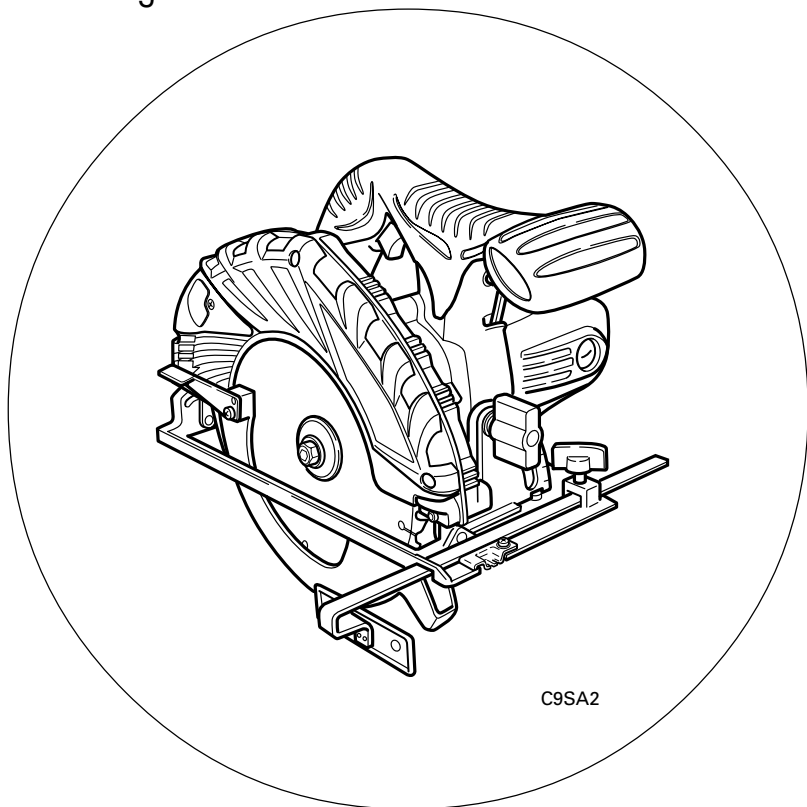


HITACHI

日立牌电圆锯 Circular Saw

C 9SA2 · C 9BA2

使用说明书
Handling instructions



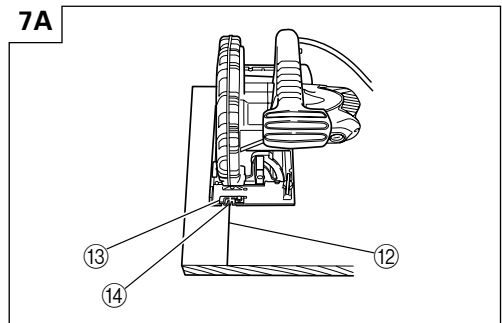
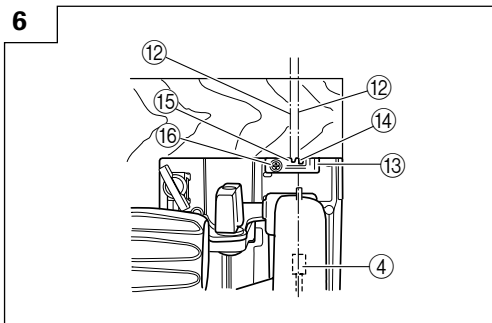
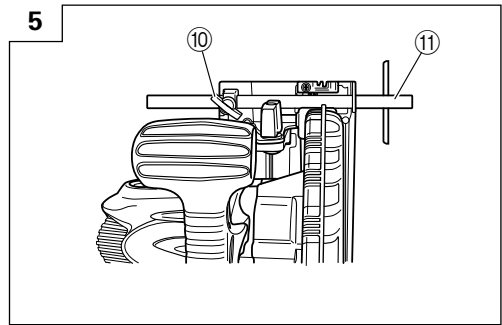
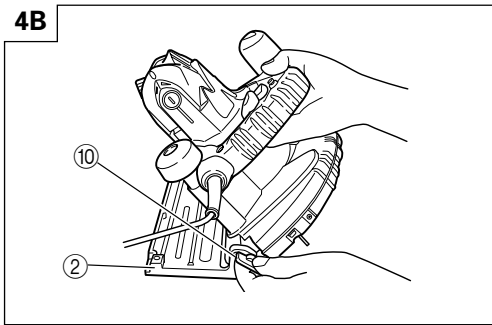
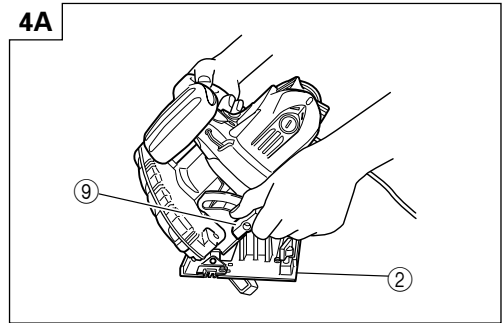
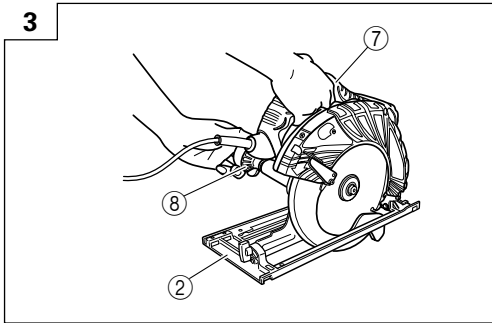
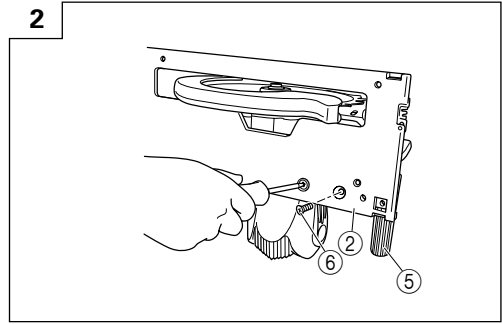
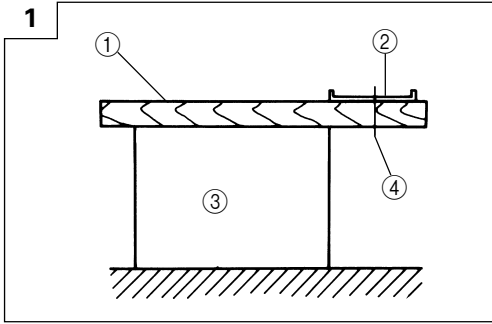
C9SA2

