

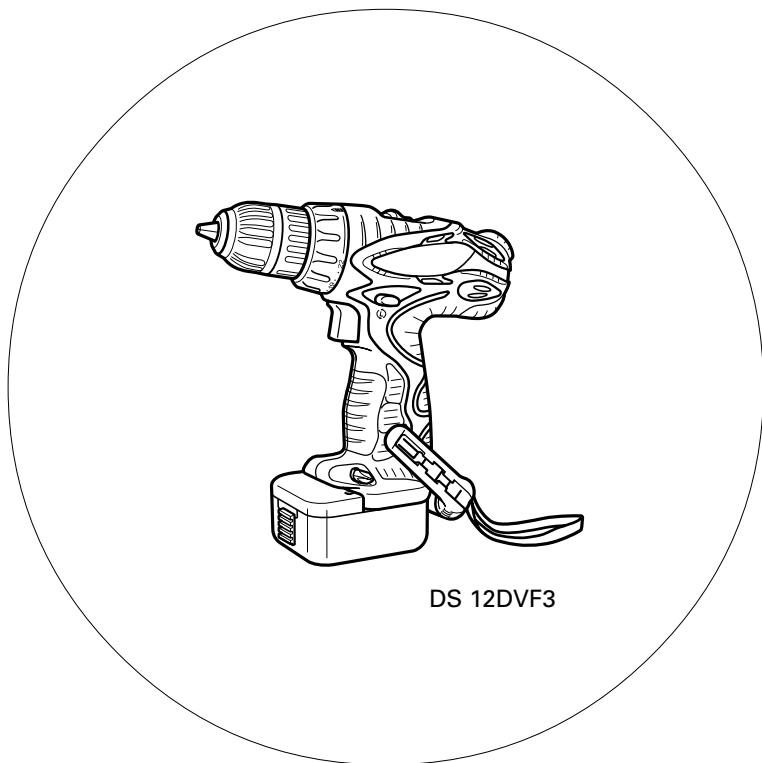
# HITACHI

## 日立牌充电式起子电钻 Cordless Driver Drill

### DS 9DVF3 · DS 12DVF3

使用说明书

HANDLING INSTRUCTIONS



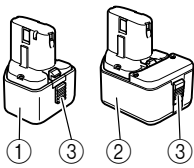
DS 12DVF3

使用前务请详加阅读

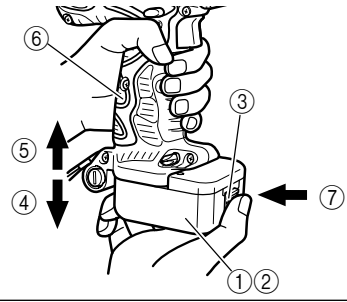
Read through carefully and understand these instructions before use.

**Hitachi Koki**

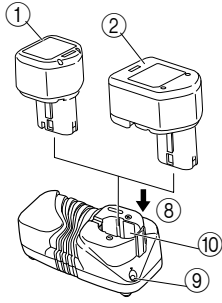
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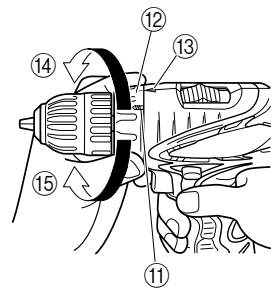
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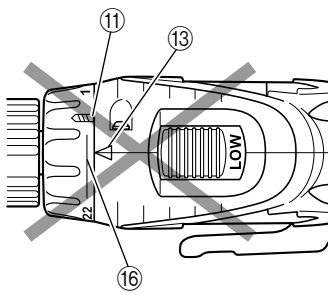
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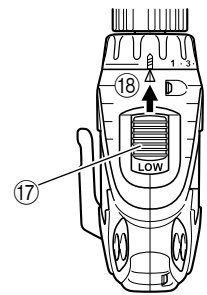
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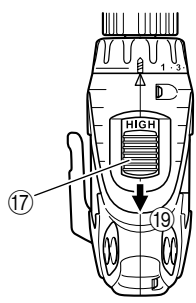
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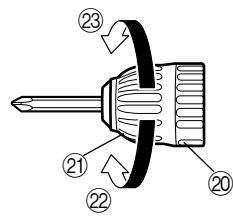
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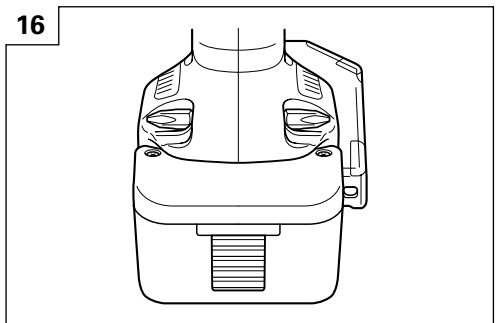
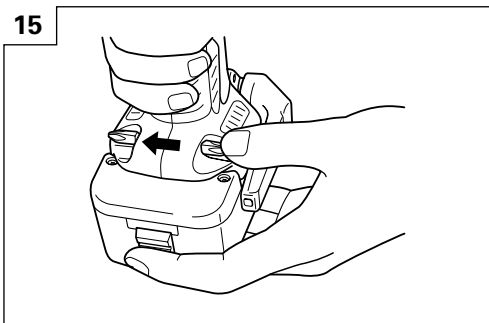
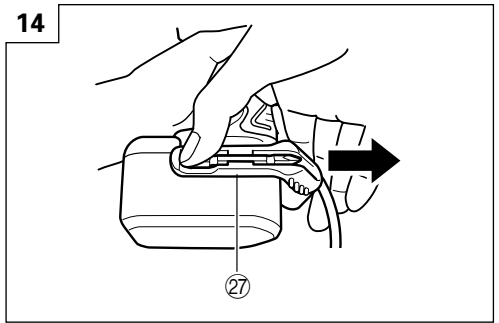
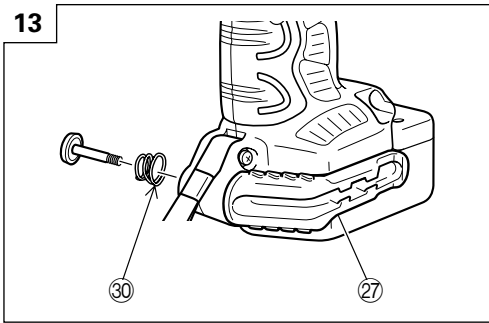
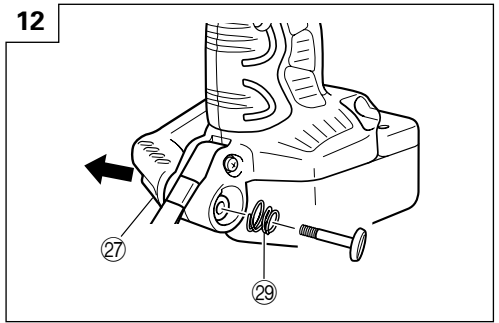
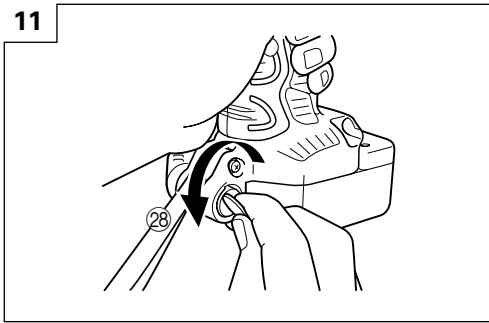
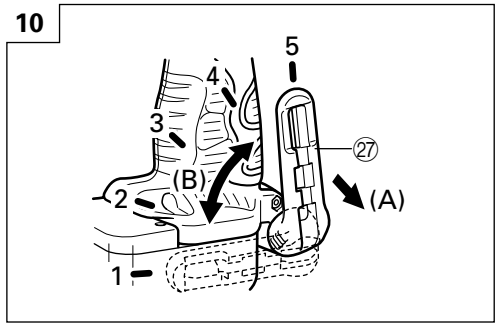
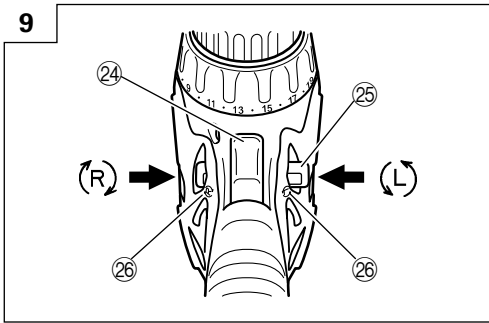


