HiKOKI C9U3 Circular Saw Instruction Manual

Circular Saw
C 9U3
Instruction Manual

Keep for future reference

Handling instructions

Contents

GENERAL POWER TOOL SAFETY WARNINGS

WARNING

Read all safety warnings, instructions, illustrations and specifi cations provided with this power tool.
Failure to follow all instructions listed below may result in electric shock, fi re 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 fl flammable liquids, gases or dust. Power tools create sparks that may ignite 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. Unmodifi end plugs and matching outlets will reduce the 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 the 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. The 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. The 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 infl uence 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 a 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 a power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your fi nger on the switch or energizing 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 jewelry. Keep your hair and clothing away from moving parts. Loose clothes, jewelry 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. The use of dust collection can reduce dust-related hazards.

h) Do not let familiarity gained from the 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 aff ect the power tool 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 diff erent 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 quality ed repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

CAUTION
Keep children and infi rm persons away.
When not in use, tools should be stored out of reach of children and infi rm persons.

SAFETY INSTRUCTIONS FOR ALL SAWS

DANGER
a) Keep hands away from the cutting area and the blade. Keep your second hand on the 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 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 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 or its own cord. 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 the cut and reduces the chance of blade binding.
g) Always use blades with the correct size and shape (diamond versus round) of arbor holes. Blades that do not match the mounting hardware of the saw will run off -center, causing loss of control.
h) Never use damaged or incorrect blade washers or bolts. The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

FURTHER SAFETY INSTRUCTIONS FOR ALL SAWS

Causes and operator prevention of kickback:

- 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.
a) Maintain a fi rm grip with both hands on the saw and position your arms to resist kickback forces. Position your body on either side of the blade, but not in line with the blade. Kickback could cause the saw to jump backward, but kickback forces can be controlled by the operator, if proper precautions are taken.
b) When the 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, center the saw blade in the kerf so that the saw teeth are not engaged in the material. If the saw blade binds, it may walk up or kick back from the workpiece as the saw is restarted.

d) Support large panels to minimize 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 the 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 SAWS WITH INNER PENDULUM GUARD

a) Check the lower guard for proper closing before each use. Do not operate the saw if the 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.
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. The lower guard may operate sluggishly due to damaged parts, gummy deposits, or build-up of debris.
c) 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.
d) Always observe that the lower guard is covering the blade before placing the saw down on the bench or floor. An unprotected, coasting blade will cause the saw to walk backward, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after the switch is released.

ADDITIONAL SAFETY INSTRUCTIONS FOR ALL SAWS 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. The riving knife must be replaced after plunge cutting. The 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 shortcuts.
e) Do not operate the saw if the riving knife is bent. Even a light interference can slow the closing rate of a guard.

PRECAUTIONS ON USING CIRCULAR SAW

1. Do not use saw blades that are deformed or cracked.
2. Do not use saw blades made of high-speed steel.
3. Do not use saw blades that do not comply with the characteristics specified in these instructions.
4. Do not stop the saw blades by lateral pressure on the disc.
5. Always keep the saw blades sharp.
6. Ensure that the lower guard moves smoothly and freely.
7. Never use the circular saw with its lower guard fixed in the open position.
8. Ensure that the retraction mechanism of the guard system operates correctly.
9. The saw blade’s body must be thinner than the riving knife and the width of cut, or kerf (with teeth set) must be greater than the thickness of the riving knife.
10. Never operate the circular saw with the saw blade turned upward or to the side.

