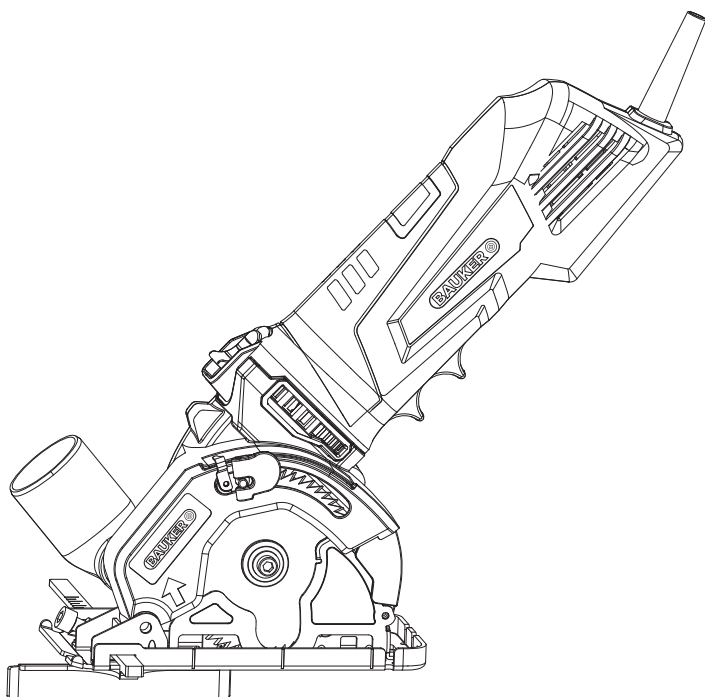




PSC85GH.1



**500W 85MM CIRCULAR SAW
ORIGINAL INSTRUCTION MANUAL**

SAFETY INFORMATION



WARNING! Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term “power tool” in the warnings 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 operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.

- 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.
- 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 dust collection 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 tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's 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**

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

SAFETY WARNINGS FOR ALL SAWS

- a)  **DANGER: Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.** If both hands are holding the saw, they cannot be cut by the blade.
- b) **Do not reach underneath the workpiece.** The guard cannot protect you from the blade below the workpiece.
- c) **Adjust the cutting depth to the thickness of the workpiece.** Less than a full tooth of the blade teeth should be visible below the workpiece.
- d) **Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform.** It is important to support the work properly to minimize body exposure, blade binding, or loss of control.
- e) **Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a “live” wire will also make exposed metal parts of the power tool “live” and could give the operator an electric shock.
- 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 ALL SAWS

Kickback causes and related warnings

- 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.

- 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.
- 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.
- 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.
- 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.
- Do not use dull or damaged blades.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.
- 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 sawing into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.

SAFETY INSTRUCTIONS FOR SAWS (CIRCULAR SAW WITH OUTER PENDULUM GUARD, OR WITH INNER PENDULUM GUARD, OR WITH TOW GUARD)

Lower Guard Function

- 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.