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①	9.6 V 充电式电池 (用于DS9DVF3)	9.6 V Rechargeable battery (For DS9DVF3)
②	12 V 充电式电池 (用于DS12DVF3)	12 V Rechargeable battery (For DS12DVF3)
③	插销	Latch
④	拉出	Pull out
⑤	插入	Insert
⑥	把手	Handle
⑦	按	Push
⑧	插入	Insert
⑨	指示灯	Pilot lamp
⑩	充电式电池连接孔	Hole for connecting the rechargeable battery
⑪	电钻机标记	Drill mark
⑫	离合器转盘	Clutch dial
⑬	三角标记	Triangle mark
⑭	弱	Weak
⑮	强	Strong
⑯	线	Line
⑰	变速开关	Shift knob
⑱	低速	Low speed
⑲	高速	High speed
⑳	环	Ring
㉑	导套	Sleeve
㉒	旋紧	Tighten
㉓	放松	Loosen
㉔	扳机开关	Trigger switch
㉕	选择按钮	Selector button
㉖	Ⓡ 和 Ⓛ 标记	Ⓡ and Ⓛ marks
㉗	挂钩	Hook
㉘	旋松	Loosen
㉙	弹簧	Spring
㉚	较大直径朝外	Larger diameter faces away

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## 作业上的一般注意事项

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1. 工作场所应打扫干净，清理妥当。杂乱无章将导致事故。
2. 避免危险的环境，请勿让电动工具与充电器淋到雨，不可在潮湿地方使用电动工具和充电器，工作地点要保持明亮。请勿在易燃或爆炸性物质附近使用电动工具和充电器。不可在存放易燃液体或气体的地方使用电动工具和充电器。
3. 在无监督的情况下小孩或体弱者不适宜使用此电动工具。应监督小孩不要让其玩耍电动工具。所有访客均须保持安全距离。
4. 保存现未使用的工具和充电器。未使用电动工具和充电器时，须将它们存放在干燥处、高处或能上锁处，以防止小孩和体弱者取到。请将电动工具和充电器存放在温度低于 40°C 地方。
5. 不得使劲用力推压。电动工具需按设计条件才能有效而安全地工作。绝不可勉强。
6. 妥选使用工具。不可用小型工具或附件去干重活。
7. 服装要穿戴齐整。衣服或服饰不可松弛，以免卷入活动部件内。在室外工作时，最好戴橡胶手套，穿上鞋袜。
8. 使用电动工具时，大部分需要戴安全眼镜。如果作业中灰尘多，还要戴上面具或防尘口罩。
9. 塞绳不可滥用。充电器切勿拿着塞绳搬动或从插座中拔出。不可让塞绳受热、沾油或碰到锐利的棱角。
10. 作业以安全第一为原则。工件要用夹具或台钳卡紧。这样做，比用手按压更为可靠，也能够让双手专心操作。
11. 作业时脚步要站稳，身体姿势要保持平衡。
12. 电动工具要小心保养。刀具要经常保持锋利、清洁，以确保性能与安全。请按照润滑剂和所变更的附件说明进行。
13. 充电器不用时或维修检查时，务请将充电器的插头从插座中拔出。
14. 拆下卡盘扳手和扳手。打开开关之前，总要先检查扳手是否从工具上卸下。
15. 谨防不慎打开开关。搬运钻机时，请勿将手指搁在开关上。
16. 请勿使用未经指定的充电器以免发生危险。
17. 只能使用日立指定的更换零件。