11. Ensure that the material is free of foreign matters such as nails.
12. The riving knife should always be used except when plunging in the middle of the workpiece.
13. For model C9U3, the saw blades should be 235 mm. Body thickness: up to 1.6 mm, tip width: at least 1.9 mm Riving knife thickness: 1.8 mm
14. Disconnect the plug from the receptacle before carrying out any adjustment, servicing or maintenance.
15. Do not use the tool with only the blower function. (Fig. 1)

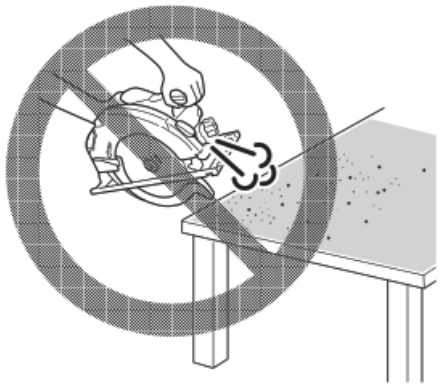


Fig. 1

16. Use only the blade diameter specified on the machine.
17. Do not use any abrasive wheel.
18. Check that there are no nicks or scratches in the cord.
19. Check the exterior and ensure that there is no damage.
20. Use a saw blade with a displayed rotational speed equal to or higher than the rotational speed of the tool.
21. Use a saw blade that suits each diff erent cutting material.
22. Always hold the handle of the tool firmly.

SYMBOL

WARNING
The following show symbols used for the machine. Be sure that you understand their meaning before use.

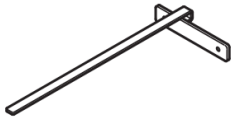
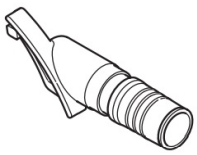
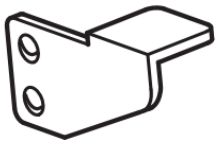
 To reduce the risk of injury, users must read the instruction manual.

SPECIFICATIONS

Voltage		220 V~
Cutting Depth	90°	0 – 86 mm
	45°	Max. 65 mm
Power Input		2000 W
No-Load Speed		5200 /min
Weight (without cord)		7.2 kg

STANDARD ACCESSORIES

In addition to the main unit (1 unit), the package contains the accessories listed below.

Hex. bar wrench	
Guide	
Wing-bolt	
Lock spring	
Side handle	
Dust collector	
Lever (short type)	
Screw M6 × 20	

APPLICATIONS

Cutting various types of wood.

PRIOR TO OPERATION

1. **Power source**
   Ensure that the power source to be utilized conforms to the power requirements specifi ed on the product nameplate. 2. Power switch Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.
2. **Extension cord**
   When the work area is removed from the power source, use an extension cord of suffi client thickness and rated capacity. The extension cord should be kept as short as practicable.
3. **Prepare a wooden workbench (Fig. 2)**
   Since the saw blade will extend beyond the lower surface of the lumber, place the lumber on a workbench

when cutting. If a square block is utilized as a workbench, select level ground to ensure it is properly stabilized. An unstable workbench will result in hazardous operations.

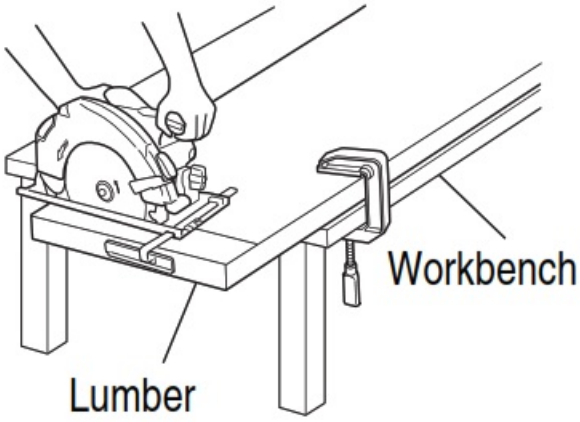


Fig. 2

4. **When using the side handle (Fig. 3)**

   Securely attach the side handle to the base with the two screws (M6 × 20) when using the side handle.

