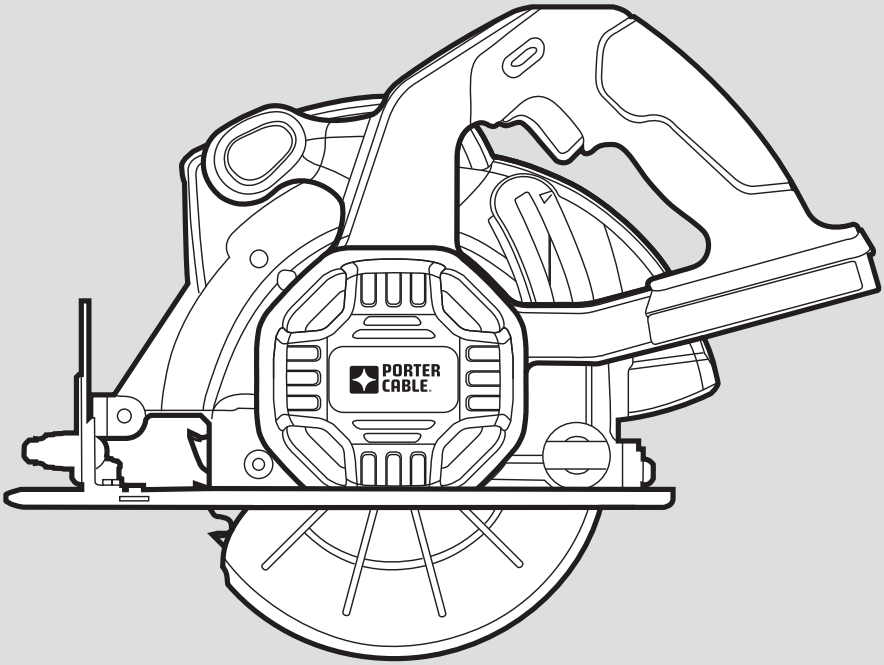
PORTER CABLE®



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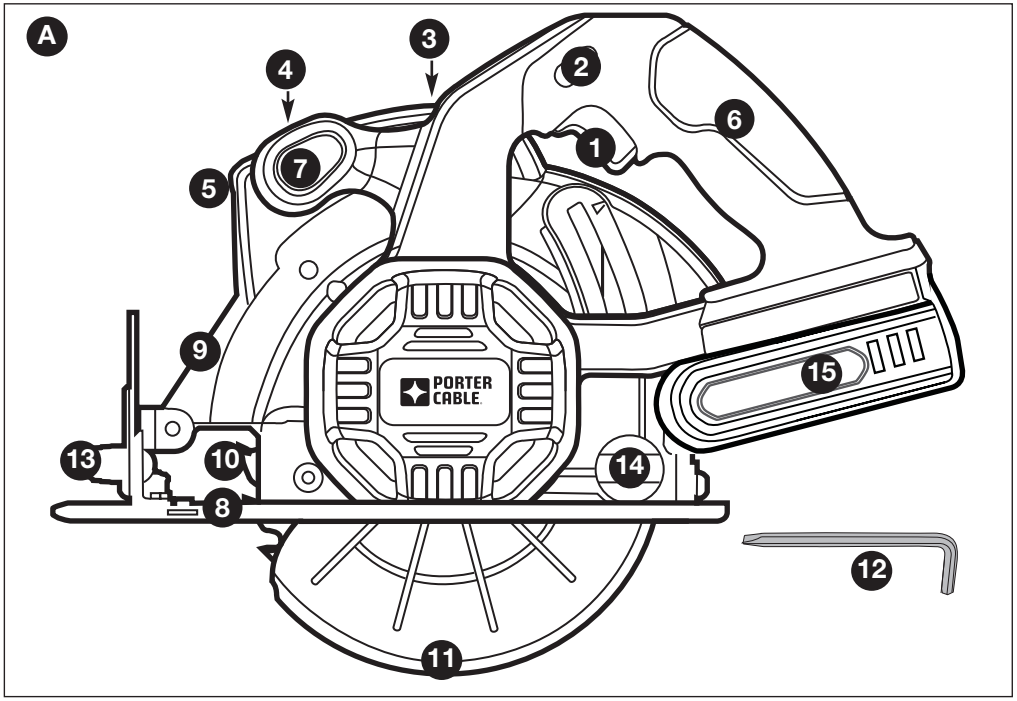
18V 165MM CIRCULAR SAW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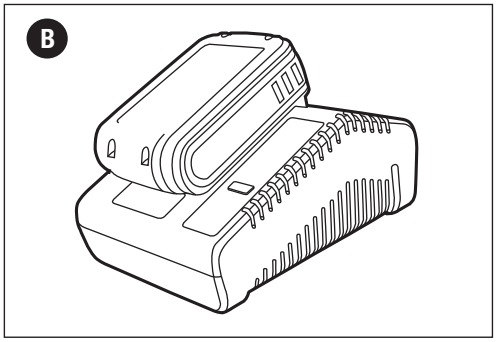
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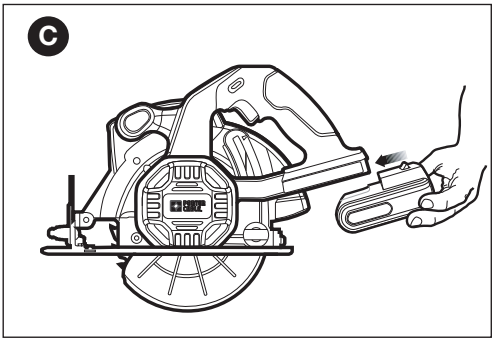
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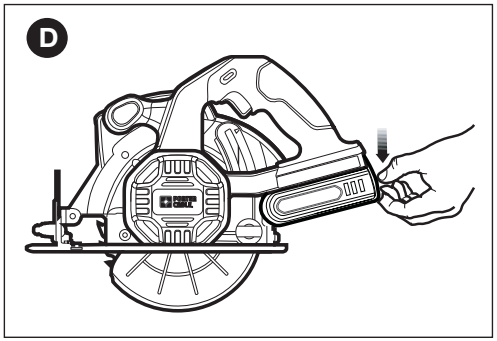
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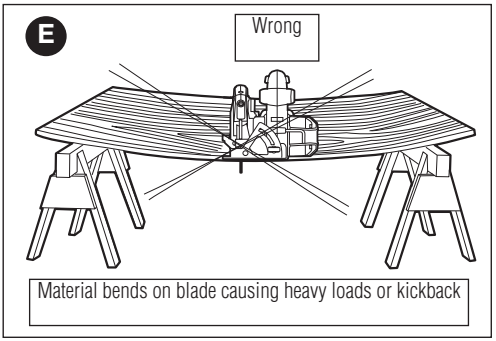
E
Wrong
Material bends on blade causing heavy loads or kickback

