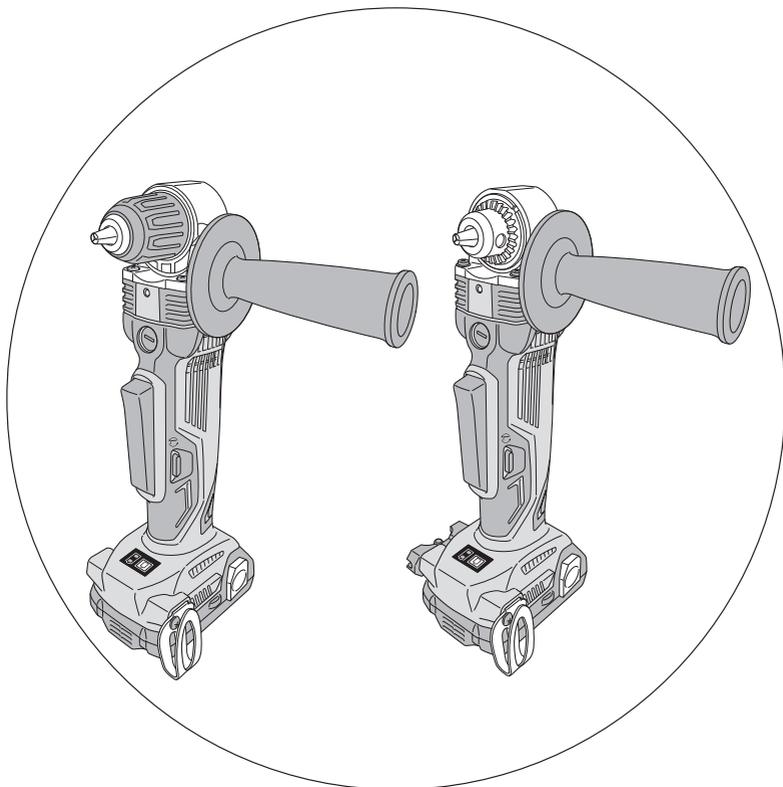


HiKOKI

充电式角向电钻
Cordless Angle Drill

DN 14DSL • DN 18DSL

中文
English



保留备用
Keep for future reference



使用说明书
Handling instructions

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电动工具通用安全警告

⚠ 警告！

阅读所有警告和所有说明。

不遵照以下警告和说明会导致电击、着火和 / 或严重伤害。

保存所有警告和说明书以备查阅。

在所有下列的警告中术语“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。

1) 工作场地的安全

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作电动工具。

注意力不集中会使操作者失去对工具的控制。

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电击危险。

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电击危险。

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电击危险。

d) 不得滥用电线。绝不用电线搬运、拉动电动工具或拔出其插头。使电线远离热源、油、锐边或运动部件。

受损或缠绕的软线会增加电击危险。

- e) 当在户外使用电动工具时，使用适合户外使用的外接软线。
适合户外使用的软线将减少电击危险。
- f) 如果在潮湿环境下操作电动工具是不可避免的，应使用剩余电流动作保护器（RCD）。
使用RCD可减小电击危险。

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。当你感到疲倦，或在有药物、酒精或治疗反应时，不要操作电动工具。
在操作电动工具时瞬间的疏忽会导致严重人身伤害。
- b) 使用个人防护装置。始终佩戴护目镜。
安全装置，诸如适当条件下使用防尘面具、防滑安全鞋、安全帽、听力防护等装置能减少人身伤害。
- c) 防止意外起动。确保开关在连接电源和 / 或电池盒、拿起或搬运工具时处于关断位置。
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) 手不要伸展得太长。时刻注意立足点和身体平衡。
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戴饰品。让衣服、手套和头发远离运动部件。
宽松衣服、佩饰或长发可能会卷入运动部件中。
- g) 如果提供了与排屑、集尘设备连接用的装置，要确保它们连接完好且使用得当。
使用这些装置可减少尘屑引起的危险。

4) 电动工具使用和注意事项

- a) 不要滥用电动工具，根据用途使用适当的电动工具。
选用适当设计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 / 或使电池盒与工具脱开。
这种防护性措施将减少工具意外起动的危险。
- d) 将闲置不用的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。
电动工具在未经培训的用户手中是危险的。
- e) 保养电动工具。检查运动件是否调整到位或卡住，检查零件破损情况和影响电动工具运行的其他状况。如有损坏，电动工具应在使用前修理好。
许多事故由维护不良的电动工具引发。

中文

- 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，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。
将电动工具用于那些与其用途不符的操作可能会导致危险。

5) 电池式工具使用和注意事项

- a) 只用制造商规定的充电器充电。
将适用于某种电池盒的充电器用到其他电池盒时会发生着火危险。
- b) 只使用配有特制电池盒的电动工具。
使用其他电池盒会发生损坏和着火危险。
- c) 当电池盒不用时，将它远离其他金属物体，例如回形针、硬币、钥匙、钉子、螺钉或其他小金属物体，以防一端与另一端连接。
电池端部短路会引起燃烧或火灾。
- d) 在滥用条件下，液体会从电池中溅出；避免接触。如果无意间碰到了，用水冲洗。如果液体碰到了眼睛，还要寻求医疗帮助。
从电池中溅出的液体会发生腐蚀或燃烧。

6) 维修

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

注意！

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。

充电式角向电钻安全警告

1. 请使用辅助握把（如果工具有提供），以免失控而造成人员受伤。
2. 在执行切割附件或紧固件会接触到暗线的操作时，通过绝缘的抓紧表面拿住电动工具。
接触“带电”电线的切割附件或紧固件会使电动工具的裸露金属部件“带电”，并可能使操作员遭到电击。

其它安全警告

1. 确保打钻的区域绝对没有任何隐藏的障碍物，包括电线、水管或煤气管道。
钻入上述物体可能导致触电或短路、煤气泄漏或其他可能造成严重事故或人员受伤的危险。
2. 确保在操作期间牢固地把持工具，否则会造成事故或人员受伤。
3. 固定工件。使用夹紧装置或老虎钳固定工件比手更牢固。

4. 工作环境的准备和检查
请按下列注意事项检查工作环境是否适当。
5. 勿让杂质进入电池连结口内。
6. 切勿拆卸电池与充电器。
7. 切勿使电池短路。使电池短路将会造成很大的电流和过热，从而烧坏电池。
8. 请勿将电池丢入火中。
电池受热将会爆炸。
9. 充电后电池寿命太短不够使用时，请尽快将电池送往经销店。请勿将用过的电池乱丢。
10. 请勿将异物插入充电器的通风口。
若将金属异物或易燃物插入通风口的话，将会引起触电事故或使充电器受损。
11. 工具过载时电机可能停止。如发生此种情况，请松开工具开关，并消除造成过载的原因。
12. 在寒冷环境（0℃以下）中使用电池有时会造成旋紧扭矩变弱以及作业量的减少。但是，这只是暂时现象，在电池变热后将会恢复正常。
13. 请不要用无匙夹头代替手动工具或用于拧紧作业。这样做有可能导致产品损坏。
14. 本产品在马达内含有强永磁。请遵守下面有关碎屑粘附在工具上和永磁对电子设备效应的注意事项。
 - 请勿将工具放在有金属碎屑的工作台上或工作区域内。
否则碎屑可能会粘附在工具上，导致受伤或故障。
 - 如果碎屑已粘附在工具上，请勿触摸。请用刷子去除碎屑。
否则可能会导致受伤。
 - 如果使用心脏起搏器或其它电子医疗设备，请勿操作或接近工具。
可能会影响电子设备的操作。
 - 请勿在手机、磁卡或电子存储媒体等精密设备附近使用工具。
否则可能会导致误操作、故障或数据损失。