18. 不得使用电动工具去进行规定以外的其它作业。
19. 为了防止人体受伤，只能使用本说明书或日立牌产品目录中所指定的附件。
20. 只能请授权的服务店来修理本工具。对于因非授权者的修理或因错误使用了本工具而造成的工具损伤或人体伤害，本制造公司概不负责。
21. 为了保证设计的完整性，电动工具和充电器的盖罩和螺钉类不可随便拆除。
22. 务请在铭牌上规定的电压下使用充电器。
23. 除非电线插头已从电源插座拆下，绝不可接触转动部分或附件。
24. 使用前务请充电。
25. 请勿使用未经指定的电池。请勿将未经指定的普通干电池、充电式电池或汽车蓄电池连接于电动工具上。
26. 请勿使用含有升压器的变压器。
27. 请勿用引擎发电机或直流电源装置对电池进行充电。
28. 务请在室内进行充电。充电时，充电器和电池会稍微变热，因此，不要在直射阳光处充电，而应在湿度低、通风好的阴凉处进行充电。
29. 在高处作业时，要注意下面的动静。作业前，应先确认下面无人。
30. 进行授权服务时，请使用本说明书中的组装分解图。
31. 如果电源线破损，必须由厂家或其维修代理店或具有同等资格的技术人员更换，以避免发生危险。

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## 充电式起子电钻机使用上的注意事项

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1. 务请在10°C~40°C的温度下进行充电。温度低于10°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20~25°C。
2. 充电结束时，在下节电池充电之前，请先将充电器放置大约15分钟。请不要连续充电两节电池以上。
3. 勿让杂质进入充电式电池连结口内。
4. 切勿拆卸充电式电池与充电器。
5. 切勿使充电式电池短路。使电池短路将会造成很大的电流和过热，从而烧坏电池。

6. 请勿将电池丢入火中。  
电池受热将会爆炸。
7. 在墙壁、地板或天花板上钻孔时，应检查是否有埋设的电源线等。
8. 充电后电池寿命太短不够使用时，请尽快将电池送往经销商。请勿将用过的电池乱丢。
9. 请勿使用耗竭了的电池，否则会损坏充电器。
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. 当把钻头装入无键夹盘时，请充分旋紧导套。如果导套没有旋紧，钻头则会松脱，从而造成伤害。

## 规格

### 电动工具

型式		DS9DVF3	DS12DVF3
无负荷速度 (低/高)		0 - 280/0 - 840 转/分	0 - 350/0 - 1050 转/分
能力	钻孔	木料 (厚 18 mm)	21 mm
		金属 (厚 1.6 mm)	钢材: 10 mm, 铝材: 12 mm
	螺丝 紧固	机用螺丝	6 mm
		木螺丝	5.8 mm (直径) × 45 mm (长) (应有导孔)
充电式电池		EB914S: Ni-Cd 9.6 V (1.4 Ah 8 节电池)	EB1214S: Ni-Cd 12 V (1.4 Ah 10 节电池)
重量		1.4 kg	1.5 kg

### 充电器

型式	UC18YG
充电电压	7.2 - 18 V
重量	0.3 kg

## 标准附件

DS9DVF3	1 十字槽头螺丝刀头 (2 号 × 65L) .....	1
	2 充电器(UC18YG) .....	1
	3 塑料盒 .....	1
DS12DVF3	1 十字槽头螺丝刀头 (2 号 × 65L) .....	1
	2 充电器(UC18YG) .....	1
	3 塑料盒 .....	1

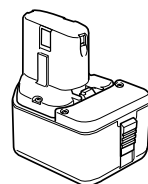
标准附件可能不预先通告而已予更改。

## 选购附件 (分开销售)

1. 电池 (EB914S) (用于 DS9DVF3)



2. 电池 (EB1214S) (用于 DS12DVF3)



选购附件可能不预先通告而已予更改。

## 用途

- 旋紧和拆除机用螺丝、木螺丝、自攻螺丝等。
- 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以拆下电池（参照图 1 和 图 2）。

#### 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 2）。

## 充电

使用电动工具之前，按下述方法将电池进行充电。

### 1. 将充电器的电源线插头插入插座

接好电源线后便开始充电。

### 2. 将电池插入充电器

按正确的电极方向插入电池直至其接触到充电器底部（此时指示灯亮起）（请参照图 4）。

#### 注意:

- 如果指示灯不亮，则请从插座上拔出电源线插头并检查电池的安装情况。

#### (1) 关于充电电池的温度。

充电电池的温度如表 1 所示。

表 1 电池充电范围

充电电池	可以对电池进行充电的温度
EB914S, EB1214S	0°C - 45°C

#### (2) 关于充电时间

由充电器和电池共同决定，充电时间变化如表 2 所示。

表 2 充电时间（20°C 下）

充电器	UC18YG
电池	
EB914S, EB1214S	约 30 分钟。

指示灯熄灭表示电池已经充好。

如果温度或电源电压偏低，电池充电时间则会延长。

如果充电已超过 120 分而指示灯仍不熄灭，则应停止充电并与您的日立授权维修中心联系。

#### 注意:

- 作业停止后，如电池（因晒太阳等原因）而变热，充电指示灯会不亮。这时，应先让电池冷却，然后再充电。

#### 3. 从电源插座拔下充电器的电源线。

#### 4. 握紧充电器并取出电池。

#### 注:

充电完成后，请先从充电器内取出电池，然后加以妥善保存。

### 关于新电池等的放电

因新的和长期未使用的充电式电池内部的化学物质无活性，故第一次和第二次使用时其放电能力可能较低。这是暂时现象，这种电池充电 2-3 次后即可恢复其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。

