

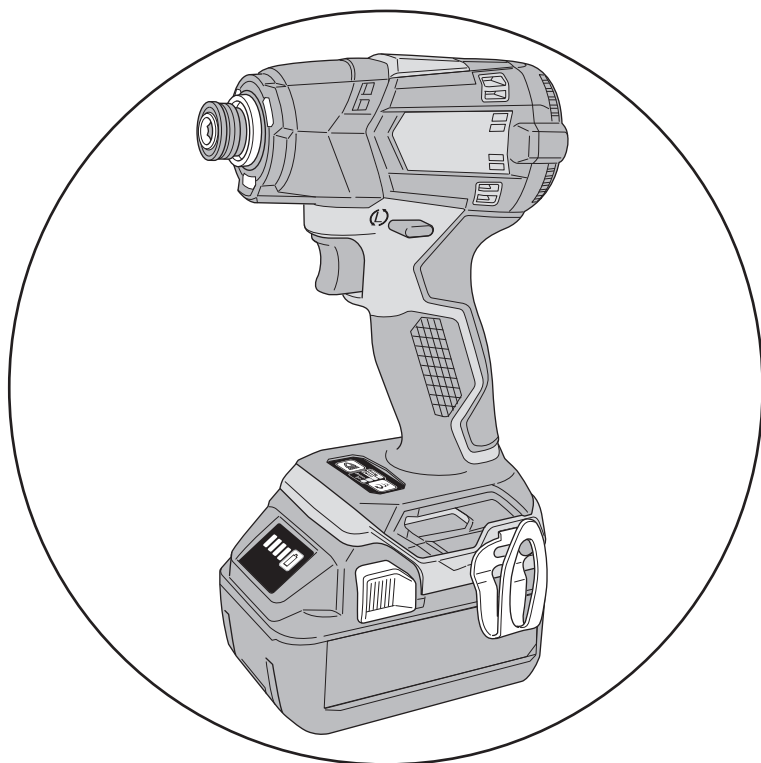
HiKOKI

中文

English

充电式油压脉冲起子机
Cordless Oil Pulse Driver

WHP 18DA



保留备用
Keep for future reference



使用说明书
Handling instructions

目次

电动工具通用安全警告..... 2

充电式油压脉冲起子机安全警告..... 5

其他安全警告..... 5

锂离子电池使用注意事项..... 7

锂离子电池运输..... 8

USB设备连接器使用注意事项(UC18YSL3)..... 9

防尘和防水功能注意事项..... 9

符号..... 10

零件名称..... 10

规格..... 11

用途..... 12

电池的拆卸 / 安装法..... 12

充电..... 12

使用前..... 15

作业之前..... 16

使用方法..... 18

充电式油压脉冲起子机的特点..... 24

操作上的注意事项..... 24

USB设备的充电方法(UC18YSL3)..... 25

维护和检查..... 27

选择附件..... 28

电动工具通用安全警告

警告！

阅读电动工具附带的所有安全警告、说明、插图和规格说明。
不遵照以下说明会导致电击、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。绝不能用电线搬运、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。让你的头发和衣服远离运动部件。
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。

- h) 请勿因频繁使用工具的熟悉感而掉以轻心，忽视工具的安全性原则。粗心的行为可能会导致瞬间发生严重伤害。

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) 在进行任何调整、更换附件或存放电动工具之前，必须从电源上拔掉插头和 / 或取下电池盒（如果可拆卸）。
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) 维护电动工具和附件。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。
- 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。
- h) 保持手柄和抓握表面干燥、清洁，远离油和油脂。
如果手柄和抓握表面湿滑，可能导致在发生意外情况时，无法安全操作和控制工具。

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。
- e) 请勿使用损坏或改装的电池盒或工具。
损坏或改装的电池可能会引发突发状况，导致火灾、爆炸或受伤。

- f) 请勿将电池盒或工具暴露在有火源或高温环境中。
如果暴露在有火源或130度以上高温的环境中，可能引起爆炸。
- g) 请完全按照充电说明进行操作，不要在说明中规定的温度范围外的环境中对电池盒或工具充电。
充电不当或在规定温度范围外的环境中充电可能会导致电池损坏，增加发生火灾的风险。

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。
- b) 请勿维修已损坏的电池盒。
需由制造商或经授权的服务供应商进行维修。

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。

充电式油压脉冲起子机安全警告

1. 在执行紧固件可能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。

其他安全警告

1. 本工具为手提式工具，用於旋紧和旋松螺丝。请不要用於其它作业。
2. 操作时请确保牢牢握住工具。
否则可能导致事故或受伤。(图1)

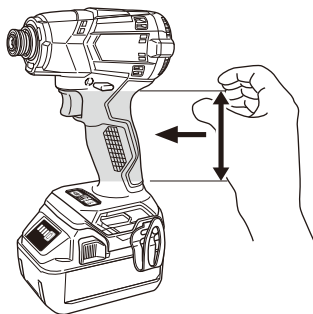


图1

3. 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。
4. 请勿穿戴使用易卷起材料制成的手套，如棉布、毛线、布料或线等。
5. 如长时间进行作业，请使用耳塞。
6. 请使用与螺丝相配的钻头。
7. 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。
8. 切勿触摸转动部分。
请勿让转动部件部分接近手或身体的任何其他部位。
9. 如果发现本机正在产生异常高温、工作不正常或出现异常噪音，请立即停止使用，并关闭电源。请让本机的经销商或HiKOKI授权服务中心检查和修理。操作出现异常而依然继续使用时，可能会造成人身伤害。
10. 如果本机意外跌落或撞击其他物体，请彻底检查其是否发生破裂、破损或变形等。如果本机破裂、破损或变形，可能会造成人身伤害。
11. 在较高的位置作业时，请确保下方没有人，并注意下方的情况。
12. 务请在 0°C — 40°C 的温度下进行充电。
温度低于 0°C 将会导致充电过度，极其危险。电池不能在高于 40°C 的温度下充电。
最适合于充电的温度是 20°C — 25°C 。
13. 不要连续使用充电器。
一次充电完毕后，在15分钟内不要再次使用该充电器对电池充电。
14. 勿让杂质进入电池连结口内。
15. 切勿拆卸电池与充电器。
16. 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。
17. 请勿将电池丢入火中。
电池受热将会爆炸。
18. 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。
19. 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。
20. 确认已紧紧装上电池。如果松弛则电池可能会脱开，并造成事故。
21. 请勿使用工具或电池端子（电池安装部位）明显变形的产品。
否则，安装电池后可能会短路，造成冒烟或起火。
22. 请清除工具端子（电池安装部位）上的削屑和灰尘。
 - 使用前请确保电池上没有堆积削屑和灰尘。
 - 在使用过程中，请尽量避免工具上的削屑或灰尘掉落在电池上。
 - 暂时不使用工具时或使用后，应将工具存放在不会掉落削屑或灰尘的地方。

否则可能短路，造成冒烟或起火。

23. 请在-5℃—40℃环境下使用本工具及电池。

锂离子电池使用注意事项

为延长使用期限，锂离子电池配备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。
- 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，请确保持意下列事项。

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暴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. 请依规定方式使用电池，切勿移作他用。
5. 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。
6. 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。
7. 在发觉有渗漏或异味时，请勿接近远离火源。
8. 请勿在会产生强烈静电的地方使用。
9. 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。
10. 请勿浸泡电池或让任何液体流入电池内部。导电液体进入（如水），可能造成电池损坏，甚至可导致火灾或爆炸。将电池存放在阴凉、干燥的地方，远离易燃物品。必须避免将电池置于腐蚀性气体环境中。

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。（参照图2）

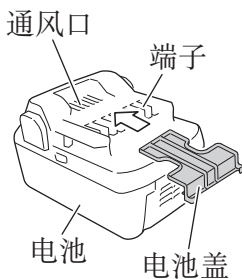


图2

锂离子电池运输

当运输一个锂离子电池，请注意以下预防措施。

警告！

告知运输公司，包装内包含一个锂离子电池，告知该公司其功率输出并且要按照运输公司的指引安排运输。

- 功率输出超过100Wh的锂离子电池被视作危险物品运输分类并且需要特别申请程序。

- 对于境外运输，您必须遵守国际法以及输入国的规章和条例。

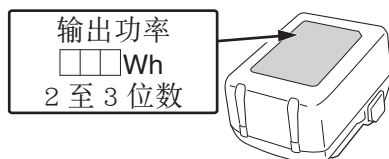


图3

USB设备连接器使用注意事项(UC18YSL3)

发生意外情况时，本产品连接的USB中保存的数据可能发生损坏或丢失。使用本产品前，请务必备份USB设备中的数据。

请注意，如USB设备中存储的数据发生损坏、丢失或连接的设备发生损坏，本公司概不负责。

防尘和防水功能注意事项

本产品符合国际IEC标准中规定的电气设备IP56防护等级（防尘和防水）。(装配有电池时，仅重要的组件符合IP56防护等级。)

[IP代码描述]

