Hitachi Power Tools

TECHNICAL DATA AND SERVICE MANUAL

LIST Nos.
DV 14DCL2: H866
DV 14DVC2: H868
DV 18DCL2: H867
DV 18DVC2: H869
Jun. 2010

PRODUCT NAME

Hitachi 14.4 V Cordless Impact Driver Drill
Models DV 14DCL2, DV 14DVC2
Hitachi 18 V Cordless Impact Driver Drill
Models DV 18DCL2, DV 18DVC2

D

MARKETING OBJECTIVE

The Models DV 18DCL2 and DV 14DCL2 are cordless impact driver drills equipped with an 18 V and 14.4 V lithium-ion battery, respectively. The Models DV 18DVC2 and DV 14DVC2 are cordless impact driver drills equipped with an 18 V and 14.4 V Ni-Cd battery, respectively. Vigorous sales promotion and expanded market share are anticipated with the introduction of the new Models DV 18DCL2, DV 18DVC2, DV 14DCL2 and DV 14DVC2. The key features of the Models DV 18DCL2, DV 18DVC2, DV 14DCL2 and DV 14DVC2 are as follows:

(1) Improved overload durability
(2) 22-position torque adjustable clutch (Max. clutch torque: 6.0 N·m)
(3) Equipped with safe and secure lithium-ion battery or new Ni-Cd battery

We aim to expand our market share with the new Models DV 18DCL2, DV 18DVC2, DV 14DCL2 and DV 14DVC2.

APPLICATIONS

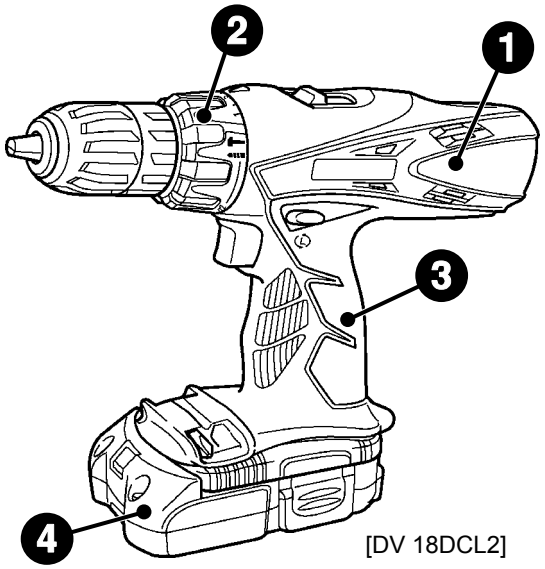
- Tightening and loosening wood screws, self-tapping screws and machine screws
- Drilling into wood, plastic, mild steel and aluminum materials
- Drilling into brick and concrete blocks

SELLING POINTS

[NEW FEATURES]

1. **Improved overload durability (improved cooling efficiency)**
2. **22-position torque adjustable clutch**
3. **Soft-grip handle**
4. **Safe and secure lithium-ion battery (BCL 1415, BCL 1815), or new Ni-Cd battery (BCC 1412, BCC 1812)**

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.



[DV 18DCL2]

HITACHI

Hitachi Koki Co., Ltd.
International Sales Division

REMARK:

・For more information about HANDLING INSTRUCTIONS, visit our website at:

http://www.hitachi-koki.com/manual_view_export/

・Throughout this TECHNICAL DATA AND SERVICE MANUAL, a symbol(s) is(are) used in the place of company name(s) and model name(s) of our competitor(s). The symbol(s) utilized here is(are) as follows:

Models DV 18DCL2 and DV 18DVC2

Symbols Utilized	Competitors	
	Company Name	Model Name
R	RYOBI	CDI-1801

Models DV 14DCL2 and DV 14DVC2

Symbols Utilized	Competitors	
	Company Name	Model Name
R	RYOBI	CHI-1442

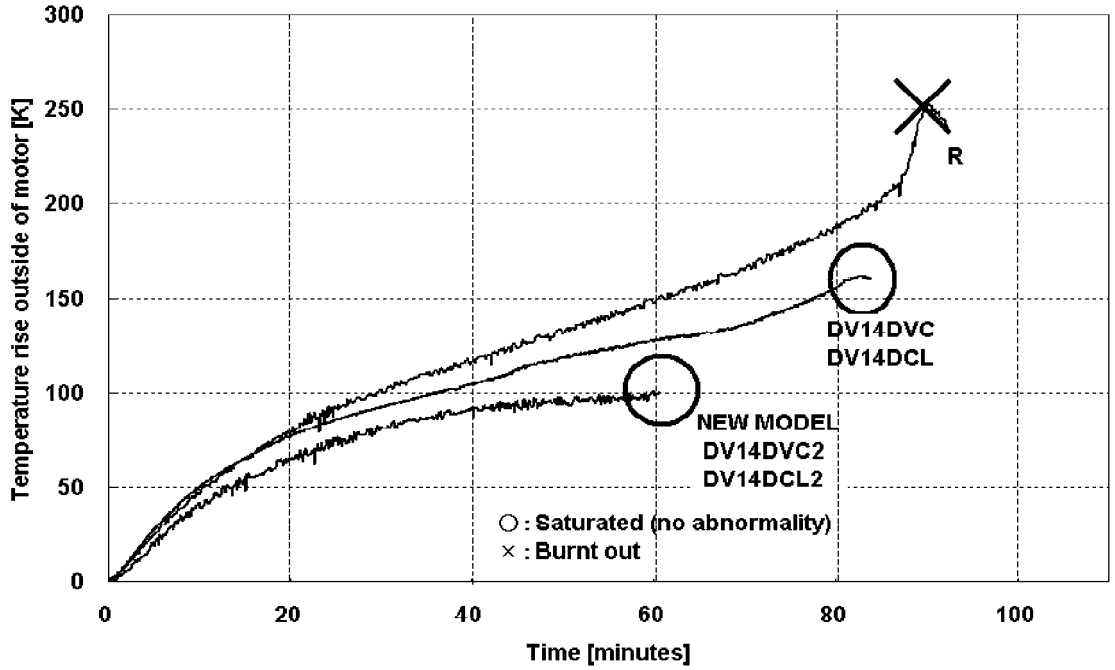
CONTENTS

SELLING POINTS

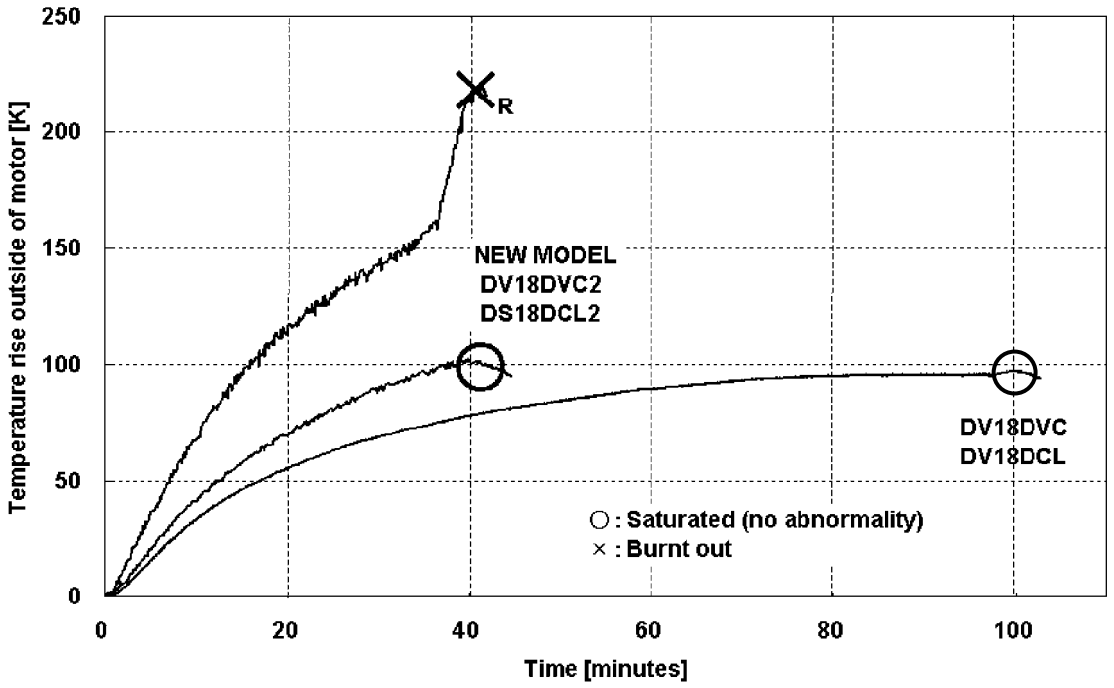
❶ Improved overload durability (improved cooling efficiency)

The Models DV 18DCL2, DV 18DVC2, DV 14DCL2 and DV 14DVC2 ensure durability in continuous operation, thanks to of a powerful motor and improved air ducts.

・1.76 N•m {18 kgf•cm} intermittent load test (14.4 V)



・2.06 N•m {21 kgf•cm} intermittent load test (18 V)



❷ 22-position torque adjustable clutch (Max. clutch torque: 6.0 N•m)

The 22-position torque adjustable clutch ensures fine torque adjustment for better operability.

Clutch dial position	Tightening torque
1	1.0 ± 0.5 N•m {10 ± 5 kgf•cm }
4	1.7 ± 0.6 N•m {17 ± 6 kgf•cm }
10	3.1 ± 0.7 N•m {31 ± 7 kgf•cm }
13	3.8 ± 0.8 N•m {38 ± 8 kgf•cm }
19	5.3 ± 0.9 N•m {53 ± 9 kgf•cm }
22	6.0 ± 1.0 N•m {60 ± 10 kgf•cm }

* There may be some differences in operation depending on shapes of screws and the workpieces used.
Conduct a test before actual driving.