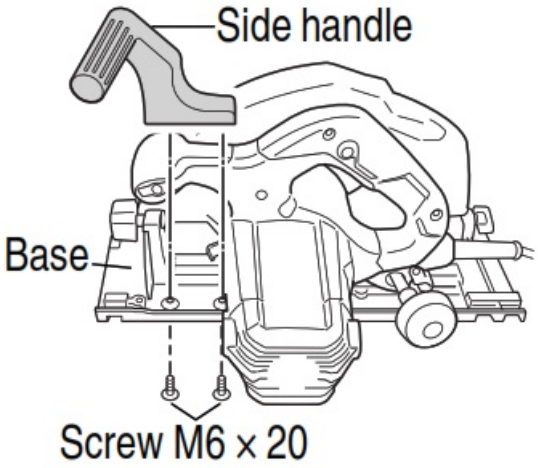


Fig. 3

CAUTION
To avoid possible accidents, always ensure that the portion of lumber remaining after cutting is securely anchored or held in position.

ADJUSTING THE SAW PRIOR TO USE

1. **Adjusting the cutting depth**

   As shown in Fig. 4, hold the handle with one hand while loosening the knob with the other.

   The cutting depth can be adjusted by moving the base to the desired position. In such a manner adjust the cutting depth and then securely retighten the knob.

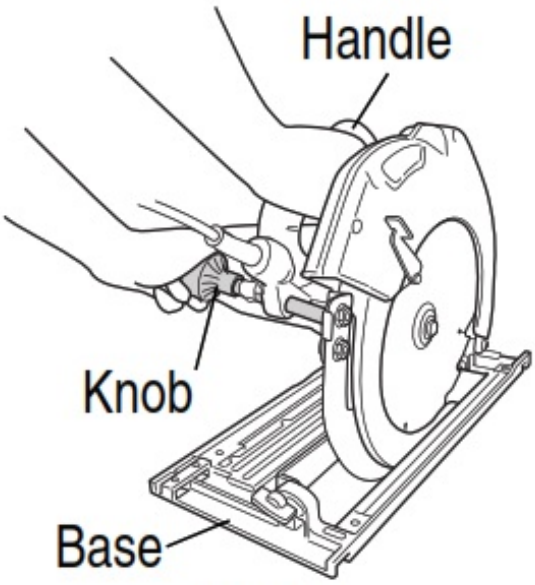


Fig. 4

CAUTION

Should the knob remain loosened, it will create a very hazardous situation. Always thoroughly clamp it.

2. **Adjusting the riving knife**

   Loosen the hexagonal – socket bolt used to clamp the riving knife, adjust the riving knife so that the distance between the riving knife and the rim of the blade is not more than 3 mm, and the rim of the blade does not extend more than 3 mm beyond the lowest edge of the riving knife (Fig. 5) and securely retighten the bolt.

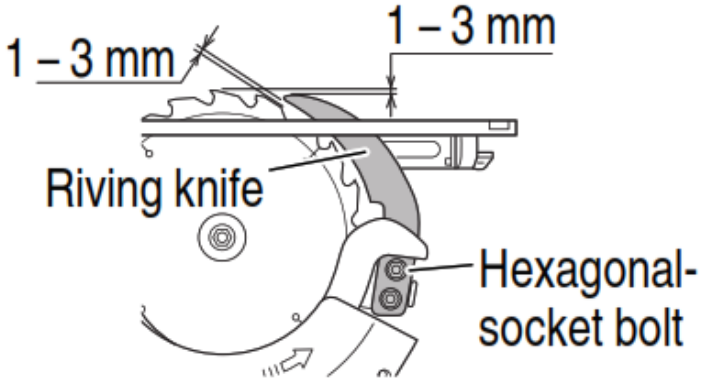


Fig. 5

3. **Adjusting the angle of inclination**

   As shown in Fig. 6, and Fig. 7 by loosening the wing nut on the incline gauge and the wing bolt on the base, the saw blade may be inclined to a maximum angle of 45° in relation to the base. After having completed the adjustment, reconfi rm that the wing-nut and the wing-bolt are fi firmly tightened?

   CAUTION

   It is very hazardous to allow wing bolts to remain loosened. Always thoroughly lamp it.