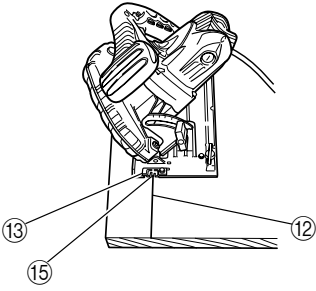
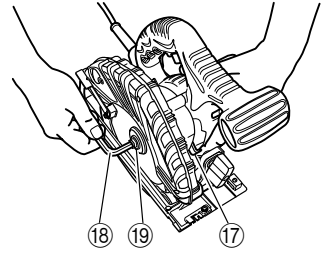
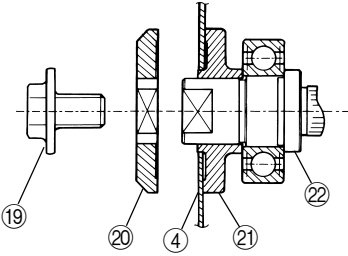
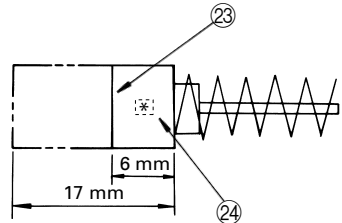


使用前务请详加阅读

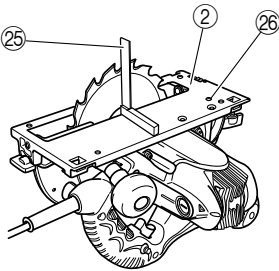
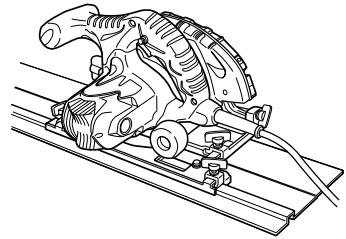
Read through carefully and understand these instructions before use.

Hitachi Koki



7B**8****9****10**

	C9SA2	C9BA2
24	38	65

11**12**

①	锯木	Lumber
②	底座	Base
③	工作台	Workbench
④	锯片	Saw blade
⑤	侧边把手	Side handle
⑥	平头螺丝 M6 × 16	Flat hd. screw M6 × 16
⑦	手柄	Handle
⑧	旋纽	Knob
⑨	蝶形螺帽	Wing-nut
⑩	蝶形螺栓	Wing-bolt
⑪	引导器	Guide
⑫	记号线	Premarked line
⑬	导向器	Guide piece
⑭	无倾斜时的前部尺度	Front scale when not inclined
⑮	45 度倾斜时的前部尺度	Front scale at 45° incline
⑯	M4 螺丝	M4 Screw
⑰	锁紧杆	Lock lever
⑱	六角头棒形扳手	Hex. bar wrench
⑲	六角承座螺栓	Hexagonal-socket bolt
⑳	垫圈 (B)	Washer (B)
㉑	垫圈 (A)	Washer (A)
㉒	主轴	Spindle
㉓	磨损极限	Wear limit
㉔	炭刷号	No. of carbon brush
㉕	直角尺	Square
㉖	槽头螺丝	Slotted set screw

一般安全规则

警告！

阅读说明

没有按照以下列举的说明而使用或操作将导致触电、着火和/或严重伤害。

在所有以下列举的警告中术语“电动工具”指市电驱动（有线）电动工具或电池驱动（无线）电动工具。

保存这些说明

1) 工作场地

- a) 保持工作场地清洁和明亮。
混乱和黑暗的场地会引发事故。
- b) 不要在易爆环境，如有易燃液体、气体或粉尘的环境下操作电动工具。
电动工具产生的火花会点燃粉尘或气体。
- c) 让儿童和旁观者离开后操纵电动工具。
分心会使你放松控制。

2) 电气安全

- a) 电动工具插头必须与插座相配。
绝不能以任何方式改装插头。
需接地的电动工具不能使用任何转换插头。
未经改装的插头和相配的插座将减少触电危险。
- b) 避免人体接触接地表面，如管道、散热片和冰箱。
如果你身体接地会增加触电危险。
- c) 不得将电动工具暴露在雨中或潮湿环境中。
水进入电动工具将增加触电危险。
- d) 不得滥用电线。
绝不能用电线搬运、拉动电动工具或拔出其插头。
让电动工具远离热、油、锐边或运动部件。
受损或缠绕的电线会增加触电危险。
- e) 当在户外使用电动工具时，使用适合户外使用的外接电线。
适合户外使用的电线将减少触电危险。

