

Polymak®

CIRCULAR SAW

185mm

INSTRUCTION MANUAL

Polymak®

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Read and follow all safety precautions in instruction manual.

SPECIFICATIONS

Model	PM7CS
Voltage	220V
Frequency	50Hz
Power	1050W
No load speed	5000r/min
Blade diameter	185mm

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.

SAFETY WARNINGS

General power tool safety warnings

WARNING: Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

Work area safety

1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
2. 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.
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.
4. Power tools can produce electromagnetic fields (EMF) that are not harmful to the user. However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.
5. Do not touch the power plug with wet hands.
6. If the cord is damaged, have it replaced by the manufacturer or his agent in order to avoid a safety hazard.

Electrical Safety

1. 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.
2. 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.

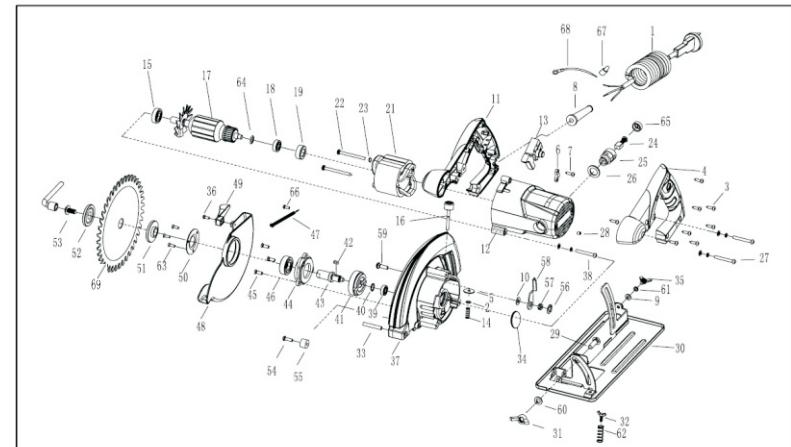
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
5. 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.
6. 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.
7. Power tools can produce electromagnetic fields (EMF) that are not harmful to the user. However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.
8. Do not touch the power plug with wet hands.
9. If the cord is damaged, have it replaced by the manufacturer or his agent in order to avoid a safety hazard.

Personal Safety

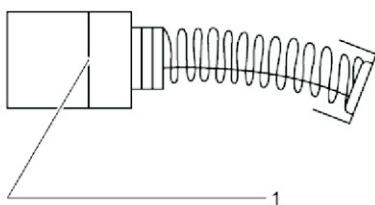
1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
2. Use personal protective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

PM7CS Circular Saw Spare Parts List

No.	Name of parts	PCS	No.	Name of parts	PCS
1	Power cord	1	36	Screw M4*12	1
2	Ring	1	37	Blade case	1
3	Screw ST4*16	6	38	Screw M5*25	1
4	Handle cover	1	39	607 bearing	1
5	Washer	1	40	Spring ring 12	1
6	Wire plate	1	41	Big gear	1
7	Screw ST4*14	2	42	Key 3*3*12	1
8	Cord guard	1	43	Output shaft	1
9	Washer 11*1.5*6	1	44	Gearing retainer	1
10	washer 14*6*1	1	45	Screw M5*12	3
11	Handle housing	1	46	6202 Bearing	1
12	Motor housing	1	47	Tension Spring	1
13	Switch	1	48	Safety cover	1
14	Self-locking spring	1	49	Lever	1
15	6001 bearing	1	50	Reraining ring	1
16	Pin	1	51	Inner Flange	1
17	Armature	1	52	Outer Flange	1
18	608 bearing	1	53	Screw bolt M8*16	1
19	608 bearing sleeve	1	54	Screw M5*18	1
21	Stator	1	55	Limit pin	1
22	Screw M5x60	2	56	Ring 9	1
23	Washer	1	57	Screw M6	1
24	Carbon brush	2	58	Spanner	1
25	Carbon brush holder	2	59	Screw M6*16	1
26	Insulation plate	2	60	Flat washer	1
27	Screw M5*40	2	61	Spring washer 6	1
28	Screw M5*8	3	62	Self-locking spring	1
29	Screw M8*16	2	63	Screw M4*10	3
30	Base	1	64	Washer	1
31	Screw M8	1	65	Carbon brush holder cap	2
32	Nut M6x16	1	66	Screw M4*8	1
33	Pin 6*35	1	67	Ground wire cap	1
34	O-ring	1	68	Connect wire	1
35	Nut M6x10	1	69	Saw blade	1