❸ Soft-grip handle

The handle is widely covered with soft-touch elastomer (rubber-like soft resin). It is slip-resistant and securely fits in the palm of a hand even if the gripping hand sweats.

❹ Safe and secure lithium-ion batteries (Types BCL 1815 and BCL 1415)

The new 1.5 Ah Types BCL 1815 and BCL 1415 Lithium-ion Batteries were developed for light-duty work. Both batteries are equipped with an overdischarge protection circuit, overload protection circuit, overheat protection circuit and voltage monitoring circuit for each cell to prevent reduced battery service life due to overdischarge (overuse) or overcharge (excessive charging). These protection circuits make it possible to safely use the batteries.

Precautions on using the Types BCL 1815 and BCL 1415 Lithium-ion Batteries

The Types BCL 1815 and BCL 1415 Lithium-ion Batteries are both equipped with a protective function that automatically stops output to prolong battery service life. The motor may stop automatically in any of cases (1), (2) and (3) below, even if the switch is held down during operation. This is due to activation of the protective function. The batteries are not faulty.

	Protective function	Source of trouble	Corrective action
(1)	Overdischarge protection circuit	Drop in battery voltage to about: 12 V/BCL 1815 8 V/BCL 1415	Charge the battery immediately.
(2)	Overload protection circuit	Heavy-duty work	Release the switch and eliminate the cause of the overload problem.
(3)	Overheat protection circuit	Continuous operation or heavy-duty work	Remove the battery from the tool and allow it to cool down.

New Ni-Cd batteries (Types BCC 1412 and BCC 1812)

The new 1.2 Ah Ni-Cd Batteries Types BCC 1412 and BCC 1812 were developed for light-duty work. These batteries—the lowest-level Ni-Cd models of 14.4 V and 18 V batteries—are consequently easier to purchase than other Ni-Cd batteries.

SPECIFICATIONS

1. Specifications

<table>
<tr><td colspan="2">Item \ Model</td><td>DV 18DCL2</td></tr>
<tr><td colspan="2">Capacity</td><td>Screw driving Machine screw ---------- 6 mm (1/4")
Wood screw ---------- 8 mm dia. x 75 mm (#20 x 3")
Drilling Brick ---------- 13 mm (1/2") [Depth 30 mm (1-1/4")]
Metal ------- Mild steel --- 13 mm (1/2") [Thickness 1.6 mm (1/16")]
Aluminum -- 13 mm (1/2") [Thickness 1.6 mm (1/16")]
Wood ---------- 38 mm (1-1/2") [Thickness 18 mm (11/16")]</td></tr>
<tr><td colspan="2">Keyless chuck (13VLRS-N)</td><td>Mount type ----------Screw-on (UNF 1/2" to 20)
Diameter----------2.0 to 13 mm (5/64" to 1/2")</td></tr>
<tr><td colspan="2">Rotation speed (No-load)</td><td>Low: 0 to 400 min^{-1}, High: 0 to 1,500 min^{-1}</td></tr>
<tr><td colspan="2">Torque</td><td>Slip torque----------1 to 6.0 N•m (10 to 60 kgf•cm, 9 to 52 in-lbs.) [22 stages]
Max. torque ----------Low: 43 N•m (439 kgf•cm, 382 in-lbs.)
High: 12 N•m (122 kgf•cm, 106 in-lbs.)</td></tr>
<tr><td colspan="2">Type of motor</td><td>Fan-cooled DC magnet motor</td></tr>
<tr><td colspan="2">Type of switch</td><td>Trigger switch with pushing button for forward and reverse rotation changeover (with brake)</td></tr>
<tr><td colspan="2">Enclosure</td><td>Body ----------Glassfiber-reinforced polyamide resin (black) and thermoplastic elastomer (green)
Battery ----------Glassfiber-reinforced polyamide resin (black)
Charger ----------ABS resin (black)</td></tr>
<tr><td colspan="2">Battery (Type BCL 1815)</td><td>Sealed cylindrical lithium-ion storage battery
Nominal voltage ----------DC 18 V
Nominal life ----------Charging/discharging: Approx. 800 times
Nominal capacity ----------1.5 Ah</td></tr>
<tr><td colspan="2">Charger (Model UC 18YKL)</td><td>Overcharge protection system:
(1) Battery voltage detection (ΔV system)
Battery temperature detection (dT/dt system) for Ni-Cd, Ni-MH battery
(2) Battery surface temperature detection (by thermostat or thermistor)
(3) 240 minute timer
(4) Stop current detection (Li-ion batteries)
Power input: 50 W
Charging time: Approx. 60 minutes [for Type BCL 1815 Battery at 20°C (68°F)]
Operable ambient temperature range: 0°C to 40°C (32°F to 104°F)
The maximum allowable temperature of the Type BCL 1815 Battery is 50°C (122°F).

Indication method of battery charging function
<table>
<tr><td colspan="4">Indications of the lamp</td><td></td></tr>
<tr><td rowspan="4">Pilot lamp (red)</td><td>Before charging</td><td>Blinks</td><td>Lights for 0.5 seconds. Does not light for 0.5 seconds. (off for 0.5 seconds)</td><td rowspan="4"></td></tr>
<tr><td>While charging</td><td>Lights</td><td>Lights continuously</td></tr>
<tr><td>Charging complete</td><td>Blinks</td><td>Lights for 0.5 seconds. Does not light for 0.5 seconds. (off for 0.5 seconds)</td></tr>
<tr><td>Overheat standby</td><td>Blinks</td><td>Lights for 1 second. Does not light for 0.5 seconds. (off for 0.5 seconds)</td><td>Battery overheated. Unable to charge. (Charging will commence when battery cools).</td></tr>
</table>
</td></tr>
<tr><td rowspan="2">Weight</td><td>Net</td><td>Main body unit (including battery) ---------- 1.6 kg (3.5 lbs.)
Charger unit (UC 18YKL, including cord) ---------- 0.4 kg (0.9 lb.)</td></tr>
<tr><td>Gross</td><td>DV 18DCL2 (2LCKK) - ---------- 4.1 kg (8.9 lbs.)</td></tr>
<tr><td>Standard accessories</td><td>2LCKK</td><td>Charger (UC 18YKL) ---------- 1
Battery (BCL 1815) ---------- 2
Phillips (plus) driver bit (No. 2) ---------- 1
Case ---------- 1</td></tr>
</table>

Item \ Model		DV 18DVC2
Capacity		Screw driving Machine screw ---------- 6 mm (1/4") Wood screw ---------- 8 mm dia. x 75 mm (#20 x 3") Drilling Brick ---------- 13 mm (1/2") [Depth 30 mm (1-1/4")] Metal ------- Mild steel --- 13 mm (1/2") [Thickness 1.6 mm (1/16")] Aluminum -- 13 mm (1/2") [Thickness 1.6 mm (1/16")] Wood ---------- 38 mm (1-1/2") [Thickness 18 mm (11/16")]
Keyless chuck (13VLRS-N)		Mount type ----------Screw-on (UNF 1/2" to 20) Diameter----------2.0 to 13 mm (5/64" to 1/2")
Rotation speed (No-load)		Low: 0 to 400 min^{-1}, High: 0 to 1,500 min^{-1}
Torque		Slip torque ----------1 to 6.0 N•m (10 to 60 kgf•cm, 9 to 52 in-lbs.) [22 stages] Max. torque ----------Low: 43 N•m (439 kgf•cm, 382 in-lbs.) High: 12 N•m (122 kgf•cm, 106 in-lbs.)
Type of motor		Fan-cooled DC magnet motor
Type of switch		Trigger switch with pushing button for forward and reverse rotation changeover (with brake)
Enclosure		Body ----------Glassfiber-reinforced polyamide resin (black) and thermoplastic elastomer (green) Battery ----------Glassfiber-reinforced polyamide resin (black) Charger ----------ABS resin (black)
Battery (Type BCC 1812)		Sealed cylindrical nickel-cadmium storage battery Nominal voltage ----------DC 18 V Nominal life ----------Charging/discharging: Approx. 300 times Nominal capacity ----------1.2 Ah
Charger (Models UC 18YK/ UC 18SF for Ni-Cd battery only)		• Overcharge prevention circuit (UC 18YK only): A thermostat monitors the battery surface temperature and upon detecting a rise in temperature that occurs at the end of charging, the unit turns off automatically to prevent the battery from overcharge. • Power input: UC 18YK: 50 W, UC 18SF: 24 W • Indication method: Pilot lamp indicator of battery charging Function (UC 18YK):On------During charging Off ------Charging completed Function (UC 18SF):On------When inserting a battery Off ------Disconnecting a battery
Weight	Net	Main body unit (including battery) ---------- 1.9 kg (4.2 lbs.) Charger unit (UC 18YK, including cord) ---------- 0.35 kg (0.8 lb.) Charger unit (UC 18SF, including cord) ---------- 0.6 kg (1.3 lbs.)
	Gross	DV 18DVC2 (2SLKK) ---------- 4.7 kg (10.4 lbs.) DV 18DVC2 (3SLSK) ---------- 5.6 kg (12.3 lbs.)
Standard accessories	2SLKK	Charger (UC 18YK) ---------- 1 Battery (BCC 1812) ---------- 2 Phillips (plus) driver bit (No. 2) ---------- 1 Case ---------- 1
	3SLSK	Charger (UC 18SF) ---------- 1 Battery (BCC 1812) ---------- 3 Phillips (plus) driver bit (No. 2) ---------- 1 Case ---------- 1