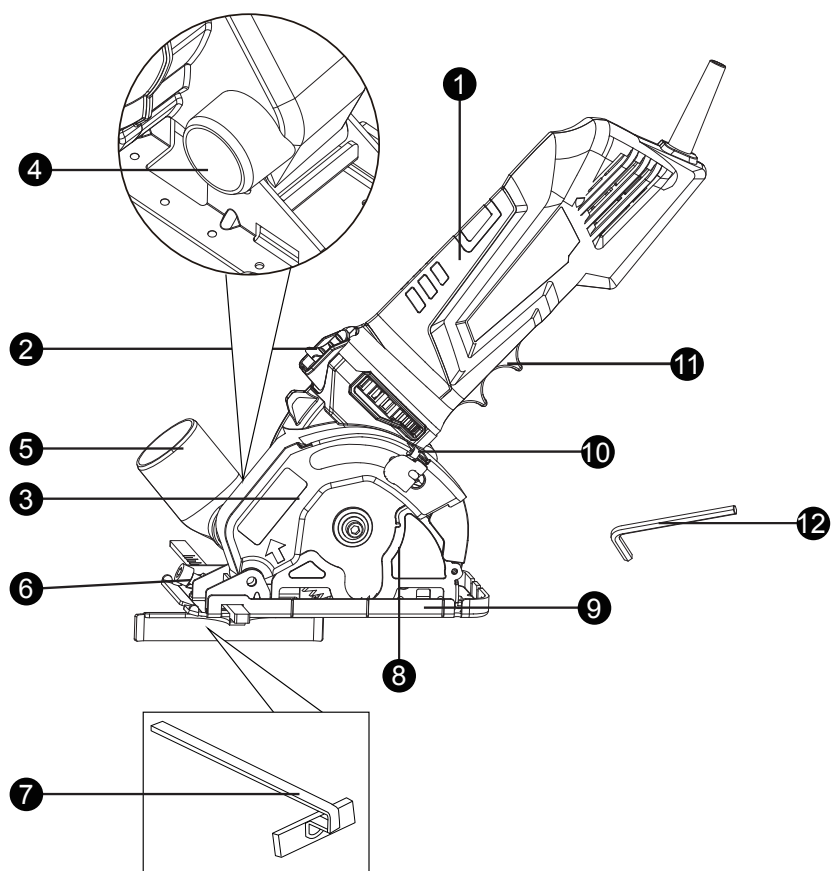
SAFETY INSTRUCTIONS FOR PLUNGE TYPE SAW

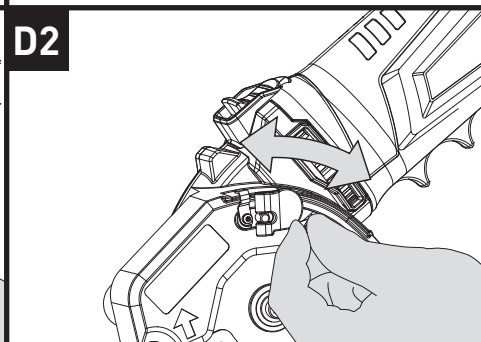
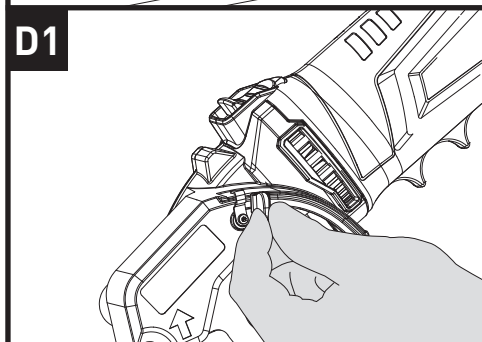
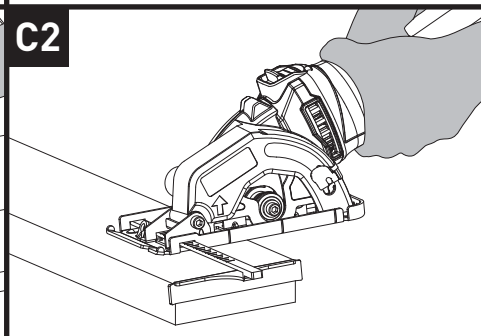
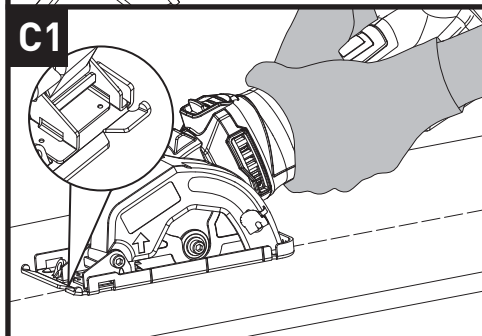
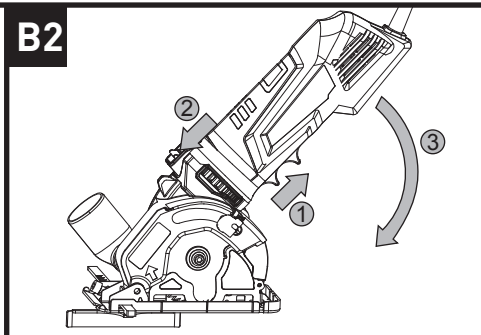
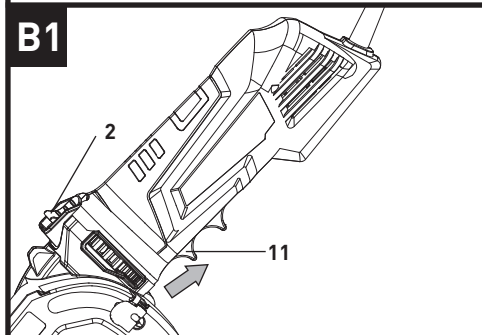
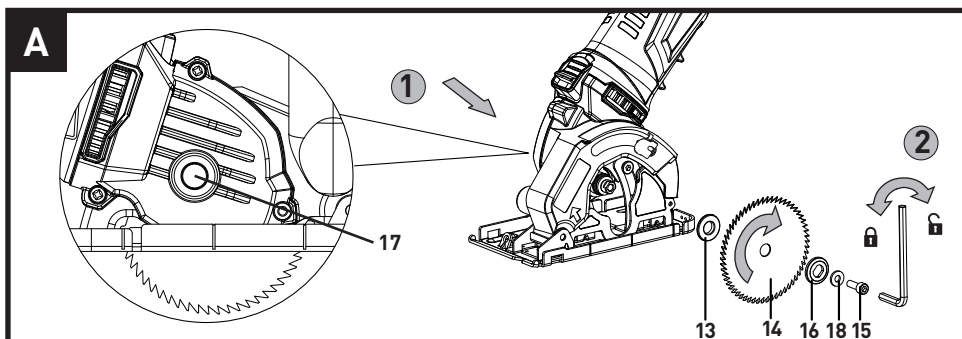
Guard function

