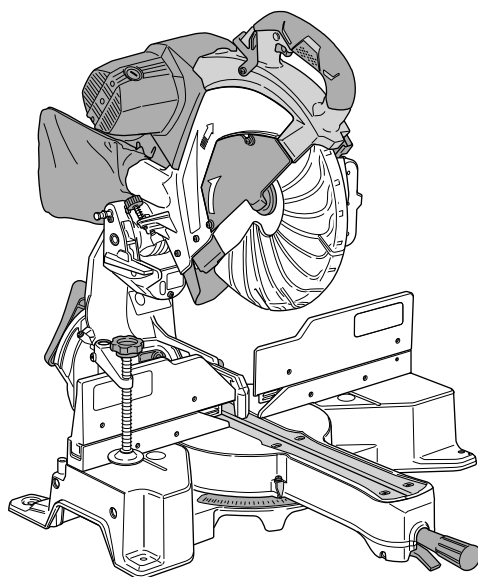


# HIKOKI

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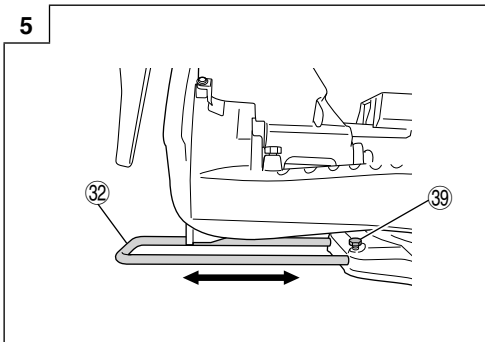
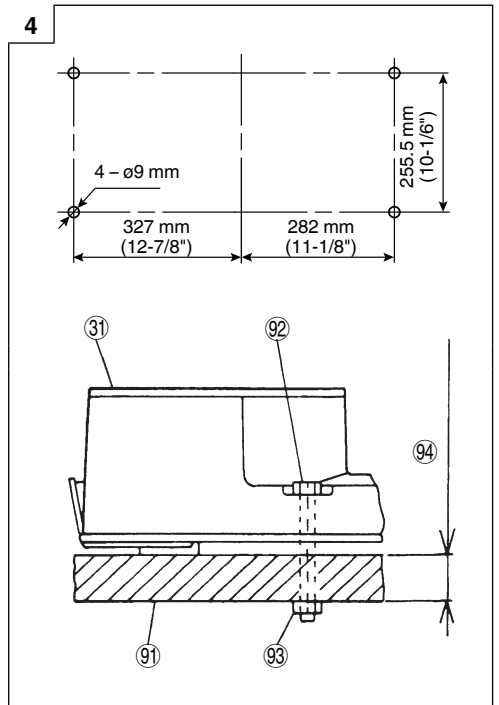
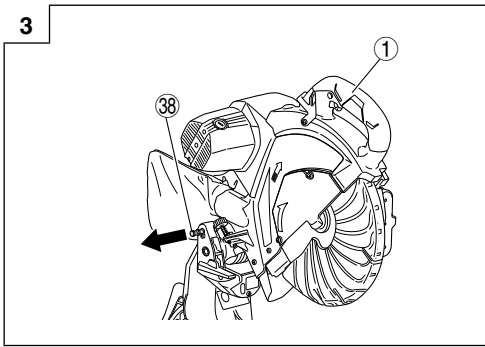
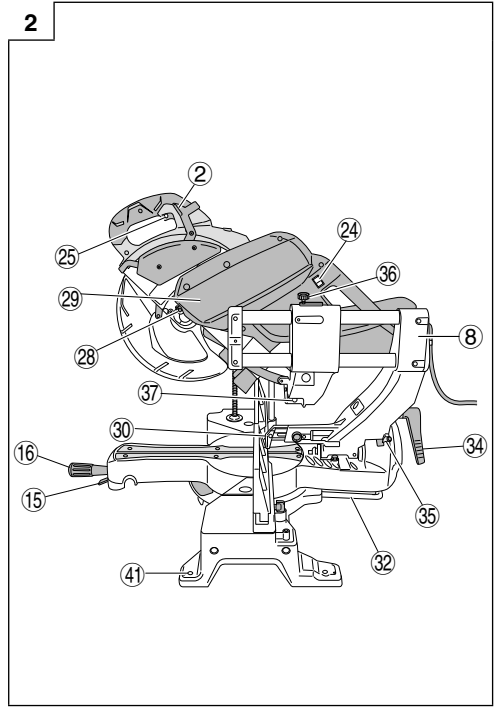
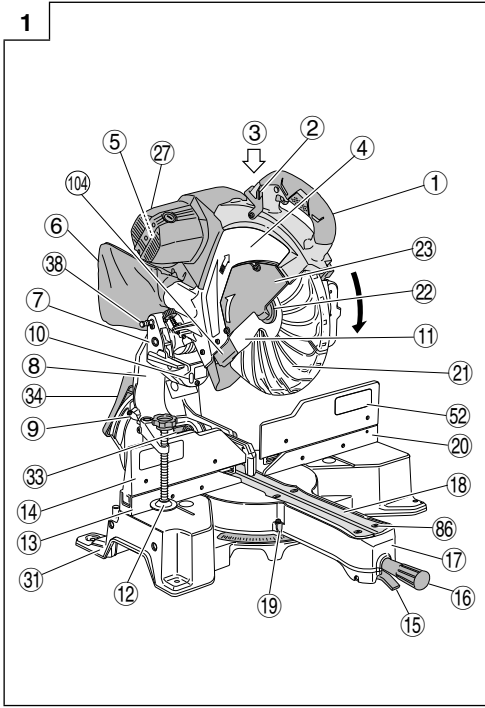
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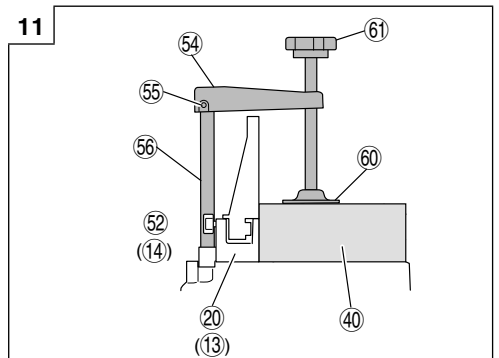
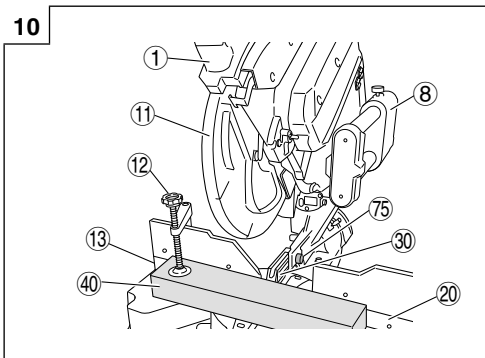
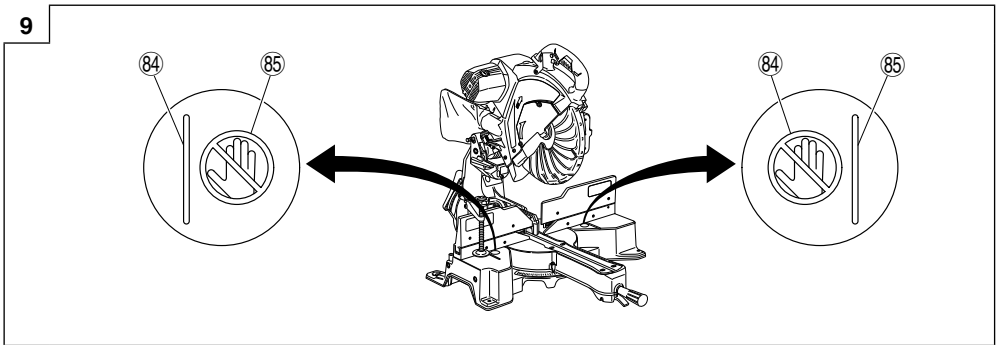
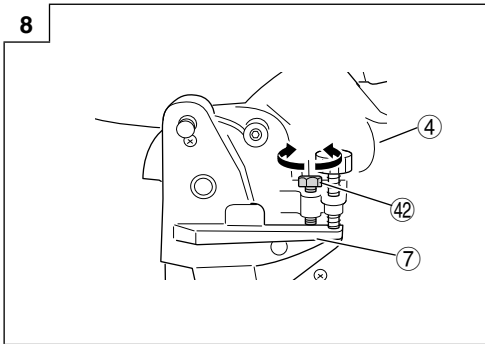
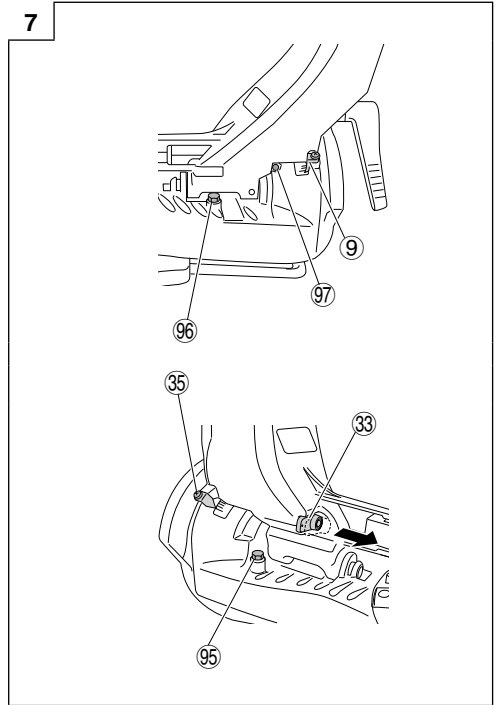
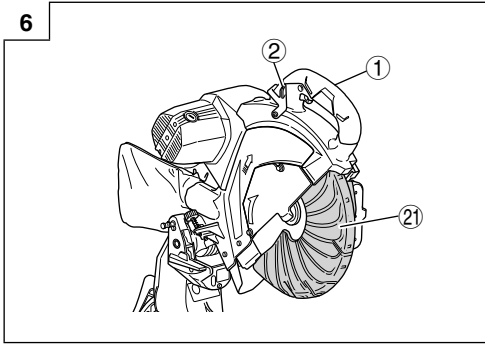
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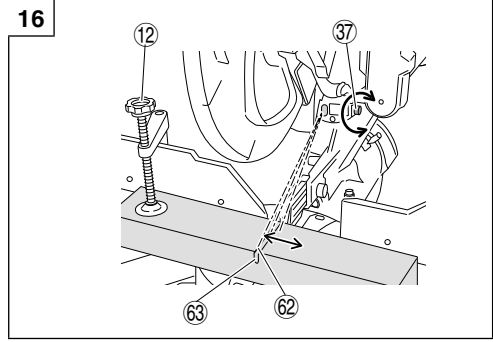
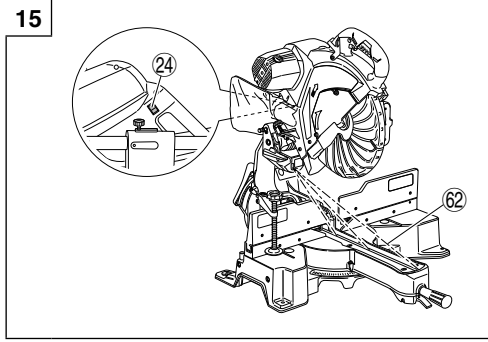
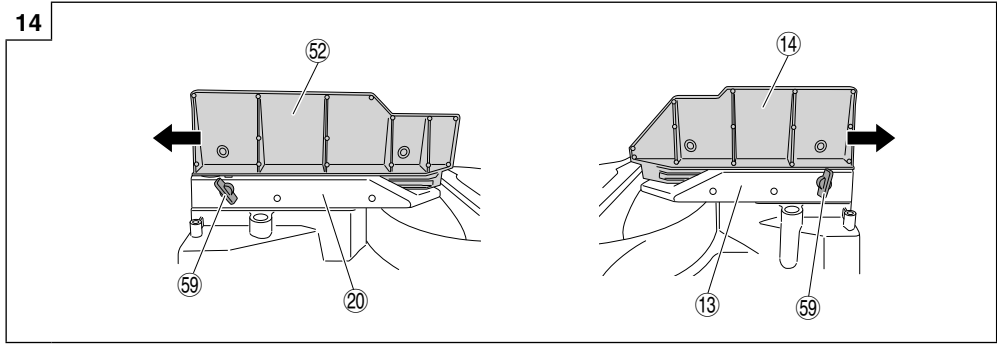
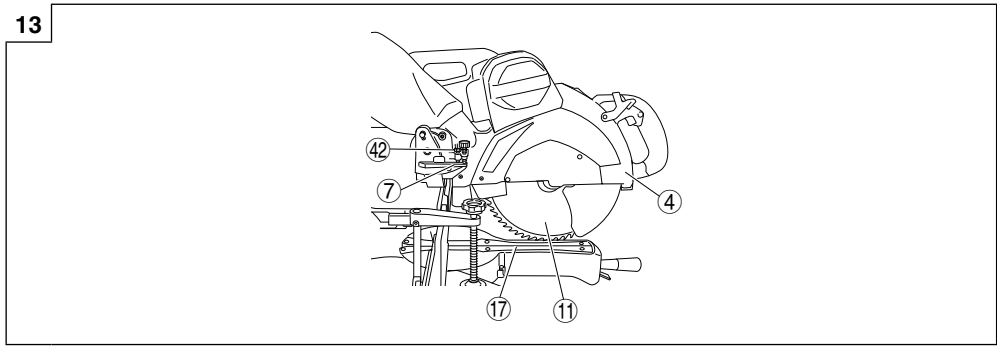
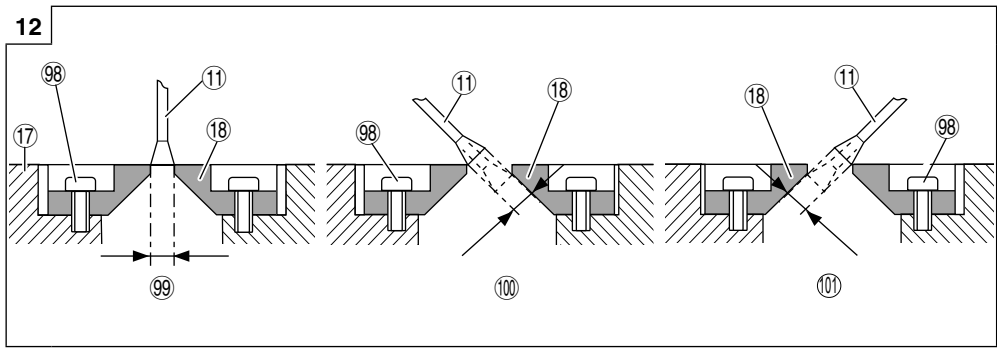