3) 人身安全

- a) 保持警觉，当操作电动工具时关注所从事的操作并保持清醒。
切勿在有疲倦、药物、酒精或治疗反应下操作电动工具。
在操作电动工具期间精力分散会导致严重人身伤害。
- b) 使用安全装置。始终配戴护目镜。
安全装置，诸如适当条件下的防尘面具、防滑安全鞋、安全帽、听力防护等装置能减少人身伤害。
- c) 避免突然起动。
确保开关在插入插头时处于关断位置。
手指放在已接通电源的开关上或开关处于接通时插入插头可能会导致危险。

d) 在电动工具接通之前，拿掉所有调节钥匙或扳手。
遗留在电动工具旋转零件上的扳手或钥匙会导致人身伤害。

e) 手不要伸得太长。
时刻注意脚下和身体平衡。
这样在意外情况下能很好地控制电动工具。

f) 着装适当。
不要穿宽松衣服或佩带饰品。
让你的头发、衣服和袖子远离运动部件。
宽松衣服、佩饰或长发可能会卷入运动部件。

g) 如果提供了与排屑装置、集尘设备连接用的装置，则确保他们连接完好且使用得当。
使用这些装置可减少碎屑引起的危险。

4) 电动工具使用和主事项

- a) 不要滥用电动工具，根据用途使用适当的电动工具。
选用适当的设计额定值的电动工具会使你工作更有效、更安全。
- b) 如果开关不能接通或关断工具电源，则不能使用该电动工具。
不能用开关来控制的电动工具是危险的且必须进行修理。
- c) 在进行任何调节、更换附件或贮存电动工具之前，必须从电源上拔掉插头和/或将电池盒断开电源。
这种防护性措施将减少电动工具突然起动的危险。
- d) 将闲置电动工具贮存在儿童所及范围之外，并且不要让不熟悉电动工具或对这些说明不了解的人操作电动工具。
电动工具在未经训练的用户手中是危险的。
- e) 保养电动工具。检查运动件的安装偏差或卡住、零件破损情况和影响电动工具运行的其他条件。
如有损坏，电动工具必须在使用前修理好。
许多事故由维护不良的电动工具引发。
- f) 保持切削刀具锋利和清洁。
保养良好的有锋利切削刃的刀具不易卡住而且容易控制。
- g) 按照使用说明书以及打算使用的电动工具的特殊类型要求的方式，考虑作业条件和进行的作业来使用电动工具、附件和工具的刀头等。
将电动工具用作那些与要求不符的操作可能会导致危险情况。

5) 维修

- a) 将你的电动工具送交专业维修人员，必须使用同样的备件进行更换。
这样将确保所维修的电动工具的安全性。

注意事项

不可让儿童和体弱人士靠近工作场所。
应将不使用的工具存放在儿童和体弱人士接触不到的地方。

所有圆锯机之安全说明

危险：

- a) 手部必须远离锯片与切割区域。另一手须握持辅助把手或马达外壳。
如果双手皆握住圆锯机，双手便可免于锯片所伤。
- b) 不可碰触下方的工件。
否则保护罩无法保护您免于锯片所伤。
- c) 调整工件厚度的相对锯切深度。
在工件下方应可看到小于锯片全齿深之深度。
- d) 不可使用手按住或腿压住正在锯切的工件。必须将工件固定于平稳的工作台。
减少身体的暴露、锯片卡住或失控，是正确的完成工作的重要凭借。
- e) 在锯切工具可能接触到隐藏线路或其本身的线路之情况下进行操作时，须握持锯切工具的绝缘握持面。
否则接触到「有电」的线路与置身在电动工具的金属部位时，将会造成操作员触电的危险。
- f) 进行锯切时应使用锯切护罩或直线导向器。
此举可改善锯切的精确度并减少发生锯片卡住的机会。
- g) 使用正确的轴孔尺寸与形状（菱形端或圆端）的锯片。
锯片安装不正确将有导致锯切失控的危险。
- h) 不可使用已损坏或不正确的锯片垫圈或螺栓。
锯片垫圈与螺栓是特别专为圆锯机所设计以提供最佳的性能表现与最安全的操作。
- 不可使用任何砂轮
砂轮所产生的爆裂会造成操作员或工作区附近的人员之严重伤害。

所有圆锯机之详细安全说明

反冲作用之发生原因与防止：

- 反冲作用是因锯片受夹住、卡住或不对准而导致锯片失控举起或脱离工件而朝向操作员的作用力；
- 当锯片紧固地夹住、卡住于切口时，此时马达会有反向作用力朝向操作员；
- 锯切时锯片扭曲或不正，锯片后缘的齿部便会戳入木材的上表面而造成锯片脱离切口并回弹朝向操作员。