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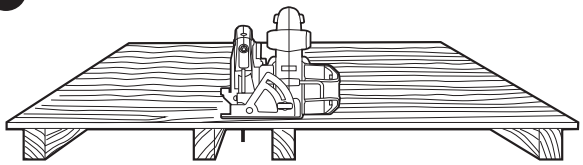

Support work near cut

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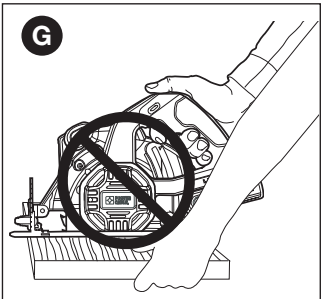

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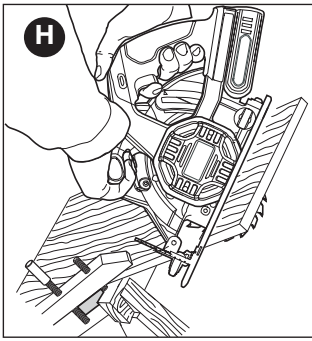

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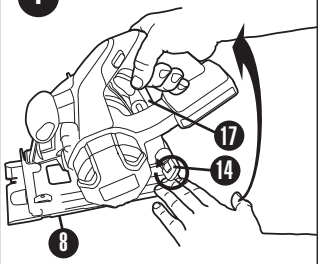

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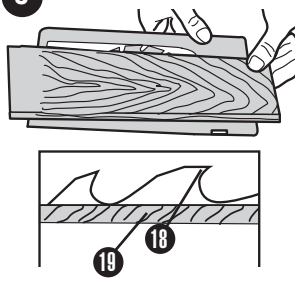

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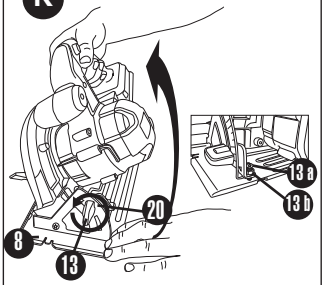

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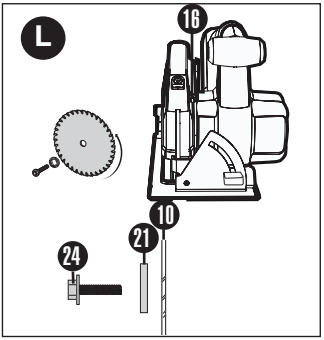

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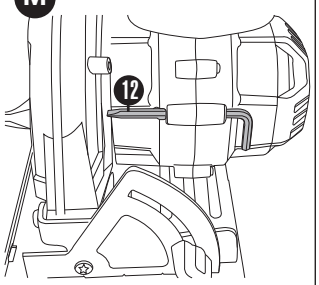

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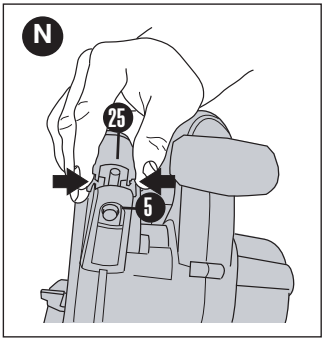