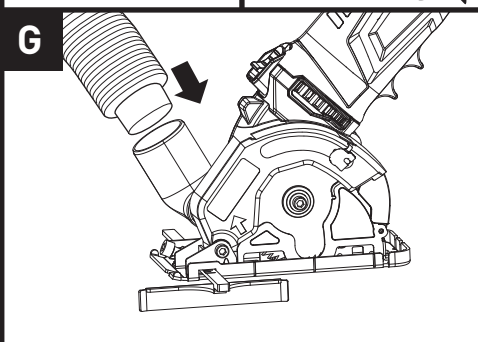
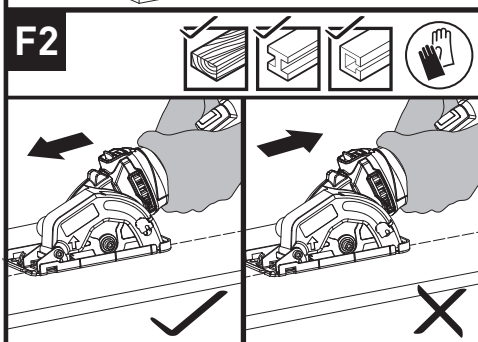
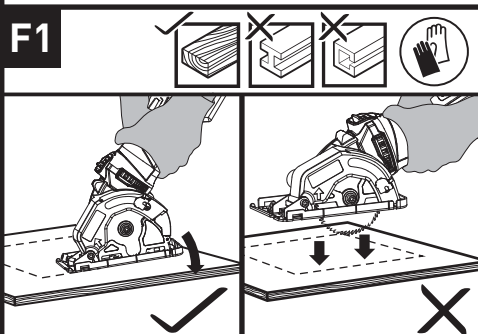
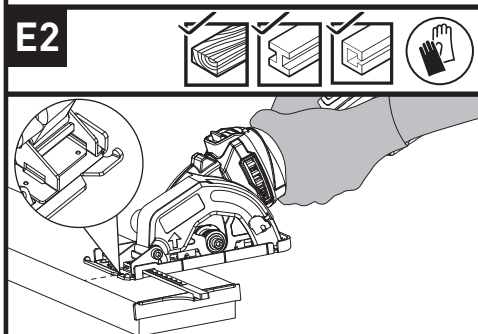
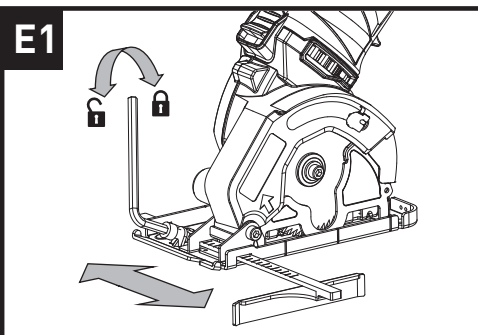
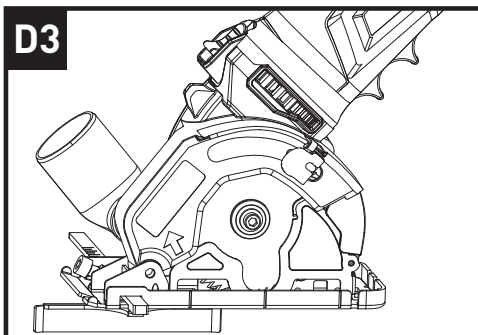
- a) **Check guard for proper closing before each use. Do not operate the saw if guard does not move freely and enclose the blade instantly. Never clamp or tie the guard so that the blade is exposed.** If saw is accidentally dropped, guard may be bent. Check to make sure that guard moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- b) **Check the operation and condition of the guard return spring. If the guard and the spring are not operating properly, they must be serviced before use.** Guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- c) **Assure that the base plate of the saw will not shift while performing the “plunge cut” when the blade bevel setting is not at 90°.** Blade shifting sideways will cause binding and likely kick back.
- d) **Always observe that the 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 RULES FOR YOUR CIRCULAR SAW