反冲作用是圆锯机误用与/或操作程序或条件不正确所造成的结果，以下所列的正确防范措施可以避免此类问题的发生。

- a) 两手保持紧握圆锯机并且将手臂置于适当的位置以抵抗反冲作用力。

身体须位于锯片的任一侧，身体与锯片不可成一直线。

反冲作用力会导致圆锯向后弹跳，但如果采取适当的预防措施，反冲作用力是可以被操作者所控制。

- b) 当锯片被夹住时或者由于某些原因中断时，请松开扳机并且保持圆锯机不动，直到锯片动作完全停止。

当锯片在运行中或者有可能发生反冲作用力时，决不可试图从工件上移开圆锯机或者将圆锯机向后拉。

须进行研究并且采取矫正措施以消除锯片夹住的原因。

- c) 重新启动锯切工件时，须将锯片定位在切口中央并检查锯片是否未夹入材料中。

如果锯片有夹入，则重新启动锯片时可能会造成工件的移动或产生反冲作用力。

- d) 采用大面板支撑座，使锯片受夹住或产生反冲作用力的风险降到最低。

由于其自身重力，大面板支撑座趋于下陷。支撑座必须置于面板两侧的下方，靠近锯切路径与面板边缘。

- e) 不要使用不锋利或已损坏的锯片。

装设不锋利或不正确的锯片会产生狭窄切口而造成过大的摩擦力、锯片夹住以致产生反冲作用力。

- f) 在进行锯切之前，锯片深度与斜度调整锁定控制杆必须安全固定。

如果锯片调整装置在锯切时移动，可能会造成夹住并产生反冲作用力。

- g) 在进行墙壁或其他隐蔽区域之锯切时请格外小心。

锯片可能会锯切到足以产生反冲作用力的物体。

具有内部钟摆护罩的圆锯机安全说明

- a) 在每次使用之前，先检查下罩是否能正确的关闭。如果下罩无法自由移动与立即关闭，决不可操作圆锯机。不可将下罩夹入或拴入开启位置。

如果圆锯机不慎掉落，其下罩可能会折弯。

使用缩回操作以升起下罩，并确定它可自由移动而且在各种角度和深度之锯切皆不会接触到锯片或者任何其他部位。

- b) 检查下罩弹簧之作动状况。如果下罩与弹簧皆无法正确的作动，请在使用之前必须先行将它们修复。

下罩可能由于零件损坏、黏胶沉淀，残屑生成而造成作动迟滞。

- c) 仅在使用「切入式锯切 (plunge cuts)」与「复合式锯切 (compound cuts)」之类的特殊锯切方式时才须使用手动缩回下罩。利用缩回把手可将下罩举起，当锯片开始锯切工件材料时，必须释放下罩。

所有圆锯机的下罩皆应可自动的作动。

- d) 在将圆锯机置于工作台或地板上之前，先检查下罩是否有覆盖于锯片上。

一个未受保护、限制的锯片将会导致圆锯机反向行进而产生任意锯切的情形。请务必明了在松开开关后至锯片完全停止时所需的时间。

3. 请勿使用不符合本说明书规定特性的锯片。
4. 请勿按压圆盘侧面停止锯片操作。
5. 经常保持锯片锋利。
6. 确保较低的引导器移动顺畅自如。
7. 请勿在电圆锯的较低的引导器被固定在打开位置的状态下使用电圆锯。
8. 确保保护系统的收回机制正确操作。
9. 请勿在锯片转向前面或转向侧面的状态下使用电圆锯。
10. 确保工件上无铁钉等任何异物。
11. 对于机种C9SA2 和C9BA2而言，锯片直径应该是 235 mm。
12. 对于机种C9BA2而言，须注意其制动反冲作用力。当开关被松开时，C9BA2便具有电力制动功能。当启用制动功能时，会产生些许反冲作用力，请务必安全紧握圆锯机本体。
13. 因为C9BA2 机种是使用电力制动，所以当关闭开关时，有时会由于刹车而出现火花。不过，此现象并非机器有问题。
14. 对于机种C9BA2而言，当刹车变得无效时，请更换新的碳刷。
15. 在进行任何调整、保养或维修之前，须先拔下插座上的插头。

使用电圆锯时应注意事项

1. 请勿使用破损或变形的锯片。
2. 请勿使用高速钢制造的锯片。

规格

形式	C9SA2	C9BA2
电压 (按地区) *	(110 伏、220 伏、230 伏、240 伏) ~	
锯切深度	90 度	86 毫米
	45 度	65 毫米
输入功率*	1570 瓦 / 2000 瓦	
空载转速	5,000 / 分	
重量 (不含线缆)	6.8 公斤	

*当须改变地区时应检查产品上的铭牌。

标准附件

- (1) 锯片 (直径 235 毫米) 1
 (2) 六角头棒形扳手 1
 (3) 导向器 1
 (4) 蝶形螺栓 1

标准附件可能不预先通告而径予更改。

选购附件 (分开销售)

- (1) 垫圈 (A) 16 毫米 (锯片的内径)
 30 毫米 (锯片的内径)
 (2) 导轨转接器 (见图 12)

