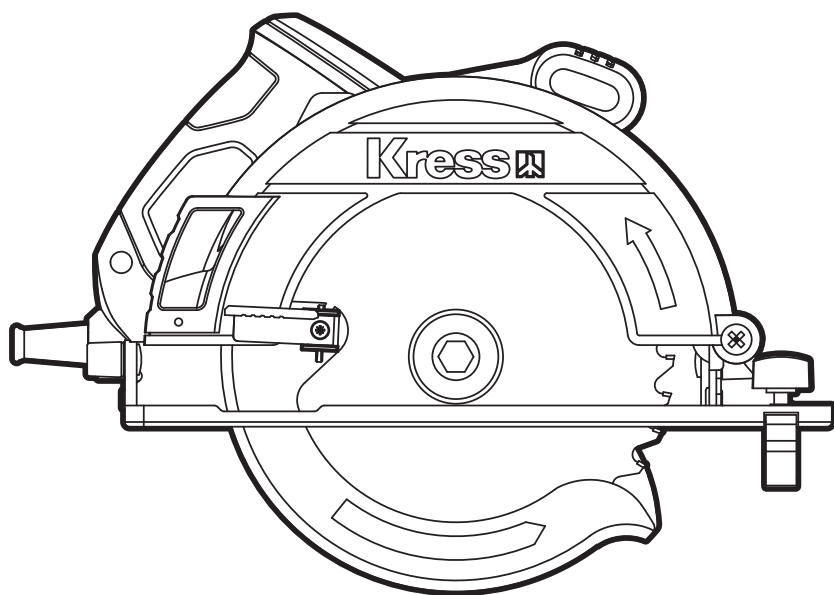


Elektrowerkzeuge  
**Kress**



## **SAFETY AND OPERATING MANUAL**

**Circular Saw**

**KU420**



# PRODUCT SAFETY

## 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.**

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 and clothing 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.
  - h) **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.
- ### 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 remove the battery pack, 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.
  - 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 and accessories. 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.*
- h) Keep handles and grasping surfaces dry, clean and free from oil and grease.** *Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.*
- 5) Service**
- a) 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 INSTRUCTIONS FOR ALL SAWS CUTTING PROCEDURES

- 4
- 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 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.*
- 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 off-centre, 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.

- 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 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 INNER PENDULUM 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.*

## ADDITIONAL SAFETY RULES FOR YOUR CIRCULAR SAW

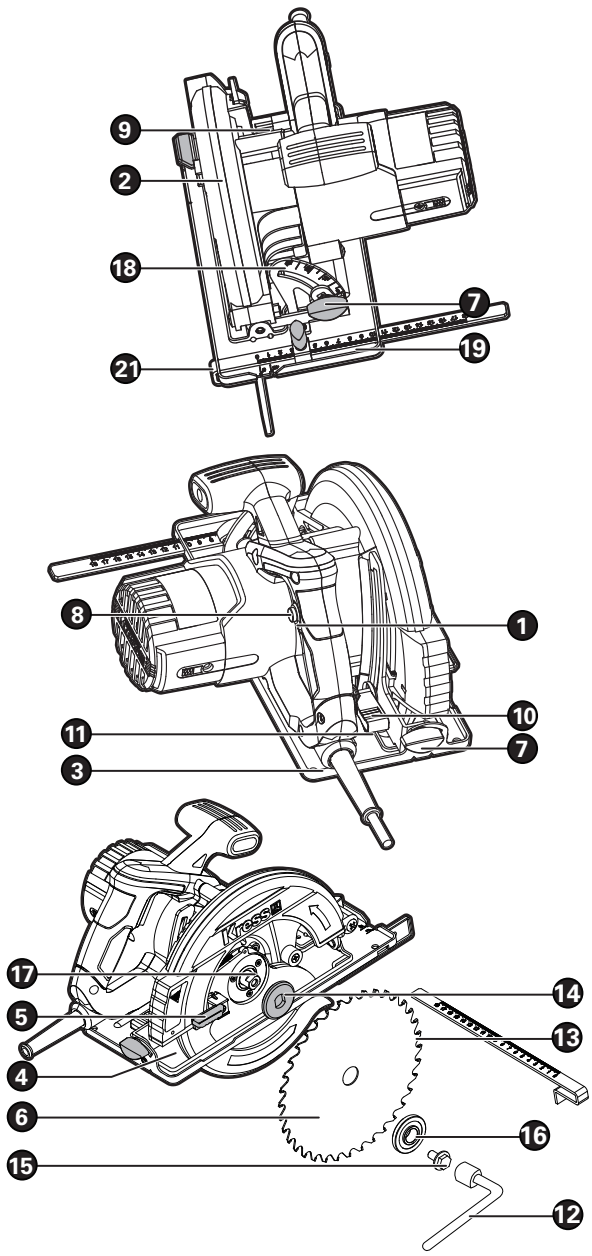
- 1. Only use saw blades recommended in the specification.
- 2. Do not use any abrasive wheels.
- 3. Use only blade diameter(s) in accordance with the