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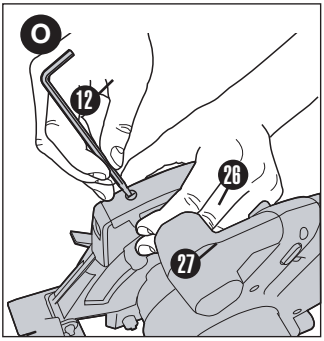

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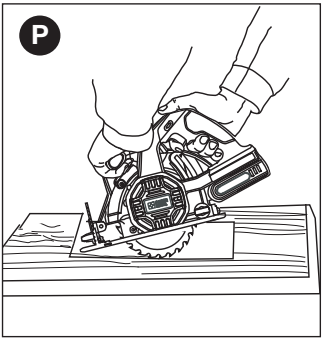

PCL186CS
18V 165MM CIRCULAR SAW

TECHNICAL DATA

SPECIFICATION	PCL186CS-XE
VOLTS	18V
SPEED	3,700/MIN (RPM)
BLADE SIZE	165MM
DEPTH OF CUT AT 0-DEGREES BEVEL	53.3MM
DEPTH OF CUT AT 50-DEGREES BEVEL	43.2MM
SPINDLE LOCK	YES
DEPTH ADJUSTMENT	YES

INTENDED USE

Your Porter-Cable Circular Saw has been designed for cutting wood.

SAFETY INSTRUCTIONS

General power tool safety warnings

Warning! Read all safety warnings and all instructions. Failure to follow all instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

1. Work area safety

a. Keep work area clean and well lit. Cluttered or dark areas invite accidents.

b. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.

c. Keep children and bystanders away while operatinga power tool. Distractions can cause you to lose control.

2. Electrical safety

a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodied plugsand matching outlets will reduce risk of electric shock.

b. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

c. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

d. Do not abuse the cord. Never use the cord for carrying,pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

f. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

g. Recommendation for the use of a residual current device with a rated residual current of 30mA or less.

3. Personal safety

a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

b. Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

c. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

d. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

f. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

g. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.

4. Power tool use and care

a. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

b. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c. Disconnect the plug from the power source and/or

the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

d. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power Power tools are dangerous in the hands of untrained users.

e. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

f. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g. Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

5. Service

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

ADDITIONAL SAFETY INSTRUCTIONS FOR AUSTRALIA AND NEW ZEALAND

a. Young children and the infirm.This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure they do not play with this appliance.

b. Replacement of the supply cord. If the supply cord is damaged, it must be replaced by the manufacturer or an authorised Porter-Cable Service Centre in order to avoid a hazard.

SAFETY INSTRUCTIONS FOR CIRCULAR SAW

⚠ **DANGER:**

a. Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing. If both hands are holding the saw, they cannot be cut by the blade.

b. Do not reach underneath the workpiece. The guard cannot protect you from the blade below the workpiece.

c. Adjust the cutting depth to the thickness of the workpiece. Less than a full tooth of the blade teeth should be visible below the workpiece.

d. Never hold piece being cut in your hands or across your leg. Secure the workpieceto a stable platform. It is important to support the work properly to minimize body exposure, blade binding, or loss of control.

e. Hold power tool by insulated gripping surfaces, when performing an operation where the cutting tool may contact hidden wiring. Contact with a "live" wire will also make exposed metal parts of the power tool "live" and shock the operator.

f. When ripping always use a rip fence or straight edge guide. This improves the accuracy of cut and reduces the chance of blade binding.

g. Always use blades with correct size and shape (diamond versus round) of arbour holes. Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

h. Never use damaged or incorrect blade washers or bolt. The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

FURTHER SAFETY INSTRUCTIONS FOR CIRCULAR SAW

Causes and operator prevention of kickback:

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

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

a. Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade. Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.

b. When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur. Investigate and take corrective actions to eliminate the cause of blade binding.

c. When restarting a saw in the workpiece, centre the saw blade in the kerf and check that saw teeth are not engaged into the material. If saw blade is

binding, it may walk up or kickback from the workpiece as the saw is restarted.

d. **Support large panels to minimise the risk of blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

e. **Do not use dull or damaged blades.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.

f. **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.** If blade adjustment shifts while cutting, it may cause binding and kickback.

g. **Use extra caution when making a "plunge cut" into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.

SAFETY INSTRUCTIONS FOR CIRCULAR SAW WITH INNER PENDULUM GUARD

a. **Check lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.** If saw is accidentally dropped, lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.

b. **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.** Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.

c. **Lower guard may be retracted manually only for special cuts such as "plunge cuts" and "compound cuts." Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released.** For all other sawing, the lower guard should operate automatically.

d. **Always observe that the lower guard is covering the blade before placing saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

ADDITIONAL SAFETY INSTRUCTIONS FOR CIRCULAR SAW WITH RIVING KNIFE

a. **Use the appropriate riving knife for the blade being used.** For the riving knife to work, it must be thicker than the body of the blade but thinner than the tooth set of the blade.

b. **Adjust the riving knife as described in this instruction manual.** Incorrect spacing, positioning and alignment can make the riving knife ineffective in preventing kickback.

c. **Always use the riving knife except when plunge cutting.** Riving knife must be replaced after plunge cutting. Riving knife causes interference during plunge cutting and can create kickback.

d. **For the riving knife to work, it must be engaged in the workpiece.** The riving knife is ineffective in preventing kickback during short cuts.

e. **Do not operate the saw if riving knife is bent.** Even a light interference can slow the closing rate of a guard.