选购附件可能不预先通告而径予更改。

用 途

- 锯割各种木材

作 业 之 前

1. 电源

确认所使用的电源与工具铭牌上标示的规格是否相符。

2. 电源开关

确认电源开关是否切断。若电源开关接通，则插头插入电源插座时电动工具将出其不意地立刻转动，从而招致严重事故。

3. 延伸线缆

若作业场所移到离开电源的地点，应使用容量足够、铠装合适的延伸线缆，并且要尽可能地短些。

4. 制备木质工作台（图1）

锯片将露出锯木下面，所以锯割时，应将锯木放在工作台上。若用方木块作为工作台，则应选择平坦地面，以保持稳定。使用不稳定的工作台，工作时非常危险。

5. 使用侧边把手（图2）

欲使用侧边把手时，需用2个平头螺丝（M6×16）将侧边把手固定至底座上。

注意：为避免可能发生的事故，锯割后的锯木剩余部分栓住放妥。

使用前调整电圆锯

1. 调整锯割深度

如图3所示，用一只手握住手柄，另一只手拧松旋钮。

可以通过将底座移到所需的位置来调整锯割深度。以这种方式调整锯割深度后重新拧紧旋钮。

2. 调整倾斜角度

如图4（A）、图4（B）所示拧松斜规上的蝶形螺帽和底座上的蝶形螺栓，根据底座的情况，锯片可能倾斜至45度的最大角度。完成调整之后，确认旋钮和蝶形螺栓是否拧紧。

3. 调整引导器（图5）

拧松蝶形螺栓，将引导器左右移动，即可调整锯割位置。

引导器可以安装在工具的左边或右边。

4. 调整导向器

在圆锯机上，可进行导向器固定位置之微调，此微调之位置须先将锯片与记号线对准。

圆锯机从工厂出货后，导向器上的前段线性比例尺会与锯片的中央部位对准（图6）。

万一固定位置是错误的话，请松开导向器上的M4螺丝，做必要的调整。

锯 割 步 骤

1. 将底座置于工件材料上方，然后在底座前方，将锯片及导向器前段线性刻度尺对准于记号线（图6）。

底座无倾斜角度时，请使用大截面部位以做为导引之用（图6，图7（A））

如果有倾斜角度(45度)时，请以小的前段刻度尺做为导引之用（图6，图7（B））

2. 锯片在开始进行锯切材料之前，务必先将开关切换至ON的位置。扳动扳机时即可将开关切换至ON而松开扳机时便可将开关切换至OFF。
3. 以定速笔直移动电圆锯可进行最佳锯割。

注意：

进行锯切操作之前，请确认材料是否适当。如果锯切材料时会产生有害物质，请务必使用集尘袋或接上适当的粉尘抽取设备将粉尘排出。

必要时请戴上防尘罩。

在C9BA2机种之底座上有使用PFTE镀层。请勿在本体上用力过度，因为此举会造成马达承受过大的压力。使用适当的压力有助于让工件滑动更顺利而且锯切力也会较低。锯切有覆盖砂粒或金属碎片之木材时，有可能会伤及镀层表面，请格外小心。

- 开始进行锯切之前，请确定锯片有全速运转。
- 如果在操作中发生锯片停止动作或发出异常的噪音时，请立即关闭开关。
- 随时注意不要让第一线靠近转动着的锯片。
- 锯片朝上或朝侧面使用电圆锯是非常危险的。这种不正常的用途应予避免。
- 锯割材料时，务请戴上护目镜。
- 完成作业时，应将插头从电源插座拔出。

锯 片 的 装 卸

注意：为了避免发生严重事故，务必将开关置于OFF（断开）位置，并把电源切断。

1. 拆卸锯片

- (1) 将锯切容量设定为最大，并且将圆锯机安置于如图8所示之位置。
- (2) 按下锁紧杆，锁住转轴，并使用六角头棒形扳手拆下六角承座螺栓。
- (3) 握著下罩旋钮，将下罩缩回至锯盖内，然后拆下锯片。

2. 安装锯片

- (1) 将转轴、螺栓、垫圈上的锯屑灰尘完全清除。
- (2) 如图9所示，带凸起中心的垫圈（A）侧，其直径和锯片的内径相同，而垫圈（B）的凹入侧必须和锯片侧一致。
* 2种锯片附带了垫圈（A），其孔径分别为16毫米和30毫米。（购买电圆锯时，随机附带有一种垫圈（A）。）
如果您的锯片孔径与垫圈（A）的孔径不一致，请与您购买电圆锯的销售店联系。
- (3) 欲确保锯片能依照正确方向转动时，锯片的箭头方向必须与锯盖的箭头方向一致。
- (4) 尽量用手指拧紧固定锯片的六角承座螺栓。然后压下锁紧杆，锁住主轴，并拧紧螺栓。

注意：装上锯片之后，再确认锁紧杆有被紧固的锁在适当的位置上。

维 护 和 检 查

1. 检查锯片

使用钝的锯片会降低锯切效率并造成马达故障，故须将锯片磨利或换新。

2. 检查安装螺钉

要经常检查安装螺钉是否紧固妥善。若发现螺钉松了，应立即重新扭紧，否则会导致严重事故。

3. 检查碳刷（图10）

马达使用碳刷，它是消耗部品，因为使用过久的碳刷将会导致马达故障，用具有相同碳刷号的新碳刷去更换旧的，碳刷编号用数字表示碳刷何时用旧或接近于磨损极限，此外，要经常保持碳刷清洁以及保证它在刷握里能自由滑动。

注意：

- 在更换新的碳刷前，请按照分解图上指定的数字使用日立指定的碳刷。
- 对于几种C9BA2，如果使用了非指定的碳刷。刹车不会运转。
当刹车失灵时，请更换新的碳刷。