IP56







5	<p>防水等级</p> <p>强水流从各方向喷射时务必不会对设备产生不良影响（防水）。 （使用直径12.5mm的喷嘴时，请在距离3米左右处进行喷射，每分钟喷射100L水，每个方向喷射约3分钟。）</p>
6	<p>固体异物侵入防护等级</p> <p>完全杜绝灰尘落入对设备造成不良干扰（防尘）。 （将设备在实验室中静置8小时，使用搅拌机以2千克/立方米的速度将滑石粉颗粒的直径搅拌至75 μm以下，使其漂浮在空中。）</p>

虽然设备已配备了防尘、防水设计，但并不能排除发生故障的可能性。请勿将设备放置在可能会存在大量灰尘、溅到大量水或雨水的环境中。

符号

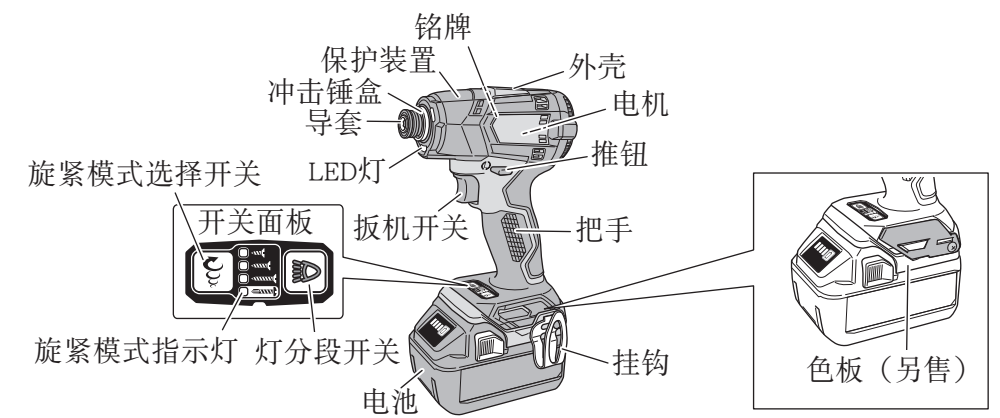
警告！

如下所示的符号用于本机。使用前请务必理解其含意。

	为降低伤害风险，用户必须阅读使用说明书
	直流电
	额定电压
	空载转速
	每分钟转数
	警告

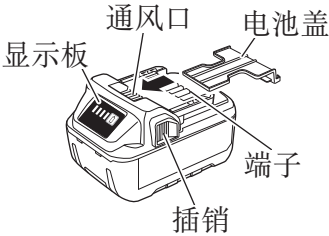
零件名称

1. 电动工具



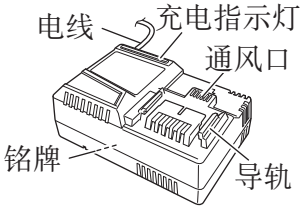
<WHP18DA>
图4

2. 电池（选购件）



<BSL1850MA>
图5

3. 电池充电器（选购件）



<UC18YSL3>
图6

规格

电动工具

型式		WHP18DA
电压		18V
空载转速	轻柔模式	0－1000/min
	正常模式	0－1700/min
	强力模式	0－2800/min
	自钻螺钉模式	0－2800/min
能力	小螺钉	M4－M8
	普通螺栓	M5－M10
	自钻螺钉	φ 3.5－φ 6
旋紧扭矩		最大33N・m
		在20℃的温度下完全充电后，旋紧M10普通螺栓。 旋紧时间：3 秒
钎柄尺寸		6.35mm 六角螺栓
电池		BSL1850MA: 18 V (5.0Ah 10节)
重量		1.7kg (安装 BSL1850MA)

充电器

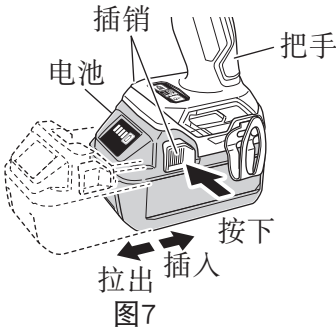
型式	UC18YSL3
充电电压	14.4－18V
重量	0.6kg

用途

○ 旋紧和拆除机用螺丝、木螺丝、自攻螺丝等。

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以拆下电池（参照图7）。



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7）。

充电

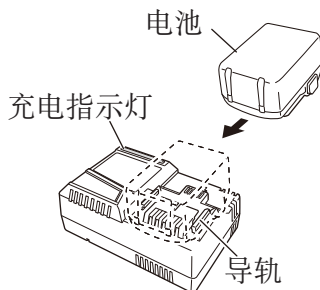
使用电动工具之前，按下述方法将电池进行充电。

<UC18YSL3(另售)>

1. 将充电器的电源线连接到插座。
将充电器插头连接到插座时，充电指示灯闪烁红色。（参照表1）

2. 将电池插入充电器。

如图8所示，将电池紧紧地插入充电器。








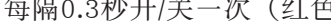
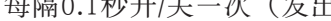
- ### 3. 充电

将电池插入充电器后，充电开始，并且充电器指示灯将呈蓝色闪烁。电池完全充电后，充电器上的充电指示灯将点亮呈绿色。(参照表1)

- ### (1) 充电指示灯的指示状态

根据充电器或可充电电池的情况，充电指示灯的显示如表1所示。

表1: 充电指示灯的指示状态

每隔0.5秒开/关一次（红色） 	充电前*1
每隔1秒点亮0.5秒（蓝色） 	充电量低于50%
每隔0.5秒点亮1秒（蓝色） 	充电量低于80%
持续亮起（蓝色） 	充电量高于80%
持续亮起（发出持续蜂鸣声：约6秒） （绿色） 	充电完成
每隔0.3秒开/关一次（红色） 	过热而等待*2
每隔0.1秒开/关一次（发出断续蜂鸣声：约2秒）（紫色） 	无法充电*3

注:

- *1 如果连好充电器后指示灯依旧闪烁红色，请检查并确认电池已完全插入。
 - *2 电池过热。无法充。
虽然继续放置在原处，电池将在冷却后开始充电，但最好是将电池取出并放置在阴凉、通风良好的位置处冷却。
 - *3 电池或充电器有问题。
 - 请紧紧插入电池。
 - 并确认电池安装部位或端部无异物堵塞。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。
- 连续使用时，电池充电器温度将提升，因此会导致出现故障。充电完成后，在下次充电之前，请使其冷却5分钟。

(2) 关于电池的温度和充电时间（参照表2）

表2

型式		UC18YSL3
电池类型		锂离子电池
充电电压		14.4－18V
电池可充电温度		0℃－50℃
电池容量的大致充电时间（20℃下）	1.5Ah	15分钟
	2.0Ah	20分钟
	2.5Ah	25分钟
	3.0Ah	20 分钟 (BSL1430C、BSL1830C：30分钟)
	4.0Ah	26分钟 (BSL1840M：40分钟)
	5.0Ah	32分钟
	6.0Ah	38分钟
多伏电池容量的大致充电时间（20℃下）	1.5Ah（×2节）	20分钟
	2.5Ah（×2节）	32分钟
	4.0Ah（×2节）	52分钟

电池数量	4－10
USB充电电压	5V
USB充电电流	2A
重量	0.6kg

注:

- 充电时间可能会因环境温度和电源电压而异。
 - 充电时间较长
 - － 环境温度过低时，充电时间会延长。请在温暖的场所中（如室内）给电池充电。
 - － 请勿堵塞排气孔。否则会导致内部过热，从而降低充电器的性能。
 - － 冷却扇未运转，请联系HiKOKI授权服务中心进行维修。
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。

关于新电池的放电

新电池内部的化学物质未被激活或电池长时间不使用时，初次或第二次使用时需要将其放电至较低电量。这只是暂时现象，将电池充电2-3次即可恢复为充电所需的正常时间。

较长时间保持电池性能的方法

- (1) 在电池电力完全耗尽之前进行充电。
- 感到电动工具的能力变弱时，请停止使用并给电池充电。若您继续使用电动工具并耗尽电力，电池可能会损坏或其使用寿命缩短。
- (2) 避免在高温环境中充电。
- 使用后可充电电池的温度将迅速升高。若使用后立即对这种电池进行充电，其内部化学物质会劣化，电池使用寿命将缩短。请稍等片刻，待电池冷却后再进行充电。

使用前

检查工作区域，确保不混乱没有碎片。

清理不必要人员区域。确保照明和通风充足。

作业之前

警告！

为避免发生严重事故，请确保开关处于关断位置，并取出电池。

1. 使用挂钩

挂钩用于在工作时将电动工具挂到腰带上。

挂钩可左右切换安装。

警告！

使用挂钩时，牢固挂好挂钩，以防意外掉落。如果电动工具掉落，可能造成意外伤害。

注意！

- 将电动工具挂在腰带上行动时，切勿在电动工具头上安装任何钻头。如果在将电动工具挂在腰带上行动时安装了尖利的钻头，可能造成伤害。
- 将挂钩安装牢固。如果安装不牢固，在使用时可能造成伤害。