Item \ Model	DV 14DCL2
Capacity	Screw driving Machine screw---------- 6 mm (1/4") Wood screw ---------- 8 mm dia. x 50 mm (#20 x 2") Drilling Brick ---------- 13 mm (1/2") [Depth 30 mm (1-1/4")] Metal------ Mild steel --- 13 mm (1/2") [Thickness 1.6 mm (1/16")] Aluminum -- 13 mm (1/2") [Thickness 1.6 mm (1/16")] Wood ---------- 32 mm (1-1/4") [Thickness 18 mm (11/16")]
Keyless chuck (13VLRS-N)	Mount type ----------Screw-on (UNF 1/2" to 20) Diameter----------2.0 to 13 mm (5/64" to 1/2")
Rotation speed (No-load)	Low: 0 to 400 min^{-1}, High: 0 to 1,500 min^{-1}
Torque	Slip torque ----------1 to 6.0 N•m (10 to 60 kgf•cm, 9 to 52 in-lbs.) [22 stages] Max. torque ----------Low: 37 N•m (378 kgf•cm, 328 in-lbs.) High: 10 N•m (102 kgf•cm, 89 in-lbs.)
Type of motor	Fan-cooled DC magnet motor
Type of switch	Trigger switch with pushing button for forward and reverse rotation changeover (with brake)
Enclosure	Body ----------Glassfiber-reinforced polyamide resin (black) and thermoplastic elastomer (green) Battery ----------Glassfiber-reinforced polyamide resin (black) Charger ----------ABS resin (black)
Battery (Type BCL 1415)	Sealed cylindrical lithium-ion storage battery Nominal voltage ----------DC 14.4 V Nominal life ----------Charging/discharging: Approx. 800 times Nominal capacity ----------1.5 Ah
Charger (Model UC 18YKL)	Overcharge protection system: (1) Battery voltage detection (ΔV system) Battery temperature detection (dT/dt system) for Ni-Cd, Ni-MH battery (2) Battery surface temperature detection (by thermostat or thermistor) (3) 240 minute timer (4) Stop current detection (Li-ion batteries) Power input: 50 W Charging time: Approx. 60 minutes [for Type BCL 1415 Battery at 20°C (68°F)] Operable ambient temperature range: 0°C to 40°C (32°F to 104°F) The maximum allowable temperature of the Type BCL 1415 Battery is 50°C (122°F).

Indication method of battery charging function

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

Weight	Net	Main body unit (including battery) ---------- 1.5 kg (3.3 lbs.) Charger unit (UC 18YKL, including cord) ---------- 0.4 kg (0.9 lb.)
	Gross	DV 14DCL2 (2LCKK) - ---------- 4.0 kg (8.7 lbs.)
Standard accessories	2LCKK	Charger (UC 18YKL) ---------- 1 Battery (BCL 1415) ---------- 2 Phillips (plus) driver bit (No. 2) ---------- 1 Case ---------- 1

Item \ Model	DV 14DVC2	
Capacity	Screw driving	Machine screw---------- 6 mm (1/4") Wood screw ---------- 8 mm dia. x 50 mm (#20 x 2")
	Drilling	Brick ---------- 13 mm (1/2") [Depth 30 mm (1-1/4")] Metal------ Mild steel --- 13 mm (1/2") [Thickness 1.6 mm (1/16")] Aluminum -- 13 mm (1/2") [Thickness 1.6 mm (1/16")] Wood ---------- 32 mm (1-1/4") [Thickness 18 mm (11/16")]
Keyless chuck (13VLRS-N)	Mount type ----------Screw-on (UNF 1/2" to 20) Diameter----------2.0 to 13 mm (5/64" to 1/2")	
Rotation speed (No-load)	Low: 0 to 400 min^{-1}, High: 0 to 1,500 min^{-1}	
Torque	Slip torque ----------1 to 6.0 N•m (10 to 60 kgf•cm, 9 to 52 in-lbs.) [22 stages] Max. torque ----------Low: 37 N•m (378 kgf•cm, 328 in-lbs.) High: 10 N•m (102 kgf•cm, 89 in-lbs.)	
Type of motor	Fan-cooled DC magnet motor	
Type of switch	Trigger switch with pushing button for forward and reverse rotation changeover (with brake)	
Enclosure	Body ----------Glassfiber-reinforced polyamide resin (black) and thermoplastic elastomer (green) Battery ----------Glassfiber-reinforced polyamide resin (black) Charger ----------ABS resin (black)	
Battery (Type BCC 1412)	Sealed cylindrical nickel-cadmium storage battery Nominal voltage ----------DC 14.4 V Nominal life ----------Charging/discharging: Approx. 300 times Nominal capacity ----------1.2 Ah	
Charger (Model UC 18YK for Ni-Cd battery only)	• Overcharge prevention circuit: A thermostat monitors the battery surface temperature and, upon detecting a rise in temperature that occurs at the end of charging, the unit turns off automatically to prevent the battery from overcharge. • Input capacity: 50 W • Indication method: Pilot lamp indicator of battery charging Function: On----------When inserting a battery Off ----------Charging completed	
Weight	Net	Main body unit (including battery) ---------- 1.8 kg (4.0 lbs.) Charger unit (UC 18YK, including cord) ---------- 0.35 kg (0.8 lb.)
	Gross	DV 14DVC2 (2SKK) ---------- 4.4 kg (9.8 lbs.)
Standard accessories	2SKK	Charger (UC 18YK) ---------- 1 Battery (BCC 1412) ---------- 2 Phillips (plus) driver bit (No. 2) ---------- 1 Case ---------- 1

COMPARISON WITH SIMILAR PRODUCTS

1. Comparison of Specifications

(Superior specifications:)

Item \ Maker / Model			HITACHI		R
			DV 18DVC2	DV 18DVC	
Max. capacity	Screw driving	Machine screw	6 mm (1/4")	6 mm (1/4")	Not indicated
		Wood screw	8 mm dia. x 75 mm (#20 x 3")	8 mm dia. x 75 mm (#20 x 3")	Not indicated
	Drilling	Brick	13 mm (1/2")	13 mm (1/2")	13 mm (1/2")
		Mild steel	13 mm (1/2")	13 mm (1/2")	13 mm (1/2")
		Aluminum	13 mm (1/2")	13 mm (1/2")	Not indicated
		Soft wood	38 mm (1-1/2")	38 mm (1-1/2")	38 mm (1-1/2")
Rotation speed		Low	0 to 400 min^{-1}	0 to 400 min^{-1}	0 to 400 min^{-1}
		High	0 to 1,500 min^{-1}	0 to 1,500 min^{-1}	0 to 1,400 min^{-1}
Impact rate		Low	0 to 5,600 min^{-1}	0 to 5,600 min^{-1}	0 to 5,200 min^{-1}
		High	0 to 21,000 min^{-1}	0 to 21,000 min^{-1}	0 to 18,200 min^{-1}
Slip torque			1.0 to 6.0 N·m (10 to 60 kgf·cm) (9 to 52 in-lbs.)	1.0 to 6.0 N·m (10 to 60 kgf·cm) (9 to 52 in-lbs.)	Not indicated
			22 positions	22 positions	24 positions
Max. torque			43 N·m (439 kgf·cm) (382 in-lbs.)	43 N·m (439 kgf·cm) (382 in-lbs.)	35 N·m (357 kgf·cm) (310 in-lbs.)
Drill chuck		Type	Double sleeve	Double sleeve	Double sleeve
		Capacity	13 mm (1/2")	13 mm (1/2")	13 mm (1/2")
Switch		Type	Variable speed	Variable speed	Variable speed
		Electric brake	Equipped	Equipped	Equipped
Automatic spindle lock			None	None	None
Reversing switch			Push-button	Push-button	Push-button
Handle shape			T-type	T-type	T-type
Soft-grip handle			Equipped	Equipped	Equipped
Hook			None	Equipped	None
Strap			None	Equipped	None
Battery		Nominal capacity	1.2 Ah	1.4 Ah	1.5 Ah
		Nominal voltage	18 V	18 V	18 V
		Charging time*	50 min. (UC 18YK) 180 min. (UC 18SF)	30 min. (UC 18YG)	60 min.
Dimensions		Overall length	234 mm (9-7/32")	235 mm (9-1/4")	264 mm (10-25/64")
		Overall height	245 mm (9-21/32")	244 mm (9-19/32")	260 mm (10-15/64")
		Overall width	78 mm (3-5/64")	78 mm (3-5/64")	72 mm (2-7/8")
Weight			1.9 kg (4.2 lbs.)	2.3 kg (5.1 lbs.)	2.5 kg (5.5 lbs.)

*: Charging time varies depending on the type of charger used.