使用后充电式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。

## 作业之前


### 1. 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。

# 使用方法

## 1. 确认离合器转盘的位置（请参照图 4）

本机的旋紧转矩可根据离合器转盘的位置设定来调节。

- (1) 当把本机作为起子机使用时，请将离合器转盘上的“1、3、5……22”中的某个数字或点与机身外侧上的三角标记对齐。
- (2) 当把本机作为钻机来使用时，请将离合器转盘的钻机标记“”与机身外侧上的三角标记对齐。

### 注意:

- 离合器转盘不能设在数字“1、3、5……22”之间或点之间。
- 当离合器转盘位于“22”和钻机标记中部的线之间时，请勿使用本机，否则会造成损坏。（请参照图 5）

## 2. 旋紧转矩的调节

### (1) 旋紧转矩

旋紧转矩的强度应与螺丝直径相对应。如果转矩过大，螺丝头则会损坏或受损。务请按螺丝直径来调节离合器转盘的位置。

### (2) 旋紧转矩的指示

螺丝类型及受紧固的材料不同，则旋紧转矩也不同。

本机采用离合器转盘上的数字“1、3、5……22”以及线来指示旋紧转矩。旋紧转矩在位置“1”时最小，在最大数字处时最大。（请参照图 4）

### (3) 调节旋紧转矩

转动离合器转盘并使离合器转盘上的数字“1、3、5……22”或点与机身外侧上的三角标记对齐。按所需转矩将离合器转盘向小转矩或大转矩方向调节。

### 注意:

- 当把本机用作钻机时，马达可能会被锁住而停止转动。请在使用起子电钻机过程中不要锁住马达。
- 如果冲击时间过长，螺丝可能会因旋紧力过大而折断。

## 3. 改变转速

请用变速开关来改变转速。请按箭头方向移动变速开关（请参照图 6 和图 7）。

如果变速开关被设在“LOW”位置，钻机则低速旋转；如果变速开关被设在“HIGH”位置，钻机则高速旋转。

### 注意:

- 当用变速开关改变转速时，应确保电源开关已被断开。如果在马达旋转过程中改变速度，则会损坏齿轮。
- 当把变速开关设为“HIGH”（高速），且离合器转盘位于“17”或“22”时，可能会出现离合器不能啮合和马达被锁住的现象。在这种情况下，请将变速开关设为“LOW”（低速）。
- 如果马达被锁住，则应立即断开电源。如果马达的锁定状态持续一会儿，马达或电池可能会被烧毁。

## 4. 使用范围和建议

表 3 给出了基于本机机械结构的各种可用工作范围。



表 3

工作		建议
钻孔	木料	用于钻孔。
	钢材	
	铝材	
螺丝紧固	机用螺丝	使用与螺丝直径相配的钻头或套筒。
	木螺丝	钻好导孔后使用。



## 5. 选择旋紧力和转速的方法

表 4

用途		离合器转盘的位置	转速选择（变速开关的位置）	
			LOW（低速）	HIGH（高速）
螺丝 紧固	机用螺丝	1 - 22	用于直径在 4 mm 以下的螺丝 捣。	用于直径在 6 mm 以下的螺 丝。
	木螺丝	1 - 	用于公称直径在 5.8 mm 以下 的螺丝。	用于公称直径在 3.8 mm 以 下的螺丝。
钻孔	木料		用于 25 mm 以下的直径。 (DS12DVF3) 用于 21 mm 以下的直径。 (DS9DVF3)	用于 12 mm 以下的直径。
	金属		用于采用金属加工钻头的钻孔 作业。	——

### 注意:

- 表 4 中给出的选择例子应作为一般标准来考虑。在实际工作中使用的都是不同类型的紧固螺丝和受紧固的材料，因此理应进行适当的调节。
- 在机用螺丝处于 HIGH（高速）的状态下使用起子电钻机时，因旋紧转矩过大，螺丝可能会损坏或钻头可能会松弛。使用机用螺丝时，请在 LOW（低速）的状态下使用起子电钻机。

## 6. 钻头的安装和拆卸

### (1) 安装钻头

当把起子机钻头等插入无键钻机夹盘后，请紧握握环，同时右转（从前方看时为顺时针方向）导套将其旋紧。（请参照图 8）

- 如果导套在作业中变松，应将其旋得再紧一些。如果导套被旋得过紧，旋紧力则会变大。

### (2) 拆卸钻头



请紧握握环，同时左转（从前方看时为逆时针方向）导套将其旋松。（请参照图 8）

### 注意:

- 当导套再也无法旋松时，请用老虎钳或类似的工具将钻头固定住。接着将离合器模式设在 1 和 11 之间，然后在操作离合器的同时将导套朝放松的一侧（左侧）转动。这样一来导套应当易于旋松了。

## 7. 确认电池安装正确。

### 8. 检查旋转方向

按选择按钮的 R（右）侧，钻头便会顺时针（从后方看时）旋转；按选择按钮的 L（左）侧则使钻头逆时针旋转。（请参照图 9）。（机身上标有  和  标记。）

### 9. 开关操作

- 压下扳机开关，则本机旋转；松开扳机，则本机停止。
- 钻机的转速可通过改变扳机开关的扣动幅度来控制：幅度小则速度低，幅度大则速度高。

### 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。

## 10. 使用挂钩

### 注意:

- 若使用挂钩，请十分注意不要使电钻落下。若电钻下落，可能有事故的危险。
- 若使用悬挂在背带上的挂钩携带电钻时，除了十字形起子钻头之外，请不要将任何尖钻头安装至电钻。若悬挂在背带上的电钻顶端尖锐，如钻头，可能造成伤害。