- 1. Use only saw blades recommended by the manufacturer, which conform to EN 847-1, if intended for wood and analogous materials.
- 2. Do not use any abrasive wheels.
- 3. Use only blade diameter(s) in accordance with the markings.
- 4. Identify the correct saw blade to be used for the material to be cut.
- 5. **For your safety use, always control your saw by your two hands.**







SYMBOLS



To reduce the risk of injury, Please read the instruction manual



Warning



Wear ear protection



Wear dust mask



Double insulation



Wood



Aluminium



Metal



Correct



Unlock



Diamond disc



HSS blade (For wood, metal and aluminium)



Waste electrical products must not be disposed of with household waste. Please recycle where facilities exist. Check with your local authorities or retailer for recycling advice.



Wear eye protection



Before any work on the machine itself, pull the mains plug from the socket outlet.



Wear protective gloves



Plastic



Diamond disc



Incorrect



Lock



TCT blade (For wood)

COMPONENT LIST

1. SOFT GRIP HANDLE	9. BASE PLATE
2. LOCK OFF BUTTON	10. DEPTH ADJUSTMENT LEVER
3. FIXED UPPER GUARD	11. ON/OFF SWITCH
4. VACUUM ADAPTER	12. HEX KEY
5. DUST EXTRACTION OUTLET	13. SPINDLE LOCK BUTTON
6. PARALLEL GUIDE CLAMPING FIXTURE	14. SAW BLADE (SEE FIG. A)
7. PARALLEL GUIDE	15. BLADE BOLT (SEE FIG. A)
8. LOWER BLADE GUARD	16. OUTER FLANGE (SEE FIG. A)

Not all the accessories illustrated or described are included in standard delivery.