⚠ **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 maycause serious and permanent respiratory or other injury.** Always useNIOSH/OSHAapproved respiratory protection appropriate for the dust exposure. Directparticles away from face and body.

⚠ **WARNING: Always wear proper personal hearing protection that conforms toANSI S12.6 (S3.19) during use.** Under some conditions and duration of use, noise fromthis product may contribute to hearing loss.

⚠ **WARNING: ALWAYS** use safety glasses. Everyday eyeglasses are NOT safety glasses. Also use face or dust mask if cutting operation is dusty. ALWAYS WEAR CERTIFIED SAFETYEQUIPMENT:

- ANSI Z87.1 eye protection (CAN/CSAZ94.3),
- ANSI S12.6 (S3.19) hearing protection,
- NIOSH/OSHA/MSHArespiratory protection.

IMPORTANT SAFETY INSTRUCTIONS FOR BATTERY CHARGERS

SAVE THESE INSTRUCTIONS: This manual contains important safety instructions for battery chargers.

- Before using charger, read all instructions and cautionary markings on charger, battery pack, and product using battery pack.

⚠ **WARNING: Shock hazard.** Do not allow any liquid to get inside charger.

⚠ **CAUTION: Burn hazard.** To reduce the risk of injury, charge only designated **PORTER-CABLE** batteries. Other types of batteries may burst causing personal injury and damage.

⚠ **CAUTION:** Under certain conditions, with the charger plugged in to the power supply, the charger can be shorted by foreign material. Foreign materials of a conductive nature such as, but not limited to, steel wool, aluminum foil, or any buildup of metallic particles should be kept away from charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity. Unplug charger before attempting to clean.

- **DO NOT attempt to charge the battery pack with any chargers other than the ones in this manual.** The charger and battery pack are specifically designed to work together.
- **These chargers are not intended for any uses other than charging designated PORTER-CABLE rechargeable batteries.** Any other uses may result in risk of fire, electric shock or electrocution.
- **Do not expose charger to rain or snow.**
- **Pull by plug rather than cord when disconnecting charger.** This will reduce risk of damage to electric plug and cord.
- **Make sure that cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.**
- **Do not use an extension cord unless it is absolutely necessary.** Use of improper extension cord could result in risk of fire, electric shock, or electrocution.
- **An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety.** The smaller the gauge number of the wire, the greater the capacity of the cable, that is 16 gauge has more capacity than 18 gauge. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size.
- **Do not place any object on top of charger or place the charger on a soft surface that might block the ventilation slots and result in excessive internal heat. Place the charger in a position away from any heat source.**The charger is ventilated through slots in the top and the bottom of the housing.
- **Do not mount charger on wall or permanently affix charger to any surface.** The charger is intended to use on a flat, stable surface (i.e., table top, bench top).
- **Do not operate charger with damaged cord or plug --** have them replaced immediately.
- **Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.** Take it to an authorized service center.
- **Do not disassemble charger;** take it to an authorized service center when service or repair is required. Incorrect reassembly may result in a risk of electric shock, electrocution or fire.
- **Disconnect the charger from the outlet before attempting any cleaning.** This will reduce the risk of electric shock. Removing the battery pack will not reduce this risk.
- **NEVER attempt to connect 2 chargers together.**
- **The charger is designed to operate on standard household electrical power (230 Volts). Do not attempt to use it on any other voltage.**

IMPORTANT SAFETY INSTRUCTION FOR BATTERY PACKS

⚠ **WARNING:** For safe operation, read this manual and manuals originally supplied with tool before using the charger.

The battery pack is not fully charged out of the carton. Before using the battery pack and charger, read the safety instructions below. Then follow charging procedures outlined.

- **Do not incinerate the battery pack even if it is severely damaged or is completely worn out.** The battery pack can explode in a fire. Toxic fumes and materials are created when LI-ION battery packs are burned.
- **Do not charge or use battery in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Inserting or removing the battery from the charger may ignite the dust or fumes.
- **If battery contents come into contact with the skin, immediately wash area with mild soap and water.** If battery liquid gets into the eye, rinse water over the open eye for 15 minutes or until irritation ceases. If medical attention is needed, the battery electrolyte for LI-ION batteries is composed of a mixture of liquid organic carbonates and lithium salts. For NI-CD batteries it is a 25-35% solution of

potassium hydroxide.
- **Contents of opened battery cells may cause respiratory irritation.** Provide fresh air. If symptoms persists, seek medical attention.