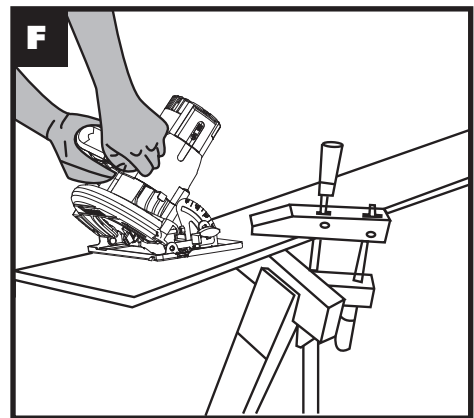
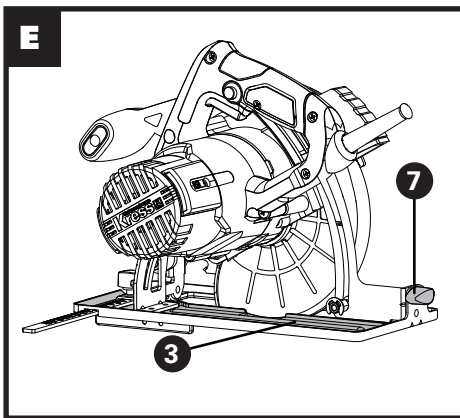
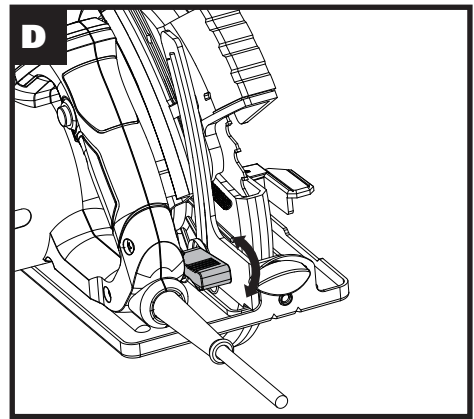
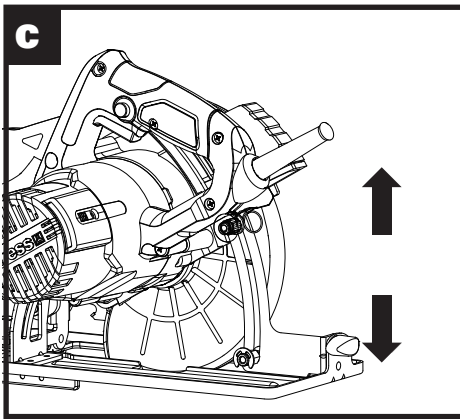
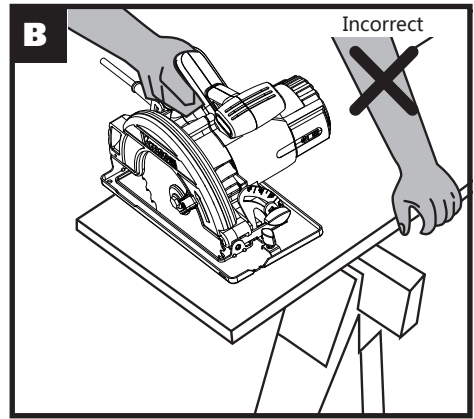
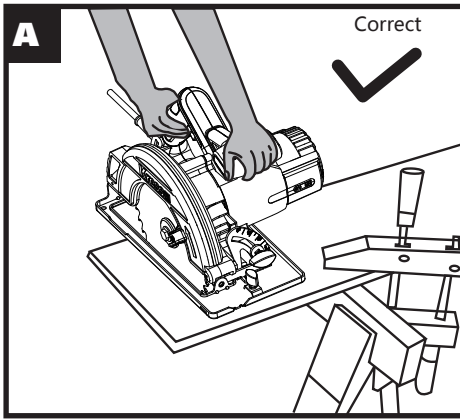
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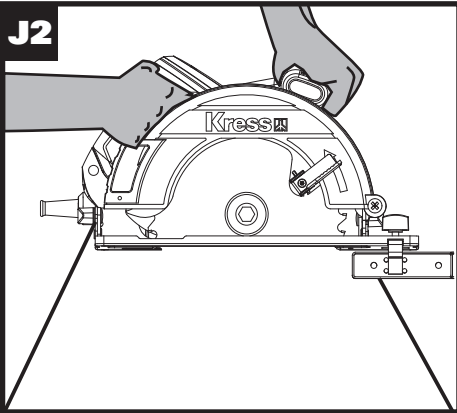