(Superior specifications:)

Item \ Maker / Model			HITACHI		R
			DV 18DCL2	DV 18DCL	
Max. capacity	Screw driving	Machine screw	6 mm (1/4”)	6 mm (1/4”)	Not indicated
		Wood screw	8 mm dia. x 75 mm (#20 x 3”)	8 mm dia. x 75 mm (#20 x 3”)	Not indicated
	Drilling	Brick	13 mm (1/2”)	13 mm (1/2”)	13 mm (1/2”)
		Mild steel	13 mm (1/2”)	13 mm (1/2”)	13 mm (1/2”)
		Aluminum	13 mm (1/2”)	13 mm (1/2”)	Not indicated
		Soft wood	38 mm (1-1/2”)	38 mm (1-1/2”)	38 mm (1-1/2”)
Rotation speed		Low	0 to 400 min^{-1}	0 to 400 min^{-1}	0 to 400 min^{-1}
		High	0 to 1,500 min^{-1}	0 to 1,500 min^{-1}	0 to 1,400 min^{-1}
Impact rate		Low	0 to 5,600 min^{-1}	0 to 5,600 min^{-1}	0 to 5,200 min^{-1}
		High	0 to 21,000 min^{-1}	0 to 21,000 min^{-1}	0 to 18,200 min^{-1}
Slip torque			1.0 to 6.0 N·m (10 to 60 kgf·cm) (9 to 52 in-lbs.)	1.0 to 6.0 N·m (10 to 60 kgf·cm) (9 to 52 in-lbs.)	Not indicated
			22 positions	22 positions	24 positions
Max. torque			43 N·m (439 kgf·cm) (382 in-lbs.)	43 N·m (439 kgf·cm) (382 in-lbs.)	35 N·m (357 kgf·cm) (310 in-lbs.)
Drill chuck	Type		Double sleeve	Double sleeve	Double sleeve
	Capacity		13 mm (1/2”)	13 mm (1/2”)	13 mm (1/2”)
Switch	Type		Variable speed	Variable speed	Variable speed
	Electric brake		Equipped	Equipped	Equipped
Automatic spindle lock			None	None	None
Reversing switch			Push-button	Push-button	Push-button
Handle shape			T-type	T-type	T-type
Soft-grip handle			Equipped	Equipped	Equipped
Hook			None	Equipped	None
Strap			None	Equipped	None
Battery	Nominal capacity		1.5 Ah	1.5 Ah	1.5 Ah
	Nominal voltage		18 V	18 V	18 V
	Charging time*		60 min. (UC 18YKL)	40 min. (UC 18YGL2)	60 min.
Dimensions	Overall length		234 mm (9-7/32”)	235 mm (9-1/4”)	264 mm (10-25/64”)
	Overall height		237 mm (9-21/64”)	236 mm (9-19/64”)	260 mm (10-15/64”)
	Overall width		81 mm (3-3/16”)	81 mm (3-3/16”)	72 mm (2-7/8”)
Weight			1.6 kg (3.5 lbs.)	1.8 kg (4.0 lbs.)	2.5 kg (5.5 lbs.)

*: Charging time varies depending on the type of charger used.

(Superior specifications:)

Item \ Maker / Model			HITACHI		R
			DV 14DVC2	DV 14DVC	
Max. capacity	Screw driving	Machine screw	6 mm (1/4")	6 mm (1/4")	Not indicated
		Wood screw	8 mm dia. x 50 mm (#20 x 2")	8 mm dia. x 50 mm (#20 x 2")	Not indicated
	Drilling	Brick	13 mm (1/2")	13 mm (1/2")	13 mm (1/2")
		Mild steel	13 mm (1/2")	13 mm (1/2")	13 mm (1/2")
		Aluminum	13 mm (1/2")	13 mm (1/2")	Not indicated
		Soft wood	32 mm (1-1/4")	32 mm (1-1/4")	32 mm (1-1/4")
Rotation speed		Low	0 to 400 min^{-1}	0 to 400 min^{-1}	0 to 400 min^{-1}
		High	0 to 1,500 min^{-1}	0 to 1,500 min^{-1}	0 to 1,400 min^{-1}
Impact rate		Low	0 to 5,600 min^{-1}	0 to 5,600 min^{-1}	0 to 5,200 min^{-1}
		High	0 to 21,000 min^{-1}	0 to 21,000 min^{-1}	0 to 18,200 min^{-1}
Slip torque			1.0 to 6.0 N·m (10 to 60 kgf·cm) (9 to 52 in-lbs.)	1.0 to 6.0 N·m (10 to 60 kgf·cm) (9 to 52 in-lbs.)	Not indicated
			22 positions	22 positions	24 positions
Max. torque			37 N·m (378 kgf·cm) (328 in-lbs.)	37 N·m (378 kgf·cm) (328 in-lbs.)	34 N·m (347 kgf·cm) (301 in-lbs.)
Drill chuck		Type	Double sleeve	Double sleeve	Single sleeve
		Capacity	13 mm (1/2")	13 mm (1/2")	13 mm (1/2")
Switch		Type	Variable speed	Variable speed	Variable speed
		Electric brake	Equipped	Equipped	Equipped
Automatic spindle lock			None	None	Equipped
Reversing switch			Push-button	Push-button	Push-button
Handle shape			T-type	T-type	T-type
Soft-grip handle			Equipped	Equipped	Equipped
Hook			None	Equipped	None
Strap			None	Equipped	Equipped
Battery		Nominal capacity	1.2 Ah	1.4 Ah	1.7 Ah
		Nominal voltage	14.4 V	14.4 V	14.4 V
		Charging time*	50 min. (UC 18YK)	30 min. (UC 18YG)	60 min.
Dimensions		Overall length	234 mm (9-7/32")	235 mm (9-1/4")	258 mm (10-5/32")
		Overall height	240 mm (9-29/64")	239 mm (9-25/64")	270 mm (10-5/8")
		Overall width	78 mm (3-5/64")	78 mm (3-5/64")	72 mm (2-7/8")
Weight			1.8 kg (4.0 lbs.)	2.1 kg (4.6 lbs.)	2.3 kg (5.1 lbs.)

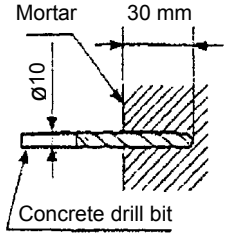
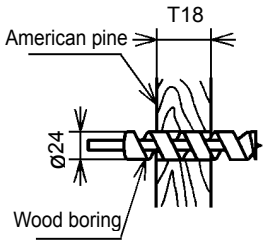
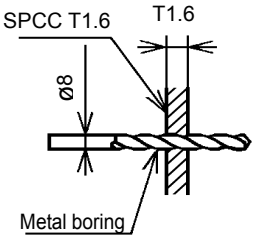
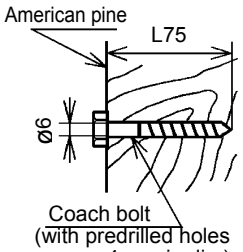
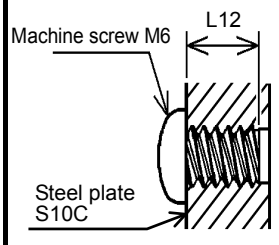
*: Charging time varies depending on the type of charger used.

(Superior specifications:)

Item \ Maker / Model			HITACHI		R
			DV 14DCL2	DV 14DCL	
Max. capacity	Screw driving	Machine screw	6 mm (1/4")	6 mm (1/4")	Not indicated
		Wood screw	8 mm dia. x 50 mm (#20 x 2")	8 mm dia. x 50 mm (#20 x 2")	Not indicated
	Drilling	Brick	13 mm (1/2")	13 mm (1/2")	13 mm (1/2")
		Mild steel	13 mm (1/2")	13 mm (1/2")	13 mm (1/2")
		Aluminum	13 mm (1/2")	13 mm (1/2")	Not indicated
		Soft wood	32 mm (1-1/4")	32 mm (1-1/4")	32 mm (1-1/4")
Rotation speed		Low	0 to 400 min^{-1}	0 to 400 min^{-1}	0 to 400 min^{-1}
		High	0 to 1,500 min^{-1}	0 to 1,500 min^{-1}	0 to 1,400 min^{-1}
Impact rate		Low	0 to 5,600 min^{-1}	0 to 5,600 min^{-1}	0 to 5,200 min^{-1}
		High	0 to 21,000 min^{-1}	0 to 21,000 min^{-1}	0 to 18,200 min^{-1}
Slip torque			1.0 to 6.0 N·m (10 to 60 kgf·cm) (9 to 52 in-lbs.)	1.0 to 6.0 N·m (10 to 60 kgf·cm) (9 to 52 in-lbs.)	Not indicated
			22 positions	22 positions	24 positions
Max. torque			37 N·m (378 kgf·cm) (328 in-lbs.)	37 N·m (378 kgf·cm) (328 in-lbs.)	34 N·m (347 kgf·cm) (301 in-lbs.)
Drill chuck		Type	Double sleeve	Double sleeve	Single sleeve
		Capacity	13 mm (1/2")	13 mm (1/2")	13 mm (1/2")
Switch		Type	Variable speed	Variable speed	Variable speed
		Electric brake	Equipped	Equipped	Equipped
Automatic spindle lock			None	None	Equipped
Reversing switch			Push-button	Push-button	Push-button
Handle shape			T-type	T-type	T-type
Soft-grip handle			Equipped	Equipped	Equipped
Hook			None	Equipped	None
Strap			None	Equipped	Equipped
Battery		Nominal capacity	1.5 Ah	1.5 Ah	1.7 Ah
		Nominal voltage	14.4 V	14.4 V	14.4 V
		Charging time*	60 min. (UC 18YKL)	40 min. (UC 18YGL2)	60 min.
Dimensions		Overall length	234 mm (9-7/32")	235 mm (9-1/4")	258 mm (10-5/32")
		Overall height	233 mm (9-11/64")	232 mm (9-9/64")	270 mm (10-5/8")
		Overall width	81 mm (3-3/16")	78 mm (3-5/64")	72 mm (2-7/8")
Weight			1.5 kg (3.3 lbs.)	1.8 kg (4.0 lbs.)	2.3 kg (5.1 lbs.)

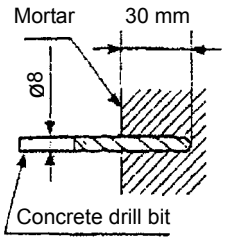
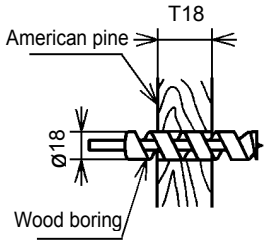
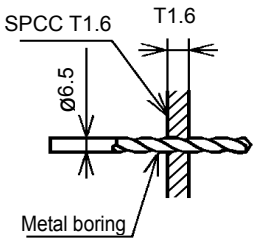
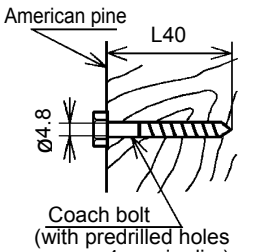
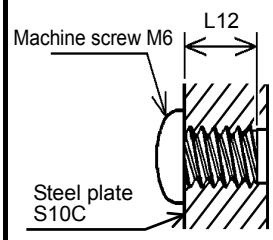
*: Charging time varies depending on the type of charger used.