⚠ **WARNING: Burn hazard.** Battery liquid may be flammable if exposed to spark or flame.
- Charge the battery packs only in **PORTER-CABLE** chargers.
- **DO NOT splash or immerse in water or other liquids.** This may cause premature cell failure.
- **Do not store or use the tool and battery pack in locations where the temperature may reach or exceed 105°F (40˚C) (such as outside sheds or metal buildings in summer).**

⚠ **WARNING:** Never attempt to open the battery pack for any reason. If battery packcase is cracked or damaged, do not insert into charger. Do not crush, drop or damage-battery pack. Do not use a battery pack or charger that has received a sharp blow,been dropped, run over or damaged in any way (i.e., pierced with a nail, hit with ahammer, stepped on). Damaged battery packs should be returned to service center forrecycling.

⚠ **WARNING: Fire hazard. Do not store or carry battery so that metal objects can contact exposed battery terminals.** For example, do not place battery in aprons, pockets, tool boxes, product kit boxes, drawers, etc., with loose nails, screws, keys, etc. **Transporting batteries can possibly cause fires if the battery terminals inadvertently come in contact with conductive materials such as keys, coins, hand tools and the like.** The US Department of Transportation Hazardous Material Regulations (HMR) actually prohibit transporting batteries in commerce or on airplanes (i.e., packed in suitcases and carry-on luggage) UNLESS they are properly protected from short circuits. So when transporting individual batteries, make sure that the battery terminals are protected and well insulated from materials that could contact them and cause a short circuit. **NOTE: LI-ION batteries should not be put in checked baggage.**

CHARGING PROCEDURE

PORTER-CABLE chargers are designed to charge **PORTER-CABLE** battery packs in 30-60 minutes depending on the pack being charged.

1. Plug the charger into an appropriate outlet before inserting the battery pack.
2. Insert the battery pack into the charger. **(Fig. B)**
3. The LED will flash indicating that the battery is being charged.
4. The completion of charge is indicated by the LED remaining on continuously.The pack is fully charged and may be used at this time or left on the charger.

CHARGER DIAGNOSTICS

This charger is designed to detect certain problems that can arise with the battery packs or the power source. Problems are indicated by one LED flashing in different patterns.

BAD BATTERY

The charger can detect a weak or damaged battery. The LED flashes in the pattern indicated on the label. If you see this bad battery blink pattern, do not continue to charge the battery. Return it to a service center or a collection site for recycling.

HOT/COLD PACK DELAY

When the charger detects a battery that is excessively hot or excessively cold, it automatically starts a Hot/Cold Pack Delay, suspending charging until the battery has normalized. After this happens, the charger automatically switches to the Pack Charging mode. This feature ensures maximum battery life. The light flashes in the pattern indicated on the label.

PROBLEM POWER LINE

When the charger is used with some portable power sources such as generators or sources that convert DC to AC, the charger may temporarily suspend operation. The LED flashes in the pattern indicated on the label. This indicates that the power source is out of limits.

LEAVING THE BATTERY IN THE CHARGER

The charger and battery pack can be left connected with the LED glowing indefinitely. The charger will keep the battery pack fresh and fully charged. This charger features an automatic tune-up mode which equals or balances the individual cells in the battery pack to allow it to function at peak capacity. Battery packs should be tuned up weekly or whenever the battery no longer delivers the same amount of work. To use the automatic tune-up mode, place the battery pack in the charger and leave it for at least 8 hours.

IMPORTANT CHARGING NOTES

1. Longest life and best performance can be obtained if the battery pack is charged when the air temperature is between 65°F and 75°F (18°- 24°C). DO NOT charge the battery pack in an air temperature below +40°F (+4.5°C), or above +105°F (+40.5°C). This is important and will prevent serious damage to the battery pack.
2. The charger and battery pack may become warm to touch while charging. This is a normal condition, and does not indicate a problem. To facilitate the cooling of the battery pack after use, avoid placing the charger or battery pack in a warm environment such as in a metal

shed, or an uninsulated trailer.

3. If the battery pack does not charge properly:
   a. Check current at receptacle by plugging in a lamp or other appliance
   b. Check to see if receptacle is connected to a light switch which turns power off when you turn out the lights.
   c. Move charger and battery pack to a location where the surrounding air temperature is approximately 65°F - 75°F (18°- 24°C).
   d. If charging problems persist, take the tool, battery pack and charger to your local service center.
4. The battery pack should be recharged when it fails to produce sufficient power on jobs which were easily done previously. DO NOT CONTINUE to use under these conditions. Follow the charging procedure. You may also charge a partially used pack whenever you desire with no adverse affect on the battery pack.
5. Foreign materials of a conductive nature such as, but not limited to, steel wool, aluminum foil, or any buildup of metallic particles should be kept away from charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity. Unplug charger before attempting to clean.
6. Do not freeze or immerse charger in water or any other liquid.

⚠ **WARNING: Shock hazard.** Do not allow any liquid to get inside charger. Never attempt to open the battery pack for any reason. If the plastic housing of the battery pack breaks or cracks, return to a service center for recycling.