锂离子电池使用注意事项

为延长使用期限，锂离子电池备配停止输出的保护功能。

若是在使用本产品时发生下列 1 至 3 的情况，即使按下开关，马达也可能停止。这并非故障，而是启动保护功能的结果。

1. 在残留的电池电力即将耗尽时，马达会停止。
在这种情况下，请立即予以充电。
2. 若工具超过负荷，马达亦可能停止。在这种情况下，请松开工具的开关，试着消除超过负荷的原因。之后您就可以再度使用。
3. 若电池在过载工作情况下过热，电池电力可能会中止。
在这种情况下，请停止使用电池，让电池冷却。之后您就可以再度使用。

中文

此外，请留心下列的警告及注意事项。

警告！

为防止发生电池漏电、发热、冒烟、爆炸及提前点燃，请确保留意下列事项。

1. 确保电池上没有堆积削屑及灰尘。
 - 在工作时确定削屑及灰尘没有掉落在电池上。
 - 确定所有工作时掉落在电动工具上的削屑和灰尘没有堆积在电池上。
 - 请勿将未使用的电池存放在曝露于削屑和灰尘的位置。
 - 在存放电池之前，请清除任何可能附着在上面的削屑和灰尘，并请切勿将它与金属零件（螺丝、钉子等）存放在一起。
2. 请勿以钉子等利器刺穿电池、以铁锤敲打、踩踏、丢掷电池，或将其剧烈撞击。
3. 切勿使用明显损坏或变形的电池。
4. 使用电池时请勿颠倒电极。
5. 请勿直接连接电源插座或汽车点烟器孔座。
6. 请依规定方式使用电池，切勿移作他用。
7. 如果已过了再充电时间，电池仍无法完成充电，请立即停止继续再充电。
8. 请勿将电池放置于高温或高压处，例如微波炉、烘干机或高压容器内。
9. 在发觉有渗漏或异味时，请勿接近远离火源。
10. 请勿在会产生强烈静电的地方使用。
11. 如有电池渗漏、异味、发热、褪色或变形，或在使用、充电或存放时出现任何异常，请立即将它从装备或电池充电器拆下，并停止使用。

注意！

1. 若电池渗漏出的液体进入您的眼睛，请勿搓揉眼睛，并以自来水等干净清水充分冲洗，立刻送医。
若不加以处理，液体可能会导致眼睛不适。
2. 若液体渗漏至您的皮肤或衣物，请立即以自来水等清水冲洗。
上述情况可能会使皮肤受到刺激。
3. 若初次使用电池时发现生锈、异味、过热、褪色、变形及 / 或其它异常情况时，请勿使用并将该电池退还给供货商或厂商。

警告！

如果导电异物接触到锂离子电池的端子，电池可能短路，并导致火灾。

存放锂离子电池时，请务必遵循下列注意事项。

- 切勿在存放盒中放置导电的残片，钉子，以及导线，如铁线和铜线。
- 为防止发生短路，应将电池装入工具中或者在存放时牢固地插入电池盖，直至看不到通风口。

符号

警告！

如下所示的符号用于本机。使用前请务必理解其含意。



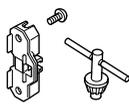
阅读所有安全警告和所有指示。

规格

型式			DN14DSL	DN18DSL
空载转速			0 - 1700 /min	0 - 1800 /min
能力	钻孔	木料 (厚 38 mm)	28 mm	28 mm
		金属 (厚 1.6 mm)	钢材: 10 mm	钢材: 12 mm
	螺丝 紧固	木螺丝	5.1 mm (直径)× 38 mm (长) (应有导孔)	5.1 mm (直径)× 38 mm (长) (应有导孔)
重量			1.6 kg	1.7 kg

标准附件

除了主机（1 台）外，产品包中还包括表中所列的附件。

							
		充电器	电池	箱子	电池盖	侧面手柄	夹头手柄座
DN14DSL DN18DSL		1	1 或 2	1	1	1	—
		1	1 或 2	1	1	1	1
DN14DSL (NN) DN18DSL (NN)		—	—	—	—	1	—
		—	—	—	—	1	1

用途

- 木质螺丝的驱动和拆卸。
- 钻各种金属。
- 钻各种木料。

电池的拆卸 / 安装法

1. 电池的拆卸法
请先紧抓住把手，然后再推压电池插销(2 个)
以拆下电池（参照图 1）。

注意！

切勿使电池短路。

2. 电池的安装法
插入电池时请注意极性（参照图 1）

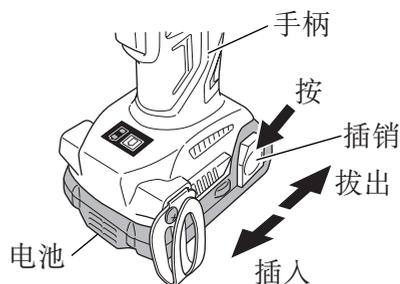


图 1

中文

- 电池温度和充电时间相关资料。
温度和充电时间如表 2 所示

表 2

电池		充电器	UC18YFSL	UC18YKSL
		充电电压	V	14.4 — 18
重量	kg	0.5	0.35	
电池可充电温度		0°C — 50°C		
电池容量的大致充电时间 (20°C 下)				
1.5 Ah	分钟	22	40	
2.0 Ah	分钟	30	60	
2.5 Ah	分钟	35	75	
3.0 Ah	分钟	45	90	
4.0 Ah	分钟	60	120	
5.0 Ah	分钟	75	150	
电池数		4 — 10		

注：

充电时间可能根据环境温度和电压而有变化。

注意！

连续使用时，电池充电器温度将提升，因此会导致出现故障。完成充电后，下次充电前，请让电池充电器休息 15 分钟。

4. 从电源插座拔下充电器的电源线。
5. 握紧充电器并取出电池。

注：

充电后，先将电池从充电器中取出，然后妥善保存。

注意！

- 如果电池长时间放置在阳光直接照射的地方或者刚刚使用完毕时，电池会变热。如果此时对电池充电，充电器上的指示灯会点亮 1 秒钟，不点亮 0.5 秒钟（熄灭 0.5 秒钟）。
在此情况下，先让电池冷却下来，然后再充电。
- 指示灯闪动时（以 0.2 秒钟的间隔），请检查并取出充电器电池接口处的任何异物。若无异物，则可能电池或充电器发生故障。请带去经授权的维修中心检查。
- 由于内置的微型计算机需要大约 3 秒钟来确认使用充电器充电的电池已取出，所以请等待至少 3 秒钟后再将电池重新插入继续充电。如果电池在 3 秒内重新插入，电池可能无法正常充电。
- 如果指示灯未以红色闪烁（每秒一次），但充电池电源线已连接至电源，表明充电器的保护电路可能已激活。