(1) 卸下挂钩

用十字螺丝刀卸下用于固定挂钩的螺丝。（图9-a）

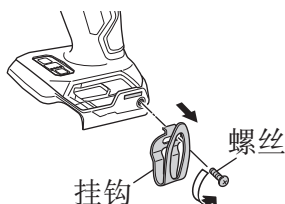


图9-a

(2) 重新装上挂钩并拧紧螺丝。

将挂钩牢固安装到电动工具的凹槽中，拧紧螺丝固定挂钩。（图9-b）



图9-b

2. 安装钻头

按照下述步骤安装螺丝钻头。（图10）

- (1) 从工具前端拉出导套。
- (2) 将钻头插入铁砧内的六角孔。
- (3) 放开导套，导套返回到原来位置。

(4) 要取下钻头时，请从工具前端拉出导套。

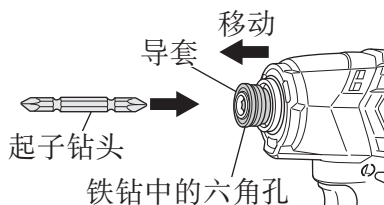


图10

注意！

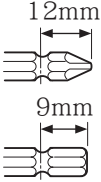
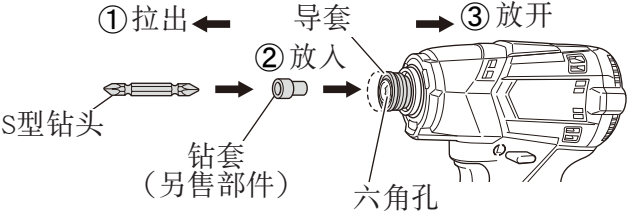
如果导套不返回到原来位置，则说明未正确安装钻头。

注:

装上钻头后，请轻轻拉动，确保不会脱出。

3. S型钻头的安装法

L型钻头为本公司指定的钻头尺寸。安装S型钻头时，需要搭配钻套（另售部件）使用。根据下表中的步骤将其牢固安装。

S型钻头尺寸	钻头的安装法
	 <p>将钻套和钻头按所述顺序插入导套的六角孔中。</p>

注:

- 如安装钻头后导套未返回原位，则钻头未被牢固安装。将钻头完全插入六角孔中，直至抵住为止。
- 如使用S型钻头时未安装钻套，在作业过程中钻头可能会脱落或被卡住，导致无法取出。

使用方法

1. 检查旋转方向

推动选择按钮的 R（右）侧，钻头便会顺时针（从后方看时）旋转

按推钮的 L（左）侧使钻头逆时针旋转。（请参照 图11）。（机身上标有 (L) 和 (R) 标记。）

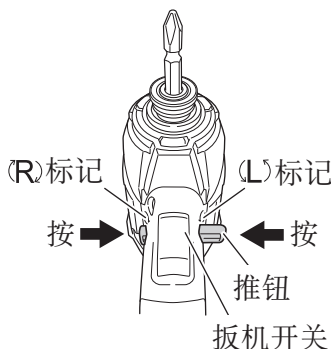


图11

注意！

操作过程中无法切换推钮。如需切换推钮，将冲击扳手停止运转后再切换推钮。

2. 确认电池安装正确。

注意！

请确保电池装入正确的位置，直至发出喀嗒声，否则可能会使电池突然掉落，导致使用者或周围人员受伤。

3. 开关操作

- 压下扳机开关，则本机旋转。松开扳机，则本机停止。在释放触发器开关的时候，将利用制动装置，立即停止运转。
- 可通过改变扳机开关的扣动幅度来控制转速。幅度小则转速低，幅度大则转速高。

注:

当马达即将起转时，可能会产生一种嗡嗡声。这只不过是一种噪音，而非机器故障。

4. LED灯使用方法

- 按下开关面板上的灯分段开关，可将LED灯的照明模式在“常亮” → “SW联锁” → “熄灭”之间切换。（图12）

- 为节省电池电量，请务必尽可能关闭灯光。

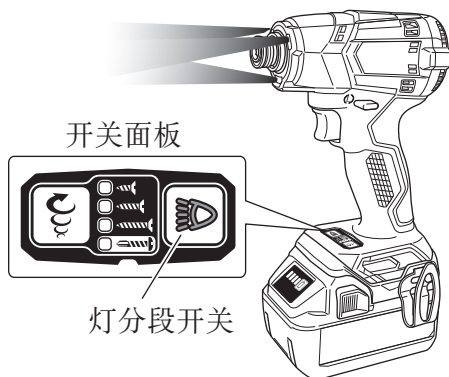


图12

注意！

请不要看着灯，让眼睛直接受灯光照射。
如果眼睛持续受灯光照射，会伤害眼睛。

注:

- 如果忘记关闭LED灯，LED灯将自动熄灭2分钟以防消耗电池电量。
- 按下灯分段开关时，只有在已安装电池且已拉动过一次扳机开关的情况下，LED灯才会亮起。
- 用一块软布擦去附着在LED灯镜头上的任何灰尘或污垢，注意不要刮擦镜头。LED灯镜头上的刮擦会导致亮度降低。

5. LED灯亮度切换方法（图13）

- (1) 当LED灯处于“常亮”或“SW联锁”模式时，按住开关面板上的灯分段开关。
- (2) 1.5秒后，LED灯闪烁。闪烁后，即可切换亮度。
- (3) 继续按住开关面板上的灯分段开关，并按下旋紧模式选择开关。每按一次，LED灯亮度按“低”⇒“中”⇒“高”⇒“低”的顺序切换。

注: 仅在已安装电池且已拉动过一次扳机开关后, 才可以切换LED灯亮度。

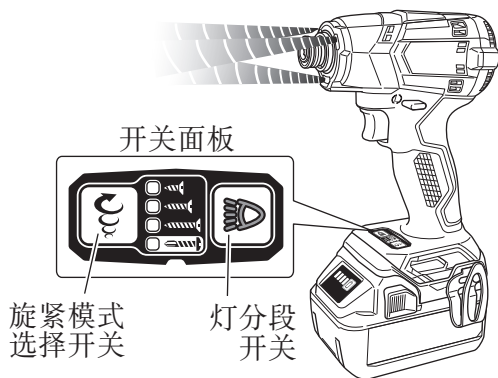


图13

6. 旋紧模式选择功能

注意！

- 请勿撞击或损坏开关面板。
- 请在松开扳机开关时选择旋紧模式。否则可能导致故障。

(1) 旋紧模式选择开关 (图14)

通过使用旋紧模式选择开关, 可以根据作业类型调整旋紧扭矩。

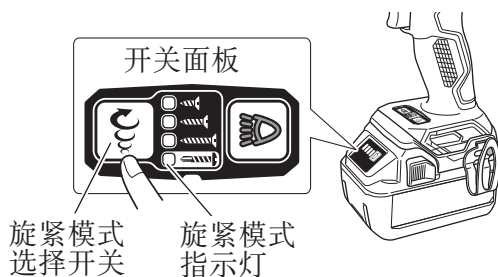


图14

每按一次旋紧模式旋转开关, 即可在4种不同的模式中切换旋紧模式。
(图15)

旋紧模式指示灯

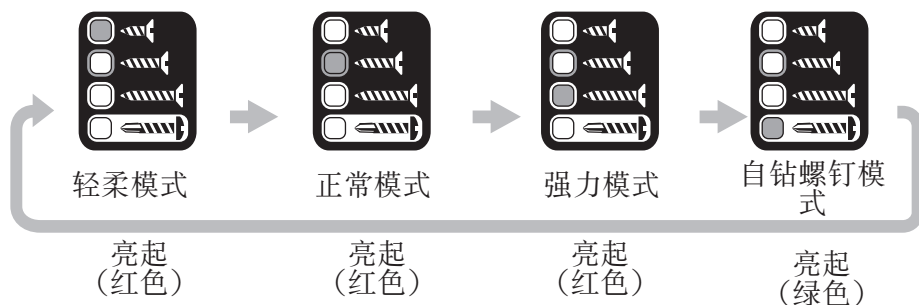


图15

注:

- 请根据螺钉和需钻钉的材料选择适当的模式。请拧紧一些测试用螺丝，相应地调整模式设定。
- 仅在已安装电池且已拉动过一次扳机开关后，才可以对旋紧模式选择开关进行设定。

选择模式旋转开关设定示例

	轻柔模式	正常模式	强力模式	自钻螺钉模式
空载最大转速	1000/min	1700/min	2800/min	2800/min
冲击次数	0—800/min	0—1500/min	0—2900/min	0—1500/min
用途	“精细作业” 旋紧小直径螺丝（M6或类似规格）等	“普通作业” 旋紧短螺钉、粘贴石膏板等。	旋紧长螺钉、方头螺钉、螺栓等	旋紧自钻螺钉