Handling instructions

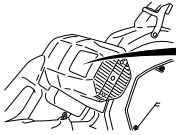








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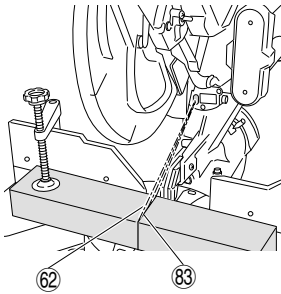


**LASER RADIATION**  
 DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS  
 CLASS II LASER PRODUCT  
 Po-CO, Am/Co<sup>60</sup>, (Gamma)=650 nm, Time basis: 100s  
 Standard: BS 6825-1:2007, EN 60825-1:2007  
 IEC 60825-1:2014, BS EN IEC 60825-14:2011  
**CAUTION**—CLASS II LASER RADIATION WHEN OPEN  
 DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

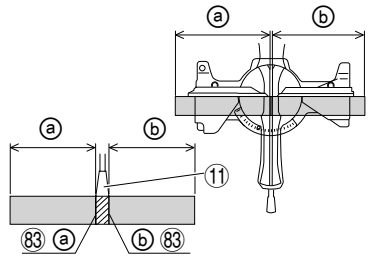


**AVOID EXPOSURE**  
 Laser radiation is emitted from this aperture.  
**CAUTION**  
 Laser radiation when open. Do not view directly with optical instruments. c352811