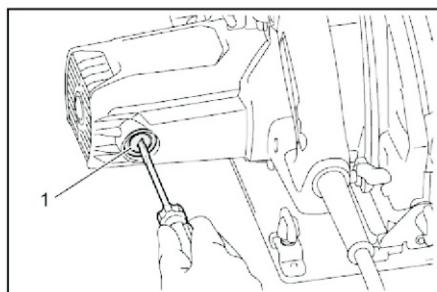
Replacing carbon brushes



► 1. Limit mark

Check the carbon brushes regularly. Replace them when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.

1. Use a screwdriver to remove the brush holder caps.
2. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.



► 1. Brush holder cap

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Polymak Authorized or Factory Service Centers, always using Polymak replacement parts.

3. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source 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.
4. 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.
5. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. 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.
7. 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.
8. Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.
9. Always wear protective goggles to protect your eyes from injury when using power tools. It is an employer's responsibility to enforce the use of appropriate safety protective equipment by the tool operators and by other persons in the immediate working area.

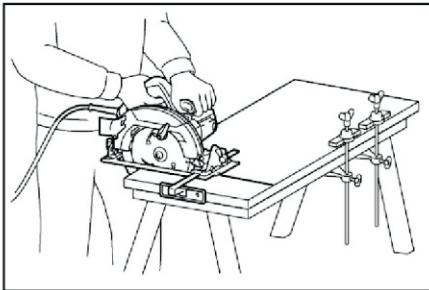
Power tool use and care

1. 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.
2. 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.
3. Disconnect the plug from the power source if detachable, 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.

Circular saw safety warnings

Cutting procedures

- 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.
- Do not reach underneath the workpiece.** The guard cannot protect you from the blade below the workpiece.
- 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.
- Never hold the workpiece in your hands or across your leg while cutting.** Secure the workpiece to a stable platform. It is important to support the work properly to minimise body exposure, blade binding, or loss of control.



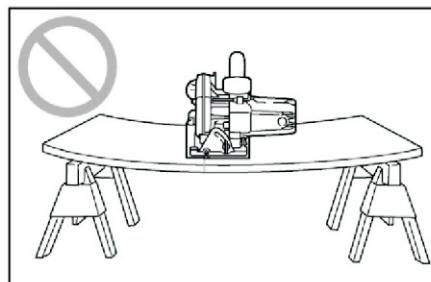
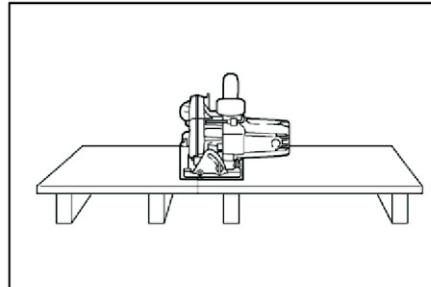
- Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- When ripping, always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.
- 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 off-centre, causing loss of control.
- 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.

Kickback causes and related warnings

- kickback is a sudden reaction to a pinched, jammed 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 jammed 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 so that the saw teeth are not engaged into the material.** If a saw blade binds, 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.