拔下电源线或插座，然后等待 30 秒左右再次连接。如果指示灯仍未以红色闪烁（每秒一次），请将充电器送还至HiKOKI授权服务中心。

操作

1. 安装和拆卸钻头

注意！

首先，拆下工具上的电池。

对于有键夹盘（图 3）

- (1) 打开夹盘钳夹，并将钻头插入夹盘。
- (2) 将卡盘扳手分别放在夹盘的三个孔之上，并将其沿顺时针方向旋转（前视），使之固定。
- (3) 要拆卸钻头时，将卡盘扳手放入夹盘上的一个孔中，并将其沿逆时针方向转动。

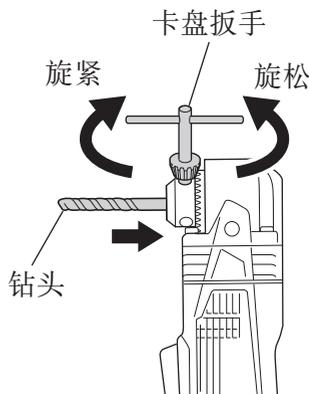


图 3

对于无键夹盘

(1) 安装钻头

向左转动，松动导套（如前视图中所示的逆时针方向），打开无键夹盘上的夹头。在插入一个驱动钻头等至无键钻机夹盘之后，向右转动，拧紧导套（如前视图中所示的顺时针方向）。（参见图 4）。

注：

如果导套在操作期间变得松动，那么请拧紧。
当导套已拧紧的时候，旋紧力将变得更强。

(2) 拆卸钻头

向左转动松动导套（如前视图中所示的逆时针方向），然后取出钻头。（参见图 4）

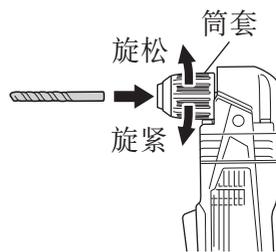


图 4

注意！

在将钻头装入无键夹盘的时候，请拧紧。如果导套未拧紧，那么钻头可能会滑动或者坠落，导致人员受伤。

注：

当无法松动导套的时候，请使用虎钳或者类似工具紧固钻头。暂时转动导套至松动侧（左侧）。如此应该能轻松松动导套。

2. 确认电池安装正确。

3. 安装侧面手柄。

将侧面手柄拧紧入齿轮罩。（图 5）

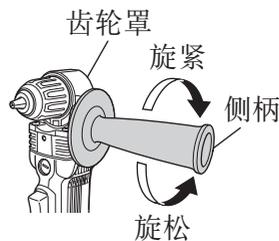


图 5

4. 检查旋转方向。

推动选择按钮的 R 侧，钻头将以顺时针方向旋转（从后侧部的视角来看）。推动选择按钮的 L 侧，钻头将以逆时针方向旋转（参见图 6）。（机体上附有 (L) 和 (R) 标记）

- 在按下触发开关的时候，工具将旋转。在释放开关的时候，工具将停止旋转。
- 通过改变拉动触发开关的力度，可以控制钻头的旋转速度。在轻微拉动触发开关的时候，速度较低，随着拉力增加，速度也将随之提高。
- 在释放触发开关的时候，将利用制动装置，立即停止运转。

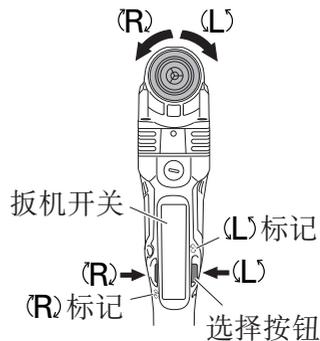


图 6

注意！

- 在装置用作钻机的时候，马达可能会停止旋转。在操作角向电钻的时候，请注意不要锁定马达。
- 如果马达锁定，则立即关闭电源。如果马达锁定片刻，则马达或者电池可能会烧毁。
- 在马达即将转动的时候，可能会产生嗡嗡的噪音；这仅仅是噪音，而不代表着机器故障。

5. 关于电池余量指示器

在按下电池余量指示器开关的时候，电池余量指示灯将亮起，然后可以查看电池的电池余量。在释放电池余量指示器开关的时候，电池余量指示器开关将熄灭。表 3 显示了电池余量指示灯的状态以及剩余的电量。（参见图 7）

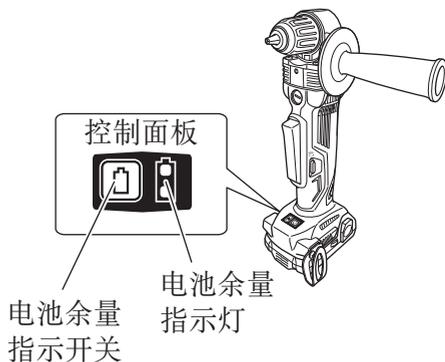


图 7

表 3

指示灯状态	电池剩余电量
	电池余量充足。
	电池剩余一半电量。
	电池电量将耗尽。 请尽快重新充电。

由于电池余量显示器的显示情况因室温和电池特征而有所差异，所以请将其视为参考。

注：

- 切勿让开关面板遭受强力撞击或者受损。因为可能会导致故障。
- 为了节省电量，在按下电池余量指示器开关的时候，电池余量指示灯亮起。

6. 使用挂钩

在操作期间使用挂钩，将电动工具悬挂在腰部。

注意！

- 在使用挂钩的时候，请牢固地悬挂电动工具，避免意外坠落。如果电动工具坠落，则可能导致事故发生。
- 在通过挂钩将电动工具悬挂在腰带上的时候，请勿在电动工具的尖端安装任何钻头。如果在用挂钩将电动工具固定在腰带上的时候，电动工具安装了尖锐的钻头，那么可能会导致您受伤。
- 牢固地安装挂钩。除非挂钩安装牢固，否则可能会在使用的时候导致伤害事件。

(1) 安装挂钩并拧紧螺丝。

在电动工具的凹槽上紧固地安装挂钩，并拧紧螺丝，以将挂钩固定。(图 8)
可以在身体的任何一侧安装挂钩。

7. 夹头手柄座的使用方法 (仅附有键盘夹)

本机在安装附件中的夹头手柄座之后，可以在无线电动工具主机上安装夹头手柄。

夹头手柄座可以安装在左右任何一侧。

拆除夹头手柄座时，请按照相反的步骤操作。

(1) 安装夹头手柄座 (图 9)

注意！

请牢固安装夹头手柄座。如果安装不牢固，则夹头手柄座在使用过程中脱落，会导致受伤。

(2) 收纳 / 拆除夹头手柄

如图所示，请将夹头手柄压入夹头手柄座。(图 10)

拆除时，请牢固支撑无线电动工具，拔出夹头手柄。(图 11)

(图 11)

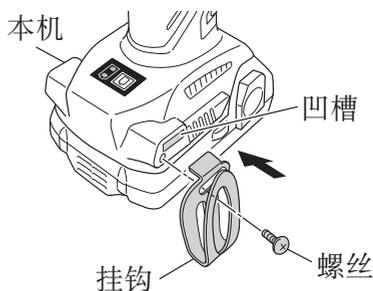


图 8

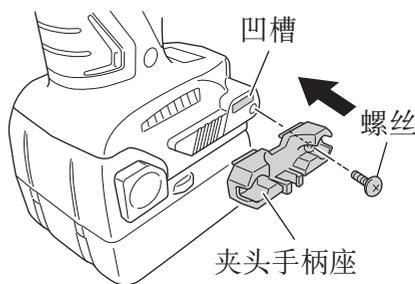
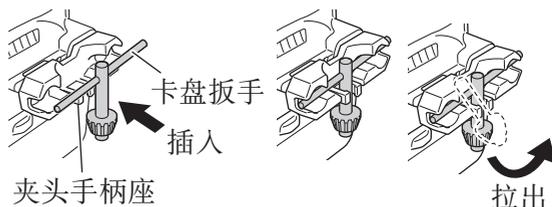