4. 更换碳刷

用无头螺丝刀卸下碳刷盖，然后可以很容易地取下碳刷。

5. 更换电源线

必要时则更换之，基于安全上的考量，此项工作请洽询Hitachi服务中心处理。

6. 电动机的维护

电动机绕线是电动工具的心脏部。应仔细检查有无损伤，是否被油液或水沾湿。

7. 调整底座和锯片以保持垂直

底座和锯片之间的角度已被调整为90度，但是，这一垂直角度可能会由于某些原因而改变，请按以下方式调整：

- (1) 将底座转向上方（图11）并拧松蝶形螺帽和蝶形螺栓（图4（A）、图4（B））。
- (2) 将一把直角尺放在底座和锯片上，用阴螺丝刀转动插孔螺丝。移动底座的位置以形成所需的正确角度。

8. 维修零部件一览表

注意：

日立牌电动工具的维修、改造和检查须由经日立公司授权的维修中心进行。

当要求维修或其他保养服务时，若将此零部件一览表与电动工具一起呈交给经日立公司授权的维修中心，将有助于维修或保养工作。

在操作和维修电动工具时，必须遵守贵国制定的安全的有关规则和标准。

改造：

日立牌电动工具经常加以改善和改造以采用最新的先进技术。

因此，某些零部件可能变更，恕不另行通知。

注意：为求改进，本手册所载规格可能不预先通告而径予更改。

GENERAL SAFETY RULES

WARNING!

Read all instructions

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) Work area

- a) **Keep work area clean and well lit.**
Cluttered and dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.**
Power tools create sparks which may ignite the dust of fumes.
- c) **Keep children and bystanders away while operating a power tool.**
Distractions can cause you to lose control.

2) Electrical safety

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

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.**
A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use safety equipment. Always wear eye protection.**
Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Avoid accidental starting. Ensure the switch is in the off position before plugging in.**
Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.

- d) **Remove any adjusting key or wrench before turning the power tool on.**
A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

- e) **Do not overreach. Keep proper footing and balance at all times.**
This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.**
Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.**
Use of these devices can reduce dust related hazards.

4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.**
The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.**
Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.**
Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.**
Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools 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 and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed.**
Use of the power tool for operations different from intended could result in a hazardous situation.

5) Service

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

PRECAUTION

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

SAFETY INSTRUCTIONS FOR ALL SAWS

DANGER:

- a) **Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.**

If both hands are holding the saw, they cannot be cut by the blade.

- b) **Do not reach underneath the workpiece.**
The guard cannot protect you from the blade below the workpiece.

- c) **Adjust the cutting depth to the thickness of the workpiece.**

Less than a full tooth of the blade teeth should be visible below the workpiece.

- d) **Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform.**

It is important to support the work properly to minimize body exposure, blade binding, or loss of control.

- e) **Hold 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 cut and reduces the chance of blade binding.

- g) **Always use blades with correct size and shape (diamond versus round) of arbour holes.**

Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.

- h) **Never use damaged or incorrect blade washers or bolt.**

The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

- **Never use any abrasive wheels**

Burst of abrasive wheel cause serious injury of operator or persons around the working area.

FURTHER SAFETY INSTRUCTIONS FOR ALL SAWS

Causes and operator prevention of kickback:

- kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;
- when the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- if the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces.**

Position your body either side of the blade, but not in line with the blade.

Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.

- b) **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop.**

Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.

Investigate and take corrective actions to eliminate the cause of blade binding.

- c) **When restarting a saw in the workpiece, centre the saw blade in the kerf and check that saw teeth are not engaged into the material.**

If saw blade is binding, it may walk up or kickback from the workpiece as the saw is restarted.

- d) **Support large panels to 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 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 lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.**

If saw is accidentally dropped, lower guard may be bent.

Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depth of cut.

- b) **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.**

Lower guard may operate sluggishly due to damaged parts, gummy deposits, or build-up of debris.

- c) **Lower guard should be retracted manually only for special cuts such as "plunge cuts" and "compound cuts". Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released.**

For all other sawing, the lower guard should operate automatically.

- d) **Always observe that the lower guard is covering the blade before placing saw down on bench or floor.**

An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

PRECAUTIONS ON USING CIRCULAR SAW

1. Do not use saw blades which are deformed or cracked.
 2. Do not use saw blades made of high speed steel.
 3. Do not use saw blades which 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. Never operate the circular saw with the saw blade turned upward or to the side.
 10. Ensure that the material is free of foreign matters such as nails.
11. For models C9SA2 and C9BA2, the saw blades should be 235 mm.
 12. For model C9BA2, be careful of brake kickback. C9BA2 model features an electric brake that functions when the switch is released. As there is some kickback when the brake functions, be sure to hold the main body securely.
 13. Sparks can sometimes appear caused by braking operation when the switch is turned off since C9BA2 model employ electric brakes. Be informed, however, that this phenomenon is not a machine trouble.
 14. For model C9BA2, when the brake becomes ineffective, replace the carbon brushes with new ones.
 15. Disconnect the plug from the receptacle before carrying out any adjustment, servicing or maintenance.

SPECIFICATIONS

Model	C9SA2	C9BA2
Voltage (by areas)*	(110V, 220V, 230V, 240V) ∩	
Cutting Depth	90°	86 mm
	45°	65 mm
Power Input*	1570 W / 2000 W	
No-Load Speed	5000 / min	
Weight (without cord)	6.8 kg	

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

STANDARD ACCESSORIES

- (1) Saw Blade (Dia. 235 mm) 1
- (2) Hex. bar wrench 1
- (3) Guide 1
- (4) Wing-bolt 1

Standard accessories are subject to change without notice.