2. Comparison of Drilling and Fastening Performance per Charge

Type of Work	Maker	Model	Working Capacity	Drilling Speed (sec./pc.)
 <Forward rotation, high speed, impact drilling>	HITACHI	DV 18DVC2	31	11.1
		DV 18DVC	37	11.3
		DV 18DCL2	40	10.9
		DV 18DCL	46	11.1
	R		38	**10.1**
 <High speed, drilling>	HITACHI	DV 18DVC2	109	**3.1**
		DV 18DVC	127	3.6
		DV 18DCL2	136	**3.1**
		DV 18DCL	141	**3.1**
	R		117	**3.1**
 <High speed, 15 kg thrust>	HITACHI	DV 18DVC2	72	7.0
		DV 18DVC	84	7.1
		DV 18DCL2	80	**6.6**
		DV 18DCL	80	6.7
	R		75	7.5
 <Low speed, drilling>	HITACHI	DV 18DVC2	77	5.1
		DV 18DVC	89	5.4
		DV 18DCL2	101	**5.0**
		DV 18DCL	100	5.1
	R		78	5.1
 <High speed, maximum clutch>	HITACHI	DV 18DVC2	752*	0.5
		DV 18DVC	933*	0.5
		DV 18DCL2	931*	0.5
		DV 18DCL	946*	0.5
	R		920*	0.5

[Working Capacity]
Without *: Number of holes or fasteners per charge
With *: Number of machine screws fastened per charge

As actually measured values listed in the table above may vary depending on sharpness of the drill bit, workpiece hardness (particularly in wood materials), moisture content of wood, charging condition, operator skill, and other factors, this data should only be used as a comparative guide.

Type of Work	Maker	Model	Working Capacity	Drilling Speed (sec./pc.)
 <Forward rotation, high speed, impact drilling>	HITACHI	DV 14DVC2	38	9.5
		DV 14DVC	38	9.4
		DV 14DCL2	45	9.8
		DV 14DCL	44	9.2
	R		46	**9.1**
 <High speed, drilling>	HITACHI	DV 14DVC2	129	**3.2**
		DV 14DVC	161	3.4
		DV 14DCL2	155	**3.2**
		DV 14DCL	176	**3.2**
	R		188	3.4
 <High speed, 15 kg thrust>	HITACHI	DV 14DVC2	69	**6.2**
		DV 14DVC	81	6.3
		DV 14DCL2	79	**6.2**
		DV 14DCL	79	6.3
	R		91	7.5
 <Low speed, drilling>	HITACHI	DV 14DVC2	112	3.4
		DV 14DVC	121	3.5
		DV 14DCL2	144	**3.2**
		DV 14DCL	140	**3.2**
	R		145	3.7
 <High speed, maximum clutch>	HITACHI	DV 14DVC2	610*	0.5
		DV 14DVC	679*	0.5
		DV 14DCL2	717*	0.5
		DV 14DCL	744*	0.5
	R		650*	0.5

[Working Capacity]
Without *: Number of holes or fasteners per charge
With *: Number of machine screws fastened per charge

As actually measured values listed in the table above may vary depending on sharpness of the drill bit, workpiece hardness (particularly in wood materials), moisture content of wood, charging condition, operator skill, and other factors, this data should only be used as a comparative guide.

PRECAUTIONS ON SALES PROMOTION

1. Safety Instructions

In the interest of promoting the safest and most efficient use of the Models DV 18DCL2, DV 18DVC2, DV 14DCL2 and DV 14DVC2 Cordless Impact Driver Drills by all of our customers, it is very important when concluding a sale that the salesperson carefully ensure that the buyer seriously recognizes the importance of the Handling Instructions, and fully understands the precautions listed on the Caution Plate and Nameplate attached to each tool.

A. Handling instructions

Salespersons must be thoroughly familiar with the Handling Instructions in order to give pertinent advice to the customer. In particular, they must have a thorough understanding of the precautions on using cordless tools that differ from those of ordinary electric power tools.

(1) Before use, ensure that the unit is fully charged.

New units are not fully charged. Even if the units were fully charged at the factory, long periods of inactivity, such as during shipment, cause the storage battery to lose its charge. Customers must be instructed to fully charge the unit prior to use.

(2) Connect the charger to an AC power outlet only.

Use of any other power source (e.g., DC outlet, fuel powered generator) will cause the charger to overheat and burn out.

(3) Do not use any voltage-increasing equipment (e.g., transformer) between the power source and the charger.

Using the charger with voltage higher than that indicated on the unit will result in malfunction.

(4) Conduct battery charging at an ambient temperature range of 10°C to 40°C (50°F to 104°F).

Special temperature-sensitive devices are employed in the charger to permit rapid charging. Ensure that customers are instructed to use the charger at the indicated ambient temperature range. At temperatures below 10°C (50°F) the thermostat will not function properly, and the storage battery may be overcharged. At temperatures above 40°C (104°F), the storage battery cannot be sufficiently charged. The optimum temperature range is 20°C to 25°C (68°F to 77°F).

(5) The battery charger should not be used continuously.

Charging more than three storage batteries in succession at high ambient temperature will cause the temperature of coils on the transformer to rise, running the risk of the temperature fuse inserted inside the transformer inadvertently melting. After charging one battery, please wait at least 15 minutes before charging the next battery.

(6) Do not insert foreign objects into the air vents on the charger.

The charger case is equipped with air vents to protect internal electronic components against overheating. Caution the customer not to drop or insert such foreign matter as metallic or flammable objects into the air vents. This could cause electric shock, fire, or other serious hazards.

(7) Do not attempt to disassemble the storage battery or the charger.

Special devices such as a thermostat are built into the storage battery and charger to permit rapid charging. Incorrect parts replacement and/or wiring will cause malfunctions that could result in fire or other hazards. Instruct the customer to bring these units to an authorized service center in the event repair or replacement is necessary.

(8) Disposal of the storage battery

Ensure that all customers understand that the storage batteries should be returned to the Hitachi power tool sales outlet or authorized service center when no longer capable of being recharged or repaired. If thrown into a fire, the batteries may explode.

B. Caution plates

(1) The following cautions are listed on the nameplate attached to the main body of each tool.
[For the USA and Canada]

Warning

・To reduce the risk of injury, user must read Instruction Manual.

AVERTISSEMENT

・Afin de réduire le risque de blessures, l'utilisateur doit lire le mode d'emploi.

(2) The following cautions are listed on the nameplate attached to each storage battery.
[For Europe]

CAUTION

●Do not disassemble nor throw into fire.

[For the USA and Canada]

CAUTION

● For safe operation, see instruction manual.
● Use HITACHI charger recommended in instruction manual for recharging.

(3) The following cautions are listed on the nameplate attached to the Model UC 18YK Charger.
[For the USA and Canada]

CAUTION ● For safe operation, see instruction manual. ● Charge HITACHI rechargeable batteries types EB7, EB9, EB12, EB14, EB18, BCC9, BCC12, BCC14, BCC18 series. Other types of batteries may burst causing personal injury and damage. ● Charge between 32°F and 104°F. Rest 15 minutes between the charging of batteries. ● Indoor use only. ● Replace defective cord immediately.

2. Inherent Drawbacks of Cordless Impact Driver Drills Requiring Particular Attention during Sales Promotion

The cordless impact driver drill offers many advantages; it can be used in places where no power source is available, the absence of a cord allows easy use, etc. However, any cordless tool has certain inherent drawbacks. Salespersons must be thoroughly familiar with these drawbacks in order to properly advise the customer in the most efficient use of the tool.

A. Suggestions and precautions on efficient use of the tool

(1) Use the cordless impact driver drill for comparatively light work.

The motor output of battery driven cordless impact driver drills is rather low compared with conventional electric power tools. Accordingly, they are not suitable for the continuous drilling of many holes in succession, or for drilling into particularly hard material that imposes a heavy load. Salespersons should recommend conventional electric power tools for such heavy work.

(2) Large-diameter holes should be drilled at low speed.

Instruct the customer that drilling large-diameter holes or performing other work that requires particularly strong torque should be done at low speed. Because there is less torque at high speed, attempting such work at high speed will not improve working efficiency.

(3) Do not insert a foreign object into body vent holes.

The body of this tool has vent holes for improved cooling efficiency. As a fan is built into the motor, a foreign object inserted through a vent hole may cause failure. Please instruct customers to never insert a foreign object into the vent holes.

(4) Use at thrust of 100 to 150 N (10 to 15 kgf, 22 to 23 lbs.)

The drilling speed of this unit does not accelerate even if the tool is pressed strongly against the workpiece as when using a typical AC impact drill. Such operation will damage the drill bit, resulting in not only poor working efficiency but also motor burnout.

(5) Avoid “locking” of the motor

Locking of the motor will generate an overload current that could result in motor burnout and/or rapid battery deterioration. Salespersons should advise the customer to immediately release the switch and stop operation if the motor becomes locked. (A jammed drill bit can be disengaged from the workpiece material by setting the switch to reverse rotation, or by manually turning the main body of the tool.)