图 9



夹头手柄座

图 10

图 11

中文

8. 使用照明灯

拉动触发开关，可以打开照明灯。在持续拉动触发开关的时候，该照明灯将保持照明。在释放触发开关后，照明灯将熄灭（图 12）。

注意！

请勿直视照明灯。此行为可能会导致眼部受伤。

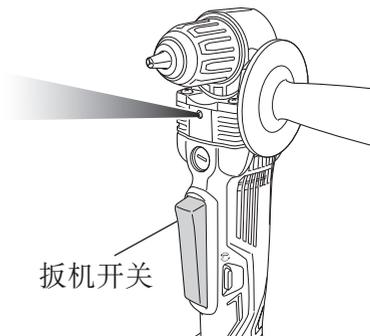


图 12

操作注意事项

1. 连续作业后须让装置休息片刻。

(1) 电动工具配备一个温度保护电路，用于保护马达。

持续钻孔或者拧紧木质螺丝作业可能会导致装置的温度升高，激活温度保护电路，从而自动停止操作。

如果发生此情况，则请让马达冷却片刻，然后再使用。

(2) 在连续进行紧固螺丝作业后以及在更换电池后，请让本装置暂停作业 15 分钟左右。如果在更换电池后立刻开始作业，马达和开关等的温度将会升高，最终导致烧毁。

维护和检查

1. 检查工具

由于使用已经钝化的工具会降低效率并可能引起马达故障，因此一旦注意到磨损情况，就应及时磨快或更换工具。

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，否则会导致严重的事故。

3. 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。

4. 检查炭刷

发动机使用的炭刷是一种耗材。由于过度磨损的炭刷会造成发动机故障，因此，当炭刷严重磨损或接近“磨损限制”（图 13）时，请换上新炭刷。另外，始终保持炭刷清洁，确保其在炭刷槽内可以自如滑动。

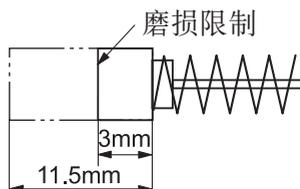


图 13

- 注：
更换新炭刷时，务必使用 HiKOKI 999054 型号的炭刷。
5. 更换炭刷（图 14）
先卸下炭刷帽，然后用平头螺丝刀等钩住炭刷的伸出件，之后取出炭刷。安装炭刷时，选择一个方向使炭刷甲吻合炭刷管外部的接触部分。用手指推入它。最后，安装炭刷帽。

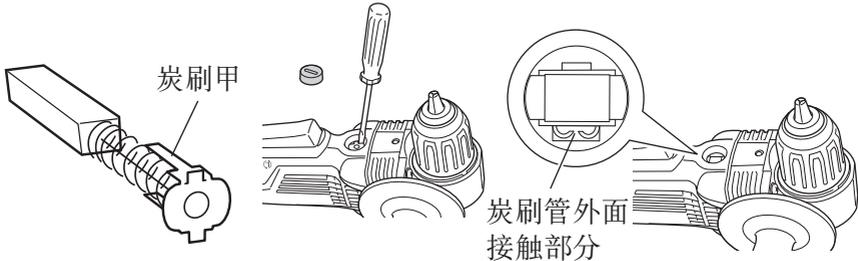


图 14

注意！

必须保证将炭刷甲插入到炭刷管外面的接触部分。（您可以插入所附带两个炭刷甲中的任何一个。）

必须多加小心，因为操作错误可能会造成炭刷甲变形，并造成发动机在早期发生故障。

6. 清理外部
角向电钻沾污时，用干软布或沾肥皂水的布擦拭。切勿使用氯溶液、汽油或稀释剂，以免塑胶部分溶化。
7. 收藏
请将角向电钻存放在温度低于 40°C 且儿童无法触及的地方。

注：
在电池长期存放（3 个月或更长）后务必给电池完全充电。如果长期存放后使用，容量小的电池可能无法充电。

注：
存放锂离子电池
在存放前请确保锂离子电池已完全充电。
电池在低电量的状态下长时间存放，可能会导致电池性能劣化，使用时间明显减少或无法进行充电。
但是，即使是使用时间明显减少的电池，通过反复充电和使用 2 ~ 5 次，有时也可恢复使用时间。
若反复充电和使用后电池的使用寿命仍非常短，请认作为电池已达到了使用寿命并更换新的电池。

注意！

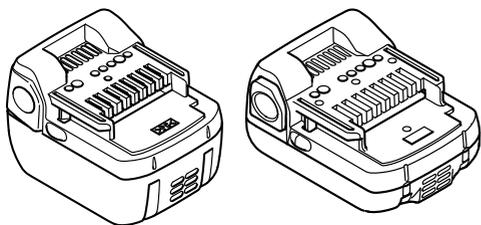
在操作和维修电动工具时，必须遵守贵国制定的 安全的有关规则和标准。

关于HiKOKI牌无线电动工具的重要通知：

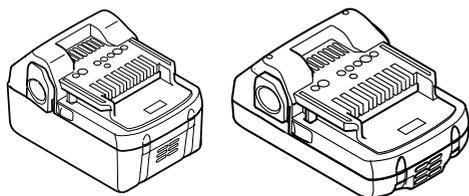
请确保始终使用我们指定的正版电池。如果使用我们指定以外的电池，或对电池进行拆卸和改动（例如拆卸和更换电池组件或其他内部部件），那么我们无法保证我们无线电动工具的安全性和使用性能。

选择附件

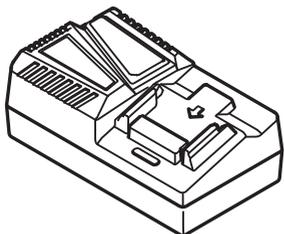
有关详细信息请联系HiKOKI授权服务中心。



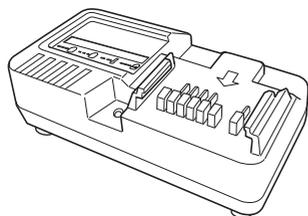
14.4V (锂离子电池)



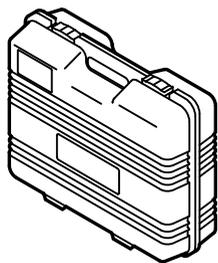
18V (锂离子电池)



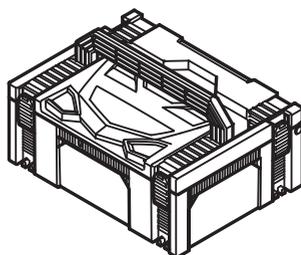
UC18YFSL (14.4V - 18V)
充电器



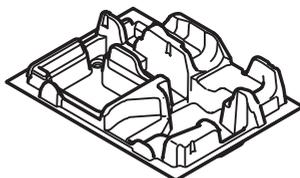
UC18YKSL (14.4V - 18V)
充电器



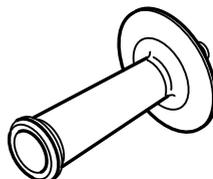
产品编号: 337290
箱子



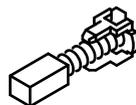
产品编号: 336471
箱子 (可堆叠)



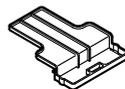
产品编号: 337288
内托盘



产品编号: 302142
侧面手柄



产品编号: 999054
炭刷



产品编号: 329897
电池盖

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GENERAL POWER TOOL SAFETY WARNINGS

WARNING

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

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

- 2) **Electrical safety**
 - a) **Power tool plugs must match the outlet.**
Never modify the plug in any way.
Do not use any adapter plugs with earthed (grounded) power tools.
Unmodified plugs and matching outlets will reduce risk of electric shock.
 - b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.**
There is an increased risk of electric shock if your body is earthed or grounded.