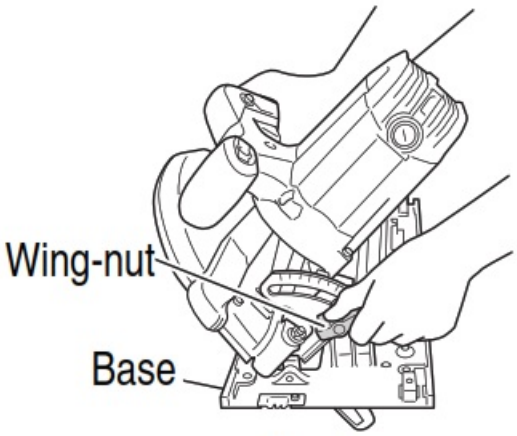


Fig. 6

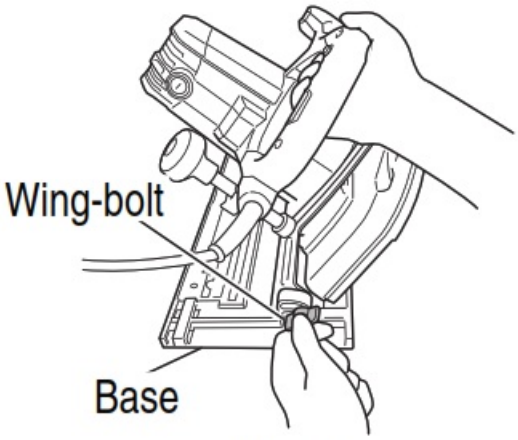


Fig. 7

4. Regulating the guide (Fig. 8) The cutting position can be regulated by moving the guide to the left or right after loosening its wing bolt. The guide may be mounted on either the right or left side of the tool

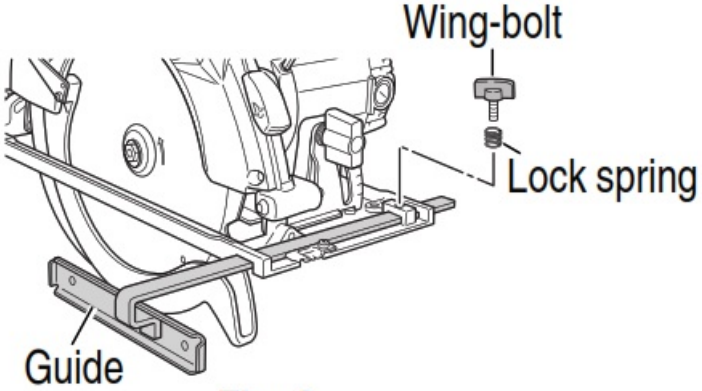


Fig. 8

5. Adjusting the guide piece On the circular saw, it is possible to make fi ne adjustment to the fi xing position of the guide piece, where the saw blade and the premarked line are to be aligned. When the saw is shipped from the factory, the linear portion of a front scale on the guide piece is aligned with the central position of the saw blade (Fig. 9). Loosen the fi xed M4 screw on the guide piece, should the fi xing position be wrong, and make necessary adjustment of the position.

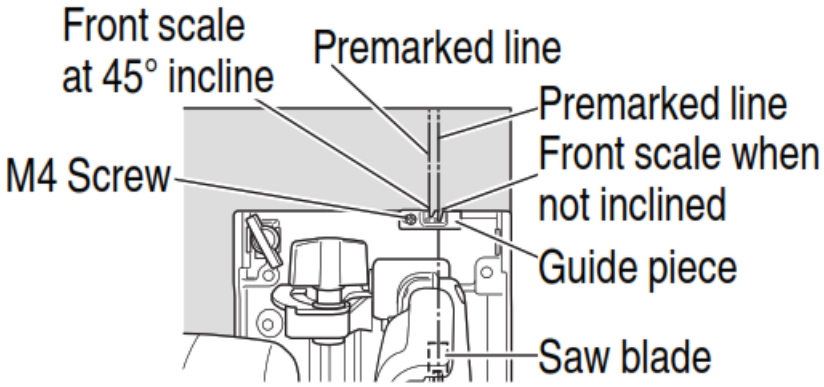


Fig. 9

6. Using the dust collector To use the vacuum cleaner to gather up sawdust, attach the suction hose to the dust collector which is attached to the main unit by an M4 screw. When attaching the dust collector always be sure to change the lever to the short type at this same time (Fig. 10).