(6) Variation in amount of work possible per charge

Although the nominal chargeable capacity of the storage batteries used with the Models DV 18DCL2, DV 18DVC2, DV 14DCL2 and DV 14DVC2 is 1.2 Ah or 1.5 Ah, the actual capacity may vary within 10% of that value depending on ambient temperature during use and charging, and the number of times the batteries have been recharged. It should be noted that other factors that may affect the amount of work possible per charge are the working conditions (e.g., ambient temperature, type and moisture content of the workpiece, sharpness of the drill bit) and the operational skill of the user.

(7) Precautions on the use of HSS drill bits

For example, although the Model DV 18DCL2 is designed for drilling capacities of 38 mm (1-1/2") in wood, and 13 mm (1/2") in aluminum and mild steel, this capability is not as efficient as conventional electric power tools. In particular, when drilling through aluminum material with a 13 mm (1/2") drill bit, the drill tends to become locked when the drill bit penetrates a material. For this reason, the customer should be cautioned to reduce the thrust on the main body of the drill when drilling completely through a material to avoid locking the tool. Repeated locking of the drill causes excessive current to flow from the battery, thereby not only reducing the amount of work possible per charge, but also running the risk of motor burnout.

(8) Securely tighten the sleeve of the keyless chuck.

The keyless chuck may slip during operation when using a cylindrically shaped drill bit shank, depending on the surface conditions, materials, and other factors. Please instruct customers to retighten the keyless chuck more securely if the keyless chuck slips during operation. The holding force of the keyless chuck increases as you increase the tightening force of the keyless chuck.

(9) Avoid continuous use.

Although the Models DV 18DCL2, DV 18DVC2, DV 14DCL2 and DV 14DVC2 can withstand continuous operation under certain conditions, operating conditions differ depending on the workpiece material and sharpness of the drill bit in use. Please instruct customers to avoid continuous use of the Models DV 18DCL2, DV 18DVC2, DV 14DCL2 and DV 14DVC2, and generally take about a 15 minute break following a single charge operation.

REPAIR GUIDE

Be sure to remove the storage batteries from the main body before servicing. Inadvertent triggering of the switch with the storage battery connected imposes the danger of the motor accidently turning.

1. Precautions on Disassembly and Reassembly

[Bold] numbers in the descriptions below correspond to item numbers in the Parts List and exploded assembly diagrams for the Models DV 18DCL2, DV 18DVC2, DV 14DCL2 and DV 14DVC2.

Disassembly

1. Removal of Housing (A).(B) Set

First, align the drill mark " ◀▼ " on the Clutch Dial **[4]** with the triangle mark on Housing (A).(B) Set **[33]**. Remove the eight Tapping Screw (W/Flange) D3 x 16 (Black) **[38]** from the main body. Gently open Housings (A) and (B) while holding the battery loading sections.

2. Removal of internal parts

After removal of Housing (B), all internal parts (assembled or separated) can be taken out as a single unit. Lift the entire contents from Housing (A) while holding the Motor **[36]** and Clutch Dial **[4]**.

3. Removal of the Drill Chuck 13VLRS-N (See Fig. 1.)

(a) Turn the Motor **[36]** counterclockwise (when viewed from the rear) and remove it from the Rear Case **[22]**. Remove the Shift Knob **[37]** from the Shift Arm **[24]**. Be careful not to remove the Shift Arm **[24]** from the Rear Case **[22]** in this operation.

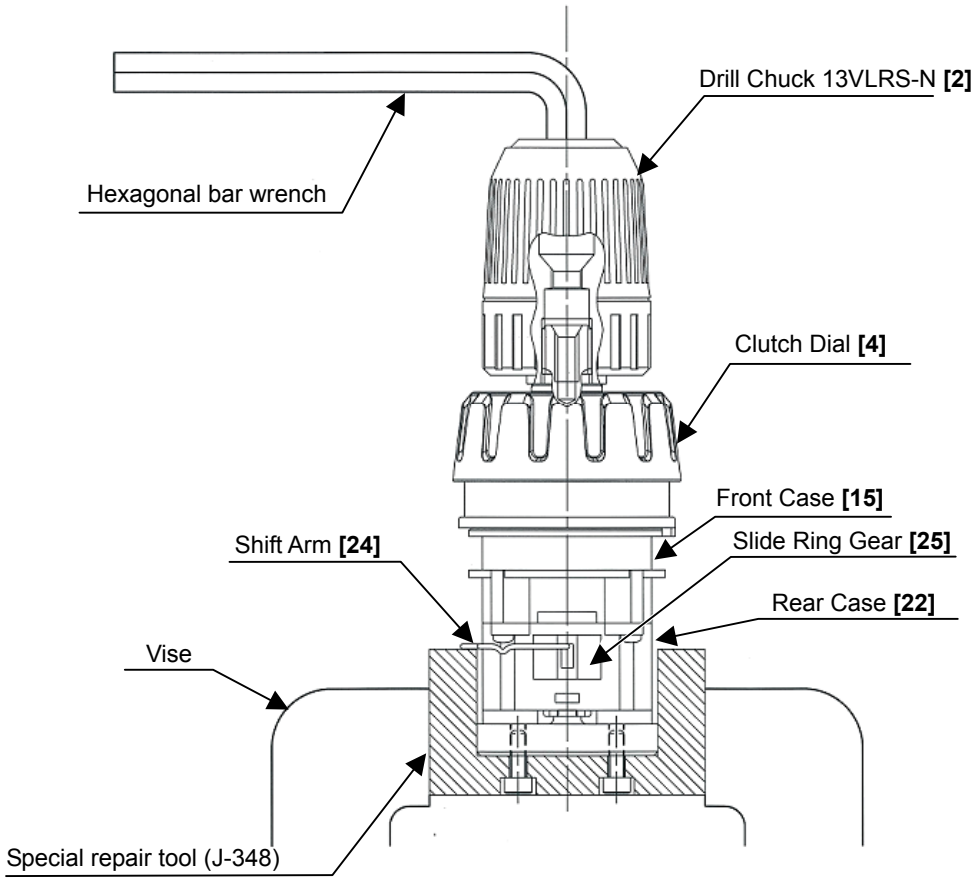
(b) Attach the motor spacer to the assembly of the Drill Chuck 13VLRS-N **[2]**, Clutch Dial **[4]**, Front Case **[15]** and Rear Case **[22]**, and then mount the assembly on special repair tool J-348 clamped in the vise as illustrated in Fig. 1. In this operation, confirm that the pinions press-fitted in the special repair tool J-342 and Planet Gear (A) Set **[27]** are properly engaged.

(c) Secure the Slide Ring Gear **[25]** to the Front Case **[15]** side with the Shift Arm **[24]**.

(d) Turn the sleeve of the Drill Chuck 13VLRS-N **[2]** counterclockwise (when viewed from the front) to fully open the jaws of the Drill Chuck 13VLRS-N **[2]**. Turn Flat Hd. Screw (A) (Left Hand) M6 x 25 **[1]** clockwise and remove it. (Note that the special screw is left-hand threaded.)

(e) Fit the hexagonal bar wrench M10 into the Drill Chuck 13VLRS-N **[2]** as illustrated in Fig. 1, and then turn the wrench counterclockwise to remove the Drill Chuck 13VLRS-N **[2]**.

Fig. 1



4. Disassembly of the gear unit

Remove the Shift Arm **[24]** from the Rear Case **[22]**. Turn Washer (B) **[30]** mounted in the Rear Case **[22]** counterclockwise to remove it. Take out the First Ring Gear **[29]**, Planet Gear (A) Set **[27]**, Pinion (B) **[28]**, Pinion (C) **[26]** and Slide Ring Gear **[25]**. Then remove the Screw Set D3 x 12 **[23]** (4 pcs.) connecting the Front Case **[15]** and Rear Case **[22]**. Remove Washer (A) **[21]**, Planet Gear (C) Set **[20]** (3 pcs.), the Carrier **[19]**, Ring Gear **[18]**, Washer (A) **[10]**, four Steel Balls D5 **[17]**, four Springs (A) **[16]** and Front Case **[15]** in that order. Be careful not to lose the four Steel Balls D5 **[17]** during this operation.

5. Disassembly of the clutch unit

(a) Remove the Clutch Dial **[4]** from the Nut **[11]**. Then remove the Click Spring **[5]** from the Front Case **[15]**. Next, remove the Spindle **[7]**, Ratchet (B) **[9]** and Washer (A) **[10]** in that order.

(b) Turn the Nut **[11]** counterclockwise and remove it from the Front Case **[15]**. Then remove the Washer **[12]**, Slip Block **[13]** and Stopper Spring **[14]**.

6. Disassembly of the power supply unit

NOTE: Do not remove the heat sink secured to the Switch Terminal [41] with a screw.

Remove the two Machine Screws (W/Sp. Washer) M4 x 6 **[32]**, and then separate the Motor **[36]** and Motor Spacer **[31]**. Disconnect the Internal Wire (Black) **[40]** and Internal Wire (Red) **[42]** from the Motor **[36]** with a soldering iron, and then disconnect both wires from the Switch Terminal **[41]** in the same manner. Disconnect Terminal Support (A) **[43]**.

Reassembly

Generally conduct reassembly by reversing the disassembly procedures, and note the following items:

1. Reassembly of the power supply unit

(a) Perform wiring according to the wiring diagram (Fig. 2).