- c) **Do not expose power tools to rain or wet conditions.**
Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool.**
Keep cord away from heat, oil, sharp edges or moving parts.
Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.**
Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.**
Use of an RCD reduces the risk of electric shock.

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool.**
Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.
A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.**
Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack, picking up or carrying the tool.**
Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d) **Remove any adjusting key or wrench before turning the power tool on.**
A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.**
This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, 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 dust collection 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.

English

- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.**

Such preventive safety measures reduce the risk of starting the power tool accidentally.

- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.**

Power tools are dangerous in the hands of untrained users.

- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation.**

If damaged, have the power tool repaired before use.

Many accidents are caused by poorly maintained power tools.

- f) **Keep cutting tools sharp and clean.**

Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.**

Use of the power tool for operations different from those intended could result in a hazardous situation.

5) **Battery tool use and care**

- a) **Recharge only with the charger specified by the manufacturer.**

A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

- b) **Use power tools only with specifically designated battery packs.**

Use of any other battery packs may create a risk of injury and fire.

- c) **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.**

Shorting the battery terminals together may cause burns or a fire.

- d) **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.**

Liquid ejected from the battery may cause irritation or burns.

6) **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.

CAUTION

Keep children and infirm persons away.

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

CORDLESS ANGLE DRILL SAFETY WARNINGS

1. **Use auxiliary handle(s), if supplied with the tool.**
Loss of control can cause personal injury.
2. **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory or fastener may contact hidden wiring.**
Cutting accessory or fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

ADDITIONAL SAFETY WARNINGS

1. **Make sure that the area to be drilled is absolutely free of any hidden obstructions including electrical wiring, water, or gas pipes. Drilling into the aforementioned may result in electric shock or short circuit, gas leak or other hazards that can cause serious accidents or injuries.**
 2. **Make sure to securely hold the tool during operation. Failure to do so can result in accidents or injuries.**
 3. **Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.**
 4. **Setting up and checking the work environment. Check if the work environment is suitable by following the precaution.**
 5. **Do not allow foreign matter to enter the hole for connecting the battery.**
 6. **Never disassemble the battery and charger.**
 7. **Never short-circuit the battery. Shortcircuiting the battery will cause a great electric current and overheat. It results in burn or damage to the battery.**
 8. **Do not dispose of the battery in fire. If the battery is burnt, it may explode.**
 9. **Bring the battery to the shop from which it was purchased as soon as the post-charging battery life becomes too short for practical use. Do not dispose of the exhausted battery.**
 10. **Do not insert object into the air ventilation slots of the charger. Inserting metal objects or inflammables into the charger air ventilation slots will result in electrical shock hazard or damaged charger.**
 11. **The motor may stop in the event the tool is overloaded. In this should occur, release the tool's switch and eliminate the cause of the overload.**
 12. **The use of the battery in a cold condition (below 0 degree Centigrade) can sometimes result in the weakened tightening torque and reduced amount of work. This, however, is a temporary phenomenon, and returns to normal when the battery warms up.**
 13. **Do not use the keyless chuck in place of hand tools or for tightening purposes. Doing so may result in damage to the product.**
 14. **This product contains a strong permanent magnet in the motor. Observe the following precautions regarding adhering of chips to the tool and the effect of the permanent magnet on electronic devices.**
- **Do not place the tool on a workbench or work area where metal chips are present. The chips may adhere to the tool, resulting in injury or malfunction.**

English

- If chips have adhered to the tool, do not touch it. Remove the chips with a brush. Failure to do so may result in injury.
- If you use a pacemaker or other electronic medical device, do not operate or approach the tool.
Operation of the electronic device may be affected.
- Do not use the tool in the vicinity of precision devices such as cell phones, magnetic cards or electronic memory media.
Doing so may lead to misoperation, malfunction or loss of data.

CAUTION ON LITHIUM-ION BATTERY

To extend the lifetime, the lithium-ion battery equips with the protection function to stop the output.

In the cases of 1 to 3 described below, when using this product, even if you are pulling the switch, the motor may stop. This is not the trouble but the result of protection function.

1. When the battery power remaining runs out, the motor stops.
In such a case, charge it up immediately.
2. If the tool is overloaded, the motor may stop. In this case, release the switch of tool and eliminate causes of overloading. After that, you can use it again.
3. If the battery is overheated under overload work, the battery power may stop.
In this case, stop using the battery and let the battery cool. After that, you can use it again.

Furthermore, please heed the following warning and caution.

WARNING

In order to prevent any battery leakage, heat generation, smoke emission, explosion and ignition beforehand, please be sure to heed the following precautions.

1. Make sure that swarf and dust do not collect on the battery.
 - During work make sure that swarf and dust do not fall on the battery.
 - Make sure that any swarf and dust falling on the power tool during work do not collect on the battery.
 - Do not store an unused battery in a location exposed to swarf and dust.
 - Before storing a battery, remove any swarf and dust that may adhere to it and do not store it together with metal parts (screws, nails, etc.).
2. Do not pierce battery with a sharp object such as a nail, strike with a hammer, step on, throw or subject the battery to severe physical shock.
3. Do not use an apparently damaged or deformed battery.
4. Do not use the battery in reverse polarity.
5. Do not connect directly to an electrical outlets or car cigarette lighter sockets.
6. Do not use the battery for a purpose other than those specified.
7. If the battery charging fails to complete even when a specified recharging time has elapsed, immediately stop further recharging.
8. Do not put or subject the battery to high temperatures or high pressure such as into a microwave oven, dryer, or high pressure container.
9. Keep away from fire immediately when leakage or foul odor are detected.
10. Do not use in a location where strong static electricity generates.

11. If there is battery leakage, foul odor, heat generated, discolored or deformed, or in any way appears abnormal during use, recharging or storage, immediately remove it from the equipment or battery charger, and stop use.

CAUTION

1. If liquid leaking from the battery gets into your eyes, do not rub your eyes and wash them well with fresh clean water such as tap water and contact a doctor immediately.
If left untreated, the liquid may cause eye-problems.
2. If liquid leaks onto your skin or clothes, wash well with clean water such as tap water immediately.
There is a possibility that this can cause skin irritation.
3. If you find rust, foul odor, overheating, discolor, deformation, and/or other irregularities when using the battery for the first time, do not use and return it to your supplier or vendor.