TECHNICAL DATA

Type **PSC85GH.1** (PSC - designation of machinery, representative of circular saw)

	PSC85GH.1
Voltage	230-240V ~ 50Hz
Rated power	500 W
No load (rate) speed	5100 / min
Blade size:	
TCT blade	85mmx1.2mmx15mmx24T
HSS blade	85mmx1.2mmx15mmx44T
Diamond disc	85mmx1.2mmx15mmx60G
Max cutting depth	27 mm
Recommended maximum material thickness:	
Wood	27 mm
Aluminum	5 mm
PVC pipe (diameter)	3 mm
Tile	6 mm
Sheet steel	0.91 mm
Protection class	□/II
Machine weight	1.83 kg
Spindle thread size	M5
Saw blade thickness:	
TCT blade	0.8 mm
HSS blade	0.65 mm
Diamond disc	0.8 mm

ACCESSORIES

	PSC85GH.1
TCT 24T blade	1
HSS 44T blade	1
Diamond disc	1
Parallel guide	1
Vacuum adaptor	1
Hex key	1

We recommend that you purchase your accessories listed in the above list from the same store that sold you the tool. Refer to the accessory packaging for further details. Store personnel can assist you and offer advice.

NOISE INFORMATION

A weighted sound pressure	$L_{pA} = 86.7 \text{ dB(A)}$
A weighted sound power	$L_{WA} = 97.7 \text{ dB(A)}$
	$K_{pA} \text{ \& } K_{WA} : 3.0 \text{ dB(A)}$

Wear ear protection.



Vibration Information

Vibration total values (triax vector sum) determined according to EN 60745:	
Vibration emission value	Cutting wood $a_{h,W} = 6.084 \text{ m/s}^2$ Uncertainty $K = 1.5 \text{ m/s}^2$
	Cutting metal $a_{h,M} = 5.810 \text{ m/s}^2$ Uncertainty $K = 1.5 \text{ m/s}^2$

The declared vibration total value and the declared noise emission value have been measured in accordance with a standard test method and may be used for comparing one tool with another.

The declared vibration total value and the declared noise emission value may also be used in a preliminary assessment of exposure.

WARNING: The vibration and noise emissions during actual use of the power tool can differ from the declared value depending on the ways in which the tool is used especially what kind of workpiece is processed dependant on the following examples and other variations on how the tool is used:

How the tool is used and the materials being cut or drilled.


The tool being in good condition and well maintained.

The use of the correct accessory for the tool and ensuring it is sharp and in good condition.

The tightness of the grip on the handles and if any anti vibration and noise accessories are used.

And the tool is being used as intended by its design and these instructions.

This tool may cause hand-arm vibration syndrome if its use is not adequately managed.

 **WARNING:** To be accurate, an estimation of exposure level in the actual conditions of use should also take account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle but not actually doing the job. This may significantly reduce the exposure level over the total working period.

Helping to minimise your vibration and noise exposure risk.


Always use sharp chisels, drills and blades.

Maintain this tool in accordance with these instructions and keep well lubricated (where appropriate).

If the tool is to be used regularly then invest in anti vibration and noise accessories.

Plan your work schedule to spread any high vibration tool use across a number of days.

OPERATING INSTRUCTIONS

 **NOTE:** Before using the tool, read the instruction book carefully.

Intended use:

The tool is intended for ripping and cross-cutting wood and other materials in straight cutting lines, while resting firmly on the work piece.


Assembly and Operation

1. SAW BLADE ASSEMBLY AND REMOVING (SEE FIG. A)

 **WARNING:**

- **Unplug the saw before operation.**
- **Wear protective gloves when mounting the saw blade. Touch the saw blade directly is dangerous.**
- **Only use saw blades fitting for this machine.**
- **Do not use grinding discs on this cutting tool under any circumstances.**

NOTE: Use spanner to tighten the saw blade.