7. 拧紧和拧松螺丝

安装适合螺丝的转头，使转头对准螺丝头的凹槽，然后拧紧螺丝。
推动电动工具，使钻头恰好与螺丝头吻合。

注意！

- 长时间将电动工具应用于螺丝会造成螺丝拧得过紧，且容易使螺丝折断。

- 用电动工具旋紧螺丝时，如电动工具与螺丝之间的位置不成直线，则会损坏螺丝头，同时电动工具的旋转力也不能被妥善地传给螺丝。因此，旋紧螺丝时，请使电动工具与螺丝成一直线。
- 8. 拧紧和拧松螺栓
首先必须选择与螺栓或螺母相对应的六角扳手。接下来，将套筒安装到铁钻上，用六角扳手咬住要拧紧的螺母。与螺栓成直线地握住工具，按电源开关冲击螺母几秒钟。
如果螺母松动地安装到螺栓上，螺栓可能随着螺母转动，则说明未正确拧紧。在此情况下，停止冲击螺母，用扳手按住螺母头后重新启动冲击，或者手动拧紧螺栓和螺母，以防它们滑动。
- 9. LED灯警示信号
本产品具有保护工具本身和电池的功能。拉动开关时，如果在操作过程中启动了保护功能，LED灯将闪烁，如表3中所述。触发保护功能后，请立即将手指从开关上移开，并按照纠正措施中的说明进行操作。

表3

LED灯显示	保护功能
开启0.3秒/关闭0.3秒 ■ ■ ■ ■	温度保护 让该工具和电池得到充分冷却。

- 10. 剩余电池电量指示灯
可以按下剩余电池电量指示灯开关点亮指示灯，查看电池的剩余电量。
(图16, 表4)
环境温度和电池状态可能会对剩余电池电量产生轻微的影响，因此，建议您仅将指示灯作为参考。
此外，电动工具或充电器上的剩余电池电量指示灯可能有所不同。

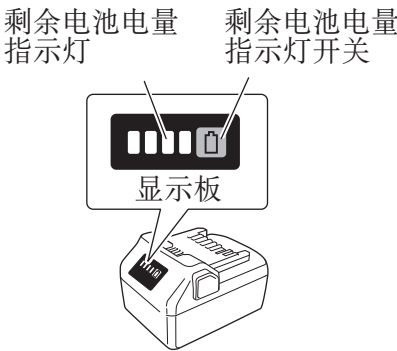


图16

表4

	点亮; 电池剩余电量超过75%。
	点亮; 电池剩余电量为50%—75%
	点亮; 电池剩余电量为25%—50%
	点亮; 电池剩余电量超过25%。
	闪烁; 电池剩余电量即将耗尽。请尽快对电池进行充电。
	闪烁; 因高温暂停输出。从电动工具中取下电池，让电池完全冷却。
	闪烁; 因失败或故障暂停输出。电池可能出现故障，请与经销商联系。

环境温度和电池特性不同，则所显示的电池剩余电量也会有些许不同，以上内容仅供参考。

注:

请勿强烈撞击或破坏开关面板。否则可能会导致故障。

充电式油压脉冲起子机的特点

油压脉冲起子机使用粘性油产生压力以使钻头旋转。这种机制可将旋紧螺丝时产生的噪音降低到比其他类型的冲击起子机低得多的水平。

注:

油的粘度随温度变化而异。使用本工具时请注意以下事项:

- 请勿在低于-5℃的环境中使用的工具，或将本工具长时间放置在低于-5℃的环境中。
否则，即使拉动了开关，也可能不会产生冲击力（扭矩），或者产生的冲击次数可能会骤减，从而可能导致工具过载，并引发马达故障。
- 此外，如果在电池剩余电量较低时使用工具，锂离子电池的保护功能可能会启动，马达可能会停止运转。
在使用本工具之前，请将电池充电至剩余电量为75%以上。
- 如果工具在连续使用一段时间后温度过高，继续作业可能难以旋紧螺丝，因为过热可能会导致本工具无法产生足够的扭矩。在这种情况下，请关闭开关并等待30分钟以上再使用本工具。
- 本产品采用液压冲击机构。这意味着当油的粘度在一定范围内时，锂离子电池中的保护功能可能会失效，从而导致马达故障。
请勿在寒冷环境（-5℃以下）下使用本产品，或在产品可能过载的情况下连续使用本产品。

操作上的注意事项

1. 连续作业后须让电动工具休息片刻
电动工具内装有温度保护电路以保护电机。
长时间连续作业可能会导致机器温度升高、触发温度保护电路并自动停止作业。在此情况下，请在电动工具冷却后再继续使用。
如果工具超过负荷，电机可能停止。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。
请在长时间连续作业后或更换电池后，使机器静止15分钟。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，结果导致烧毁。

注:

导套和锤壳在连续作业后可能温度升高，请勿触碰。

2. 关于转速控制开关的注意事项
此开关带有可无级改变转速的内置电路。因此，当轻拉启动扳机开关（低速转动）并在连续旋紧螺丝中停止马达转动时，电路部分的元件可能会因过热而损坏。

3. 使用适宜於螺丝的旋紧时间
根据螺丝的材料和尺寸以及所旋紧的材料等，其适宜的转矩有所不同，因此请使用适宜于该螺丝的旋紧时间。尤其是，如果对小于 M8 的螺丝使用过长的旋紧时间，则螺丝有损坏的危险。因此，请事先确认旋紧时间和旋紧转矩。
4. 以适于受冲击螺栓的旋紧扭矩进行操作
螺栓和螺母最适宜的旋紧扭矩因螺栓或螺母的材料和尺寸而有所不同。对小螺栓使用过大的旋紧扭矩会扭曲或损坏螺栓。旋紧扭矩的增加与操作时间成正比。请使用正确的螺栓操作时间。
5. 握住工具
用双手牢牢握住工具。在此情况下，请与螺栓成直线地握住工具。无需用力推工具，用足以抵消冲击力的力握住工具。

USB设备的充电方法(UC18YSL3)

警告！

- 使用之前请检查USB连接线缆是否有破损或损坏。
使用有破损或损坏的USB线缆可能会导致冒烟或着火。
- 不使用产品时，请用橡胶盖封好USB端口。
USB端口中落入灰尘等可能会导致冒烟或着火。

注:

- USB充电期间可能会偶尔暂停。
 - USB设备未充电时，从充电器上拆下USB设备。否则不仅会减少USB设备的电池寿命，还会导致意外事故。
 - 设备的类型，可能无法对某些USB设备充电。
1. 选择充电方式
根据所选的充电方式，将电池插入充电器或连接电源线插入插座。

中文

- 将USB设备插入插座进行充电。(图17-a)
- 将USB设备和电池插入插座进行充电。(图17-b)

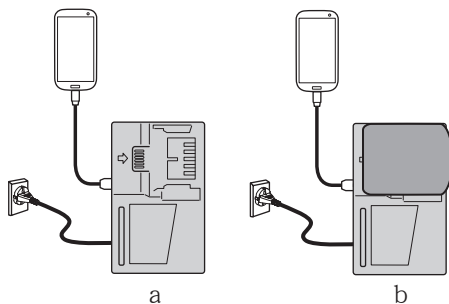


图17

2. 连接USB线缆。(图18)
- 拔下橡胶盖并将市售的USB线缆（匹配充电的设备）紧紧插入USB端口。

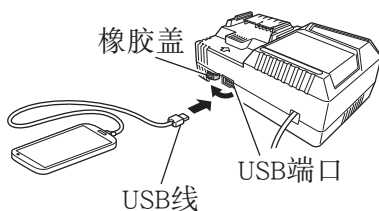


图18

3. 充电完成时
- 检查USB设备以检验充电状态。
 - 从插座中拔下电源线。(图19)
 - 用橡胶盖盖住USB端口。

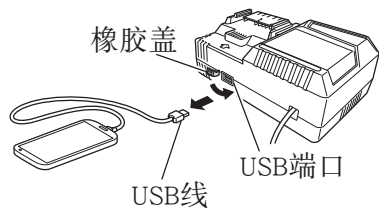


图19

维护和检查

警告！

检查或维护前，请务必关闭开关并取出电池。

1. 检查钻头
继续使用已破损的钻头或钻头尖已磨损的钻头是非常危险的，因为钻头会滑脱。因此，请更换已破损的钻头或钻头尖已磨损的钻头。
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. 检查端子（工具和电池）
确保端子上没有堆积削屑和灰尘。
在操作前、操作时和操作后需要时常检查。

注意！

请清除端子上的削屑或灰尘。否则可能导致故障。

4. 清理外部
电动工具脏污时，请用柔软的干布或沾有肥皂水的布片擦拭。切勿使用氯溶液、汽油或稀释剂，以免塑胶部分溶化。
5. 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。
6. 收藏
请将电动工具和电池存放在温度低于40℃且儿童无法触及的环境下。

注:

存放锂离子电池

在存放前请确保电池已完全充电。

电池在低电量的状态下长时间存放(3个月或更长)，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时间仍非常短，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 and 标准。

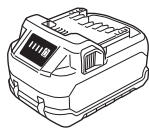
关于HiKOKI牌无线电动工具的重要通知：

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

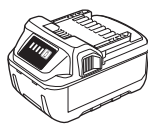
根据特定作业选择适合的附件。

有关详细信息请联系HiKOKI授权服务中心。

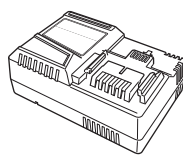


BSL36..18.:

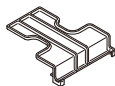
电池



BSL18.:



UC18YSL3
(14.4V－18V)
充电器



产品编号: 329897

电池盖



浅金色: 产品编号: 377857

钛银色: 产品编号: 377858

天蓝色: 产品编号: 377859

蓝紫色: 产品编号: 377860

信号红: 产品编号: 377861

色板



产品编号: 996184

钻套

CONTENTS

GENERAL POWER TOOL SAFETY WARNINGS.....	29
CORDLESS OIL PULSE DRIVER SAFETY WARNINGS.....	32
ADDITIONAL SAFETY WARNINGS.....	32
CAUTION ON LITHIUM-ION BATTERY.....	34
REGARDING LITHIUM-ION BATTERY TRANSPORTATION.....	36
USB DEVICE CONNECTION PRECAUTIONS (UC18YSL3).....	37
PRECAUTIONS REGARDING THE DUST-RESISTANCE AND WATER- PROOFING FUNCTIONS.....	37
SYMBOLS.....	38
NAME OF PARTS.....	38
SPECIFICATIONS.....	39
APPLICATIONS.....	40
BATTERY REMOVAL / INSTALLATION.....	40
CHARGING.....	40
BEFORE USE.....	44
PRIOR TO OPERATION.....	44
HOW TO USE.....	46
FEATURES OF THE CORDLESS OIL PULSE DRIVER.....	52
OPERATIONAL CAUTIONS.....	52
HOW TO RECHARGE USB DEVICE (UC18YSL3).....	53
MAINTENANCE AND INSPECTION.....	55
SELECTING ACCESSORIES.....	56

GENERAL POWER TOOL SAFETY WARNINGS

WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this power tool.