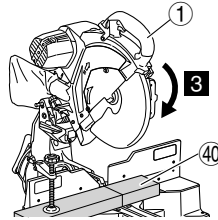
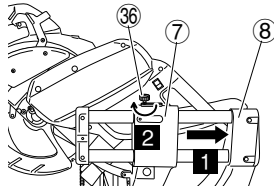
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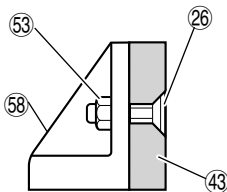
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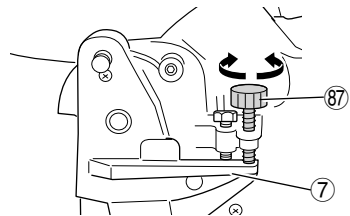
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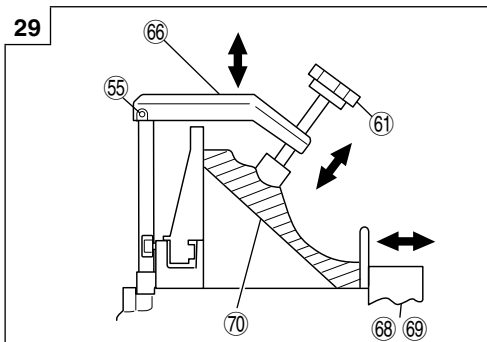
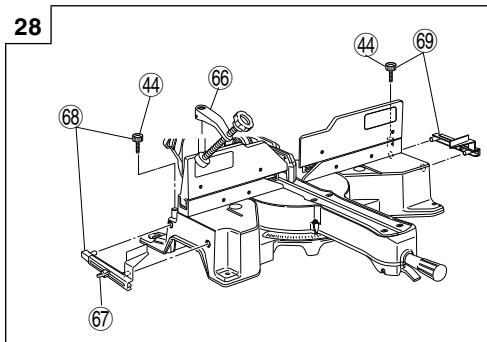
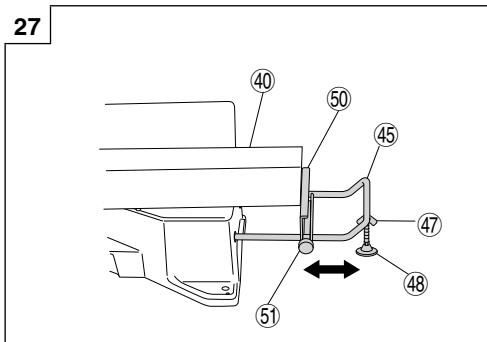
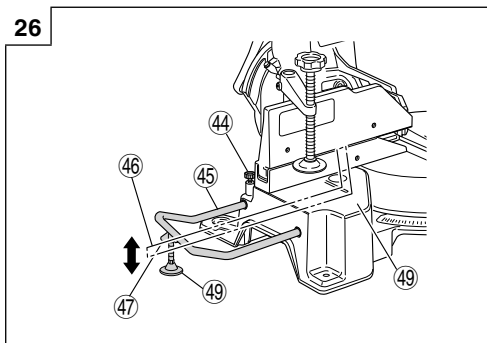
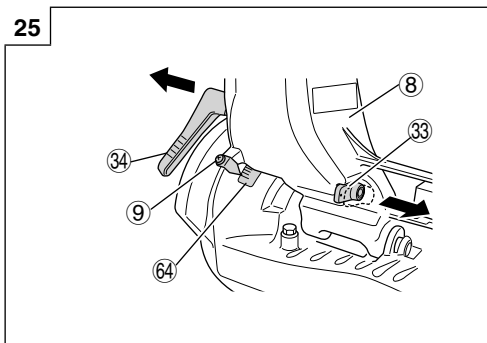
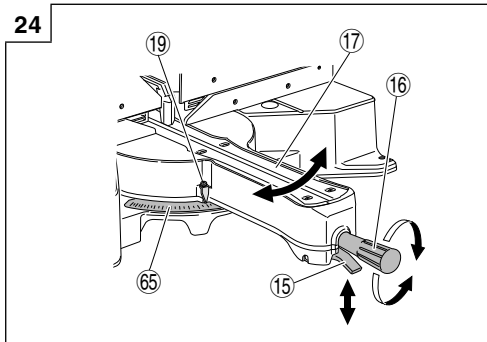
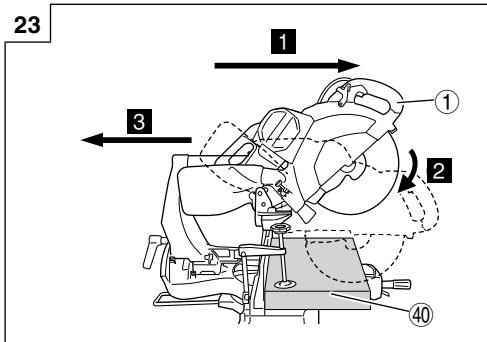


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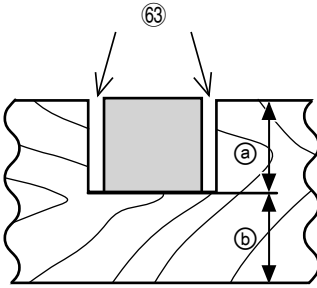


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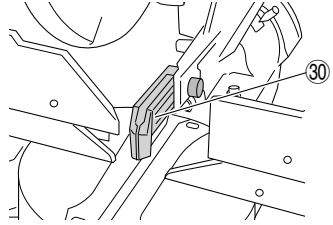




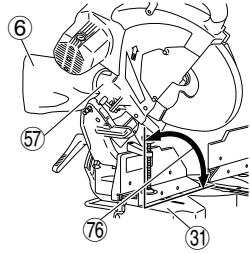
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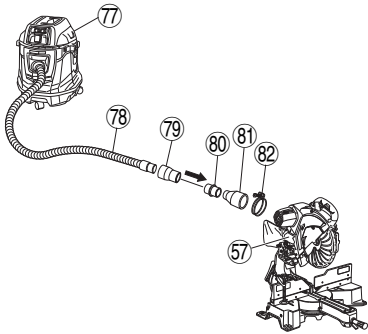
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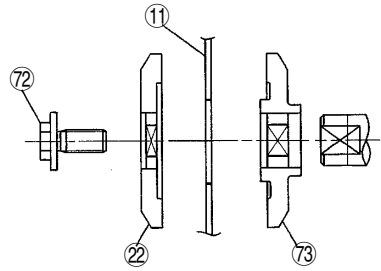
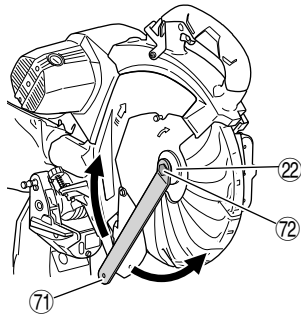
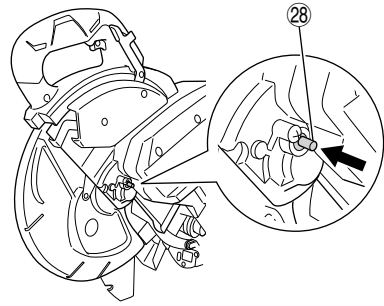
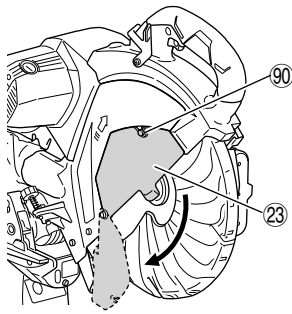
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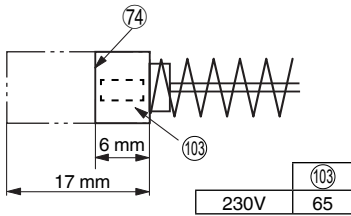
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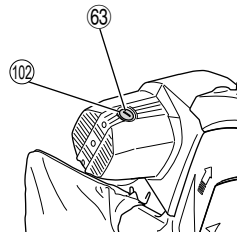
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	(103)
230V	65