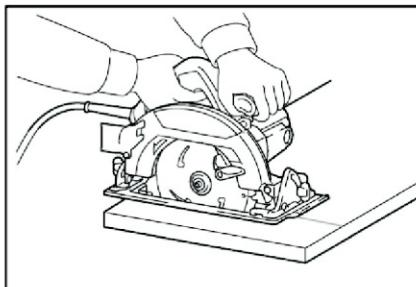


- Do not use dull or damaged blades.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.
- Blade depth and bevel adjusting locking levers must be tight and secure before making the cut.** If blade adjustment shifts while cutting, it may cause binding and kickback.

OPERATION

CAUTION: Be sure to move the tool forward in a straight line gently. Forcing or twisting the tool will result in overheating the motor and dangerous kickback, possibly causing severe injury.

CAUTION: Always use a front grip and rear handle and firmly hold the tool by both front grip and rear handle during operations.



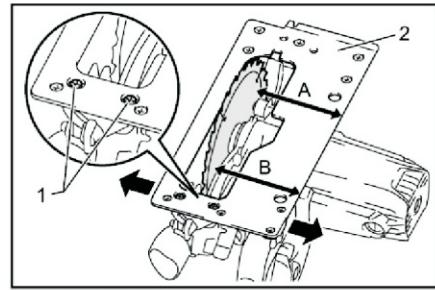
Hold the tool firmly. The tool is provided with both a front grip and rear handle. Use both to best grasp the tool. If both hands are holding saw, they cannot be cut by the circular saw blade. Set the base on the workpiece to be cut without the circular saw blade making any contact. Then turn the tool on and wait until the circular saw blade attains full speed. Now simply move the tool forward over the workpiece surface, keeping it flat and advancing smoothly until the sawing is completed. To get clean cuts, keep your sawing line straight and your speed of advance uniform. If the cut fails to properly follow your intended cut line, do not attempt to turn or force the tool back to the cut line. Doing so may bind the circular saw blade and lead to dangerous kickback and possible serious injury. Release switch, wait for circular saw blade to stop and then withdraw tool. Realign tool on new cut line, and start cut again. Attempt to avoid positioning which exposes operator to chips and wood dust being ejected from saw. Use eye protection to help avoid injury.

NOTICE: Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

Adjusting the parallelism

This adjustment has been made at the factory. But if it is off, you can adjust it as the following procedure.

1. Make sure all levers and screws are tightened. Slightly loosen the screw illustrated.

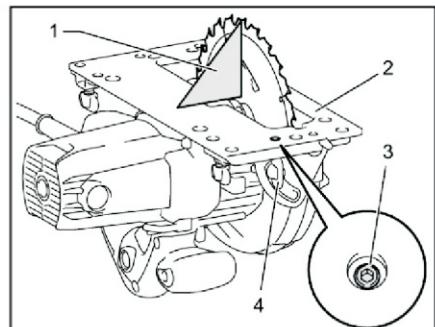


1. Screw 2. Base
2. While opening the lower guard, move the rear of the base so that the distance A and B becomes equal.
3. Tighten the screws and make a test cut to check the parallelism.

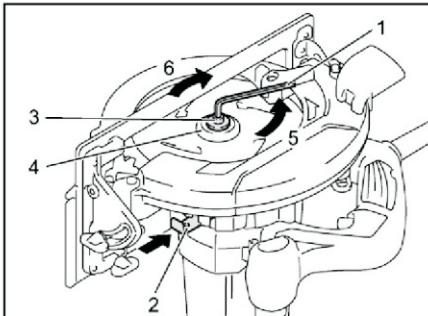
Adjusting 0°-cut accuracy

This adjustment has been made at the factory. But if it is off, you can adjust it as the following procedure.

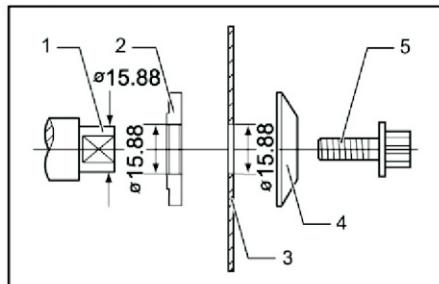
1. Slightly loosen the clamping screws on the front and rear of the tool.
2. Make the base perpendicular to the blade using a triangular rule or square rule by turning the adjusting screw.



