH PLATE		1
X70R	SWITCH		1
X70Q	PHILIPS SCREW AND SPRING WASHER	M6*18	2
X70P	CAPACITOR		1
X70N	BOTTOM PLATE		1
X70M	PHILIPS SCREW AND FLAT WASHER	M4*6	2
X70L	RUBBER FOOT		4
X70K	BUSHING		2
X70J	PHILIPS SCREW	ST2.9*8	4
X70H	LAMP ASSEMBLY		2
X70G	SMALL CARRIAGE BOLT	M5*60	2
X70E	AAA BATTERY		4
X7FA	INSTRUCTION MANUAL		1
X7F9	CAUTION LABEL		1
X7F8	TRADEMARK LABEL		1

6 IN. (150 MM) BENCH GRINDER SCHEMATIC



NOTES

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.

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