 **WARNING:** When mounting, ensure the cutting direction of the teeth (direction of arrow on saw blade) and the direction of rotation arrow above the blade guard match.

NOTE: Never use a blade that is too thick to allow the blade clamping washer(18) to engage with the flat side of the spindle.

Washer must be fitted when assembling disc.

2. SAFETY ON/OFF SWITCH (SEE FIG. B1)

To switch the machine on, pull the on/off switch (11) back.

Release the on/off switch (11) to switch off.


NOTE: When the machine is not in use, the lock off button(2) rests against the blade guard in order to block the plunge function and prevent the blade from being exposed unnecessarily.

3. OPERATION OF SAW (SEE FIG. B2)

To operate the machine:

1. Pull the on/off switch(11) back with one hand;
2. Push the guard lock off button(2) with another hand;
3. Press the handle to cut with your **two hands**.


4. CROSS AND RIP CUTTING (SEE FIG. C1, C2)

 **WARNING:** To avoid sudden kick-back, never start a stationary blade while it is in contact with the work piece.

Set the speed to maximum before commencing to plunge.

The blade teeth are exposed when operation!.

a). **FOR YOUR SAFETY USE, ALWAYS CONTROL YOUR SAW BY YOUR TWO HANDS.**

 **WARNING:** Always maintain proper control of the saw to make sawing safer and easier. Loss of control of the saw may cause serious injury.

b). When making cross or rip cuts, align your line of cut with the center of the “V” (blade alignment indicator), located on the front of the saw’s base (SEE FIG. C1).

c). Since the thickness of blades vary, make a trial cut in scrap material along your cut mark to determine how much, if any, you should offset the blade from the cut mark to allow for the blade thickness to get an accurate cut.

MAKING RIP CUTS (SEE FIG. C2)

Always use a guide when making long rip cuts with your saw. You can use any suitable straight edge clamped to the work or the parallel guide included in the machine.

5. CUTTING DEPTH ADJUSTING (SEE FIG. D1, D2)

NOTE: The correct choice of cutting depth can improve ease of cutting and cut quality.

Always use the minimum cut depth required for your particular cut, which should just cut through the material plus a small allowance e.g. 3 mm.

Excessive cutting depth increases splintering in wood, and causes severe chatter in sheet aluminum (which can quickly blunt the blade).

Maximum depth can be used when cutting internal cut-outs in wood as this reduces the overcutting required.

- 1) Determine the desired depth according to the thickness of the material plus a blade allowance of 3 mm.
- 2) Unlock the depth of cut adjustment and lock lever . (SEE FIG. D1)
- 3) Slide the depth of cut indicator to the desired depth of cut. Push the depth of cut adjustment and lock lever down . (SEE FIG. D2)

When you do plunge or pocket cutting into the middle (or interior) of the work piece, through the narrow slot, you can see the cutting mark you drew and the location where the blade will plunge into the work piece, based on the selected blade depth. (See Fig. D3)
Always practice in a scrap work piece to become familiar with this cutting operation. The selected depth of cut is now set. When the saw’s blade is manually lowered, the blade will be below the base at the selected depth.

6. PARALLEL GUIDE (SEE FIG. E1, E2)

The parallel guide is used for making parallel cuts on workpiece edge at a chosen distance. The distance is from the straight edge fitting the parallel guide closely to the center of the "V" (blade alignment indicator)(E2).

It can be used on either side of the base plate (9).

7. POCKET CUTTING (SEE FIG. F1, F2)

Only professionals can do pocket cutting!

Clearly mark the area to be cut.

Note: DO NOT REMOVE the saw and blade from the workpiece while the blade is moving. It may damage the cut (kerf), cause kickback and loss of control, and result in injury.