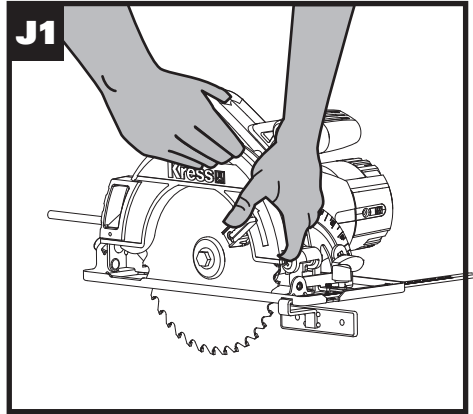
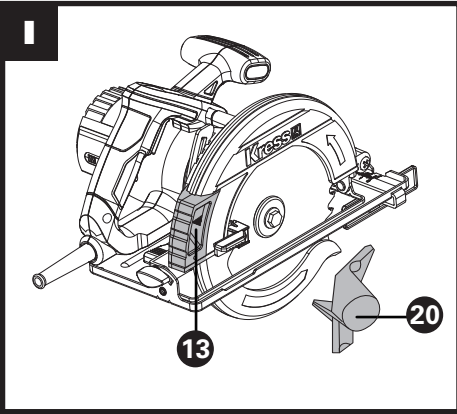
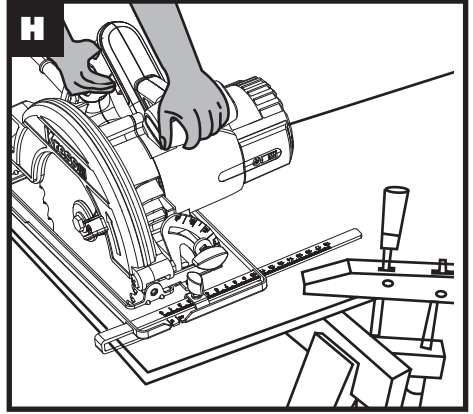
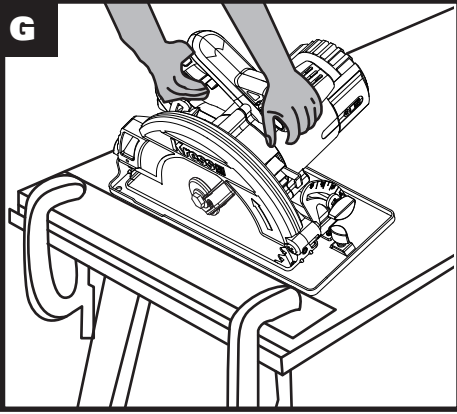
- 4. Identify the correct saw blade to be used for the material to be cut.
- 5. Use only saw blades that are marked with a speed equal or higher than the speed marked on the tool.