INSTALLING AND REMOVING THE BATTERY PACK FROM THE TOOL

⚠ **CAUTION:** Make certain the lock-off button is engaged to prevent switch actuation before removing or installing battery.
TO INSTALL BATTERY PACK: Insert battery pack into tool as shown in **figure C.**

TO REMOVE BATTERY PACK: Depress the battery release button as shown in **figure D** and pull battery pack out of tool.

SUPPORTING LARGE PANELS / SECURING WORKPIECE

Support large panels to minimize the risk of blade pinching and kickback. Large panels tend to sag under their own weight as shown in **figure E.**

Supports must be placed under the panel on both sides, near the line of cut and near theedge of the panel (**figure F**).

Never hold piece being cut in your hands or across your leg (**figure G**).

Secure the workpiece to a stable platform as shown in **figure H**. It is important to support the work properly to minimize body exposure, blade binding, or loss of control.

ASSEMBLY/ADJUSTMENT SET-UP

⚠ **WARNING: TO REDUCE THE RISK OF INJURY, ALWAYS REMOVE BATTERY FROM SAW BEFORE ANY OF THE FOLLOWING ADJUSTMENT OPERATIONS.**

CUTTING DEPTH ADJUSTMENT - FIGURES I & J

The depth of cut should be set according to the thickness of the workpiece.

- Loosen the depth adjustment knob (14) to unlock the saw shoe (8) as shown in **figure I**.
- Move the saw shoe into the desired position. The corresponding depth of cut can be read from the scale (17).
- Tighten the knob or lever to lock the saw shoe in place.
- Set depth adjustment of saw such that one tooth (18) of the blade projects below the workpiece (19) as shown in **figure J**.

BEVEL ANGLE ADJUSTMENT - FIGURE K

This tool can be set to bevel angles between 0°and 50°.

- Loosen the bevel adjustment knob (13) to unlock the saw shoe.
- Move the saw shoe (8) into the desired position. The corresponding bevel angle can be read from the scale (20).
- Tighten the bevel adjustment knob (13) to lock the saw shoe in place.

SHOE ADJUSTMENT FOR 90° CUTS

IF ADDITIONAL ADJUSTMENT IS NEEDED:

- Adjust the saw to 0° bevel.
- Retract blade guard (11).
- Loosen bevel adjustment knob (13). Place a square against the blade (10) and shoe (8) to adjust the 90° setting.
- Loosen jam nut (13b) and move the adjustment screw (13a) **(inset figure K)** so that the shoe will stop at the proper angle. Retighten jam nut.
- Confirm the accuracy of the setting by checking the squareness of an actual cut on a scrap piece of material.

- Confirm the accuracy of the setting by checking the squareness of an actual cut on a scrap piece of material.

SYMBOLS

The label on your tool may include the following symbols:

V .....Volts
A .....Amperes
Hz .....Hertz
W .....Watts
min .....minutes
~ .....Alternating current
⎓ .....Direct current
n_0 .....No load speed
⧈ .....Class I Construction (grounded)
⏚ .....Earthing terminal
⧈ .....Class II Construction
⚠ .....Safety alert symbol
.../min or rpm .....Revolutions or reciprocations per minute

ELECTRICAL SAFETY

⚠ **Warning!** If the power cord is damaged, it must be replaced by the manufacturer, authorized Porter-Cable Service Center or an equally qualified person in order to avoid damage or injury. If the power cord is replaced by an equally qualified person, but not authorized by Porter-Cable, the warranty will not be valid.

FEATURES (FIGURE A)

1. On/off switch
2. Lock-off button
3. Laser on/off switch (PC186CSL)
4. Laser adjustment tabs (PC186CSL)
5. Laser (PC186CSL)
6. Main handle
7. Secondary handle
8. Shoe
9. Upper guard
10. Saw blade
11. Saw blade guard
12. Wrench
13. Bevel adjustment knob
14. Depth adjustment knob
15. Battery (not included)
16. Spindle lock (not shown)

This product can accept any of the batteries and chargers listed in the chart below.

LI-ION Battery Packs and Chargers

Description	Cat. #
Battery: LI-ION 18V	PC18BL PC18BLX PC18BLEX
Charger: LI-ION	

OPERATING INSTRUCTIONS

⚠ **WARNING: To reduce the risk of serious personal injury, read, understand and follow all important safety warnings and instructions prior to using tool.**

BLADE SELECTION

Your circular saw is designed for use with 165mm diameter blades that have a 15.9mm diameter bore. Blades must be rated for 6000 RPM operation (or higher). DO NOT use any abrasive wheels.

GENERAL CUTS

⚠ **WARNING: To reduce the risk of injury, remove the battery, and follow all assembly, adjustment and set up instructions.**

Make sure lower guard operates. Select the proper blade for the material to be cut.

- Measure and mark work for cutting.
- Support and secure work properly (See Safety Rules and Instructions).
- Use appropriate and required safety equipment (See Safety Rules).
- Secure and maintain work area (See Safety Rules).
- With battery inserted, make sure switch turns saw on and off.