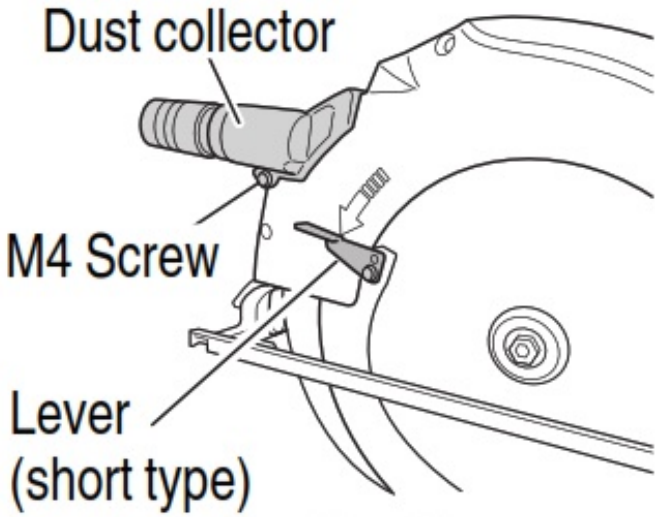


Fig. 10

CAUTION

Continuing to use the lever that was attached to the main unit prior to shipping from the factory will cause it to bind on the dust collector and will interfere with the lower guard operation.

CUTTING PROCEDURES

1. Place the base on the material, then align the premarked line and the sawblade with the guide piece front scale section at the front of the base (Fig. 9 on page 25). When the base is not slanted, use the large cutout as the guide (Fig. 9 on page 25 and Fig. 11). If the base is slanted (45 degrees), use the small front scale as the guide (Fig. 9 on page 25 and Fig. 12).

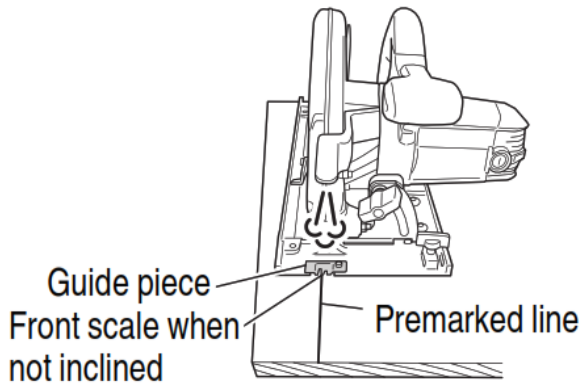


Fig. 11

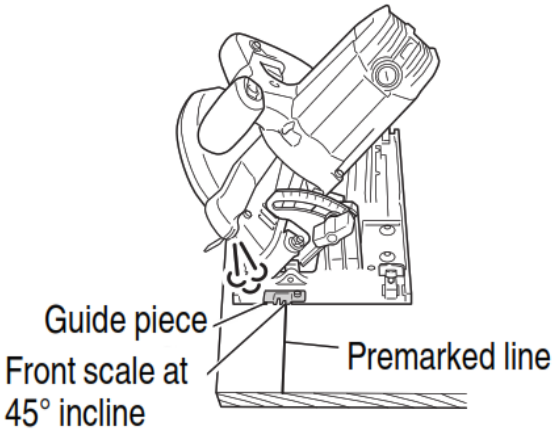


Fig. 12

2. Ensure that the switch is turned to the ON position before the saw blade comes in contact with the lumber. The switch is turned ON when the trigger is squeezed, and OFF when the trigger is released.
3. Moving the saw straight at a constant speed will produce optimum cutting.