①	Handle	④1	Mounting hole (4 places)	⑧1	Dust collection adapter (Optional accessory)
②	Lever (A)	④2	8 mm Depth Adjustment Bolt	⑧2	Hose band (Optional accessory)
③	Motor Head	④3	Auxiliary Board	⑧3	Marking (pre-marked)
④	Gear Case	④4	6 mm Knob Bolt (Optional accessory)	⑧4	Line
⑤	Motor	④5	Holder (Optional accessory)	⑧5	Warning sign
⑥	Dust Bag	④6	Steel Square	⑧6	5 mm Machine screw
⑦	Hinge	④7	6 mm Wing Nut (Optional accessory)	⑧7	6 mm Depth adjustment bolt
⑧	Holder (A)	④8	Height Adjustment Bolt 6 mm (Optional accessory)	⑧8	Stopper holder
⑨	Indicator (For right bevel scale)	④9	Base Surface	⑧9	Bottom line of the groove
⑩	Laser Marker	⑤0	Stopper (Optional accessory)	⑨0	5 mm screw
⑪	Saw Blade	⑤1	6 mm Knob Bolt (Optional accessory)	⑨1	Work bench
⑫	Vise Assembly	⑤2	Sub Fence (A)	⑨2	8 mm Bolt
⑬	Fence (B)	⑤3	6 mm Nut	⑨3	8 mm Nut
⑭	Sub Fence (B)	⑤4	Screw Holder	⑨4	25 mm thick bench
⑮	Lever	⑤5	Hex. socket set screw	⑨5	8 mm Bolt (A) (Stopper for left 45° bevel angle)
⑯	Side Handle	⑤6	Vise Shaft	⑨6	8 mm Bolt (B) (Stopper for right 45° bevel angle)
⑰	Turntable	⑤7	Duct	⑨7	8 mm Set Screw (Stopper for 0°)
⑱	Table Insert	⑤8	Fence	⑨8	6 mm Machine screw
⑲	Indicator (For miter scale)	⑤9	6 mm Wing Bolt	⑨9	Right angle cutting
⑳	Fence (A)	⑥0	Vise Plate	⑩0	Left bevel angle cutting
㉑	Lower Guard	⑥1	Knob	⑩1	Right bevel angle cutting
㉒	Washer (B)	⑥2	Laser line	⑩2	Brush cap
㉓	Spindle Cover	⑥3	Groove	⑩3	No. of carbon brush
㉔	Switch (For laser marker)	⑥4	Bevel Scale	⑩4	Guard (D)
㉕	Trigger Switch	⑥5	Miter Scale		
㉖	6 mm Flat Head Screw	⑥6	Crown molding Vise Ass'y (Optional accessory)		
㉗	Nameplate	⑥7	6 mm Wing Nut (Optional accessory)		
㉘	Spindle Lock	⑥8	Crown molding Stopper (L) (Optional accessory)		
㉙	Belt cover	⑥9	Crown molding Stopper (R) (Optional accessory)		
㉚	Guard	⑦0	Crown molding		
㉛	Base	⑦1	17 mm Box Wrench		
㉜	Holder	⑦2	10 mm Bolt		
㉝	Set pin (A)	⑦3	Washer (A)		
㉞	Clamp Lever	⑦4	Wear limit line		
㉟	Indicator (For left bevel scale)	⑦5	6 mm Knob Bolt		
㊱	Slide Securing Knob	⑦6	Right angle		
㊲	Adjuster (For laser marker)	⑦7	Dust extractor		
㊳	Locking Pin	⑦8	Hose (id 38 mm × 3 m long)		
㊴	6 mm Bolt	⑦9	Adapter (Dust extractor's standard accessory)		
㊵	Workpiece	⑧0	Joint (Optional accessory)		

## GENERAL OPERATIONAL PRECAUTIONS

**WARNING!** When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following.

Read all these instructions before operating this product and save these instructions.

For safe operations:

1. Keep work area clean. Cluttered areas and benches invite injuries.
2. Consider work area environment. Do not expose power tools to rain. Do not use power tools in damp or wet locations. Keep work area well lit.  
Do not use power tools where there is risk to cause fire or explosion.
3. Guard against electric shock. Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).
4. Keep children and infirm persons away. Do not let visitors touch the tool or extension cord. All visitors should be kept away from work area.
5. Store idle tools. When not in use, tools should be stored in a dry, high or locked up place, out of reach of children and infirm persons.
6. Do not force the tool. It will do the job better and safer at the rate for which it was intended.
7. Use the right tool. Do not force small tools or attachments to do the job of a heavy duty tool. Do not use tools for purposes not intended; for example, do not use circular saw to cut tree limbs or logs.
8. Dress properly. Do not wear loose clothing or jewelry, they can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protecting hair covering to contain long hair.
9. Use eye protection. Also use face or dust mask if the cutting operation is dusty.
10. Connect dust extraction equipment.  
Cutting operation by this compound miter saw may produce considerable amount of dust from extraction duct on fixed guard.  
(Dust material: Wood or Aluminium)  
If devices are provided for the connection of dust extraction and collection facilities ensure these are connected and properly used.
11. Do not abuse the cord. Never carry the tool by the cord or yank it to disconnect it from the receptacle. Keep the cord away from heat, oil and sharp edges.
12. Secure work. Use clamps or a vise to hold the work. It is safer than using your hand and it frees both hands to operate tool.
13. Do not overreach. Keep proper footing and balance at all times.
14. Maintain tools with care. Keep cutting tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have it repaired by authorized service center. Inspect extension cords periodically and replace, if damaged. Keep handles dry, clean, and free from oil and grease.
15. Disconnect tools. When not in use, before servicing, and when changing accessories such as blades, bits and cutters.
16. Remove adjusting keys and wrenches. Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
17. Avoid unintentional starting. Do not carry a plugged-in tool with a finger on the switch. Ensure switch is off when plugging in.

18. Use outdoor extension leads. When tool is used outdoors, use only extension cords intended for outdoor use.
19. Stay alert. Watch what you are doing. Use common sense. Do not operate tool when you are tired.
20. Check damaged parts. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated in this handling instructions. Have defective switches replaced by an authorized service center. Do not use the tool if the switch does not turn it on and off.
21. Warning  
The use of any accessory or attachment, other than those recommended in this handling instructions, may present a risk of personal injury.
22. Have your tool repaired by a qualified person.  
This electric tool is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts. Otherwise this may result in considerable danger to the user.

## PRECAUTIONS ON USING SLIDE COMPOUND MITER SAW

1. Keep the floor area around the machine level. Well maintained and free of loose materials e.g. chips and cut-offs.
2. Provide adequate general or localized lighting.
3. Do not use power tools for applications other than those specified in the handling instructions.
4. Repairing must be done only by authorized service facility. Manufacturer is not responsible for any damages and injuries due to the repair by the unauthorized persons as well as the mishandling of the tool.
5. To ensure the designed operational integrity of power tools, do not remove installed covers or screws.
6. Do not touch movable parts or accessories unless the power source has been disconnected.
7. Use your tool at lower input than specified on the nameplate; otherwise, the finish may be spoiled and working efficiency reduced due to motor overload.
8. Do not wipe plastic parts with solvent. Solvents such as gasoline, thinner, benzene, carbon tetrachloride, alcohol, may damage and crack plastic parts. Do not wipe them with such solvent. Clean plastic parts with a soft cloth lightly dampened with soapy water.
9. Use only original HIKOKI replacement parts.
10. This tool should only be disassembled for replacement of carbon brushes.
11. The exploded assembly drawing on this handling instructions should be used only for authorized service facility.
12. Never cut ferrous metals or masonry.
13. Adequate general or localized lighting is provided. Stock and finished workpieces are located close to the operators normal working position.
14. Wear suitable personal protective equipment when necessary, this could include:  
Hearing protection to reduce the risk of induced hearing loss.  
Eye protection to reduce the risk of injuring an eye.  
Respiratory protection to reduce the risk of inhalation of harmful dust.





Gloves for handling saw blades (saw blades shall be carried in a holder wherever practicable) and rough material.

15. The operator is adequately trained in the use, adjustment and operation of the machine.
16. Refrain from removing any cut-offs or other parts of the workpiece from the cutting area whilst the machine is running and the saw head is not in the rest position.
17. Never use the slide compound miter saw with its lower guard locked in the open position.
18. Ensure that the lower guard moves smoothly.
19. Do not use the saw without guards in position, in good working order and properly maintained.
20. Use correctly sharpened saw blades. Observe the maximum speed marked on the saw blade.
21. Do not use saw blades which are damaged or deformed.
22. Do not use saw blades manufactured from high speed steel.
23. Use only saw blades recommended by HiKOKI.
24. The saw blades should be from 290 mm to 305 mm external diameter ranges.
25. Select the correct saw blade for the material to be cut.
26. Never operate the slide compound miter saw with the saw blade turned upward or to the side.
27. Ensure that the workpiece is free of foreign matter such as nails.
28. Replace the table insert when worn.
29. Do not use the saw to cut other than aluminium, wood or similar materials.
30. Do not use the saw to cut other materials than those recommended by the manufacturer.
31. Blade replacement procedure, including the method for repositioning and a warning that this must be carried out correctly.
32. Connect the slide compound miter saw to a dust collecting device when sawing wood.
33. Take care when slotting.
34. When transporting or carrying the tool, do not grasp the holder. Grasp the handle instead of the holder.
35. Start cutting only after motor revolution reaches maximum speed.
36. Promptly cut OFF the switch when abnormality observed.
37. Shut off power and wait for saw blade to stop before servicing or adjusting tool.
38. During a miter or bevel cut the blade should not be lifted until it has stopped rotation completely.
39. During slide cutting operation, the saw must be pushed and slid away from the operator.
40. Take all the possibility of residual risks in cutting operation into your consideration, such as the laser radiation to your eyes, the inadvertent access to moving parts on slide mechanical parts on machine and so on.
41. Ensure before each cut that the machine is stable.  
Use only saw blades whose maximum permitted speed is higher than the no-load speed of the power tool.  
Do not replace the laser with a different type.
42. Do not stand in a line with the saw blade In front of the machine. Always stand aside of the saw blade. This protects your body against possible kickback. Keep hands, fingers and arms away from the rotating saw blade.  
Do not cross your arms when operating the tool arm.
43. If the saw blade should become jammed, switch the machine off and hold the workpiece until the saw blade comes to a complete stop. To prevent kickback, the workpiece may not be moved until after the machine has come to a complete stop.  
Correct the cause for the jamming of the saw blade before restarting the machine.