WARNING

If a conductive foreign matter enters in the terminal of lithium ion battery, the battery may be shorted, causing fire. When storing the lithium ion battery, obey surely the rules of following contents.

- Do not place conductive debris, nail and wires such as iron wire and copper wire in the storage case.
- To prevent shorting from occurring, load the battery in the tool or insert securely the battery cover for storing until the ventilator is not seen.

SYMBOL

WARNING

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



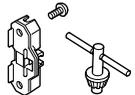
Read all safety warnings and all instructions.

SPECIFICATIONS

Model			DN14DSL	DN18DSL
No-load speed			0–1700 /min	0–1800 /min
Capacity	Drilling	Wood (Thickness 38mm)	28 mm	28 mm
		Metal (Thickness 1.6mm)	Steel: 10 mm	Steel: 12 mm
	Driving	Wood screw	5.1 mm (diameter) × 38 mm (length) (Requires a pilot hole)	5.1 mm (diameter) × 38 mm (length) (Requires a pilot hole)
Weight			1.6 kg	1.7 kg

STANDARD ACCESSORIES

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

							
		Charger	Battery	Case	Battery cover	Side handle	Chuck handle holder
DN14DSL		1	1 or 2	1	1	1	—
DN18DSL		1	1 or 2	1	1	1	1
DN14DSL (NN)		—	—	—	—	1	—
DN18DSL (NN)		—	—	—	—	1	1

APPLICATIONS

- Driving and removing of wood screws.
- Drilling of various metals
- Drilling of various woods

BATTERY REMOVAL/INSTALLATION

- Battery removal**
Hold the handle tightly and push the battery latches (2 pcs.) to remove the battery (See **Fig 1**).

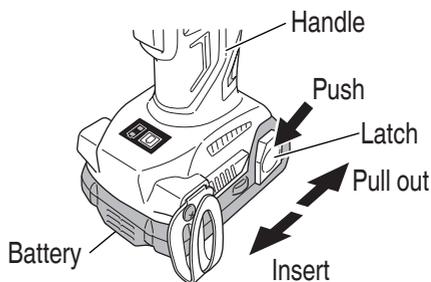


Fig. 1

CAUTION

Never short-circuit the battery.

- Battery installation**
Insert the battery while observing its polarities (see **Fig. 1**).

CHARGING

Before using the power tool, charge the battery as follows.

- Connect the charger's power cord to the receptacle.
When connecting the plug of the charger to a receptacle, the pilot lamp will blink in red (At 1- second intervals).
- Insert the battery into the charger.
Firmly insert the battery into the charger as shown in **Fig. 2**.

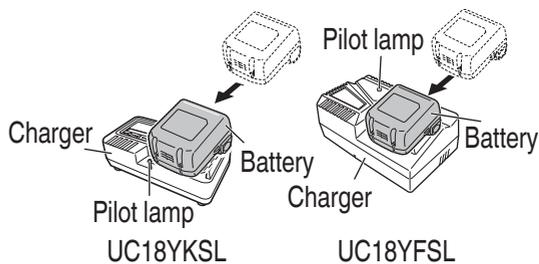


Fig. 2

- Charging**
When inserting a battery in the charger, charging will commence and the pilot lamp will light continuously in red.
When the battery becomes fully recharged, the pilot lamp will blink in red. (At 1-second intervals) (See **Table 1 on page 26**)
- Pilot lamp indication**
The indications of the pilot lamp will be as shown in **Table 1 on page 26**, according to the condition of the charger or the battery.

Table 1

Indications of the pilot lamp				
Pilot lamp (red)	Before charging	Blinks	Lights for 0.5 seconds. Does not light for 0.5 seconds. (off for 0.5 seconds) 	/
	While charging	Lights	Lights continuously 	
	Charging complete	Blinks	Lights for 0.5 seconds. Does not light for 0.5 seconds. (off for 0.5 seconds) 	
	Overheat standby	Blinks	Lights for 1 second. Does not light for 0.5 seconds. (off for 0.5 seconds) 	Battery overheated. Unable to charge. (Charging will commence when battery cools)
	Charging impossible	Flickers	Lights for 0.1 seconds. Does not light for 0.1 seconds. (off for 0.1 seconds) 	Malfunction in the battery or the charger

- Regarding the temperatures and charging time of the battery. The temperatures and charging time will become as shown in **Table 2**

Table 2

Battery		Charger	UC18YFSL	UC18YKSL
		Charging voltage	V	14.4 – 18
Weight	kg	0.5	0.35	
Temperatures at which the battery can be recharged		0°C – 50°C		
Charging time for battery capacity, approx. (At 20°C)				
1.5 Ah	min.	22	40	
2.0 Ah	min.	30	60	
2.5 Ah	min.	35	75	
3.0 Ah	min.	45	90	
4.0 Ah	min.	60	120	
5.0 Ah	min.	75	150	
Number of battery cells		4 – 10		

NOTE

The recharging time may vary according to temperature and power source voltage.

CAUTION

When the battery charger has been continuously used, the battery charger will be heated, thus constituting the cause of the failures. Once the charging has been completed, give 15 minutes rest until the next charging.

4. Disconnect the charger's power cord from the receptacle.
5. Hold the charger firmly and pull out the battery.

NOTE

Be sure to pull out the battery from the charger after use, and then keep it.

CAUTION

- If the battery is charged while it is heated because it has been left for a long time in a location subject to direct sunlight or because the battery has just been used, the pilot lamp of the charger lights for 1 second, does not light for 0.5 seconds (off for 0.5 seconds). In such a case, first let the battery cool, then start charging.
- When the pilot lamp flickers (at 0.2-second intervals), check for and take out any foreign objects in the charger's battery connector. If there are no foreign objects, it is probable that the battery or charger is malfunctioning. Take it to your authorized Service Center.
- Since the built-in micro computer takes about 3 seconds to confirm that the battery being charged with charger is taken out, wait for a minimum of 3 seconds before reinserting it to continue charging. If the battery is reinserted within 3 seconds, the battery may not be properly charged.
- If the pilot lamp does not blink in red (every second) even though the charger cord is connected to the power, it indicates that the protection circuit of the charger may be activated.

Remove the cord or plug from the power and then connect it again after 30 seconds or so. If this does not cause the pilot lamp to blink in red (every second), please take the charger to the HiKOKI Authorized Service Center.

OPERATION

1. Mounting and dismounting of the bit.

CAUTION

At first, remove the the battery from the tool.

For keyed chuck (Fig. 3)

- (1) Open the chuck jaws, and insert the bit into the chuck.
- (2) Place the chuck wrench in each of the three holes in the chuck, and turn it in the clockwise direction (viewed from the front side). Tighten securely.
- (3) To remove the bit, place the chuck wrench into one of the holes in the chuck and turn it in the counterclockwise direction.

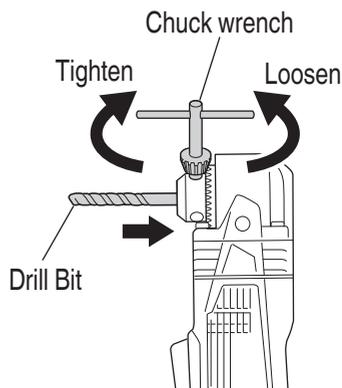


Fig. 3

English

For keyless chuck

- (1) Mounting the bit.
Loosen the sleeve by turning it toward the left (in the counterclockwise direction as viewed from the front) to open the clip on the keyless chuck. After inserting a driver bit, etc., into the keyless drill chuck, and tighten the sleeve by turning it toward the right (in the clockwise direction as viewed from the front). (See Fig. 4).