CAUTION

Prior to the cutting operation, make sure the material you are going to cut. If the material to be cut is expected to generate harmful/toxic dust, make sure the dust bag or appropriate dust extraction system is connected with the dust outlet tightly. Wear the dust mask additionally, if available.

- Before starting to saw, ensure that the saw blade has reached full speed revolution.
- Should the saw blade be stopped or made an abnormal noise during operation, turn off the switch immediately?

- Always take care in preventing the power cord from coming near the revolving saw blade.
- Using the circular saw with the saw blade facing upwards or sideways is very hazardous. Such uncommon applications should be avoided.
- When cutting materials, always wear protective glasses.
- When fi finished with a job, pull out the plug from the receptacle.

MOUNTING AND DISMOUNTING THE SAW BLADE

CAUTION
To avoid serious accidents, ensure the switch is in the OFF position and the power source is disconnected.

1. **Dismounting the saw blade**
   (1) Set the cutting volume at maximum, and place the circular Saw as shown in Fig. 13.

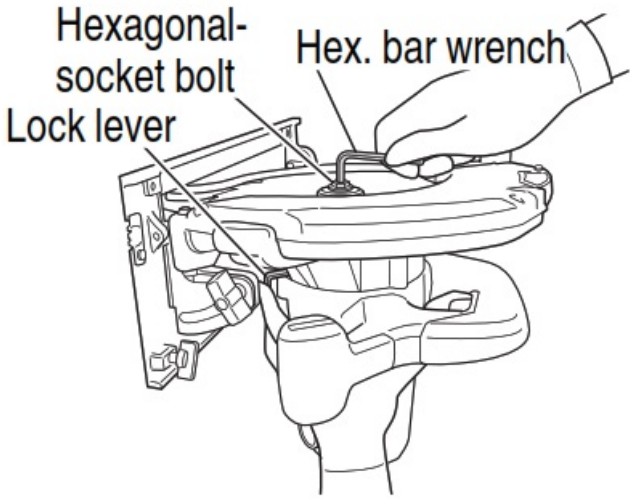


Fig. 13

   (2) Depress the lock lever, lock the spindle, and remove the hexagonal-socket bolt with the Hex. bar wrench.
   (3) While holding the lower guard lever to keep the lower guard fully retracted into the saw cover, remove the saw blade.
2. **Mounting the Saw Blade**
   (1) Thoroughly remove any sawdust which has accumulated on the spindle, bolt, and washers.
   (2) As shown in Fig. 14, the side of Washer (A) with a projected center the same diameter as the inner diameter of the saw blade and the concave side of Washer (B) must be fi fitted to the saw blade sides. * Washer (A) is supplied for 2 types of saw blades with hole diameters of 16 mm and 30 mm. (When buying the Circular Saw, one type of washer (A) is supplied.) In case the hole diameter of your saw blade does not correspond to that of washer (A), please contact the shop where you purchased the Circular Saw.

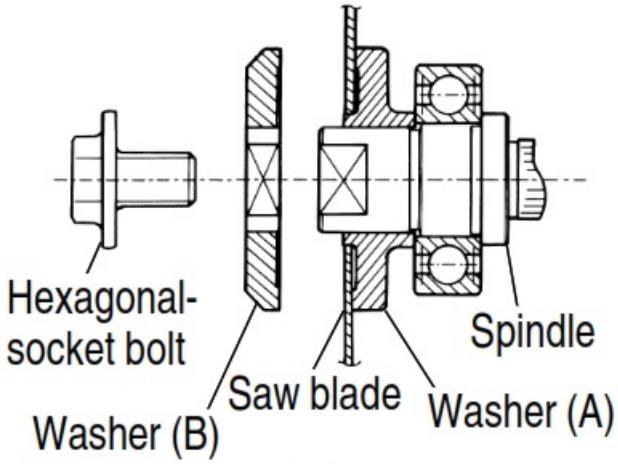


Fig. 14

3) To assure proper rotation direction of the saw blade, the arrow direction on the saw blade must coincide with the arrow direction on the saw cover.