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

Save all warnings and instructions for future reference.

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

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

Distractions can cause you to lose control.

2) Electrical safety

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

3) Personal safety

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

- h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.**

A careless action can cause severe injury within a fraction of a second.

4) **Power tool use and care**

- a) **Do not force the power tool. Use the correct power tool for your application.**

The correct power tool will do the job better and safer at the rate for which it was designed.

- b) **Do not use the power tool if the switch does not turn it on and off.**

Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

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

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

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

Power tools are dangerous in the hands of untrained users.

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

Many accidents are caused by poorly maintained power tools.

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

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

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

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

- h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.**

Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

5) **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.
- e) **Do not use a battery pack or tool that is damaged or modified.**
Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- f) **Do not expose a battery pack or tool to fire or excessive temperature.**
Exposure to fire or temperature above 130°C may cause explosion.
- g) **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.**
Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

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.
- b) **Never service damaged battery packs.**
Service of battery packs should only be performed by the manufacturer or authorized service providers.

CAUTION

Keep children and infirm persons away.

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

CORDLESS OIL PULSE DRIVER SAFETY WARNINGS

- 1. **Hold the power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring. 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. **This is a portable tool for tightening and loosening screws. Use it only for these operation.**

2. **Make sure to securely hold the tool during operation.**
Failure to do so can result in accidents or injuries. (Fig. 1)

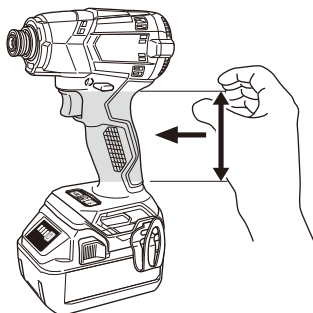


Fig. 1

3. **Setting up and checking the work environment.** Check if the work environment is suitable by following the precaution.
4. **Never wear gloves made of material liable to roll up such as cotton, wool, cloth or string, etc.**
5. **Use the earplugs if using for a long time.**
6. **Use the bit that matches the screw.**
7. **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.
8. **Never touch the turning part.**
Do not allow the turning part section to get near your hands or any other part of your body.
9. **If you notice that the unit is generating unusually high temperatures, operating poorly, or making abnormal noises, immediately stop using and shut off the power switch.** Request an inspection and repair from the dealer where you purchased the unit or a HiKOKI Authorized Service Center. Continuing to use while operating abnormally might cause injuries.
10. **If the unit is mistakenly dropped or strikes another object, make a thorough check of the unit for cracks, breakage or deformation, etc.** Injuries might occur if the unit has cracks, breakage or deformation.
11. **When working at elevated locations, clear the area of other people and aware of conditions below you.**
12. **Always charge the battery at a temperature of 0–40°C.**
A temperature of less than 0°C will result in over charging which is dangerous. The battery cannot be charged at a temperature greater than 40°C.
The most suitable temperature for charging is that of 20–25°C.
13. **Do not use the charger continuously.**
When one charging is completed, leave the charger for about 15 minutes before the next charging of battery.
14. **Do not allow foreign matter to enter the hole for connecting the battery.**
15. **Never disassemble the battery and charger.**

16. **Never short-circuit the battery.**
Short-circuiting the battery will cause a great electric current and overheat. It results in burn or damage to the battery.
17. **Do not dispose of the battery in fire.**
If the battery burnt, it may explode.
18. **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.**
19. **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.
20. **Make sure that the battery is installed firmly. If it is at all loose it could come off and cause an accident.**
21. **Do not use the product if the tool or the battery terminals (battery mount) are deformed.**
Installing the battery could cause a short circuit that could result in smoke emission or ignition.
22. **Keep the tool's terminals (battery mount) free of swarf and dust.**
 - Prior to use, make sure that swarf and dust have not collected in the area of the terminals.
 - During use, try to avoid swarf or dust on the tool from falling on the battery.
 - When suspending operation or after use, do not leave the tool in an area where it may be exposed to falling swarf or dust.
Doing so could cause a short circuit that could result in smoke emission or ignition.
23. **Always use the tool and battery at temperatures between -5°C and 40°C.**

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 for a purpose other than those specified.
5. If the battery charging fails to complete even when a specified recharging time has elapsed, immediately stop further recharging.
6. Do not put or subject the battery to high temperatures or high pressure such as into a microwave oven, dryer, or high pressure container.
7. Keep away from fire immediately when leakage or foul odor are detected.
8. Do not use in a location where strong static electricity generates.
9. 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.
10. Do not immerse the battery or allow any fluids to flow inside. Conductive liquid ingress, such as water, can cause damage resulting in fire or explosion. Store your battery in a cool, dry place, away from combustible and flammable items. Corrosive gas atmospheres must be avoided.

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. (See Fig. 2)

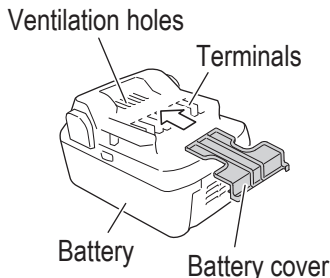


Fig. 2

REGARDING LITHIUM-ION BATTERY TRANSPORTATION

When transporting a lithium-ion battery, please observe the following precautions.

WARNING

Notify the transporting company that a package contains a lithium-ion battery, inform the company of its power output and follow the instructions of the transportation company when arranging transport.

- Lithium-ion batteries that exceed a power output of 100 Wh are considered to be in the freight classification of Dangerous Goods and will require special application procedures.
- For transportation abroad, you must comply with international law and the rules and regulations of the destination country.

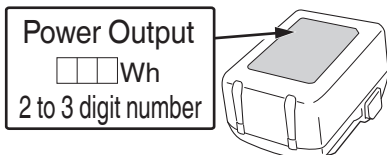


Fig. 3

USB DEVICE CONNECTION PRECAUTIONS (UC18YSL3)

When an unexpected problem occurs, the data in a USB device connected to this product may be corrupted or lost. Always make sure to back up any data contained in the USB device prior to use with this product.

Please be aware that our company accepts absolutely no responsibility for any data stored in a USB device that is corrupted or lost, nor for any damage that may occur to a connected device.

PRECAUTIONS REGARDING THE DUST-RESISTANCE AND WATER-PROOFING FUNCTIONS

This product conforms to IP56 protection class ratings (dust-resistance and water-proofing) for electrical equipment as stipulated by the international IEC regulations. (Only the main unit conforms to the IP56 protection class ratings when equipped with a battery.)

[Descriptions of IP Codes]

IP56







5	Protection rating for water penetration Must be no adverse effects on the equipment when sprayed with powerful jets of water from all directions (water-proofed). (100 L of water per minute sprayed for approximately three minutes from a distance of approximately three meters with the use of a spray nozzle with a diameter of 12.5 mm.)
6	Protection rating for external assault by solid objects Dust that may cause adverse effects on the equipment must not be able to enter (dust-resistance). (The equipment to be left non-operable in a test chamber in which particles of talcum powder with a diameter of less than 75 μm are floating in the air with the use of an agitation pump at a rate of 2 kg per cubic meter for eight hours.)

The equipment has been designed to withstand the effects of dust and water, but there is no guarantee that it will not malfunction. Do not use or leave the equipment in locations where it is subject to excessive amounts of dust, or in locations where it is submerged in water or subject to rainwater.