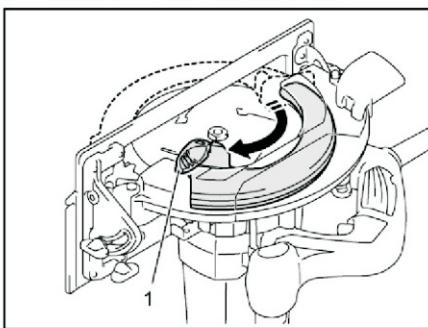
1. Triangular rule 2. Base 3. Adjusting screw 4. Clamping screw
3. Tighten the clamping screws and then make a test cut to check the verticalness.



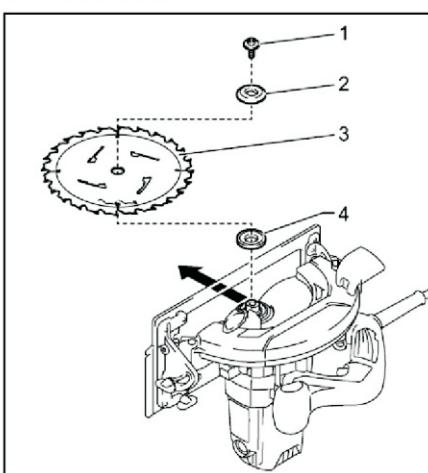
To install the circular saw blade, follow the removal procedure in reverse.
Mount the inner flange with its recessed side facing outward onto the mounting shaft and then place saw blade, outer flange and hex bolt.



- 1. Hex wrench 2. Shaft lock 3. Hex bolt 4. Outer flange 5. Loosen 6. Tighten
- 2. Remove the hex bolt and outer flange.
- 3. Turn the lever to open the blade guard.



- 1. Lever
- 4. Remove the blade.



- 1. Hex bolt 2. Outer flange 3. Circular saw blade
4. Inner flange

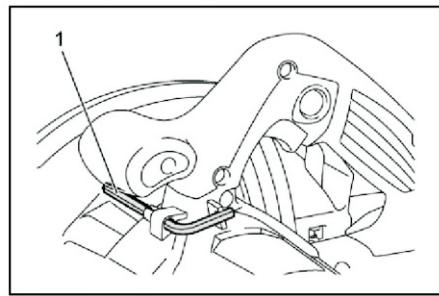
WARNING: BE SURE TO TIGHTEN THE HEX BOLT CLOCKWISE SECURELY. Also be careful not to tighten the bolt forcibly. Slipping your hand from the hex wrench can cause a personal injury.

Blade guard cleaning

When changing the circular saw blade, make sure to also clean the upper and lower blade guards of accumulated sawdust as discussed in the Maintenance section. Such efforts do not replace the need to check lower guard operation before each use.

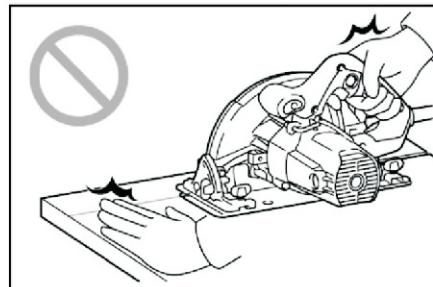
Hex wrench storage

When not in use, store the hex wrench as shown in the figure to keep it from being lost.



- 1. Hex wrench

7. Use extra caution when sawing into existing walls or other blind areas. The protruding blade may cut objects that can cause kickback.
8. **ALWAYS hold the tool firmly with both hands.** NEVER place your hand, leg or any part of your body under the tool base or behind the saw, especially when making cross-cuts. If kickback occurs, the saw could easily jump backwards over your hand, leading to serious personal injury.