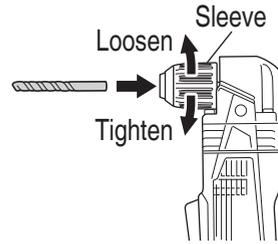


Fig. 4

NOTE

If the sleeve becomes loose during operation, tighten it further.
The tightening force becomes stronger when the sleeve is tightened.

- (2) Dismounting the bit
Loosen the sleeve by turning it toward the left (in the counterclockwise direction as viewed from the front), and then take out the bit etc. (See Fig. 4)

CAUTION

When mounting a bit into the keyless chuck, tighten firmly. If the sleeve is not tight, the bit may slip or fall out, causing injury.

NOTE

When it is no longer possible to loosen the sleeve, use a vise or similar instrument to secure the bit. Turn the sleeve to the loose side (left side) for a moment. It should be easy now to loosen the sleeve.

2. Confirm that the battery is mounted correctly.
 3. Installing the side handle.
Screw the side handle into the gear cover tightly. (Fig. 5)
 4. Check the rotational direction.
The bit rotates clockwise (viewed from the rear side) by pushing the R-side of the selector button.
The L-side of the selector button is pushed to turn the bit counterclockwise (See Fig. 6). (The (L) and (R) marks are provided on the body.)
- When the trigger switch is depressed, the tool rotates. When the trigger switch is released, the tool stops.
 - The rotational speed of the drill can be controlled by varying the amount that the trigger switch is pulled. Speed is low when the trigger switch is pulled slightly and increases as the trigger switch is pulled more.
 - When releasing the trigger switch, the brake will be applied for immediate stopping.

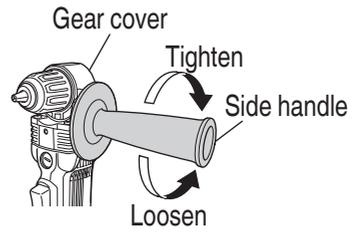


Fig. 5

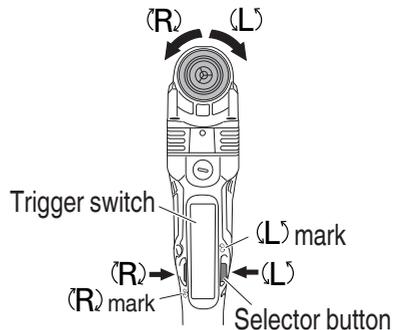
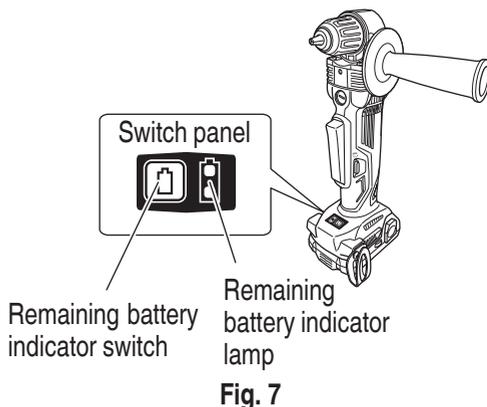


Fig. 6

CAUTION

- The motor rotation may be locked to cease while the unit is used as drill. While operating the angle drill, take care not to lock the motor.
- If the motor is locked, immediately turn the power off. If the motor is locked for a while, the motor or battery may be burnt.
- A buzzing noise is produced when the motor is about to rotate; This is only a noise, not a machine failure.

5. About Remaining Battery Indicator
When pressing the remaining battery indicator switch, the remaining battery indicator lamp lights and the battery remaining power can be checked. When releasing your finger from the remaining battery indicator switch, the remaining battery indicator lamp goes off. The **Table 3** shows the state of remaining battery indicator lamp and the battery remaining power. (see **Fig. 7**)

**Table 3**

State of lamp	Battery Remaining Power
	The battery remaining power is enough.
	The battery remaining power is a half.
	The battery remaining power is nearly empty. Re-charge the battery soonest possible.

As the remaining battery indicator shows somewhat differently depending on ambient temperature and battery characteristics, read it as a reference.

NOTE

- Do not give a strong shock to the switch panel or break it. It may lead to a trouble.
 - To save the battery power consumption, the remaining battery indicator lamp lights while pressing the remaining battery indicator switch.
6. Using the hook
The hook is used to hang up the power tool to your waist belt while working.

CAUTION

- When using the hook, hang up the power tool firmly not to drop accidentally. If the power tool is dropped, it may lead to an accident.
- When carrying the power tool with hooked to your waist belt, do not fit any bit to the tip of power tool. If the sharp bit such as drill is fitted to the power tool when carrying it with hooked to your waist belt, you will be injured.
- Install securely the hook. Unless the hook is securely installed, it may cause an injury while using.

English

- (1) Installing the hook and tightening the screws.
Install securely the hook in the groove of power tool and tighten the screws to fix the hook firmly. (Fig. 8)

Hook can be installing either side of the body.

7. Using the chuck handle holder (with keyed chuck only)
Attaching the included chuck handle holder allows the chuck handle to be attached to the main unit of this cordless tool.

The chuck handle holder can be attached on either the left or the right.

When detaching the chuck handle holder, follow the procedure in reverse.

- (1) Attach the chuck handle holder (Fig. 9)

CAUTION

Attach the chuck handle holder firmly. If it is not secure, the chuck handle holder may detach during use and cause injury.

- (2) Store/Remove the chuck handle

Press the chuck handle into the holder as shown in the diagram (Fig. 10).

When removing the chuck handle, support the cordless tool's main unit firmly and pull the chuck handle out (Fig. 11).

8. Using the light

Pull the trigger switch to light up the light. The light keeps on lighting while the trigger switch is being pulled. The light goes out after releasing the trigger switch. (Fig. 12).

CAUTION

Do not look directly into the light. Such actions could result in eye injury.