可将挂钩安装在左侧或右侧，并可在 0°C 和 80°C 之间分 5 级调节角度。

### (1) 操作挂钩

- (a) 按箭头方向 (A) 朝身边拉出挂钩，并按箭头方向 (B) 转动。(图 10)
- (b) 可分 5 级调节角度 (0°, 20°, 40°, 60°, 80°)。

请将挂钩调节到操作所需的位置。

### (2) 切换挂钩位置。

#### 注意：

不完整地安装挂钩可能会在使用时导致伤害。

- (a) 紧紧抓住主机并用槽头螺丝刀或硬币取下螺钉。(图 11)
- (b) 取下挂钩和弹簧。(图 12)
- (c) 将挂钩和弹簧安装在另一侧并用螺钉固定。(图 13)

#### 注：

请注意弹簧的方向。请按较大直径朝外的方向安装弹簧(图 13)

### (3) 使用钻头架

- 安装钻头  
从侧面滑动钻头，然后将其稳稳插入直至钻头上的槽锁定于挂钩的突出部分。
- 取下钻头  
紧紧抓住主机并用拇指拿住顶端取出钻头。(图 14)

#### 注意：

- 仅可使用日立牌标准附件十字形起子机钻头(钻头编号 2 × 65 L，代码号 983006)。请勿使用其他钻头，因为它们可能会松脱。

## 11. 使用钻头固定器

#### 注意：

- 将钻头安装在本工具的指定部位。如果未正确安装钻头时使用本工具，钻头可能脱落并引起人体伤害。
- 安装钻头的长度、规格、尺寸必须与标准附件中的十字槽头螺丝刀头(长65mm)相同。否则钻头可能脱落并引起人体伤害。

### (1) 拆卸钻头

紧紧固定机身，用手指抓住钻头的顶端将其拉出(图 15)。

### (2) 安装钻头

安装钻头的步骤与拆卸相反。插入钻头，使其位于正中，如图 16 所示。

## 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，就应及时及早磨快或更换工具。

### 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，否则会导致严重事故。

### 3. 清理外部

冲击电钻机沾污时，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。

### 4. 收藏

冲击电钻机应收藏于温度低于 40°C 和小孩拿不到的地方。

### 5. 维修零部件一览表

#### 注意：

日立牌电动工具的维修、改造和检查须由经日立公司授权的维修中心进行。

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

在操作和维修电动工具时，必须遵守贵国制定的安全的有关规则和标准。

#### 改造：

日立牌电动工具经常加以改善和改造以采用最新的先进技术。

因此，某些零部件可能变更，恕不另行通知。

#### 注：

为求改进，本手册所载规格可能不预先通告而已予更改。

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## GENERAL OPERATIONAL PRECAUTIONS

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1. Keep work area clean. Cluttered areas and benches invite accidents.
2. Avoid dangerous environment. Don't expose power tools and charger to rain. Don't use power tools and charger in damp or wet locations. And keep work area well lit. Never use power tools and charger near flammable or explosive materials. Do not use tool and charger in presence of flammable liquids or gases.
3. The appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance. All visitors should be kept safe distance from work area.
4. Store idle tools and charger. When not in use, tools and charger should be stored in dry, high or locked-up place – out of reach of the children and infirm persons. Store tools and charger in a place where the temperature is less than 40°C.
5. Don't force tool. It will do the job better and safer at the rate for which it was designed.
6. Use right tool. Don't force small tool or attachment to do the job of a heavy duty tool.
7. Wear proper apparel. Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwears are recommended when working outdoor.
8. Use eye protection with most tools. Also use face or dust mask if cutting operation is dusty.
9. Don't abuse cord. Never carry charger by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
10. Secure work. Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
11. Don't overreach. Keep proper footing and balance at all times.
12. Maintain tools with care. Keep tools sharp at all times, and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
13. When the charger is not in use, or when being maintained and inspected, disconnect its power cord from the receptacle.
14. Remove chuck wrenches and wrenches. Form habit of checking to see that wrenches are removed from tool before turning it on.
15. Avoid accidental starting. Don't carry tool with finger on switch.
16. To avoid danger, always use only the specified charger.
17. Use only genuine HITACHI replacement parts.
18. Do not use power tools for applications other than those specified in the Handling Instructions.
19. To avoid personal injury, use only the accessories or attachment recommended in these handling instructions or in the HITACHI catalog.
20. If the supply cord of this charger is damaged, the charger must be returned to the HITACHI authorized service center for the cord to be replaced. Let only the authorized service center do the repairing. The Manufacturer will not be responsible for any damages or injuries caused by repair by the unauthorized persons or by mishandling of the tool.
21. To ensure the designed operational integrity of power tools and charger, do not remove installed covers or screws.
22. Always use the charger at the voltage specified on the nameplate.
23. Do not touch movable parts or accessories unless the battery has been removed.
24. Always charge the battery before use.
25. Never use a battery other than that specified. Do not connect a usual dry cell, a rechargeable battery other than that specified or a car battery to the power tool.
26. Do not use any transformer that has a booster.
27. Do not charge the battery from an engine electric generator or DC power supply.
28. Always charge indoors. Because the charger and battery heat slightly during charging, charge the battery in a place not exposed to direct sunlight; where the humidity is low and the ventilation is good.
29. When working in a high place, pay attention to the activities below to make sure there are no people below.
30. Use the exploded assembly drawing on this handling instructions only for authorized servicing.
31. If the supply cord is damaged, it must be replaced by the manufacture or its service agent or a similarly qualified person in order to avoid a hazard.