Fig. 2

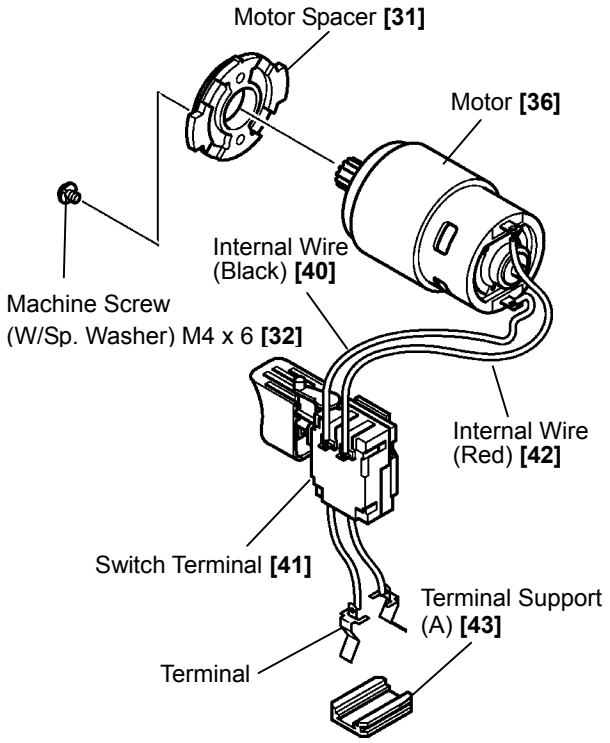
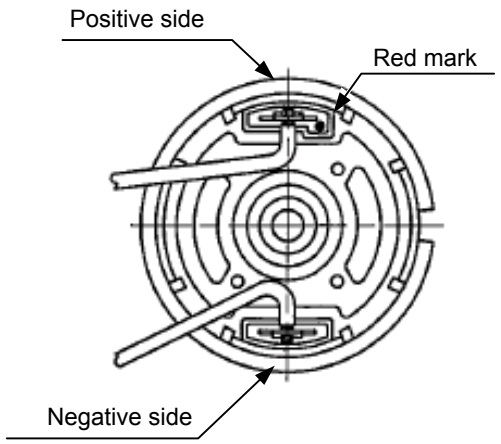


Fig. 3



(b) Pay attention to the polarity of the Motor **[36]** when soldering the Internal Wire (Black) **[40]** and Internal Wire (Red) **[42]** to the Motor **[36]**. The red-marked side of the Motor **[36]** is positive. (See Fig. 3.)

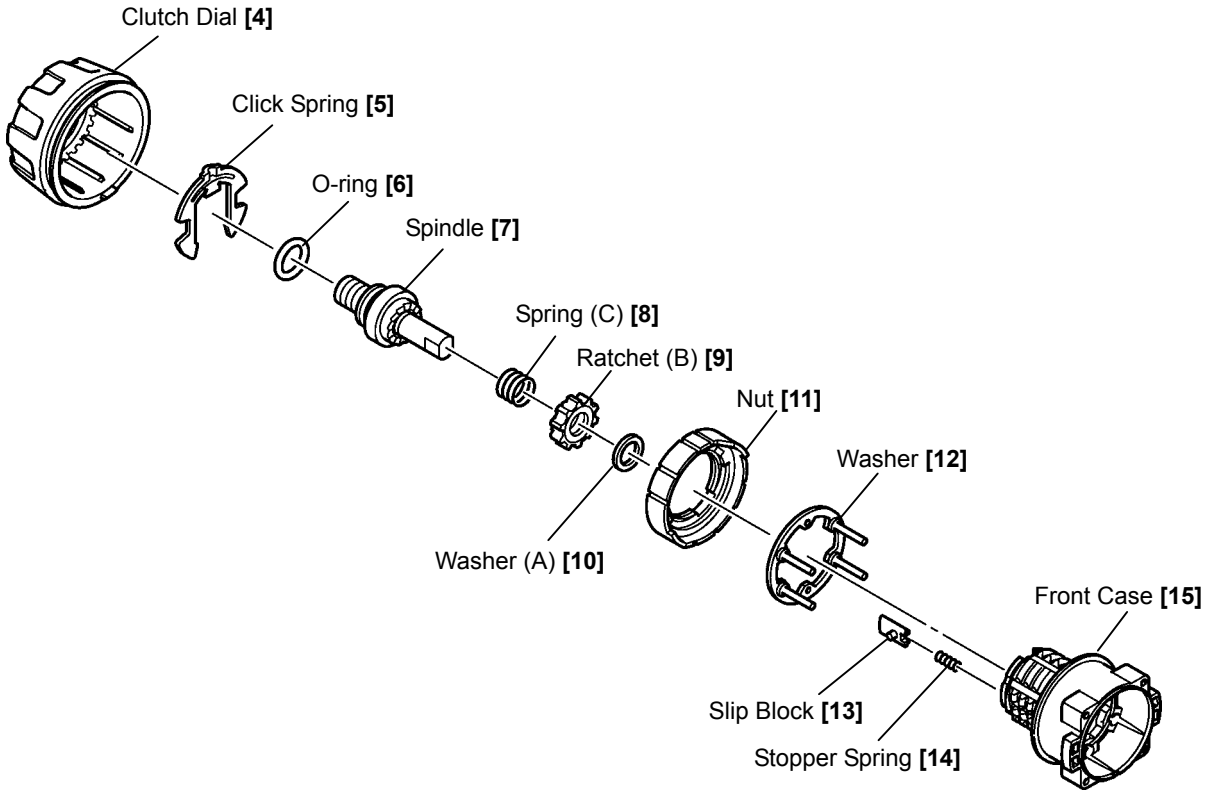
(c) Insert the terminal while being careful about the direction of Terminal Support (A) **[43]**.

(d) Apply grease (Hitachi Motor Grease No. 29, Code No. 930035 recommended) to the press-fitted Motor **[36]** shaft.

2. Reassembly of the clutch unit

(a) Mount Washer (A) **[10]**, Ratchet (B) **[9]**, Spring (C) **[8]**, the Spindle **[7]** and Washer **[12]** onto the Front Case **[15]** in that order. When mounting the Spindle **[7]**, press in the outside of the ball bearing. Then mount the Slip Block **[13]** and Stopper Spring **[14]** inside the Front Case **[15]**. (See Fig. 4.)

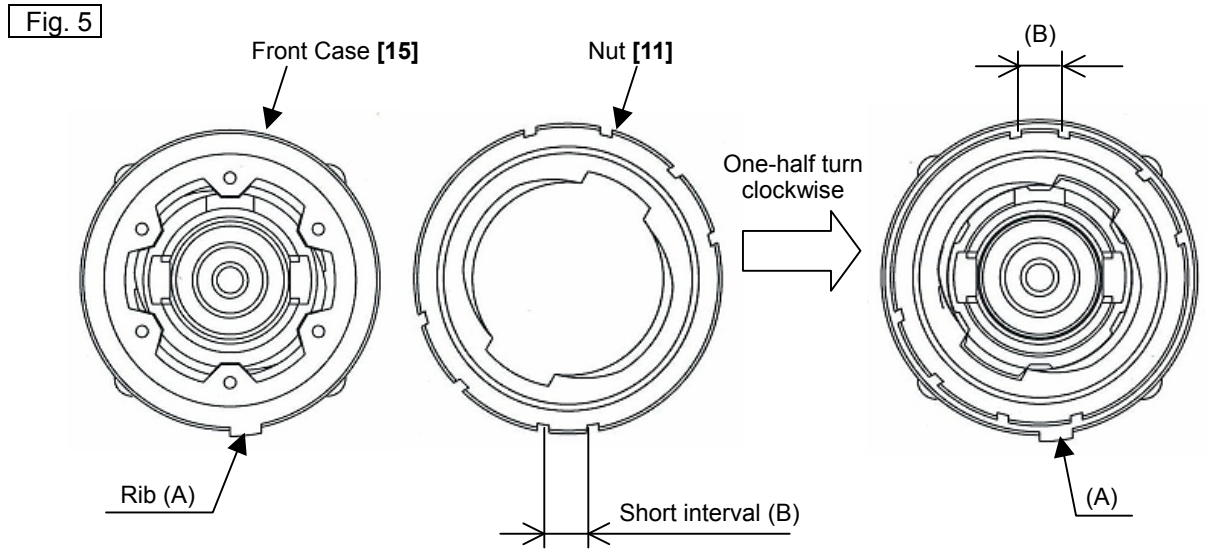
Fig. 4



(b) Mount the Nut **[11]** onto the Front Case **[15]**. (See Fig. 5.)

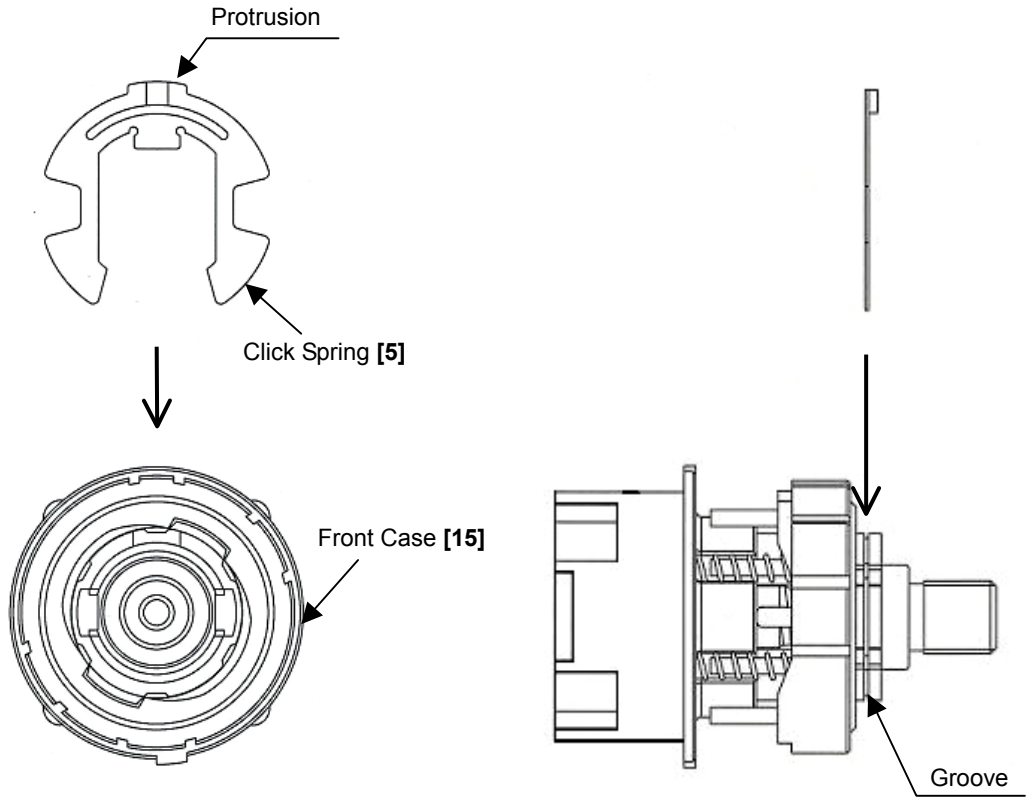
Align rib (A) on the Front Case **[15]** with short interval (B) on the Nut **[11]**. Rotate the Nut **[11]** about one-half turn clockwise so that rib (A) on the Front Case **[15]** and short interval (B) on the Nut **[11]** are positioned on opposite sides.