## SYMBOLS

### WARNING

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

	C12RSH2: Slide Compound Miter Saw
	Read all safety warnings and all instructions.
	Always wear eye protection.
	Always wear hearing protection.

## SPECIFICATIONS

Max. sawing dimension	Head		Turntable	Max. sawing dimension	
	Miter	0	0	0	Max. Height
0		Left 45° or Right 45°		Max. Width	312 mm
0		Right 57°		Max. Height	105 mm
Bevel	Left 45°	0		Max. Width	170 mm
	Right 45°	0		Max. Height	68 mm
				Max. Width	312 mm
Compound	Left 45°	Left 45°		Max. Height	43 mm
	Left 45°	Right 31°		Max. Width	312 mm
	Right 45°	Right 45°		Max. Height	68 mm
	Right 45°	Left 31°		Max. Width	265 mm
Saw Blade Dimensions (oD × iD × Thickness)			305 mm × 25.4 mm × 2.3 mm		
Miter Cutting Angle			Right 0° – 57°, Left 0° – 45°		
Bevel Cutting Angle			Right 0° – 45°, Left 0° – 45°		
Compound Cutting Angle	Bevel (Left) 0° – 45°		Miter (Left) 0° – 45°, (Right) 0° – 31°		
	Bevel (Right) 0° – 45°		Miter (Right) 0° – 45°, (Left) 0° – 31°		
Voltage (by areas)*			230 V, 240 V ~		
Power Input*			1520 W		
No-Load Speed			4000 /min		
Machine Dimensions (Width × Depth × Height)			655 mm × 890 mm × 724 mm		
Weight (Net)			27 kg		
Laser Marker	Maximum output (lambda)		Po<0.4 mW Class 1M Laser Product		
	Laser medium		650 nm Laser Diode		

\* Be sure to check the nameplate on product as it is subject to change by areas.

## STANDARD ACCESSORIES

- 305 mm TCT Saw blade (mounted on tool)..... 1
- Dust bag ..... 1
- 17 mm Box wrench ..... 1
- Vise Assembly ..... 1
- Holder ..... 1
- Side Handle (mounted on tool) ..... 1
- Sub Fence (mounted on tool)..... 1
- Washer (C) (Only For Australia)..... 1

Standard accessories are subject to change without notice.

## APPLICATION

Cutting various types of aluminium sash and wood.

## PRIOR TO OPERATION

### CAUTION

Make all necessary adjustments before inserting the plug in the power source.

#### 1. Power source

Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.

Do not use with direct current, or transformers such as boosters. Doing so may result in damage or accidents.

#### 2. Power switch

Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the trigger switch is in the ON position, the power tool will start operating immediately, inviting serious accident.

#### 3. Extension cord

When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.

#### 4. Remove all packing materials attached or connected to the tool before attempting to operate it.

#### 5. Releasing the locking pin (Fig. 3)

When the power tool is prepared for shipping, its main parts are secured by a locking pin.

Move the handle slightly so that the locking pin can be disengaged.

During transport, lock the locking pin into the gear case.

#### 6. Attach the dust bag to the main unit (Fig. 1)

#### 7. Installation (Fig. 4)

Ensure that the machine is always fixed to bench.

Attach the power tool to a level, horizontal work bench.

Select 8 mm diameter bolts suitable in length for the thickness of the work bench.

Bolt length should be at least 40 mm plus the thickness of the work bench.

For example, use 8 mm × 65 mm bolts for a 25 mm thick work bench.

## 8. Base holder adjustment (Fig. 5)

Loosen the 6 mm bolt with the supplied 10 mm box wrench. Adjust the base holder until its bottom surface contacts the bench or the floor surface.

After adjustment, firmly tighten the 6 mm bolt.

## 9. Check to see that the lower guard operates smoothly

### CAUTION

- This slide compound miter saw is equipped with a saw head lock as safety device.
  - To lower the saw head to cut, the lock must be released by pressing the lever (A) with your thumb.
- (1) When you push down the handle while pushing the lever (A), check that the lower guard revolves smoothly (Fig. 6).
  - (2) Next, check that the lower guard returns to the original position when the handle is raised.

## 10. Oblique angle

Before the power tool is shipped from the factory, it is adjusted for 0°, right angle, left 45° bevel cutting angle and right 45° bevel cutting angle with the 8 mm set screw, 8 mm bolt (A) and 8 mm bolt (B).

When changing the adjustment, change the height of the 8 mm set screw, 8 mm bolt (A), or 8 mm bolt (B) by turning them.

When changing the bevel angle to the right 45°, pull the set pin (A) on the direction shown in Fig. 7-b and incline the motor head to the right.

When adjusting the motor head to 0°, always return the set pin (A) to its initial position as shown in Fig. 7-b.

## 11. Checking the saw blade lower limit position

Check that the saw blade can be lowered 9 mm to 10 mm below the table insert.

When you replace a saw blade with a new one, adjust the lower limit position so that the saw blade will not cut the turntable or complete cutting cannot be done.

To adjust the lower limit position of the saw blade, follow the procedure (1) indicated below. (Fig. 8)

Furthermore, when changing the position of a 8 mm depth adjustment bolt that serves as a lower limit position stopper of the saw blade.

- (1) Turn the 8 mm depth adjustment bolt, change the height where the bolt head and the hinge contacts, and adjust the lower limit position of the saw blade.

### NOTE

Confirm that the saw blade is adjusted so that it will not cut into the turntable.

## PRIOR TO CUTTING

### 1. Cutting a groove on the guard

Holder (A) has a guard (see Fig. 10) into which a groove must be cut when using the tool for the first time. Loosen the 6 mm knob bolt to retract the guard slightly.

After placing a suitable wooden piece to sit on the fence and the table surfaces, fix it with the vise. Slide the motor head backwards to the end. Then tighten the slide securing knob. After the switch has been turned on and the saw blade has reached maximum speed, slowly lower the handle to cut a groove on the guard. (See Fig. 20)

### CAUTION

Do not cut the groove too quickly; otherwise the guard might become damaged.

Do not use slide cutting for grooving tasks.

## PRACTICAL APPLICATIONS

### WARNING

- To avoid personal injury, never remove or place a workpiece on the table while the tool is being operated.
- Never place your limbs inside of the line next to warning sign while the tool is being operated (see Fig. 9). This may cause hazardous conditions.

### CAUTION

- It is dangerous to remove or install the workpiece while the saw blade is turning.
- When sawing, clean off the shavings from the turntable.
- If the shavings accumulate too much, the saw blade from the cutting material will be exposed. Never subject your hand or anything else to go near the exposed blade.

### 1. Switch operation

Pulling the trigger turns the switch on. Releasing the trigger turns the switch off.

### 2. Using the Vise Assembly (Standard accessory) (Fig. 11)

- (1) The vise assembly can be mounted on either the left fence [Fence (B)] or the right fence [Fence (A)].
- (2) The screw holder can be raised or lowered according to the height of the workpiece.
- (3) Turn the upper knob and securely fix the workpiece in position.

### WARNING

Always firmly clamp or vise to secure the workpiece to the fence; otherwise the workpiece might be thrust from the table and cause bodily harm.

### CAUTION

Always confirm that the motor head does not contact the vise assembly when it is lowered for cutting. If there is any danger that it may do so, move the vise assembly to a position where it will not contact the saw blade.

### 3. Positioning the table insert (Fig. 12)

Table inserts are installed on the turntable. When shipping the tool from the factory, the table inserts are so fixed that the saw blade does not contact them. The burr of the bottom surface of the workpiece is remarkably reduced, if the table insert is fixed so that the gap between the side surface of the table insert and the saw blade will be minimum. Before using the tool, eliminate this gap in accordance with the following procedure.