OPTIONAL ACCESSORIES (sold separately)

- (1) Washer (A) ...for 16 mm (Hole dia. of saw blade)
...for 30 mm (Hole dia. of saw blade)
- (2) Guide Rail Adapter (See Fig. 12)

Optional accessories are subject to change without notice.

APPLICATION

Cutting various types of wood.

PRIOR TO OPERATION

1. Power source

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

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. Prepare a wooden workbench (Fig. 1)

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 operation.

5. When using the side handle (Fig. 2)

Securely attach the side handle to the base with the two flat head screws (M6 × 16) when using the side handle.

CAUTION

To avoid possible accident, 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. 3**, 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 manner adjust the cutting depth and then securely retighten the knob.

2. Adjusting the angle of inclination

As shown in **Fig. 4 (A)**, **Fig. 4 (B)** 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, reconfirm that the wing-nut and the wing-bolt are firmly tightened.

3. Regulating the guide (Fig. 5)

The cutting position can be regulated by moving the guide to the left or right after loosening its wingbolt. The guide may be mounted on either the right or left side of the tool.

4. Adjusting the guide piece

On the circular saw, it is possible to make fine adjustment of the fixing 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. 6**).

Loosen the fixed M4 screw on the guide piece, should the fixing position be wrong, and make necessary adjustment of the position.

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. 6**).

When the base is not slanted, use the large cutout as the guide (**Fig. 6**, **Fig. 7 (A)**).

If the base is slanted (45 degrees), use the small front scale as the guide (**Fig. 6**, **Fig. 7 (B)**).

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.

CAUTIONS

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

Wear the dust mask additionally, if available.

A coating of PFTE is applied to the bases of the C9BA2 type. Be careful not to press too hard on the unit body since this tends to place a heavy load on the motor. Using a gentle pressure will make the piece slide easier and allow cutting with less force. Trying to cut wood that is covered with hard particle material such as sand or metal chips tends to easily scratch damage the surface coating so use caution.

- 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 finished with a job, pull out the plug from the receptacle.

MOUNTING AND DISMOUNTING THE SAW BLADE

CAUTION

To avoid serious accident, 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. 8**.
- (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. 9**, 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 fitted to the saw blade sides.
 - * Washer (A) is supplied for 2 types of saw blades with the 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.
- (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 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, reconfirm that the lock lever is firmly secured in the prescribed position.

MAINTENANCE AND INSPECTION

1. Inspecting the saw blade

Since use of a dull saw blade will degrade efficiency 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 hazard.

3. Inspecting the carbon brushes (Fig. 10)

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.

CAUTION

- When replacing the new carbon brushes, always use genuine Hitachi carbon brushes with the number specified in the drawing.
- For model C9BA2, the brake may not work if other than the specified carbon brushes are used. When the brake becomes ineffective, replace the carbon brushes with new ones.

4. Replacing carbon brushes

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

5. Replacing supply cord

If the replacement of the **supply cord** is necessary, this has to be done by Hitachi Authorized Service Center in order to avoid safety hazard.

6. 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.

7. 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. 11) and loosen the wing-nut and wing-bolt (Fig. 4 (A), Fig. 4 (B)).
- (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.

8. Service parts list

CAUTION

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

This Parts List will be helpful if presented with the tool to the Hitachi Authorized Service Center when requesting repair or other maintenance.

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

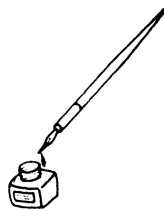
MODIFICATIONS

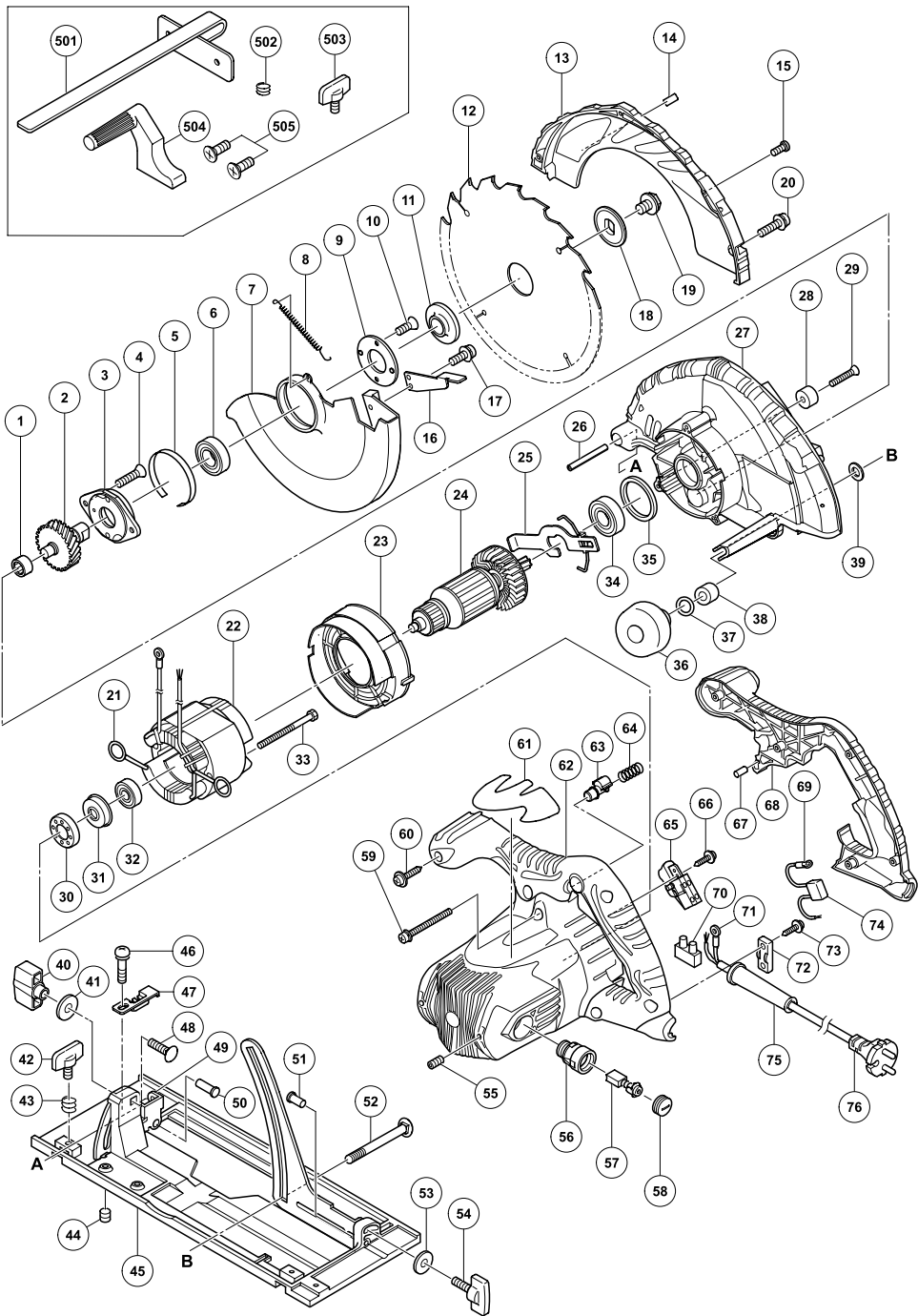
Hitachi Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