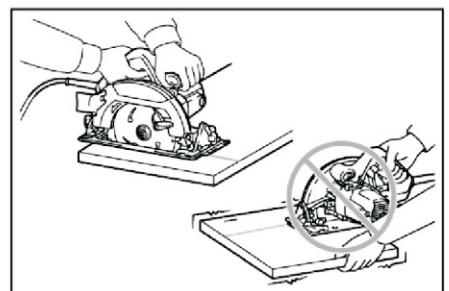
9. Never force the saw. Push the saw forward at a speed so that the blade cuts without slowing. Forcing the saw can cause uneven cuts, loss of accuracy, and possible kickback.

Lower guard function

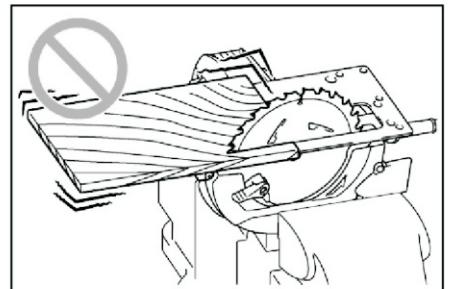
1. Check the lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position. If the saw is accidentally dropped, the lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
2. 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.
3. The lower guard may be retracted manually only for special cuts such as "plunge cuts" and "compound cuts". Raise the lower guard by the retracting handle and as soon as the blade enters the material, the lower guard must be released. For all other sawing, the lower guard should operate automatically.
4. Always observe that the lower guard is covering the blade before placing the 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.
5. To check lower guard, open lower guard by hand, then release and watch guard closure. Also check to see that retracting handle does not touch tool housing. Leaving blade exposed is VERY DANGEROUS and can lead to serious personal injury.

Additional safety warnings

1. **Intended use**
This tool is intended to cut wood products only. Accumulated sawdust on the lower guard and hub from other materials may effect the proper closure of the lower guard which could lead to serious personal injury.
2. **Use extra caution when cutting damp wood, pressure treated lumber, or wood containing knots.** Maintain smooth advancement of tool without decrease in blade speed to avoid overheating the blade tips.
3. **Do not attempt to remove cut material when blade is moving.** Wait until blade stops before grasping cut material. Blades coast after turn off.
4. **Avoid cutting nails.** Inspect for and remove all nails from lumber before cutting.
5. **Place the wider portion of the saw base on that part of the workpiece which is solidly supported, not on the section that will fall off when the cut is made.** If the workpiece is short or small, clamp it down. DO NOT TRY TO HOLD SHORT PIECES BY HAND!



6. Before setting the tool down after completing a cut, be sure that the lower guard has closed and the blade has come to a complete stop.
7. Never attempt to saw with the circular saw held upside down in a vise. This is extremely dangerous and can lead to serious accidents.



8. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
9. Do not stop the blades by lateral pressure on the saw blade.
10. Do not use any abrasive wheels.

- Only use the saw blade with the diameter that is marked on the tool or specified in the manual. Use of an incorrectly sized blade may affect the proper guarding of the blade or guard operation which could result in serious personal injury.
- Keep blade sharp and clean. Gum and wood pitch hardened on blades slows saw and increases potential for kickback. Keep blade clean by first removing it from tool, then cleaning it with gum and pitch remover, hot water or kerosene. Never use gasoline.
- Wear a dust mask and hearing protection when use the tool.
- Always use the saw blade intended for cutting the material that you are going to cut.
- Only use the saw blades that are marked with a speed equal or higher than the speed marked on the tool.

SAVE THESE INSTRUCTIONS.

WARNING: DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

Symbols

The followings show the symbols used for tool.

V	volts
A	amperes
Hz	hertz
~	alternating current
n _e	no load speed
□	Class II Construction
... /min r/min	revolutions or reciprocation per minute

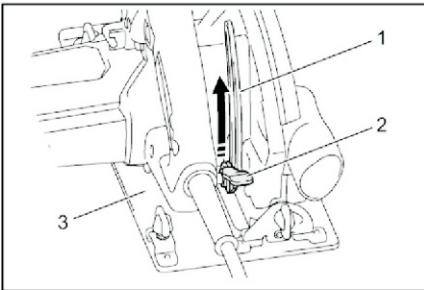
FUNCTIONAL DESCRIPTION

CAUTION: Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

Adjusting depth of cut

CAUTION: After adjusting the depth of cut, always tighten the lever securely.