- (1) Right angle cutting

Loosen the three 5 mm machine screws, then secure the left side table insert and temporarily tighten the 5 mm machine screws of both ends. Then fix a workpiece (about 200 mm wide) with the vise assembly and cut it off. After aligning the cutting surface with the edge of the table insert, securely tighten the 5 mm machine screws of both ends. Remove the workpiece and securely tighten the 5 mm center machine screw. Adjust the right hand table insert in the same way.

- (2) Left and right bevel angle cutting

Adjust the table insert in the manner same procedure for right angle cutting.

### CAUTION

After adjusting the table insert for right angle cutting, the table insert will be cut to some extent if it is used for bevel angle cutting.

When bevel cutting operation is required, adjust the table insert for bevel angle cutting.

### 4. Lower limit position of saw blade when cutting a large workpiece

### NOTE

When cutting a workpiece exceeding 105 mm in height in right-angle cutting or 68 mm in left bevel angle cutting or 43 mm in right bevel angle cutting, adjust the lower limit position so that the base of the motor head (see Fig. 13) will not come in contact with the workpiece.

To adjust the lower limit position of the saw blade, follow the procedure (1) shown in **Fig. 13**.

- (1) Lower the motor head, and turn the 8 mm depth adjustment bolt and make adjustments so that there can be a clearance of 2 mm to 3 mm between the lower limit position of the motor head and the top of the workpiece at the saw blade's lower limit position where the head of the 8 mm depth adjustment bolt contacts the hinge.

#### 5. Confirmation for use of sub fence (A) (Fig. 14)

##### WARNING

When right angle cutting, loosen the 6 mm wing bolt, then slide the sub fence (A) outward and remove it. Failure to do so may result in the main body or saw blade coming into contact with the sub fence (A) and causing injury.

This power tool is equipped with a sub fence (A).

In the case of direct angle cutting and left bevel angle cutting, use the sub fence (A). Then, you can realize stable cutting of the material with a wide back face. When right angle cutting, loosen the 6 mm wing bolt, then slide the sub fence (A) outward and remove it, as shown in **Fig. 14**.

#### 6. Confirmation for use of sub fence (B) (Fig. 14)

##### WARNING

When left angle cutting, loosen the 6 mm wing bolt, then slide the sub fence (B) outward. Failure to do so may result in the main body or saw blade coming into contact with the sub fence (B) and causing injury.

This power tool is equipped with a sub fence (B). In the case of direct angle cutting and right bevel angle cutting, use the sub fence (B). Then, you can realize stable cutting of the material with a wide back face. When left angle cutting, loosen the 6 mm wing bolt, then slide the sub fence (B) outward, as shown in **Fig. 14**.

#### 7. Using an ink line (Adjusting the guard)

- (1) Right angle cutting  
Loosen the 6 mm knob bolt and contact the tip of the guard with the workpiece.  
Aligning the ink line on the workpiece with the groove of the guard, the workpiece is cut on the ink line.
- (2) Miter cutting and compound cutting (Miter cutting + bevel cutting)  
Upon lowering the motor section, the lower guard is raised and the saw blade appears.  
Align the ink line with the saw blade.

##### CAUTION

In some arrangements when the turntable is rotated, the guard projects from the fence surface. Loosen the 6 mm knob bolt and push the guard to the retracted position. Never lift the lower guard while the saw blade is rotating. When cutting at an angle of 45° to the right or more, please slide the guard to the rear.

The guard and sub-fence (A) and sub-fence (B) will not only make contact and adversely affect cutting accuracy, this could also result in damage to the guard.

#### 8. Position adjustment of laser line

Ink lining can be easily made on this tool to the laser marker. A switch lights up the laser marker (**Fig. 15**). Depending upon your cutting choice, the laser line can be aligned with the left side of the cutting width (saw blade) or the ink line on the right side.

The laser line is adjusted to the width of the saw blade at the time of factory shipment. Adjust the positions of the saw blade and the laser line taking the following steps to suit the use of your choice.

- (1) Light up the laser marker and make a groove of about 5 mm deep on the workpiece that is about 20 mm in height and 150 mm in width. Hold the grooved workpiece by vise as it is and do not move it. For grooving work, refer to "20. Groove cutting procedures".

- (2) Then, turn the adjuster and shift the laser line. (If you turn the adjuster clockwise, the laser line will shift to the right and if you turn it counterclockwise, the laser line will shift to the left.) When you work with the ink line aligned with the left side of the saw blade, align the laser line with the left end of the groove (**Fig. 16**). When you align it with the right side of the saw blade, align the laser line with the right side of the groove.
- (3) After adjusting the position of the laser line, draw a right-angle ink line on the workpiece and align the ink line with the laser line. When aligning the ink line, slide the workpiece little by little and secure it by vise at a position where the laser line overlaps with the ink line. Work on the grooving again and check the position of the laser line. If you wish to change the laser line's position, make adjustments again following the steps from (1) to (3).

##### WARNING

- Make sure before plugging the power plug into the receptacle that the main body and the laser marker are turned off.
- Exercise utmost caution in handling a switch trigger for the position adjustment of the laser line, as the power plug is plugged into the receptacle during operation. If the switch trigger is pulled inadvertently, the saw blade can rotate and result in unexpected accidents.
- Do not remove the laser marker to be used for other purposes.

##### CAUTION (Fig. 17)

- Laser radiation - Do not stare into beam.
- Laser radiation on work table. Do not stare into beam. If your eye is exposed directly to the laser beam, it can be hurt.
- Do not dismantle it.
- Do not give strong impact to the laser marker (main body of tool); otherwise, the position of a laser line can go out of order, resulting in the damage of the laser marker as well as a shortened service life.
- Keep the laser marker lit only during a cutting operation. Prolonged lighting of the laser marker can result in a shortened service life.
- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

##### NOTE

- Perform cutting by overlapping the ink line with the laser line.
- When the ink line and the laser line are overlapped, the strength and weakness of light will change, resulting in a stable cutting operation because you can easily discern the conformity of lines. This ensures the minimum cutting errors.
- In outdoor or near-the-window operations, it may become difficult to observe the laser line due to the sunlight. Under such circumstances, move to a place that is not directly under the sunlight and engage in the operation.
- Check and make sure on a periodic basis if the position of the laser line is in order. As regards the checking method, draw a right-angle ink line on the workpiece with the height of about 20 mm and the width of 150 mm, and check that the laser line is in line with the ink line [The deviation between the ink line and the laser line should be less than the ink line width (0.5 mm)]. (**Fig. 18**)

#### 9. Cutting operation

- (1) As shown in **Fig. 19** the width of the saw blade is the width of the cut. Therefore, slide the workpiece to the right (viewed from the operator's position) when length **(b)** is desired, or to the left when length **(a)** is desired. If a laser marker is used, align the laser line with the left side of the saw blade, and then align the ink line with the laser line.

- (2) After turning on the switch and checking that the saw blade is rotating at maximum speed, slowly push down the handle while holding down the lever (A) and bring the saw blade in the vicinity of the material to be cut.
- (3) Once the saw blade contacts the workpiece, push the handle down gradually to cut into the workpiece.
- (4) After cutting the workpiece to the desired depth, turn the power tool OFF and let the saw blade stop completely before raising the handle from the workpiece to return it to the full retract position.

#### CAUTION

- For maximum dimensions for cutting, refer to "SPECIFICATIONS" table.
- Increased pressure on the handle will not increase the cutting speed. On the contrary, too much pressure may result in overload of the motor and/or decreased cutting efficiency.
- Confirm that the trigger switch is turned OFF and the power plug has been removed from the receptacle whenever the tool is not in use.
- Always turn the power off and let the saw blade stop completely before raising the handle from the workpiece. If the handle is raised while the saw blade is still rotating, the cut-off piece may become jammed against the saw blade causing fragments to scatter about dangerously.
- Every time one cutting of deep-cutting operation is finished, turn the switch off, and check that the saw blade has stopped. Then raise the handle, and return it to the full retract position.
- Be absolutely sure to remove the cut material from the top of the turntable, and then proceed to the next step.
- Continued cutting operation can result in overload of the motor. Touch the motor and if it's hot, stop your cutting operation once and rest for 10 minutes or so, and then restart your cutting operation.

**10. Cutting narrow workpieces (Press cutting) (Fig. 20)**  
Slide the hinge down to holder (A), then tighten the slide securing knob (Fig. 2). Lower the handle to cut the workpiece. Using the power tool this way will permit cutting of workpieces of up to 105 mm square.