## SYMBOL

	To reduce the risk of injury, user must read instruction manual
	Double insulation
	Warning
	Wear ear protection
	Wear eye protection
	Wear dust mask









## COMPONENT LIST

<b>1. Safety on/off switch</b>
<b>2. Fixed guard</b>
<b>3. Base plate</b>
<b>4. Movable guard</b>
<b>5. Movable guard lever</b>
<b>6. Saw blade</b>
<b>7. Base plate bevel lock</b>
<b>8. Lock off button</b>
<b>9. Spindle lock button</b>
<b>10. Depth adjustment knob</b>
<b>11. Depth of cut scale</b>
<b>12. Socket spanner</b>
<b>13. Dust extraction outlet</b>
<b>14. Inner flange</b>
<b>15. Saw blade bolt</b>
<b>16. Outer flange</b>
<b>17. Spindle</b>
<b>18. Base plate angle scale</b>
<b>19. Cutting guide notch</b>
<b>20. Vacuum adaptor (See Fig. I) *</b>
<b>21. Parallel guide</b>
<b>22. Adapter</b>

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

## TECHNICAL DATA

Type **KU420 (4 - designation of machinery, representative of circular saw)**

Rated voltage	220-230V~50Hz
Rated input power	1400W
Rated no load speed	5200r/min
Blade size	185 mm
Blade Bore	20mm
Protection class	□ / II
Cutting capacity	
Cutting depth at 90°	64mm
Cutting depth at 45°	45mm
Machine weight	4.2kg

## ACCESSORIES

Socket spanner	1
Parallel guide	1
Wheel center hub ring	1

Use the saw blades with following specifications:  
185mm diameter, 20mm bore, 24-teeth

**Note:** The blades and vacuum adaptor listed in above may vary depending on the model configuration. Some configurations are not equipped with the blades and vacuum adaptors listed above.

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.

# OPERATING INSTRUCTIONS

## 1. ON/OFF SWITCH

In order to prevent accidental starting, the saw is equipped with a lock off button. When starting the circular saw, depress the lock off button then the safety on/off switch, and release the lock off button, the machine starts running. To switch off just release the on/off switch.

## 2. HAND GRIP POSITION

Hold the machine with both hands while working and make sure it is stable and secure. Fig. A and B respectively shows the correct and incorrect ways to support a large workpiece.

## 3. FITTING/REMOVING THE SAW BLADE (Machine parts diagram)

**Warning:** Except for the saw blade uninstalled (included in the package), this circular saw has been completely installed.

Please carefully inspect the saw blade before replacement to ensure that the saw blade is not damaged during transportation.

When removing the saw blade, press the spindle lock button to prevent the spindle from rotating. Then loosen the bolt with the socket spanner. Now remove the outer flange, then lift the movable guard as far as possible and remove the saw blade. When replacing the saw blade, hold the movable guard lever and turn the movable guard clockwise to open. Make sure that the bore of the blade is on the inner flange and that the arrow direction of the blade is the same as that of the movable guard. Keep the surface of the blade and the press plates clean. Press the spindle lock button again so that the outer flange is against the spindle shoulder. After tightening the blade bolt by hand as far as possible, tighten an additional 1/4 turn by the spanner and check whether the blade has been tightened.

**WARNING:** Blade teeth are very sharp.

For best cutting results ensure you use a blade suited to the material and cut quality you need.

## 4. DEPTH OF CUT ADJUSTMENT

Lift the depth adjustment knob up to raise the body away from the base plate. Set the cutting depth using the scale then push the depth locking knob

down to lock (Fig. C, D). In order to be able to cut the workpiece, it is necessary to set the depth 3 mm thicker than the that of the workpiece.