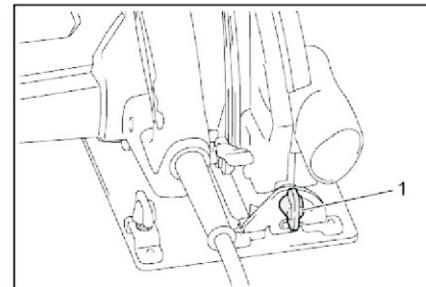
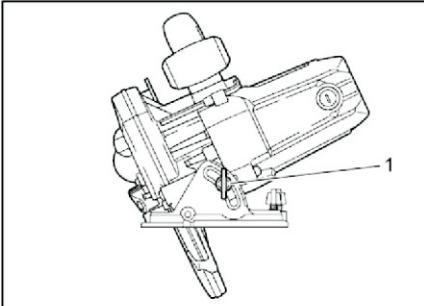
Loosen the lever on the depth guide and move the base up or down. At the desired depth of cut, secure the base by tightening the lever. For cleaner, safer cuts, set cut depth so that no more than one blade tooth projects below workpiece. Using proper cut depth helps to reduce potential for dangerous KICKBACKS which can cause personal injury.



Bevel cutting

CAUTION: After adjusting the bevel angle, always tighten the clamping screws securely.

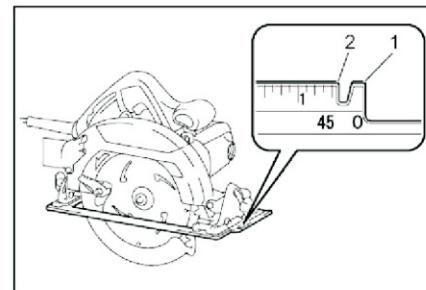
Loosen the front and rear clamping screws. Set for the desired angle (0° - 45°) by tilting accordingly, then tighten the front and rear clamping screws securely.



► 1. Clamping screw

Sighting

For straight cuts, align the 0° position on the front of the base with your cutting line. For 45° bevel cuts, align the 45° position with it.



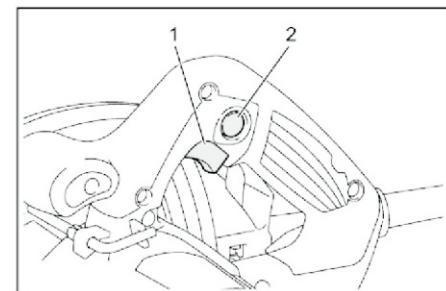
► 1. Cutting line (0° position) 2. Cutting line (45° position)

Switch action

WARNING: Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

WARNING: NEVER defeat the lock-off button by taping down or some other means. A switch with a negated lock-off button may result in unintentional operation and serious personal injury.

WARNING: NEVER use the tool if it runs when you simply pull the switch trigger without pressing the lock-off button. A switch in need of repair may result in unintentional operation and serious personal injury.



To prevent the switch trigger from being accidentally pulled, a lock-off button is provided. To start the tool, depress the lock-off button and pull the switch trigger. Release the switch trigger to stop.

NOTICE: Do not pull the switch trigger hard without pressing in the lock-off button. This can cause switch breakage.

ASSEMBLY

CAUTION: Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

Removing or installing circular saw blade

CAUTION: Be sure the circular saw blade is installed with teeth pointing up at the front of the tool.

CAUTION: Use only the Polymak wrench to install or remove the circular saw blade.

- To remove the circular saw blade, press the shaft lock fully so that the circular saw blade cannot revolve and use the hex wrench to loosen the hex bolt counterclockwise.