#### 11. Cutting large workpieces (Fig. 21, 22)

There may be case when a complete cutting cannot be done depending on the height of workpiece. In this case, mount an auxiliary board with the 6 mm flat head screws and the 6 mm nuts using the 7 mm holes on the fence surface (two holes on each side). (Fig. 21)

#### NOTE

When cutting a workpiece exceeding 105 mm in height in right-angle cutting or 68 mm in left bevel angle cutting or 42 mm in right bevel angle cutting, adjust the lower limit position so that the base of the motor head will not come in contact with the workpiece.

To adjust the lower limit position of the saw blade, follow the procedure (1) shown in Fig. 22.

- (1) Lower the motor head, and turn the 8 mm depth adjustment bolt and make adjustments so that there can be a clearance of 2 mm to 3 mm between the lower limit position of the motor head and the top of the workpiece at the saw blade's lower limit position where the head of the 8 mm depth adjustment bolt contacts the hinge.

#### 12. Cutting wide workpieces (Slide cutting) (Fig. 23)

- (1) Workpieces up to 105 mm high and 312 mm wide:  
Loosen the slide securing knob (A) (Fig. 2), grip the handle and slide the saw blade forward.  
Then press down on the handle and slide the saw blade back to cut the workpiece. This facilitates cutting of workpieces of up to 105 mm in height and 312 mm in width.

#### CAUTION

- If the handle is pressed down with excessive or lateral force, the saw blade may vibrate during the cutting operation and cause unwanted cutting marks on the workpiece, thus reducing the quality of the cut.

Accordingly, press the handle down gently and carefully.

- In slide cutting, gently push the handle back (rearwards) in a single, smooth operation. Stopping the handle movement during the cut will cause unwanted cutting marks on the workpiece.

#### WARNING

- For slide cutting, follow the procedures.  
Forward slide cutting (toward the operator) is very dangerous because the saw blade could kick upward from the workpiece. Therefore, always slide the handle away from the operator.
- Always return the carriage to the full rear position after each crosscut operation in order to reduce the risk of injury.
- Never put your hand on the side handle during the cutting operation because the saw blade comes close to the side handle when the motor head is lowered.

#### 13. Miter cutting procedures

- (1) Loosen the side handle and pull up the lever for angle stoppers. Then, adjust the turntable until the indicator aligns with desired setting on the miter scale (Fig. 24).
- (2) Re-tighten the side handle to secure the turntable in the desired position.
- (3) The miter scale indicates both the cutting angle on the angle scale and the gradient on the grade scale.
- (4) The gradient, which is the ratio of the height to the base of the triangular section to be removed, may be used for setting the miter scale instead of the cutting angle, if desired.  
Therefore, to cut a workpiece at a grade of 2/10, set the indicator to position.

#### NOTE

- Positive stops are provided at the right and left of the 0° center setting, at 15°, 22.5°, 30° and 45° settings.  
Check that the miter scale and the tip of the indicator are properly aligned.
- Operation of the saw with the miter scale and indicator out of alignment, or with the side handle not properly tightened, will result in poor cutting precision.

#### 14. Bevel cutting procedures (Fig. 25)

- (1) Loosen the clamp lever and bevel the saw blade to the left or to the right. When tilting the motor head to the right pull the set pin (A) towards the rear.  
The clamp lever adopts a latchet system. When contacting the work bench and the main body, pull the clamp lever in the direction of the arrow mark as illustrated in Fig. 25, and change the direction of the clamp lever.
- (2) Adjust the bevel angle to the desired setting while watching the bevel angle scale and indicator, then secure the clamp lever.

#### WARNING

When the workpiece is secured on the left or right side of the blade, the short cut-off portion will come to rest on the right or left side of the saw blade. Always turn the power off and let the saw blade stop completely before raising the handle from the workpiece.

If the handle is raised while the saw blade is still rotating, the cut-off piece may become jammed against the saw blade causing fragments to scatter about dangerously. When stopping the bevel cutting operation halfway, start cutting after pulling back the motor head to the initial position.

Starting from halfway, without pulling back, causes the lower guard to be caught in the cutting groove of the workpiece and to contact the saw blade.

#### 15. Compound cutting procedures

Compound cutting can be performed by following the instructions in 13 and 14 above. For maximum dimensions for compound cutting, refer to "SPECIFICATIONS" table.

## CAUTION

Always secure the workpiece with the right or left hand and cut it by sliding the round portion of the saw backwards with the left hand.

It is very dangerous to rotate the turntable to the left during compound cutting because the saw blade may come into contact with the hand that is securing the workpiece.

In case of compound cutting (angle + bevel) by left bevel, slide the sub-fence (B) outward, and engage in the cutting operation.

In case of compound cutting (angle + bevel) by right bevel, remove the sub-fence (A), and engage in the cutting operation.

### 16. Cutting long materials

When cutting long materials, use an auxiliary platform which is the same height as the holder (optional accessory) and base of the special auxiliary equipment. Capacity: wooden material (W × H × L)

300 mm × 43 mm × 1300 mm, or

180 mm × 25 mm × 2000 mm

### 17. Installing the holders ... (Optional accessory)

The holders help keep longer workpieces stable and in place during the cutting operation.

- (1) As indicated in Fig. 26, use a steel square for aligning the upper edge of the holders with the base surface. Loosen the 6 mm wing nut. Turn a height adjustment bolt 6 mm, and adjust the height of the holder.
- (2) After adjustment, firmly tighten the 6 mm wing nut and fasten the holder with the 6 mm knob bolt (optional accessory). If the length of Height Adjustment Bolt 6 mm is insufficient, spread a thin plate beneath. Make sure the end of Height Adjustment Bolt 6 mm does not protrude from the holder.

## CAUTION

- When transporting or carrying the tool, do not grasp the holder.
- There is the danger of the holder slipping out of the base. Grasp the handle instead of the holder.

### 18. Stopper for precision cutting ... (Stopper and holder are optional accessory)

The stopper facilitates continuous precision cutting in lengths of 285 mm to 450 mm.

To install the stopper, attach it to the holder with the 6 mm knob bolt as shown in Fig. 27.

### 19. Confirmation for use Crown molding vise, Crown molding Stopper (L) and (R) (Optional accessory)

- (1) Crown molding Stopper (L) and (R) (optional accessories) allow easier cuts of crown molding without tilting the saw blade. Install them in the base both-sides side to be shown in Fig. 28. After inserting tighten the 6 mm knob bolts to secure the Crown molding Stoppers.
- (2) The crown molding vise (B) (Optional accessory) can be mounted on either the left fence (Fence (B)) or the right fence (Fence (A)). It can unite with the slope of the crown molding and vice can be pressed down.

Then turn the upper knob, as necessary, to securely attach the crown molding in position. To raise or lower the vise assembly, first loosen the hex. socket set screw.

After adjusting the height, firmly tighten the 6 mm wing bolt; then turn the upper knob, as necessary, to securely attach the crown molding in position (Fig. 29).

Position crown molding with its WALL CONTACT EDGE against the guide fence and its CEILING CONTACT EDGE against the Crown molding Stoppers as shown in Fig. 29. Adjust the Crown molding Stoppers according to the size of the crown molding.

Tighten the 6 mm wing bolt to secure the Crown molding Stoppers. Refer to the lower table for the miter angle.

Use the sub fence (A) to secure the crown molding more firmly (Fig. 11).

## WARNING

Always firmly clamp or vise to secure the crown molding to the fence; otherwise the crown molding might be thrust from the table and cause bodily harm.

Do not bevel cutting. The main body or saw blade may contact the sub fence, resulting in an injury.

## CAUTION

Always confirm that the motor head does not contact the crown molding vise ass'y when it is lowered for cutting. If there is any danger that it may do so, loosen the hex. socket set screw and move the crown molding vise ass'y to a position where it will not contact the saw blade.

### 20. Groove cutting procedures

Grooves in the workpiece can be cut by adjusting the 6 mm depth adjustment bolt (Fig. 30).

- (1) Turn the stopper holder on the direction shown in Fig. 31.

Lower the motor head, and turn the 6 mm depth adjustment bolt by hand. (Where the head of the 6 mm depth adjustment bolt contacts the hinge.)

- (2) Adjust to the desired cutting depth by setting the distance between the saw blade and the surface of the base (Fig. 30).

## NOTE

When cutting a single groove at either end of the workpiece, remove the unneeded portion with a chisel.