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## PRECAUTIONS FOR CORDLESS DRIVER DRILL

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1. Always charge the battery at a temperature of 10 – 40°C. A temperature of less than 10°C will result in over charging which is dangerous. The battery cannot be charged at a temperature higher than 40°C.  
The most suitable temperature for charging is that of 20 – 25°C.
2. When one charging is completed, leave the charger for about 15 minutes before the next charging of battery.  
Do not charge more than two batteries consecutively.
3. Do not allow foreign matter to enter the hole for connecting the rechargeable battery.
4. Never disassemble the rechargeable battery and charger.
5. Never short-circuit the rechargeable battery. Short-circuiting the battery will cause a great electric current and overheat. It results in burn or damage to the battery.
6. Do not dispose of the battery in fire.  
If the battery is burnt, it may explode.
7. When drilling in wall, floor or ceiling, check for buried electric power cord, etc.
8. 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.
9. Using an exhausted battery will damage the charger.
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. When mounting a bit into the keyless chuck, tighten the sleeve adequately. If the sleeve is not tight, the bit may slip or fall out, causing injury.

## SPECIFICATIONS

### POWER TOOL

Model			DS9DVF3	DS12DVF3
No-load speed (Low/High)			0 – 280 / 0 – 840 / min	0 – 350 / 0 – 1050 / min
Capacity	Drilling	Wood (Thickness 18mm)	21 mm	25 mm
		Metal (Thickness 1.6mm)	Steel: 10 mm, Aluminum: 12 mm	Steel: 12 mm, Aluminum: 15 mm
	Driving	Machine screw	6 mm	6 mm
		Wood screw	5.8 mm (diameter) × 45 mm (length) (Requires a pilot hole)	5.8 mm (diameter) × 63 mm (length) (Requires a pilot hole)
Rechargeable battery			EB914S: Ni-Cd 9.6 V (1.4 Ah 8 cells)	EB1214S: Ni-Cd 12 V (1.4 Ah 10 cells)
Weight			1.4 kg	1.5 kg

### CHARGER

Model	UC18YG
Charging voltage	7.2 – 18V
Weight	0.3 kg

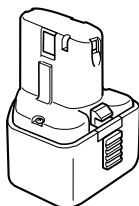
### STANDARD ACCESSORIES

DS9DVF3	① Plus driver bit (No. 2 × 65L).....	1
	② Charger (UC18YG) .....	1
	③ Plastic case .....	1
DS12DVF3	① Plus driver bit (No. 2 × 65L).....	1
	② Charger (UC18YG) .....	1
	③ Plastic case .....	1

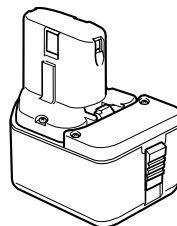
Standard accessories are subject to change without notice.

### OPTIONAL ACCESSORIES (sold separately)

1. Battery (EB914S) (For DS9DVF3)



2. Battery (EB1214S) (For DS12DVF3)



Optional accessories are subject to change without notice.

### APPLICATIONS

- Driving and removing of machine screws, wood screws, tapping screws, etc.
- Drilling of various metals.
- Drilling of various woods.

### BATTERY REMOVAL/INSTALLATION

#### 1. Battery removal

Hold the handle tightly and push the battery latch to remove the battery (see Figs. 1 and 2).

#### CAUTION

Never short-circuit the battery.

#### 2. Battery installation

Insert the battery while observing its polarities (see Fig. 2).

### CHARGING

Before using the driver drill, charge the battery as follows.

1. **Connect the charger power cord to the receptacle**  
Connecting the power cord will turn on the charger.
2. **Insert the battery into the charger**  
Insert the battery firmly while observing its direction, until it contacts the bottom of the charger (the pilot lamp lights up) (See Fig. 4).

## CAUTION

If the pilot lamp does not light up, pull out the power cord from the receptacle and check the battery mounting condition.

- (1) Regarding the temperatures of the rechargeable battery

The temperatures for rechargeable batteries are as shown in **Table 1**.

**Table 1** Recharging ranges of batteries

Rechargeable batteries	Temperatures at which the battery can be recharged
EB914S, EB1214S	0°C – 45°C

- (2) Regarding recharging time

Depending on the combination of the charger and batteries, the charging time will become as shown in **Table 2**.

**Table 2** Charging time (At 20°C)

Battery \ Charger	UC18YG
EB914S, EB1214S	Approx. 30 min.

The pilot lamp goes off to indicate that the battery is fully charged.

The battery charging time becomes longer when a temperature is low or the voltage of the power source is too low.

When the pilot lamp does not go off even if more than 120 minutes have elapsed after starting of the charging, stop the charging and contact your HITACHI AUTHORIZED SERVICE CENTER.

## CAUTION

If the battery is heated due to direct sunlight, etc., just after operation, the charger pilot lamp may not light up. At that time, cool the battery first, then start charging.

3. Disconnect the charger's power cord from the receptacle

4. Hold the charger firmly and pull out the battery

## NOTE

After charging, pull out batteries from the charger first, and then keep the batteries properly.

### 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.

## PRIOR TO OPERATION

1. **Setting up and checking the work environment**

Check if the work environment is suitable by following the precautions.

## HOW TO USE

1. **Confirm the clutch dial position (See Fig. 4)**

The tightening torque of this unit can be adjusted according to the clutch dial position, at which the clutch dial is set.

- (1) When using this unit as a screwdriver, line up the one of the numbers "1, 3, 5 ... 22" on the clutch dial, or the dots, with the triangle mark on the outer body.