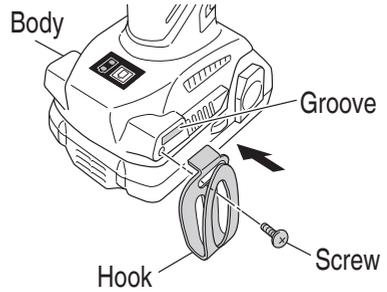


Fig. 8

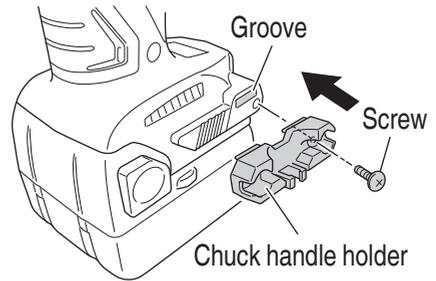
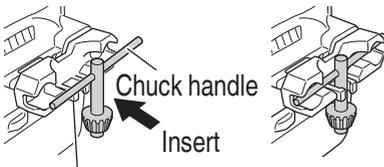


Fig. 9



Chuck handle holder
Fig. 10

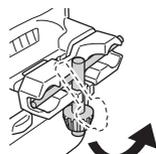


Fig. 11

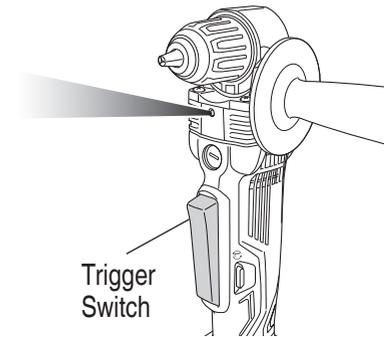


Fig. 12

OPERATIONAL CAUTIONS

1. Resting the unit after continuous work
- (1) The power tool is equipped with a temperature protection circuit to protect the motor. Continuous drilling or tightening wood screw work may cause the temperature of the unit to rise, activating the temperature protection circuit and automatically stopping operation. If this happens, allow the power tool to cool before resuming use.
- (2) After use for continuous tightening wood screw works, rest the unit for 15 minutes or so when replacing the battery. The temperature of the motor, switch, etc., will rise if the work is started again immediately after battery replacement, eventually resulting in burnout.

MAINTENANCE AND INSPECTION

1. Inspecting the tool
Since use of a dull tool will degrade efficiency and cause possible motor malfunction, sharpen or replace the tool 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. 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.
4. Inspecting the carbon brushes
The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush can result in motor trouble, replace the carbon brush with new ones when it becomes worn to or near the “wear limit” (**Fig. 13**). In addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders.

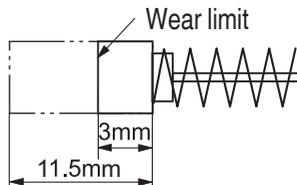


Fig. 13

NOTE

When replacing the carbon brush with a new one, be sure to use the HiKOKI Carbon Brush Code No. 999054.

English

5. Replacing carbon brushes (Fig. 14)

Take out the carbon brush by first removing the brush cap and then hooking the protrusion of the carbon brush with a flat head screw driver, etc.

When installing the carbon brush, choose the direction so that the nail of the carbon brush agrees with the contact portion outside the brush tube. Then push it in with a finger. Lastly, install the brush cap.

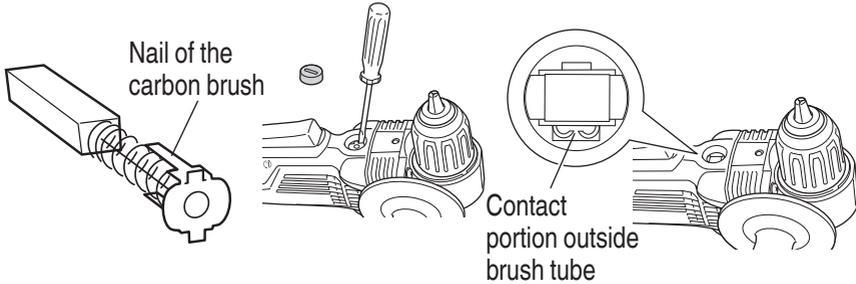


Fig. 14

CAUTION

Be absolutely sure to insert the nail of the carbon brush into the contact portion outside the brush tube. (You can insert whichever one of the two nails provided). Caution must be exercised since any error in this operation can result in the deformed nail of the carbon brush and may cause motor trouble at an early stage.

6. Cleaning on the outside

When the angle drill is stained, wipe with a soft dry cloth or a cloth moistened with soapy water. Do not use chloric solvents, gasoline or paint thinner, for they melt plastics.

7. Storage

Store the angle drill in a place in which the temperature is less than 40°C and out of reach of children.

NOTE

Make sure that the battery is fully charged when stored for a long period (3 months or more). The battery with smaller capacity may not be able to be charged when used, if stored for a long period.

NOTE

Storing lithium-ion batteries.

Make sure the lithium-ion batteries have been fully charged before storing them.

Prolonged storage of batteries with a low charge may result in performance deterioration, significantly reducing battery usage time or rendering the batteries incapable of holding a charge.

However, significantly reduced battery usage time may be recovered by repeatedly charging and using the batteries two to five times.

If the battery usage time is extremely short despite repeated charging and use, consider the batteries dead and purchase new batteries.

CAUTION

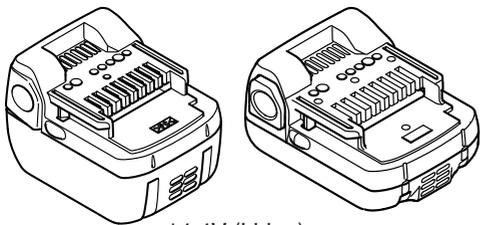
In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

Important notice on the batteries for the HiKOKI cordless power tools

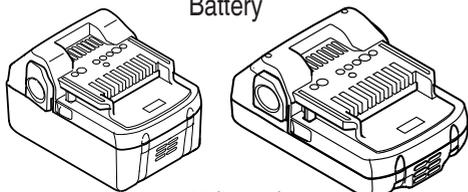
Please always use one of our designated genuine batteries. We cannot guarantee the safety and performance of our cordless power tool when used with batteries other than these designated by us, or when the battery is disassembled and modified (such as disassembly and replacement of cells or other internal parts).

SELECTING ACCESSORIES

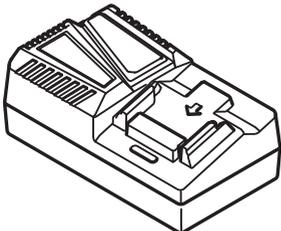
For details contact HiKOKI Authorized Service Center.



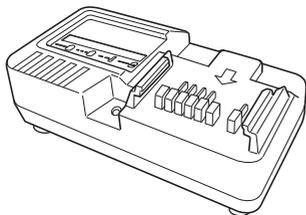
14.4V (Li-ion)
Battery



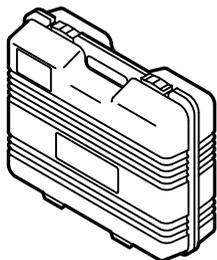
18V (Li-ion)
Battery



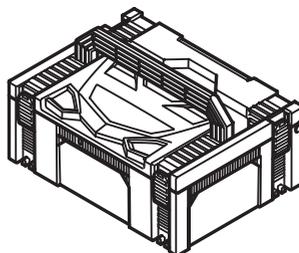
UC18YFSL (14.4V - 18V)
Charger



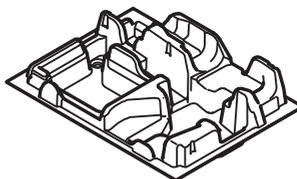
UC18YKSL (14.4V - 18V)
Charger



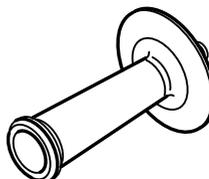
Part Number: 337290
Case



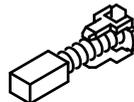
Part Number: 336471
Case (stackable)



Part Number: 337288
Inner tray



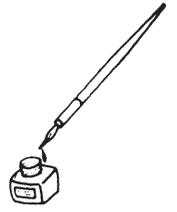
Part Number: 302142
Side handle



Part Number: 999054
Carbon brush



Part Number: 329897
Battery cover



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