8. SAW DUST REMOVAL (SEE FIG. G)

Vacuum adapter (5) attaches the dust extraction outlet (4) to a vacuum cleaner (sold separately). We recommend you to use the vacuum cleaner for it keeping the work area clean. It increases cut visibility and reduces airborne dust drastically. It also keeps dust away from the working environment.

WORKING HINTS FOR YOUR CIRCULAR SAW

If your power tool becomes too hot, please run your circular saw no load for 2-3 minutes to cool the motor. Avoid prolonged usage at very low speeds.

Protect saw blades against impact and shock. Cutting with extreme force can significantly reduce the performance capability of the tool and reduces the service life of the saw blade. Sawing performance and cutting quality depend essentially on the condition and the tooth count of the saw blade. Therefore, use only sharp saw blades that are suited for the material being cut.

Choice of blades: 24 teeth for general work, approx. 40 teeth for finer cuts, more than 40 teeth for very fine cuts into delicate surfaces, diamond for tile, cement board, etc.

Only use saw blades recommended.

For your safety ,Please hold the handle of the saw with two hands when you are operating the saw.

MAINTENANCE

Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.

Your power tool requires no additional lubrication or maintenance. There are no user serviceable parts in your power tool. Never use water or chemical cleaners to clean your power tool. Wipe clean with a dry cloth. Always store your power tool in a dry place. Keep the motor ventilation slots clean. Keep all working controls free of dust. Occasionally you may see sparks through the ventilation slots. This is normal and will not damage your power tool. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

ENVIRONMENTAL PROTECTION



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

GUARANTEE

This product is selected for DOMESTIC USE ONLY and not for business use.

This product is guaranteed against manufacturing defects for a period of 24 months. This does not cover the product where the fault is due to misuse, abuse, use in contravention of the instructions, or where the product has been the subject of unauthorised modifications or alterations, or has been the subject of commercial use. In the event of a problem with the product within the guarantee period please return it to your nearest store. If the item is shown to have an inherent defect present at the time of sale, the store will provide you with a replacement. Your statutory rights remain unaffected.

PLUG REPLACEMENT (ONLY FOR REWIRABLE PLUG OF UK & IRELAND)

If you need to replace the fitted plug then follow the instructions below.

IMPORTANT

The wires in the mains lead are colored in accordance with the following code:

BLUE – NEUTRAL

BROWN – LIVE

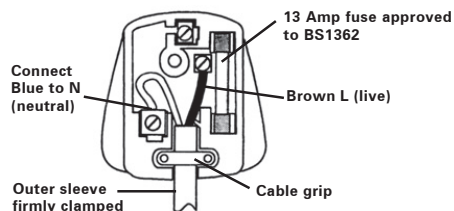
As the colors of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows. The wire which is coloured blue must be connected to the terminal which is marked with N. The wire which is coloured brown must be connected to the terminal which is marked with L.



WARNING:

Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved BS1363/A plug and the correct rated fuse.

NOTE: If a moulded plug is fitted and has to be removed take great care in disposing of the plug and severed cable, it must be destroyed to prevent engaging into a socket.



DECLARATION OF CONFORMITY

We,
Positec Power Tools (Europe) Ltd, PO Box 6242, Newbury, RG14 9LT, UK

Declare that the product

Description **Electric circular saw**

Type **PSC85GH.1 (PSC - designation of machinery, representative of circular saw)**

Function **Cutting various materials with a rotating toothed blade**

Complies with the following Directives:

2006/42/EC, 2014/30/EU, 2011/65/EU

Standards conform to

EN 62841-1, EN 62841-2-5, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3

The person authorized to compile the technical file,

Name **Jim Kirkwood**

Address **Positec Power Tools (Europe) Ltd, PO Box 6242, Newbury, RG14 9LT, UK**



2017/11/24

Allen Ding

Deputy Chief Engineer, Testing & Certification

Positec Technology (China) Co., Ltd

18, Dongwang Road, Suzhou Industrial

Park, Jiangsu 215123, P. R. China