- (2) When using this unit as a drill, align the clutch dial drill mark "▲" with the triangle mark on the outer body.

## CAUTION

- The clutch dial cannot be set between the numerals "1, 3, 5 ... 22" or the dots.
- Do not use with the clutch dial numeral between "22" and the line at the middle of the drill mark. Doing so may cause damage (See Fig. 5).

2. **Tightening torque adjustment**

- (1) Tightening torque

Tightening torque should correspond in its intensity to the screw diameter. When too strong torque is used, the screw head may be broken or be injured. Be sure to adjust the clutch dial position according to the screw diameter.

- (2) Tightening torque indication

The tightening torque differs depending on the type of screw and the material being tightened.

The unit indicates the tightening torque with the numbers "1, 3, 5 ... 22" on the clutch dial, and a dots. The tightening torque at position "1" is the weakest and the torque is strongest at the highest number (See Fig. 4).

- (3) Adjusting the tightening torque

Rotate the clutch dial and line up the numbers "1, 3, 5 ... 22" on the clutch dial, or the dots, with the triangle mark on the outer body. Adjust the clutch dial in the weak or the strong torque direction according to the torque you need.

## CAUTION

- The motor rotation may be locked to cease while the unit is used as drill. While operating the driver drill, take care not to lock the motor.
- Too long hammering may cause the screw broken due to excessive tightening.

3. **Change rotation speed**

Operate the shift knob to change the rotational speed. Move the shift knob in the direction of the arrow (See Figs. 6 and 7).

When the shift knob is set to "LOW", the drill rotates at a low speed. When set to "HIGH", the drill rotates at a high speed.

**CAUTION**

- When changing the rotational speed with the shift knob, confirm that the switch is off. Changing the speed while the motor is rotating will damage the gears.
- When setting the shift knob to "HIGH" (high speed) and the position of the clutch dial is "17" or "22",

it may happen that the clutch does not engaged and that the motor is locked. In such a case, please set the shift knob to "LOW" (low speed).

- 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.

**4. The scope and suggestions for uses**




The usable scope for various types of work based on the mechanical structure of this unit is shown in **Table 3**.

**Table 3**

Work		Suggestions
Drilling	Wood	Use for drilling purpose.
	Steel	
	Aluminum	
Driving	Machine screw	Use the bit or socket matching the screw diameter.
	Wood screw	Use after drilling a pilot hole.

**5. How to select tightening torque and rotational speed**

**Table 4**

Use		Clutch Dial Position	Rotating speed selection (Position of the shift knob)	
			LOW (Low speed)	HIGH (High speed)
Driving	Machine screw	1 - 22	For 4 mm or smaller diameter screws.	For 6 mm or smaller diameter screws.
	Wood screw	1 - 	For 5.8 mm or smaller nominal diameter screws.	For 3.8 mm or smaller nominal diameter screws.
Drilling	Wood		For 25 mm or smaller diameters. (DS12DVF3) For 21 mm or smaller diameters. (DS9DVF3)	For 12 mm or smaller diameters.
	Metal		For drilling with a metal working drill bit.	

**CAUTION**

- The selection examples shown in **Table 4** should be considered as general standard. As different types of tightening screws and different materials to be tightened are used in actual works proper adjustments are naturally necessary.
- When using the driver drill with a machine screw at HIGH (high speed), a screw may damage or a bit may loose due to the tightening torque is too strong. Use the driver drill at LOW (low speed) when using a machine screw.

**6. Mounting and dismounting of the bit**

- (1) After inserting a driver bit, etc. into the keyless drill chuck, firmly grasp the ring and tighten the sleeve by turning it toward the right (in the clockwise direction as viewed from the front) (See **Fig. 8**).
- If the sleeve becomes loose during operation, tighten it further. The tightening force becomes stronger when the sleeve is tightened additionally.
- (2) Dismounting the bit  
Firmly grasp the ring and loosen the sleeve by turning it toward the left (in the counter-clockwise direction as viewed from the front) (See **Fig. 8**).

**CAUTION**

- When it is no longer possible to loosen the sleeve, use a vise or similar instrument to secure the bit. Set the clutch mode between 1 and 11, and then turn the sleeve to the loose side (left side) while operating the clutch. It should be easy now to loosen the sleeve.

**7. Confirm that the battery is mounted correctly**

**8. 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. 9**) (The (L) and (R) marks are provided on the body).

**9. Switch operation**

- When the trigger switch is depressed, the tool rotates. When the trigger 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.

## NOTE

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

## 10. Using the hook

### CAUTION

- When using the hook, pay sufficient attention so that the main equipment does not fall. If the tool falls, there is a risk of accident.

- Do not attach the tip tool except phillips bit to the tool main unit when carrying the tool main unit with the hook suspended from a waist belt. Injury may result if you carry the equipment suspended from the waist belt with sharp tipped components such as drill bit attached.

The hook can be installed on the right or left side and the angle can be adjusted in 5 steps between 0° and 80°.

#### (1) Operating the hook

- (a) Pull out the hook toward you in the direction of arrow (A) and turn in the direction of arrow (B) (Fig. 10).

- (b) The angle can be adjusted in 5 steps (0°, 20°, 40°, 60°, 80°).  
Adjust the angle of the hook to the desired position for use.

#### (2) Switching the hook position

### CAUTION

Incomplete installation of the hook may result in bodily injury when used.

- (a) Securely hold the main unit and remove the screw using a slotted head screwdriver or a coin (Fig. 11).

- (b) Remove the hook and spring (Fig. 12).

- (c) Install the hook and spring on the other side and securely fasten with screw (Fig. 13).