SYMBOLS

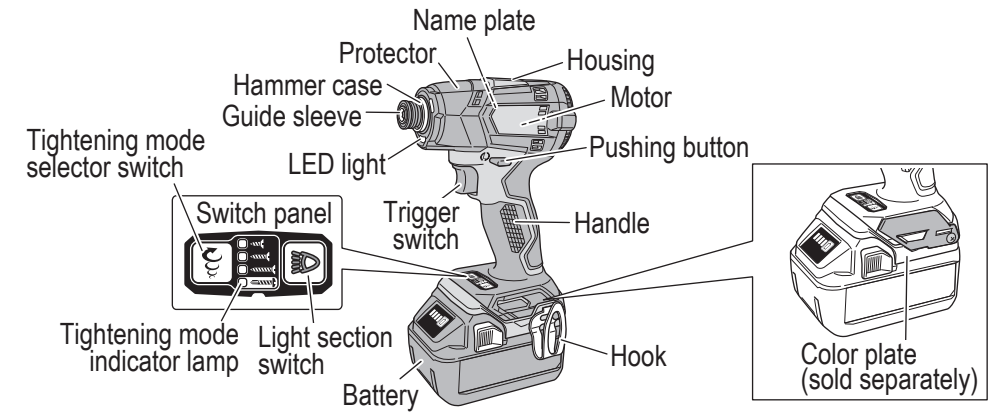
WARNING

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

	To reduce the risk of injury, user must read instruction manual.
	Direct current
	Rated voltage
	No-load speed
	Revolutions per minute
	Warning

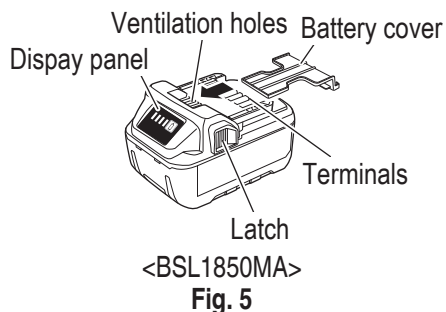
NAME OF PARTS

1. POWER TOOL

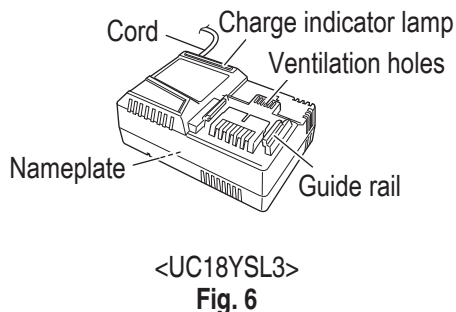


<WHP18DA>
Fig. 4

2. Battery (Optional accessories)



3. Battery Charger (Optional accessories)



SPECIFICATIONS

POWER TOOL

Model		WHP18DA
Voltage		18 V
No-load speed	Soft mode	0–1000 /min
	Normal mode	0–1700 /min
	Power mode	0–2800 /min
	Self drilling screw mode	0–2800 /min
Capacity	Small screw	M4–M8
	Ordinary bolt	M5–M10
	Self drilling screw	φ3.5–φ6
Tightening torque		Maximum 33 N·m
		Tightening is M10 ordinary bolt, when fully charged at 20°C temp. Tightening time: 3 sec.
Bit shank size		6.35 mm Hex.
Battery		BSL1850MA: 18 V (5.0 Ah 10 cells)
Weight		1.7 kg (BSL1850MA attached)

CHARGER

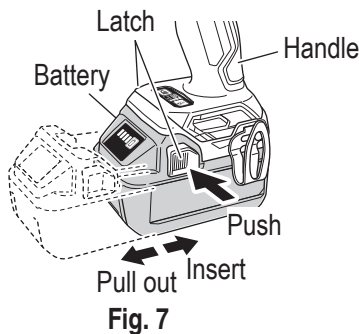
Model	UC18YSL3
Charging voltage	14.4–18 V
Weight	0.6 kg

APPLICATIONS

- Driving and removing of machine screws, wood screws, tapping screws, etc.

BATTERY REMOVAL / INSTALLATION

1. Battery removal
Hold the handle tightly and push the battery latches to remove the battery (see **Fig. 7**).



CAUTION

Never short-circuit the battery.

2. Battery installation
Insert the battery while observing its polarities (see **Fig. 7**).

CHARGING

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

<UC18YSL3 (sold separately)>

1. Connect the charger's power cord to the receptacle.
When connecting the plug of the charger to a receptacle, the charge indicator lamp will blink in red (See **Table 1**).

2. Insert the battery into the charger.
Firmly insert the battery into the charger as shown in **Fig. 8**.

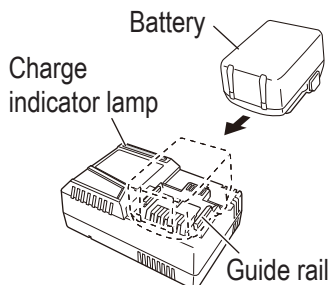





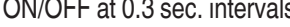
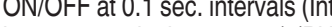


Fig. 8

3. Charging
When inserting a battery in the charger, charging will commence and the charge indicator lamp will blink in blue.
When the battery becomes fully recharged, the charge indicator lamp will light up in green.
(See **Table 1**)
- (1) Charge indicator lamp indication
The indications of the charge indicator lamp will be as shown in **Table 1**, according to the condition of the charger or the rechargeable battery.

Table 1: Indications of the charge indicator lamp

ON/OFF at 0.5 sec. intervals (RED) 	Before charging*1
Lights for 0.5 sec. at intervals of 1 sec. (BLUE) 	Charged at less than 50%
Lights for 1 sec. at intervals of 0.5 sec. (BLUE) 	Charged at less than 80%
Lights continuously (BLUE) 	Charged at more than 80%
Lights continuously (Continuous buzzer sound: about 6 sec.) (GREEN) 	Charging complete
ON/OFF at 0.3 sec. intervals (RED) 	Overheat standby*2
ON/OFF at 0.1 sec. intervals (Intermittent buzzer sound: about 2 sec.) (PURPLE) 	Charging impossible*3

NOTE

- *1 If the red lamp continues to blink even after the charger has been attached, check to confirm that the battery has been fully inserted.
 - *2 Battery overheated. Unable to charge.
Although charging will start once the battery has cooled down even when left in situ, the best practice is to remove the battery and allow it to cool down in a shaded, well-ventilated location before charging.
 - *3 Malfunction in the battery or the charger
 - Fully insert the battery.
 - Check to confirm that no foreign matter is stuck to the battery mount or terminals. If there are no foreign objects, it is probable that the battery or charger is malfunctioning. Take it to your authorized Service Center.
- 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 5 minutes rest until the next charging.

(2) Regarding the temperatures and charging time of the battery (See **Table 2**)

Table 2

Model		UC18YSL3
Type of battery		Li-ion
Charging voltage		14.4–18 V
Temperatures at which the battery can be recharged		0°C–50°C
Charging time for battery capacity, approx. (At 20°C)	1.5 Ah	15 min
	2.0 Ah	20 min
	2.5 Ah	25 min
	3.0 Ah	20 min (BSL1430C, BSL1830C: 30 min)
	4.0 Ah	26 min (BSL1840M: 40 min)
	5.0 Ah	32 min
	6.0 Ah	38 min
Charging time for multi volt battery capacity, approx. (At 20°C)	1.5 Ah (× 2 unit)	20 min
	2.5 Ah (× 2 unit)	32 min
	4.0 Ah (× 2 unit)	52 min

Number of battery cells	4–10
Charging voltage for USB	5 V
Charging current for USB	2 A
Weight	0.6 kg

NOTE

- The recharging time may vary according to the ambient temperature and power source voltage.
 - If charging takes a long time
 - Charging will take longer at extremely low ambient temperatures. Charge the battery in a warm location (such as indoors).
 - Do not block the air vent. Otherwise the interior will overheat, reducing the charger's performance.
 - If the cooling fan is not operating, contact a HiKOKI Authorized Service Center for repairs.
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.

Regarding electric discharge in case of new batteries, etc.

As the internal chemical substance of new batteries and batteries that have not been used for an extended period is not activated, the electric discharge might be low when using them the first and second time. This is a temporary phenomenon, and normal time required for recharging will be restored by recharging the batteries 2–3 times.

How to make the batteries perform longer.

- (1) Recharge the batteries before they become completely exhausted.
When you feel that the power of the tool becomes weaker, stop using the tool and recharge its battery. If you continue to use the tool and exhaust the electric current, the battery may be damaged and its life will become shorter.
- (2) Avoid recharging at high temperatures.
A rechargeable battery will be hot immediately after use. If such a battery is recharged immediately after use, its internal chemical substance will deteriorate, and the battery life will be shortened. Leave the battery and recharge it after it has cooled for a while.

BEFORE USE

Check the work area to make sure that it is clear of debris and clutter.
Clear the area of unnecessary personnel. Ensure that lighting and ventilation is adequate.

PRIOR TO OPERATION

WARNING

To avoid serious accident, ensure the switch is in the OFF position, and pull out the battery.

1. Using the hook
The hook is used to hang up the power tool to your waist belt while working.
You can switch between attaching it on the left or right.

WARNING

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.