⚠ **WARNING: To reduce the risk of injury, it is important to support the work properly and to hold the saw firmly to prevent loss of control which could cause personal injury.** Figure H illustrates typical hand support.

ATTACHING AND REMOVING THE BLADE - FIGURE L

- Retract lower guard and assemble blade (10) and clamp washer (21) as shown in **figure L.**
- Depress the spindle lock (16) while turning the saw spindle with the blade wrench (12) until the blade lock engages and the blade stops rotating.
  NOTE: Blade wrench is stored on the saw as shown in **figure M.**
- Tighten the blade clamping screw (24) securely with the blade wrench.
  NOTE: Never engage the blade lock while the saw is running, or engage in an effort to stop the tool. Never turn the tool on while the blade lock is engaged. Serious damage to your saw will result.

LOWER BLADE GUARD

⚠ **WARNING: Laceration Hazard. The lower blade guard is a safety feature which reduces the risk of**

serious personal injury. Never use the saw if the lower guardis missing, damaged, mis-assembled or not working properly. Do not rely on the lower blade guard to protect you under all circumstances. Your safety depends on following all warnings and precautions as well as proper operation of the saw. Check lower guard for proper closing before each use as outlined in Additional Safety Rules for Circular Saws. If the lower blade guard is missing or not working properly, have the saw serviced before using. To assure product safety and reliability, repair, maintenance and adjustment should be performed by anauthorized service center or other qualified service organization, always using identical replacement parts.

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

⚠ **CAUTION:** Do not cut ferrous metals (steel), masonry, glass or tile with this saw. A dull blade will cause slow, in efficient cutting overload on the saw motor, excessive splintering, and could increase the possibility of kickback.

SWITCH

Saw is equipped with a switch lock-off feature to prevent unintentional running.

- To operate the tool, press in on the lock-off button (2) from either side of the saw and hold it in as you depress the trigger switch (1).
- After you have depressed the trigger and the tool is running, release the lock-off button. The tool will continue to run as long as the trigger is depressed.
- To turn the tool off, release the trigger switch.
  NOTE: This tool has no provision for locking the tool on, and the switch should never be locked on by any other means.

AUTOMATIC ELECTRIC BRAKE

Your saw is equipped with an electric blade brake which stops the saw blade within 1-1/2 seconds of trigger release. This is automatic and requires no adjustment.

OPERATING THE LASER (CATALOG NUMBER PC186CSL ONLY)

INSTALLING THE BATTERIES - FIGURE N

⚠ **WARNING: LASER RADIATION. BE CERTAIN THE LASER ON/OFF BUTTON IS IN THE OFF POSITION (SEE SECTION "SWITCHING THE LASER ON AND OFF) BEFORE INSTALLING BATTERIES.**

Lift the battery door (25) off the laser module (4) by gently squeezing the front of the door as shown in **figure N**. Insert 2 fresh 1.5 volt AAA batteries making sure to match (+) and (-) terminals correctly. Reattach the battery door.

⚠ **WARNING: Batteries can explode, or leak, and can cause injury or fire.** To reduce this risk:

- Carefully follow all instructions and warnings on the battery label and package.
- Always insert batteries correctly with regard to polarity (+ and -), marked on the battery and the equipment.
- Do not short battery terminals.
- Do not charge batteries.
- Do not mix old and new batteries. Replace all of them at the same time with new batteries of the same brand and type.
- Remove dead batteries immediately and dispose of per local codes.
- Do not dispose of batteries in fire.
- Keep batteries out of reach of children.
- Remove batteries if the device will not be used for several months.

"Transporting batteries can possibly cause fires if the battery terminals inadvertently come in contact with conductive materials such as keys, coins, hand tools and the like. The US Department of Transportation Hazardous Material Regulations (HMR) actually prohibit transporting batteries in commerce or on airplanes (i.e. packed in suitcases and carryon luggage) UNLESS they are properly protected from short circuits. So when transporting individual batteries, make sure that the battery terminals are protected and well insulated from materials that could contact them and cause a short circuit."

ON BOARD LASER

Some saw models are equipped with an on board laser which is turned on and off separately from the saw.

⚠ **WARNING: LASER RADIATION. Never aim the beam at a workpiece with a reflective surface.** Bright shiny reflective sheet steel or similar reflective surfaces are not recommended for laser use. Reflective surfaces could direct the beam back toward the operator.

⚠ **DANGER: LASER RADIATION. AVOID DIRECT EYE EXPOSURE. Do not stare into the laser light source. Never aim light at another person or object other than the workpiece.** Laser light can damage your eyes.

⚠ **WARNING: DO NOT use tinted glasses to enhance the laser light.** Tinted glasses will reduce overall vision for the application and interfere with the normal operation of the tool.

SWITCHING THE LASER ON AND OFF

- To turn the laser on, press the laser on/off button (3). To turn the laser off, press the button a second time. NOTE: The laser on/off button occupies two different positions, the lower position is “on” (slightly depressed below flush) and the upper position is “off” (button is flush with the surface).