Accordingly, some parts may be changed without prior notice.

NOTE

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





Item No.	Part Name	Q'TY
1	NEEDLE BEARING (HK1212)	1
2	SPINDLE AND GEAR SET	1
3	BEARING HOLDER	1
4	SEAL LOCK FLAT HD. SCREW M6×14	2
5	LINER	1
6	BALL BEARING 6203VVCMP2L	1
7	SAFETY COVER	1
8	RETURN SPRING	1
9	BEARING COVER	1
10	SEAL LOCK FLAT HD. SCREW M5×14	2
11	WASHER (A)	1
12	TCT SAW BLADE 235MM	1
13	SAW COVER	1
14	HITACHI LABEL	1
15	SPECIAL BOLT	1
16	KNOB	1
17	MACHINE SCREW (W/WASHERS) M4×10	1
18	WASHER (B)	1
19	HEX. SOCKET HD. BOLT M8×15.5	1
20	MACHINE SCREW (W/WASHERS) M4×14	4
21	BRUSH TERMINAL	2
22	STATOR ASS'Y	1
23	FAN GUIDE	1
24	ARMATURE	1
25	LOCK LEVER	1
26	ROLL PIN D8×50	1
27	GEAR COVER	1
28	CUSHION	1
29	FLAT HD. SCREW M6×20	1
30	RUBBER BUSHING	1
31	BEARING BUSHING	1
32	BALL BEARING 6000VVCMP2L	1
33	HEX. HD. TAPPING SCREW D5×65	2
34	BALL BEARING 6202VVCMP2L	1
35	RUBBER RING	1
36	KNOB	1
37	O-RING (P-7)	1
38	SLEEVE	1
39	WASHER (B)	1
40	WING NUT M8	1
41	BOLT WASHER M8	1
42	WING BOLT M6×15	1
43	LOCK SPRING	1
44	SLOTTED HD. SET SCREW (SEAL LOCK) M6×6	1
45	BASE ASS'Y	1
46	MACHINE SCREW (W/SP. WASHER) M4×6	1
47	GUIDE PIECE	1
48	BOLT (SQUARE) M8×30	1
49	BEVEL PLATE	1
50	RIVET D6×24	1
51	RIVET D6×17	1
52	DIAGONAL BOLT M8	1
53	WASHER M6	1
54	WING BOLT (A) M6×20	1

Item No.	Part Name	Q'TY
55	HEX. SOCKET SET SCREW M5×8	2
56	BRUSH HOLDER	2
57	CARBON BRUSH	2
58	BRUSH CAP	2
59	MACHINE SCREW (W/WASHERS) M5×40	3
60	TAPPING SCREW (W/FLANGE) D4×20	5
61	NAME PLATE	1
62	HOUSING ASS'Y	1
63	SAFETY LOCK BUTTON	1
64	SPRING	1
65	SWITCH (1P SCREW TYPE)	1
66	TAPPING SCREW (W/FLANGE) D4×12	1
67	BEARING LOCK	1
68	HANDLE COVER	1
69	TERMINAL	1
70	PILLAR TERMINAL	1
71	TERMINAL	1
72	CORD CLIP	1
73	TAPPING SCREW D4×16	2
74	NOISE SUPPRESSOR	1
75	CORD ARMOR	1
76	CORD	1
501	GUIDE	1
502	LOCK SPRING	1
503	WING BOLT M6×15	1
504	SIDE HANDLE	1
505	FLAT HD. SCREW M6×16	2

 **Hitachi Koki Co., Ltd.**

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