CAUTION

- 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.
- (1) Removing the hook.
Remove the screws fixing the hook with Philips screw driver. (**Fig. 9-a**)
 - (2) Replacing 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. 9-b**)

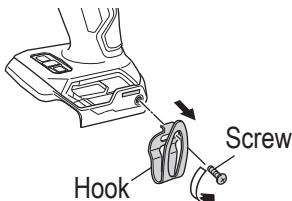


Fig. 9-a

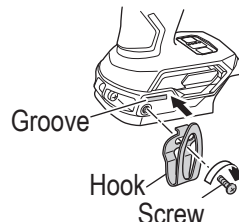


Fig. 9-b

2. Installing the bit
Always follow the following procedure to install driver bit. (**Fig. 10**)

- (1) Pull the guide sleeve away from front of the tool.
- (2) Insert the bit into the hexagonal hole in the anvil.
- (3) Release the guide sleeve and it returns to its original position.
- (4) If you want to remove the bit, pull the guide sleeve away from front of the tool.

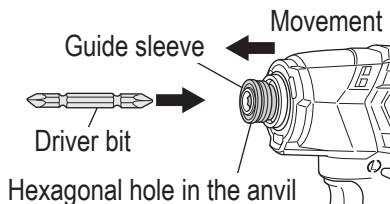


Fig. 10

CAUTION

If the guide sleeve does not return to its original position, then the bit is not installed properly.

NOTE

After attaching the bit, pull on it gently to ensure it does not come out.

3. How to attach the S-Type bit

The bit size designated by our company is the L-Type. If you want to attach the S-Type bit, the bit piece (part sold separately) is required. Attach it securely according to the procedure in the table below.

S-Type bit size	How to attach the bit
	<p>① Pull ← Guide sleeve → ③ Release</p> <p>② Put in</p> <p>S-Type bit</p> <p>Bit piece (part sold separately)</p> <p>Hexagonal hole</p> <p>Insert the bit piece and the bit into the hexagonal hole of the guide sleeve in that order.</p>

NOTE

- When the bit is attached and the guide sleeve does not return to its original position, the bit is not attached securely. Insert the bit all the way into the hexagonal hole until it makes contact.
- If the S-Type bit is used without attaching the bit piece, the bit may fall out during work or become stuck and unable to be removed.

HOW TO USE

1. Check the rotational direction
The bit rotates clockwise (viewed from the rear side) by pushing the R-side of the pushing button.
The L-side of the pushing button is pushed to turn the bit counterclockwise (See **Fig. 11**)
(The (L) and (R) marks are provided on the body).

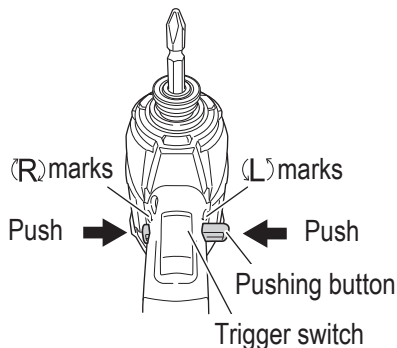


Fig. 11

CAUTION

The pushing button cannot be switched during operation. To switch the pushing button, stop the impact wrench, then set the pushing button.

2. Confirm that the battery is mounted correctly.

CAUTION

Until the battery locks in place with a little click, if not, it may accidentally fall out of the tool causing injury to you or someone around you.

3. Switch operation
 - When the trigger switch is depressed, the tool rotates. When the trigger is released, the tool stops. When releasing the trigger of the switch, the brake will be applied for immediate stopping.
 - The rotational speed 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.

NOTE

A buzzing noise is produced when the motor is about to rotate. This is only a noise, not a machine failure.

4. How to use the LED light
 - Press the light section switch on the switch panel to change the lighting mode of the LED light from "Always-ON" → "SW interlocked" → "OFF". (**Fig. 12**)

- To conserve battery power, make sure to extinguish the light as much as possible.

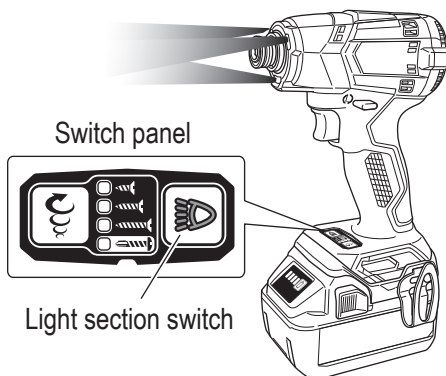


Fig. 12

CAUTION

**Do not expose directly your eye to the light by looking into the light.
If your eye is continuously exposed to the light, your eye will be hurt.**

NOTE

- To prevent the battery power consumption caused by forgetting to turn off the LED light, the light goes off automatically in about 2 minutes.
 - When the light section switch is pressed, the LED light will light up only if the battery is installed and the trigger switch has been pulled once.
 - Wipe off any dirt or grime attached to the lens of the LED light with a soft cloth, being careful not to scratch the lens. Scratches on the lens of the LED light can result in decreased brightness.
5. How to switch the LED light brightness (**Fig. 13**)
- (1) When the LED light is in "Always-ON" or "SW interlocked" mode, press and hold the light section switch on the switch panel.
 - (2) After 1.5 seconds, the LED light blinks. After it blinks, the brightness can be switched.
 - (3) Keep holding down the light section switch on the switch panel, and press the tightening mode selector switch; each time it is pressed, the LED light brightness switches in the order of "Low" ⇒ "Medium" ⇒ "High" ⇒ "Low".

NOTE

The LED light brightness can only be switched after the battery has been installed and the trigger switch has been pulled once.

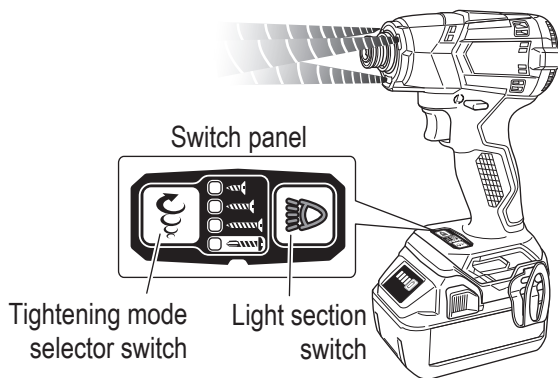


Fig. 13

6. Tightening mode selector function

CAUTION

- Do not subject the switch panel to shock or damage.
- Select tightening mode while the trigger switch is released. Failure to do so could result in malfunction.

(1) Tightening mode selector switch (Fig. 14)

By using the Tightening mode selector switch, the tightening torque can be adjusted according to the type of work.

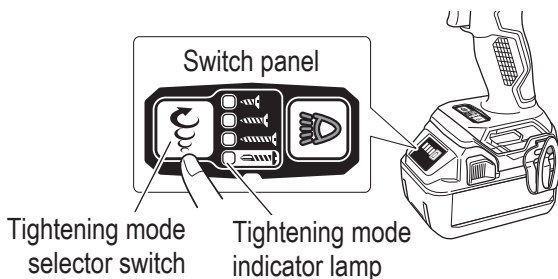


Fig. 14

The Tightening mode switches between 4 different modes each time the Tightening mode selector switch is pressed. (Fig. 15)

Tightening mode indicator lamp

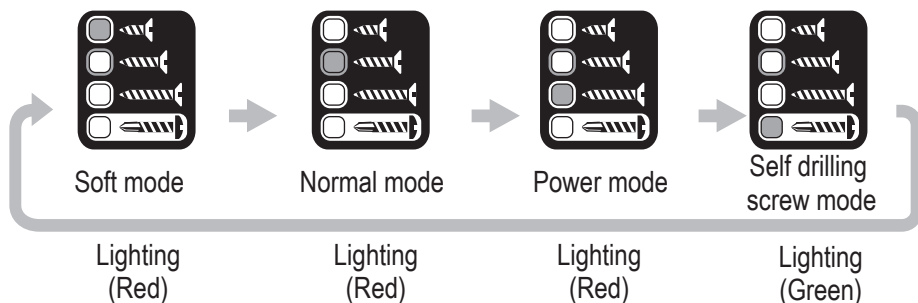


Fig. 15

NOTE

- The appropriate mode differs depending on the screw and the material being screwed. Drive in a few test screws and adjust the mode setting accordingly.
- The tightening mode selector switch can only be set after the battery has been installed and the trigger switch has been pulled once.

Examples of tightening mode selector function settings

	Soft mode	Normal mode	Power mode	Self drilling screw mode
No-load max. rotational speed	1000 /min	1700 /min	2800 /min	2800 /min
Number of impacts	0–800 /min	0–1500 /min	0–2900 /min	0–1500 /min
Use	“Delicate work” Tightening small diameter screws (M6 or similar), etc.	“Normal work” Tightening short screws, Affixing plasterboard, etc.	Tightening long screws, coach screws, bolts, etc.	Self drilling screw tightening

7. Tightening and loosening screws
Install the bit that matches the screw, line up the bit in the grooves of the head of the screw, then tighten it.
Push the power tool just enough to keep the bit fitting the head of the screw.

CAUTION

- Applying the power tool for too long tightens the screw too much and can break it.
- Tightening a screw with the power tool at an angle to that screw can damage the head of the screw and the proper force will not be transmitted to the screw. Tighten with this power tool lined up straight with the screw.