### 21. Using the dust bag (Standard accessory) (Fig. 32)

- (1) Connect the dust bag with the duct of power tool.
- (2) When the dust bag has become full of sawdust, dust will be blown out of the dust bag when the saw blade rotates. Check the dust bag periodically and empty it before it becomes full.
- (3) During bevel and compound cutting, attach the dust bag at the right angle to the base surface.

### 22. Connecting the dust extractor (Sold separately) (Fig. 33)

Do not inhale the harmful dusts generated in cutting operation.

The dust can endanger the health of yourself and bystanders.

Use of dust extractor can reduce dust related hazards.

By connecting with dust extractor through adapter, joint and dust collection adapter, most of dust can be collected.

Connect the dust extractor with adapter.

- (1) Connect in order of hose (id 38 mm × 3 m long) and adapter (Dust extractor's Standard accessory) joint (Optional accessory) and dust collection adapter (Optional accessory) with the duct of power tool. Connection is done by pressing in the direction of the arrow. (Fig. 33)

The dust collection adapter (Optional accessory) is fixed to the duct by a hose band. (Optional accessory)

## MOUNTING AND DISMOUNTING SAW BLADE

## WARNING

To prevent an accident or personal injury, always turn off the trigger switch and disconnect the power plug from the receptacle before removing or installing a saw blade.

### 1. Mounting the saw blade (Fig. 34)

- (1) Use the Phillips screwdriver to loosen the 5 mm screw fastening the spindle cover and then turn the spindle cover.
- (2) Press in spindle lock and loosen 10 mm bolt with 17 mm wrench (standard accessory). Since the 10 mm bolt is left-hand threaded, loosen by turning it to the right.



## NOTE

If the spindle lock cannot be easily pressed in to lock the spindle, turn the 10 mm bolt with 17 mm wrench (standard accessory) while applying pressure on the spindle lock.

The saw blade spindle is locked when the spindle lock is pressed inward.

- (3) Remove the bolt and washer (D)
- (4) Lift the lower guard and mount the saw blade.

## WARNING

When mounting the saw blade, confirm that the rotation indicator mark on the saw blade and the rotation direction of the spindle cover (Fig. 1) are properly matched.

- (5) Thoroughly clean washer (B) and the 10 mm bolt, and install them onto the saw blade spindle.
- (6) Press in the spindle lock and tighten the 10 mm bolt by turning it to the left by standard accessories (17 mm wrench).
- (7) Rotate the spindle cover until hook in spindle cover is in the original position. Then tighten the 6 mm bolt.

## CAUTION

- A dust guide is installed inside behind the hinge. When removing or installing the saw blade, do not make contact with the dust guide. Contact may break or chip saw blade tips.
- Tighten the 10 mm bolt so it does not come loose during operation.
- Confirm the 10 mm bolt has been properly tightened before the power tool is started.
- Confirm that the lower guard has closed position.

## 2. Dismounting the saw blade

Dismount the saw blade by reversing the mounting procedures described in paragraph 1 above.

The saw blade can easily be removed after lifting the lower guard.

## CAUTION

Never attempt to install saw blades except 305 mm in diameter.

## MAINTENANCE AND INSPECTION

### WARNING

To avoid an accident or personal injury, always confirm the trigger switch is turned OFF and that the power plug has been disconnected from the receptacle before performing any maintenance or inspection of this tool. Report to qualified person as soon as possible, if you discover the fault of machine including guards or blade saw.

#### 1. Inspecting the saw blade

Always replace the saw blade immediately upon the first sign of deterioration or damage.

A damaged saw blade can cause personal injury and a worn saw blade can cause ineffective operation and possible overload to the motor.

### CAUTION

Never use a dull saw blade. When a saw blade is dull, its resistance to the hand pressure applied by the tool handle tends to increase, making it unsafe to operate the power tool.

#### 2. Inspecting the mounting screws

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, re-tighten them immediately. Failure to do so could result in serious hazard.

#### 3. Inspecting the carbon brushes (Fig. 35)

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 figure 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.

#### 4. Replacing a carbon brushes (Fig. 35)

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

#### 5. Maintenance of the motor

The motor unit winding is the very "heart" of the power tool. Exercise due care to ensure the winding does not become damaged and/or wet with oil or water.

#### 6. Inspecting the lower guard for proper operation

Before each use of the tool, test the lower guard (Fig. 6) to assure that it is in good condition and that it moves smoothly.

Never use the tool unless the lower guard operates properly and it is in good mechanical condition.

#### 7. Storage

After operation of the tool has been completed, check that the following has been performed:

- (1) Trigger switch is in OFF position,
- (2) Power plug has been removed from the receptacle, When the tool is not in use, keep it stored in a dry place out of the reach of children.

#### 8. Replacement of guard

After long-term use, the blade slot in the guard may widen and require replacement. If the blade slot should widen, replace the guard with a new one (Fig. 33). After replacing, make a groove on it. Refer to "PRIOR TO CUTTING 1. Cutting a groove on the guard" on page 13.

#### 9. Lubrication

Lubricate the following sliding surfaces once a month to keep the power tool in good operating condition for a long time.

Use of machine oil is recommended.

Oil supply points:

- \* Rotary portion of hinge
- \* Rotary portion of holder (A)
- \* Rotary portion of vise assembly

#### 10. Cleaning

Periodically remove chips and other waste material from the surface of the power tool with a damp, soapy cloth. To avoid a malfunction of the motor, protect it from contact with oil or water.

If the laser line becomes invisible due to chips and the like adhered onto the window of the laser marker's light-emitting section, wipe and clean the window with a dry cloth or a soft cloth moistened with soapy water, etc.

## SELECTING ACCESSORIES

The accessories of this machine are listed on page 19.

### CAUTION

Repair, modification and inspection of HiKOKI Power Tools must be carried out by a HiKOKI Authorized Service Center.

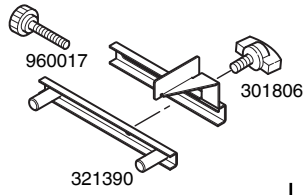
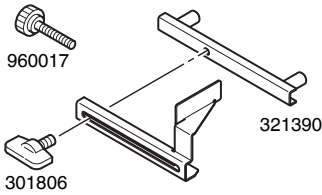
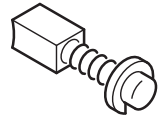
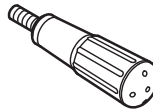
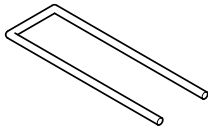
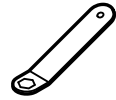
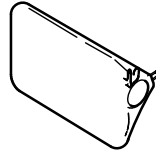
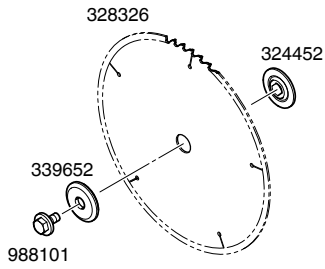
Especially laser device should be maintained by the authorized agent by laser manufacturer.

Always assign the repair of laser device to HiKOKI Authorized Service Center.

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

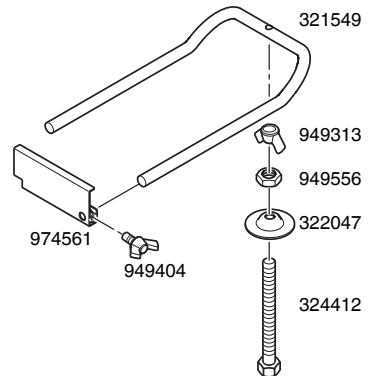
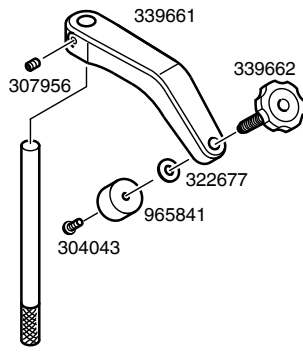
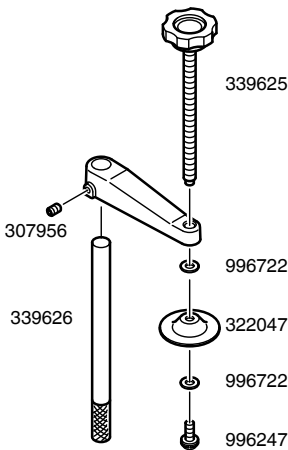
### NOTE

Due to HiKOKI's continuing program of research and development the specifications herein are subject to change without prior notice.



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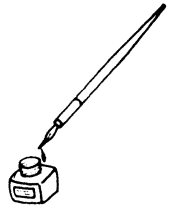
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