⚠ CAUTION: TURN OFF TOOL AND REMOVE BATTERY PACK FROM SAW BEFORE CHANGING

ACCESSORIES OR MAKING ANY ADJUSTMENTS.

The laser can be adjusted to remove lateral and angular error.

- Using a securely mounted scrap piece of plywood or sheathing make a partial cut with this saw at least as long as the shoe.
- Turn the saw off, hold the saw motionless and after the blade stops rotating, remove the saw from the cut.
- Using a straight edge and pencil, draw a straight line on the plywood as if extending the cut from where it ended.
- **REMOVE THE SAW BATTERY BEFORE MAKING LASER ADJUSTMENTS.**
- With the saw set at maximum depth of cut, retract the lower guard and place the saw blade back in the cut to where it ended (at the start of the pencil line).
- With the saw shoe sitting solidly on the plywood, turn the laser on, loosen the laser adjustment screw (26) with the supplied wrench (12) and use the adjustment tabs (27) on each side of the laser module to align the laser line with the pencil line then retighten the adjustment screw.
- Turn the laser off and remove the saw from the cut before reinserting the saw battery.

TO USE THE LASER LINE

- Mark the line that you intend to cut on the workpiece.
- Adjust the depth and angle of cut as required.
- Push the laser on/off switch (3) to the “ON” position and project the laser beam.
- Push in on the lock-off button (2) and depress the saw on/off switch (1) and allow the blade to reach maximum speed.
- Place the saw shoe on the workpiece. Align the laser line with the mark on the workpiece and slowly push the saw forward keeping the laser line on the mark.
- Upon completion of the cut, release the trigger and allow the saw blade to come to a complete stop before switching off the laser.

SAWING

⚠ **WARNING:** To reduce the risk of serious personal injury, always hold the tool with both hands.

- Let the blade run freely for a few seconds before starting the cut.
- Apply only a gentle pressure to the tool while performing the cut.
- Work with the shoe pressed against the workpiece.

POCKET CUTTING - FIGURE P

⚠ **CAUTION:** Never move the saw backwards when pocket cutting. This may cause the unit to raise up off the work surface which could cause injury.

⚠ **WARNING:** Laceration Hazard. Never tie the blade guard in a raised position.

Pocket cutting is used to cut a hole in a piece of material without cutting from the side.

- Measure and mark work.
- Tilt saw forward and rest front of the shoe on material to be cut. Align so that cut will begin at the back of the drawn rectangle.
- Using the retracting lever, retract blade guard to an upward position, with the blade just clearing the material, start motor and gradually lower the saw into the material.

⚠ **WARNING:** Laceration Hazard. As blade starts cutting the material, release the retracting lever immediately.

- When the shoe rests flat on the material being cut, complete the cut in forward direction.
- Allow the blade to come to a complete stop before lifting saw from material.
- When starting each new cut, repeat the above steps.

MAINTENANCE

Your Porter-Cable tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.

- Regularly clean the ventilation slots in your tool using a soft brush or dry cloth.
- Regularly clean the motor housing using a damp cloth. Do not use any abrasive or solvent-based cleaner. Never let any liquid get inside the tool and never immerse any part of the tool into liquid.

PROTECTING THE ENVIRONMENT

Separate collection. This product must not be disposed of with normal household waste.
Should you find one day that your Porter-Cable product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.

 Separate collection of used products and packaging allows materials to be recycled and used again. Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

NOTE

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.Porter-Cable provides a facility for the collection and recycling of Porter-Cable products once they have reached the end of their working life. To take advantage of this service please return your product to any authorised repair agent who will collect them on our behalf.You can check the location of your nearest authorised repair agent by contacting your local Porter-Cable office at the address indicated in this manual. Alternatively, a list of authorised Porter-Cable repair agents and full details of our after-sales service and contacts are available on the Internet at **www.2helpU.com.**

GUARANTEE

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. Please return the complete unit, transportation prepaid, to any Porter-Cable Service Centre, or any authorised service station.
For warranty repair information, call (Australia) 1800 654 155 or (New Zealand) 0800 339 258. This warranty does not apply to:

- Accessories
- Damage caused where repairs have been made or attempted by others.
- Damage due to misuse, neglect, wear and tear, alteration or modification.

This warranty gives you specific legal rights and you may have other rights under the provisions of the Consumer Guarantee Act 1993 (New Zealand only), Trade Practices Act 1974 and State Legislation (Australia only).In addition to the warranty, Porter-Cable tools are covered by our:

Free One Year Service Contract

Porter Cable will also maintain the tool for free at any time during the first year of purchase. This includes labour, parts and lubrication required to restore the product to sound mechanical and/or electrical condition. Normal wear parts are not covered in this service. Carbon brushes worn more than 50% will be replaced.

NOTE: 3 Year warranty is not applicable to items deemed as consumables. Porter Cable Reserves the right to review its warranty policy prior to launch of any new business development products.

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Contact your local council for disposal information.

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