## NOTE

Pay attention to the spring orientation. Install the spring with larger diameter away from you (Fig. 13).

#### (3) Using the bit holder (Hook with bit holder)

- Installing the bit

Slide the bit from the side and then insert firmly until the groove on the bit locks in the protruded section of the hook.

- Removing the bit

Securely hold the main unit and pull out the bit by holding the tip with your thumb (Fig. 14).

### CAUTION

- Only Hitachi STANDARD ACCESSORIES phillips bit (No. 2 × 65L; Code No. 983006) may be used. Do not use other bits since they may come loose.

## 11. Using the bit holder

### CAUTION

- Stow the bit in the specified location on the tool. If the tool is used with the bit stowed improperly, the bit may fall and cause bodily injury.

- Do not stow bits that are of a different length, gauge or dimension than the plus driver bit (65 mm long) included in the STANDARD ACCESSORIES. The bit may fall and cause bodily injury.

#### (1) Removing the bit

Securely hold the main unit and pull out the bit by holding the tip with your thumb (Fig. 15).

#### (2) Installing the Bit

Install the bit with steps opposite of when removing. Insert the bit so that the right and left sides are equal, as shown in Fig. 16.

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## MAINTENANCE AND INSPECTION

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### 1. Inspecting the tool

Since use of as 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. Cleaning on the outside

When the driver 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.

### 4. Storage

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

### 5. Service parts list

#### CAUTION

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

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

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

#### MODIFICATIONS

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

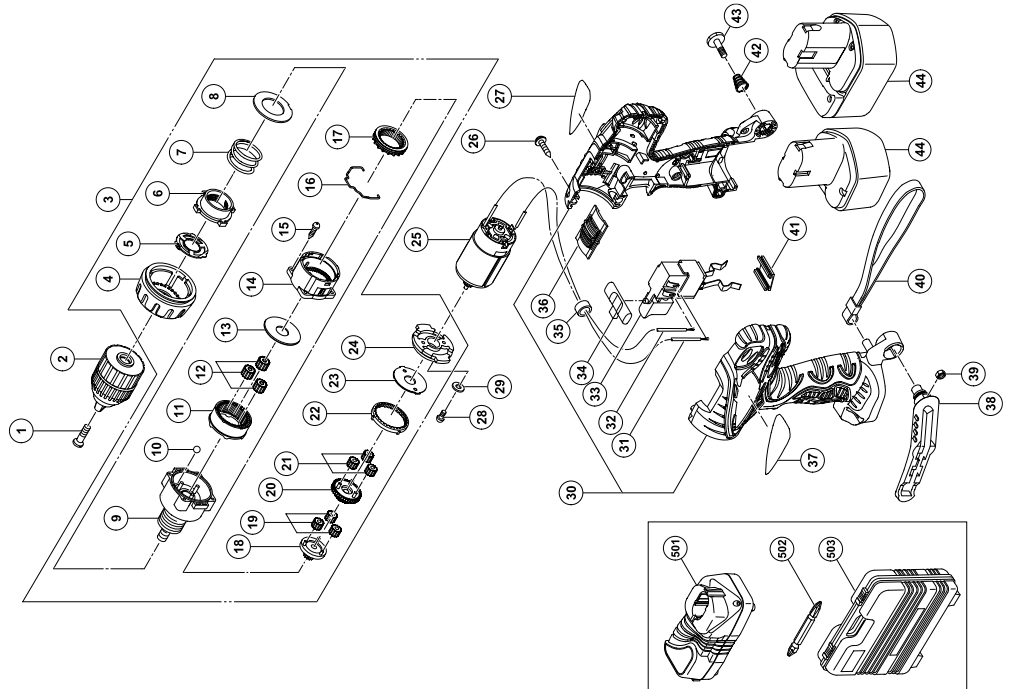
Accordingly, some parts may be changed without prior notice.

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## NOTE

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

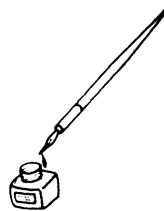
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Item No.	Part Name
1	SPECIAL SCREW (LEFT HAND)M5 × 27
2	DRILL CHUCK 10TLRD-N (W/O CHUCK WRENCH)
3	GEAR BOX ASS'Y
4	CLUTCH DIAL
5	CLICK SPRING
6	NUT
7	SPRING
8	WASHER (A)
9	FRONT CASE
10	STEEL BALL D5
11	RING GEAR
12	PLANET GEAR (C) SET
13	WASHER (A)
14	REAR CASE
15	TAPPING SCREW D3 × 12
16	SHIFT ARM
17	SLIDE RING GEAR
18	PINION (C)
19	PLANET GEAR (B) SET
20	PINION (B)
21	PLANET GEAR (A) SET
22	FIRST RING GEAR
23	WASHER (B)
24	MOTOR SPACER
25	MOTOR
26	TAPPING SCREW (W/FLANGE) D3 × 16
27	NAME PLATE
28	MACHINE SCREW M3 × 8
29	SPRING WASHER M3
30	HOUSING (A), (B) SET

Item No.	Part Name
31	INTERNAL WIRE (B) 90L (BLACK)
32	INTERNAL WIRE (B) 140L (RED)
33	DC-SPEED CONTROL SWITCH
34	PUSHING BUTTON
35	FERRITE CORE
36	SHIFT KNOB
37	HITACHI LABEL
38	HOOK ASS'Y
39	V-LOCK NUT M5
40	STRAP
41	TERMINAL SUPPORT (A)
42	HOOK SPRING
43	SPECIAL SCREW M5
44-1	BATTERY: DS9DFV3
44-2	BATTERY: DS12DFV3
501	CHARGER (UC18YG)
502	+ DRIVER BIT
503	CASE





 **Hitachi Koki Co., Ltd.**

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