(4) Using the fi fingers, tighten the hexagonal-socket bolt retaining the saw blade as much as possible. Then depress the lock lever, lock the spindle, and thoroughly tighten the bolt.

CAUTION

After having attached the saw blade, reconfi rm that the lock lever is fi firmly secured n the prescribed position.

USING THE CORD HOLDER

Using the cord holder, the cord can be guided toward the rear of the product, as shown in the fi sure.
If the cord is interfering during operation, hook it into the cord holder and change its angle.

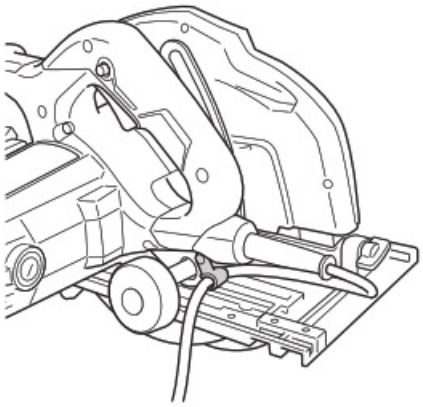


Fig. 15

MAINTENANCE AND INSPECTION

1. Inspecting the saw blade Since use of a dull saw blade will degrade effi ciency and cause possible motor malfunction, sharpen or replace the saw blade as soon as abrasion is noted.
2. Inspecting the mounting screws Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazards.
3. Inspecting the carbon brushes (Fig. 16) The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush can result in motor trouble, replace the carbon brushes with new ones having the same carbon brush No. shown in the fi gure when it becomes worn to or near the “wear limit”. In

addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders.

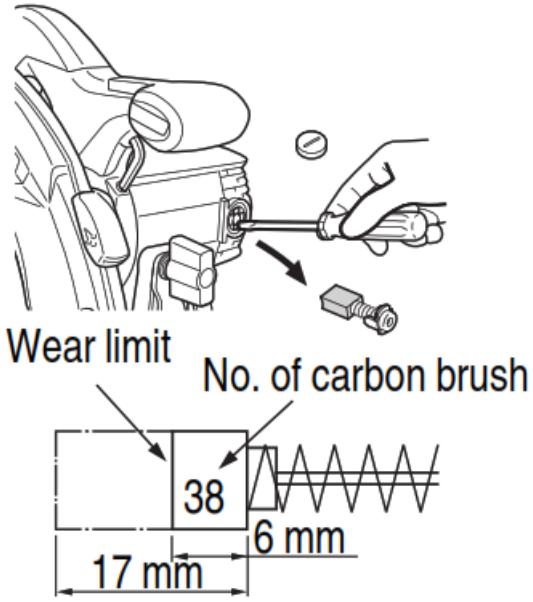


Fig. 16

CAUTION

When replacing the new carbon brushes, always use genuine HiKOKI carbon brushes with the number specifi ed in the drawing.

4. **Replacing carbon brushes**

   Disassemble the brush caps with a slotted-head screwdriver. The carbon brushes can then e easily removed.

5. **Replacing supply cord**

   If the replacement of the supply cord is necessary, this has to be done by the manufacturer of this agent in order to avoid a safety hazard.

6. Adjusting the base and saw blade to maintain perpendicularity The angle between the base and the saw blade has been adjusted to 90°, however, should this perpendicularity be lost for some reason, adjust in the following manner:

   (1) Turn the base face up (Fig. 17) and loosen the wing nut and wing bolt (Fig. 6, 7 on page 25).