## 5. BASE PLATE

Adjusting the angle of the base plate enables bevel cutting (Fig. E). The base plate must always be held firmly against the surface of the workpiece to reduce saw vibration, blade jumping or breakage. (Fig. F, G)

## 6. BEVEL CUTTING ADJUSTMENT

Loosen the two base plate bevel lock on the base plate, rotate the base plate to the desired base plate angle scale and lock with the lock button (Fig. E). Then, check the bevel angle of the base plate and make sure it is firmly locked. Generally, the scale on the base plate is accurate. However, you are still recommended to use the protractor or test on the workpiece before cutting in case you need a precise angle cutting. While using bevel cuts, please do not use depth scale to avoid possible errors.

## 7. CUTTING GUIDE

For straight cutting, keep the 0-degree mark line of the cutting guide notch on the same line as the cutting line on the workpiece; while for a 45 degree angle cut, align it with the 45-degree mark line.

## 8. PARALLEL GUIDES ADJUSTMENT

To ensure accurate straight cutting, please make the cut of the circular saw parallel to the edge of the required cutting distance of the workpiece. Slide the parallel guide to the required cutting distance and lock it (Figure H). Parallel guides can be inserted from both ends of the base plate. The cutting distance is indicated on the scale of the guide by the cutting guide notch of 0 to 45 degrees. You can check whether the cutting distance set by the machine is correct or not by trial cutting.

## 9. DUST EXTRACTION OUTLET

To keep tidy, a dust cleaner (such as a vacuum cleaner) can be attached to the circular saw. Connect the vacuum adapter to the dust extraction outlet of the circular saw and connect the hose of vacuum cleaner to the vacuum adapter. Make sure the connection to the vacuum adapter is safe (Fig. I).

## WORKING HINTS FOR YOUR CIRCULAR SAW

If the machine is severely hot, please let your machine run for 2~3 minutes without any load for cooling. Try to avoid continuous use at a low speed. If your power tool becomes overheated, Always cut with a blade with proper materials and thickness. The more teeth of the saw, the better quality. Always ensure that the workpiece is fixed or clamped to prevent movement. Keep close to the cutting line when supporting the large panel. Any movement of the workpiece may affect the cutting quality. Since the cuts of the upwards saw blade may cause torn burr on the top surface/edge, so make the side used for appearance downwards when cutting. Cutting too fast may significantly reduce the performance of the tool and the life of the saw blade. Always keep the better surface of the workpiece downwards to ensure the opening as small as possible. Only sharp blades of the correct size will be used.

Rip saws (for softer materials only) can only be operated by people who are skilled and experienced.

**WARNING: During this operation, the saw tooth are exposed, so please pay special attention to safety.**

Clearly mark the area to be cut on the workpiece, set the cutting depth on the machine, and place the front edge of the base plate used for the machine against the surface of the workpiece (Fig. J1, J2); the cutting guide indication coincides with the surface marking line of the workpiece. Ensure that the saw blade is close to the surface of the workpiece without contact, and turn the guard lever to open the movable shield. For turning on, take the front edge of the base plate as a pivot point and slowly cut the saw blade into the workpiece. Wait until the saw blade is completely cut into the workpiece, and then the movable guard can be released for normal operation.

## MAINTENANCE

Your power tool requires no additional lubrication or maintenance. There is no parts requiring special maintenance Only simple maintenance on the machine is needed according to the following

requirements.

1. Wipe clean with a dry cloth. Never use water or chemical cleaners to clean your power tool to avoid compromise on the performance of the machine shell or causing accidents such as electric leakage.
2. Always keep the air inlet clean and unobstructed, and prevent debris from being accumulated at the air inlet, which may affect the cooling of motor. In addition, try not to use it in dusty environment.

## ENVIRONMENTAL PROTECTION



### Disposal

The machine, its accessories and packaging materials should be sorted for environmentally friendly recycling.

The plastic components are labeled for categorized recycling.

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