8. Tightening and loosening bolts
- A hex. socket matching the bolt or nut must first be selected. Then mount the socket on the anvil, and grip the nut to be tightened with the hex. socket. Holding the tool in line with the bolt, press the power switch to impact the nut for several seconds.
- If the nut is only loosely fitted to the bolt, the bolt may turn with the nut, therefore mistaking proper tightening. In this case, stop impact on the nut and hold the bolt head with a wrench before restarting impact, or manually tighten the bolt and nut to prevent them slipping.
9. LED light warning signals
- This product features a function that is designed to protect the tool itself as well as the battery. While the switch is pulled, if the safeguard function activates during operation, the LED light will blink as described in **Table 3**. When the safeguard function is triggered, immediately remove your finger from the switch and follow the instructions described under corrective action.

Table 3

LED Light Display	Safeguard Function
On 0.3 second/Off 0.3 second 	Temperature protection Allow the tool and battery to thoroughly cool.

10. Remaining battery indicator
- You can check the battery's remaining capacity by pressing the remaining battery indicator switch to light the indicator lamp. (**Fig. 16, Table 4**)
- It is best to use the remaining battery indicator as a guide since there are slight differences such as ambient temperature and the condition of the battery.

Also, the remaining battery indicator may vary from those equipped to a tool or charger.

Remaining battery indicator lamp Remaining battery indicator switch

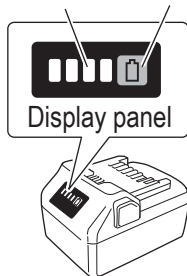


Fig. 16

Table 4

	Lights ; The battery remaining power is over 75%.
	Lights ; The battery remaining power is 50%–75%.
	Lights ; The battery remaining power is 25%–50%.
	Lights ; The battery remaining power is less than 25%.
	Blinks ; The battery remaining power is nearly empty. Recharge the battery soonest possible.
	Blinks ; Output suspended due to high temperature. Remove the battery from the tool and allow it to fully cool down.
	Blinks ; Output suspended due to failure or malfunction. The problem may be the battery so please contact your dealer.

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.

FEATURES OF THE CORDLESS OIL PULSE DRIVER

The oil pulse driver uses a viscous oil to generate pressure that rotates the bit. This mechanism reduces the noises associated with tightening screws to levels that are considerably lower than those of noises generated by other types of impact drivers.

NOTE

The viscosity of the oil changes depending on temperature. Note the following when using the tool:

- Do not use the tool in an environment below -5°C , or when it has been left to stand for a prolonged period of time in an environment below -5°C .
Otherwise, impacts (torque) may not be generated although the switch is pulled, or the number of impacts that are generated may reduce significantly, which may overload the tool, and as a result, the motor may fail.
- Also, if the tool is used while the battery's remaining power is low, the lithium ion battery protective function may activate and the motor may stop.
Charge the battery until its remaining power is 75% or higher before using the tool.
- If the tool is very hot after it has been continuously used for a certain period of time, continuing the work may make it difficult to tighten screws as the tool in this condition may not be able to generate a sufficient amount of torque. In this case, turn off the switch and do not use the tool for 30 minutes or more.
- This product utilizes a hydraulic impacting mechanism. This means that the protective function incorporated in the lithium ion battery may not work when the viscosity of the oil is within a certain range, which may cause the motor to fail.
Do not use the product in a cold environment (-5°C or less) or continuously under conditions in which the product may be overloaded.

OPERATIONAL CAUTIONS

1. Resting the unit after continuous work
The power tool is equipped with a temperature protection circuit to protect the motor. Continuous 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.
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.
After use for continuous work, 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.

NOTE

Do not touch the guide sleeve and hammer case as it gets very hot during continuous work.

2. Cautions on use of the speed control switch
This switch has a built-in, electronic circuit which steplessly varies the rotation speed. Consequently, when the trigger switch is pulled only slightly (low speed rotation) and the motor is stopped while continuously driving in screws, the components of the electronic circuit parts may overheat and be damaged.
3. Use a tightening time suitable for the screw
The appropriate torque for a screw differs according to the material and size of the screw, and the material being screwed etc., so please use a tightening time suitable for the screw. In particular, if a long tightening time is used in the case of screws smaller than M8, there is a danger of the screw breaking, so please confirm the tightening time and the tightening torque beforehand.
4. Work at a tightening torque suitable for the bolt under impact
The optimum tightening torque for nuts or bolts differs with material and size of the nuts or bolts. An excessively large tightening torque for a small bolt may stretch or break the bolt. The tightening torque increases in proportion to the operation time. Use the correct operating time for the bolt.
5. Holding the tool
Hold the tool firmly with both hands. In this case hold the tool in line with bolt. It is not necessary to push the tool very hard. Hold the tool with a force just sufficient to counteract the impact force.

HOW TO RECHARGE USB DEVICE (UC18YSL3)

WARNING

- Prior to use, check the connecting USB cable for any defect or damage. Using a defective or damaged USB cable can cause smoke emission or ignition.
- When the product is not being used, cover the USB port with the rubber cover. Buildup of dust etc. in the USB port can cause smoke emission or ignition.

NOTE

- There may be an occasional pause during USB recharging.
 - When a USB device is not being charged, remove the USB device from the charger. Failure to do so may not only reduce the battery life of a USB device, but may also result in unexpected accidents.
 - It may not be possible to charge some USB devices, depending on the type of device.
1. Select a charging method
Depending on the charge method selected, either the battery is inserted into the charger or the power cord is plugged into an outlet.

English

- Charging a USB device from a electrical outlet. (**Fig. 17-a**)
- Charging a USB device and battery from an electrical outlet. (**Fig. 17-b**)

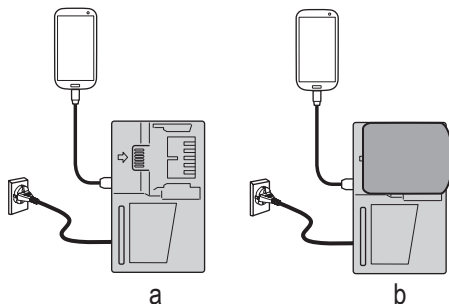


Fig. 17

2. Connect the USB cable. (**Fig. 18**)
Pull back the rubber cover and firmly plug in a commercially available USB cable (appropriate to the device being charged) into the USB port.

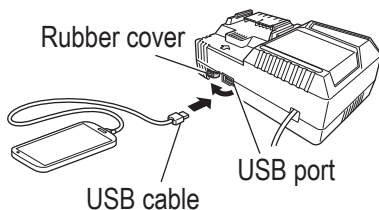


Fig. 18

3. When charging is completed
- To verify charge status, check the USB device.
 - Unplug the power cord from the electrical outlet. (**Fig. 19**)
 - Place the rubber cover over the USB port.

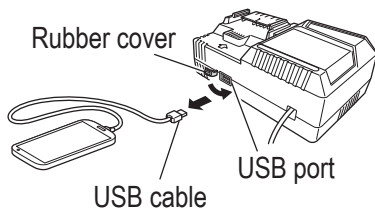


Fig. 19

MAINTENANCE AND INSPECTION

WARNING

Be sure to turn off the switch and pull out the battery before doing any inspection or maintenance.

1. Inspecting the bit
Using a broken bit or one with a worn out tip is dangerous because the bit can slip. Replace it.
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 may result in serious hazard.
3. Inspection of terminals (tool and battery)
Check to make sure that swarf and dust have not collected on the terminals.
On occasion check prior, during and after operation.

CAUTION

Remove any swarf or dust which may have collected on the terminals. Failure to do so may result in malfunction.

4. Cleaning of the outside
When the power tool is stained, wipe with a soft dry cloth or a cloth moistened with soapy water. Do not use chloric solvents, gasoline or paint thinner, as they melt plastics.
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. Storage
Store the power tool and battery in a place in which the temperature is less than 40°C, and out of reach of children.

NOTE

Storing Lithium-ion Batteries

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

Prolonged storage (3 months or more) 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

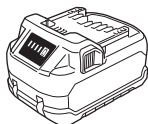
In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

Important notice on the batteries for the HiKOKI cordless power tools

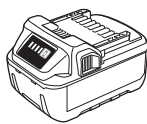
Please always use one of our designated genuine batteries. We cannot guarantee the safety and performance of our cordless power tool when used with batteries other than these designated by us, or when the battery is disassembled and modified (such as disassembly and replacement of cells or other internal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

SELECTING ACCESSORIES

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

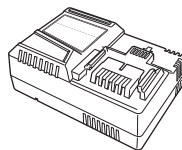


BSL36..18..

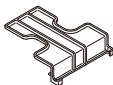


BSL18..

Battery



UC18YSL3
(14.4 V–18 V)
Charger



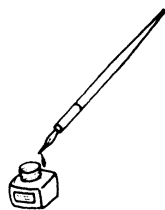
Part Number: 329897
Battery cover

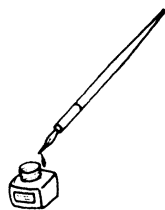


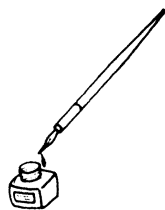
Light Gold: Part Number: 377857
Titanium Silver: Part Number: 377858
Sky Blue: Part Number: 377859
Violet: Part Number: 377860
Signal Red: Part Number: 377861
Color plate



Part Number: 996184
Bit piece







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