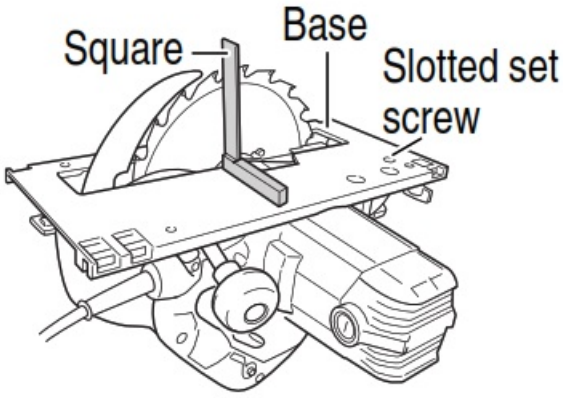


Fig. 17

(2) Apply a square to the base and the saw blade and turning the slotted set screw with a slotted-head screwdriver, shift the position of the base to produce the desired right angle.

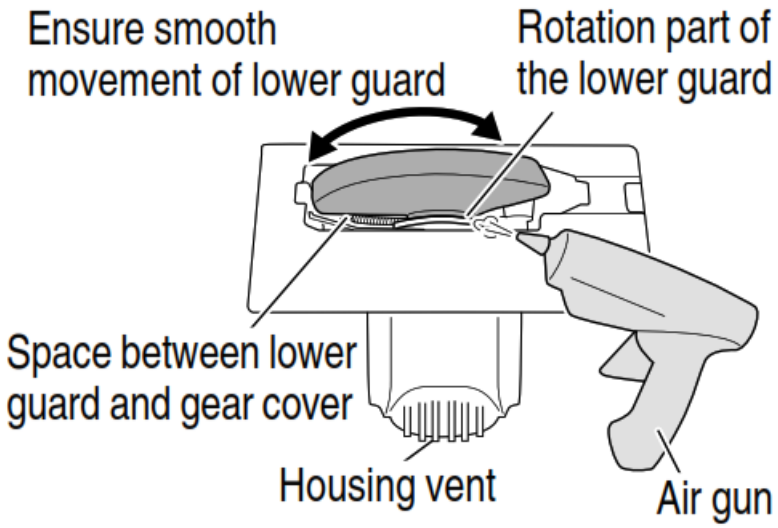


Fig. 18

7. Motor unit maintenance The motor winding is an important part of this tool. Avoid damaging and be careful to avoid contact with cleaning oil or water. After 50 hours of use, clean the motor by blowing into the ventilation holes of the motor housing with dry air from an air gun or other tool (Fig. 18). Dust or particle accumulation in the motor can result in damage.
8. Inspecting and maintaining the lower guard Always make sure that the lower guard moves smoothly. In the event of any malfunction, immediately repair the lower guard. For cleaning and maintenance, use an air gun or other tool to blow clean the space between the lower guard and gear cover as well as the rotation part of the lower guard with dry air (Fig. 18).

   Doing so is eff active for the emission of chips or other particles. Accumulation of chips or other particles around the lower guard may result in malfunction or damage.

WARNING
To prevent dust inhalation or eye irritation, wear protective safety goggles and a dust mask when using an air gun or other tool to clean the lower guard, ventilation holes, or other parts of the product.
CAUTION
In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

ADDITIONAL INFORMATION

Data about months and years of production see on the name plate of the machine and package. Months coded by digits and letters: 1-9 – Jan-Sept, O-Oct, N-Nov, D-Dec. The Year of production is coded by the last digit of the current year.

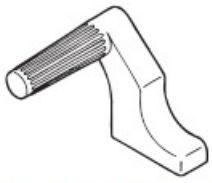
SELECTING ACCESSORIES

Select accessories that are suited to a specifi c task. For details contact HiKOKI Authorized Service Center.

Part Number: 326830 (D25,4)
Saw blade

Part Number: 303888
Guide

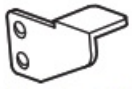
Part Number: 323208
Screw



Part Number: 303811
Side handle

Part Number: 872422
Hex. bar wrench

Part Number: 997247
Dust collector



Part Number: 303338
Lever (short type)

Koki Holdings co., Ltd
110
C99717324F
2021

Documents / Resources

	HiKOKI C9U3 Circular Saw [pdf] Instruction Manual C9U3 Circular Saw, C9U3, Circular Saw, Saw