Fig. 5



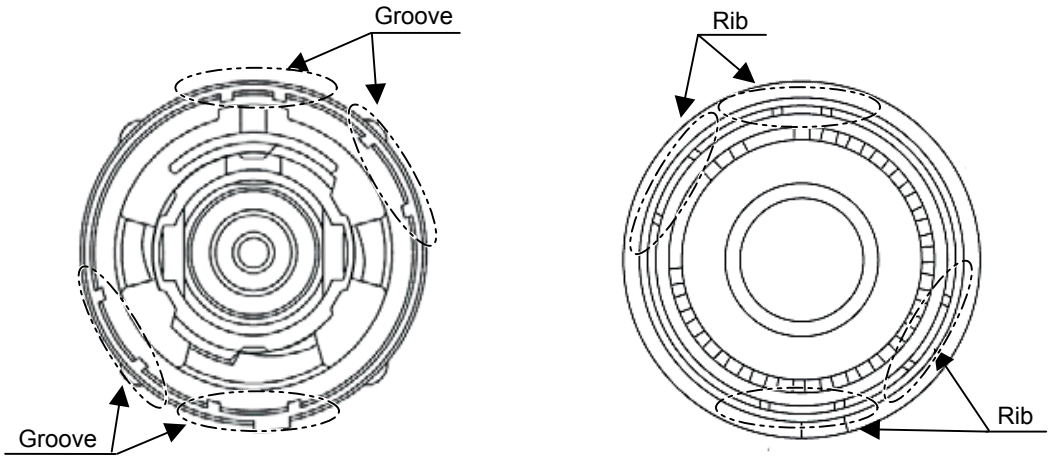
(c) With the protrusion on the Click Spring **[5]** facing upward, securely insert the Click Spring **[5]** into the groove of the Front Case **[15]**. (See Fig. 6.)

Fig. 6



(d) Mount the Clutch Dial **[4]** onto the Front Case **[15]**. (See Fig. 7.) Mount the Nut **[11]** onto the Clutch Dial **[4]** by aligning the ribs on the Clutch Dial **[4]** with the grooves on the Nut **[11]**.

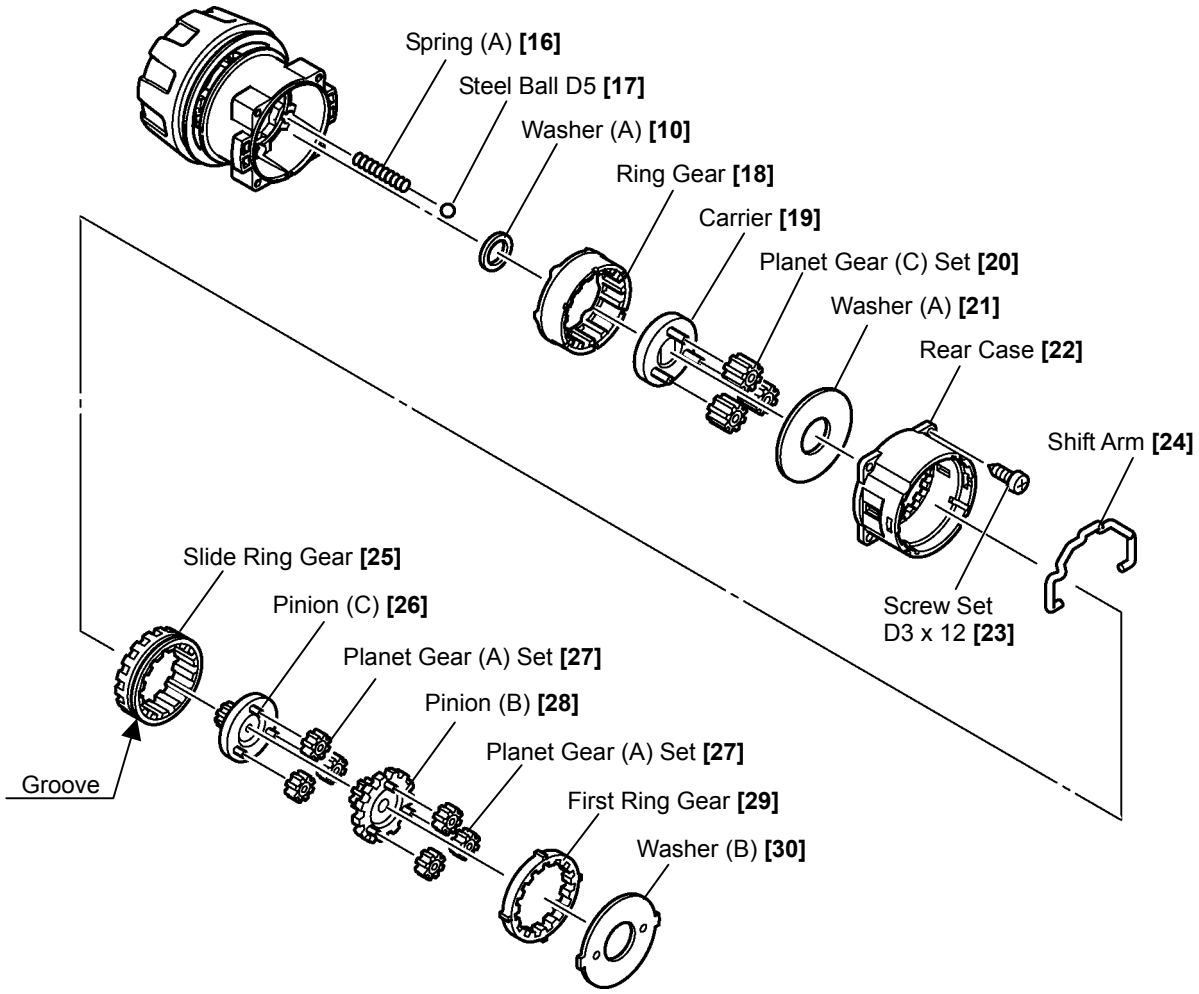
Fig. 7



3. Reassembly of the gear unit

(a) Apply grease (Hitachi Motor Grease No. 29, Code No. 930035) to the meshing portions of each gear.
(b) Reassemble the parts of the gear unit in order. (See Fig. 8.)

Fig. 8



(1) Position Spring (A) **[16]** (4 pcs.) and Steel Ball D5 **[17]** (4 pcs.) as illustrated in Fig. 9.
(2) Pay attention to the direction of the groove when mounting the Slide Ring Gear **[25],** so that the groove faces toward the Motor **[36]**.
(3) Mount the Front Case **[15]** and Rear Case **[22]** so that the positioning groove matches the rib.
(4) Fit Washer (B) **[30]** in the Rear Case **[22]** so that the protrusions of Washer (B) **[30]** fit into the recesses on the Rear Case **[22]**. Then fully turn Washer (B) **[30]** clockwise until it stops.
(See Fig. 10.)

Fig. 9

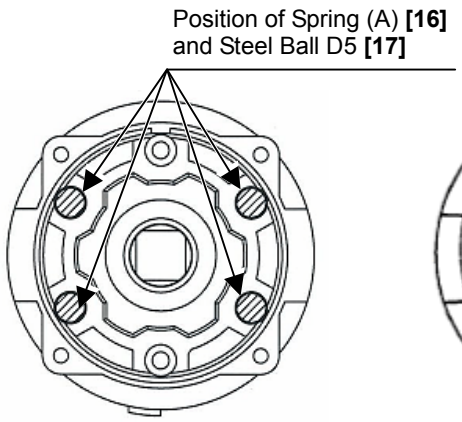
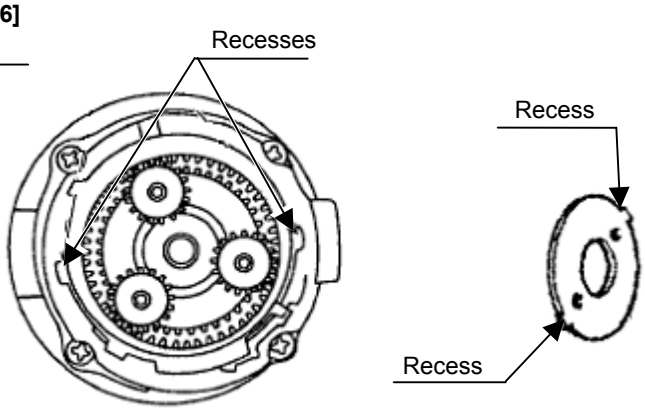
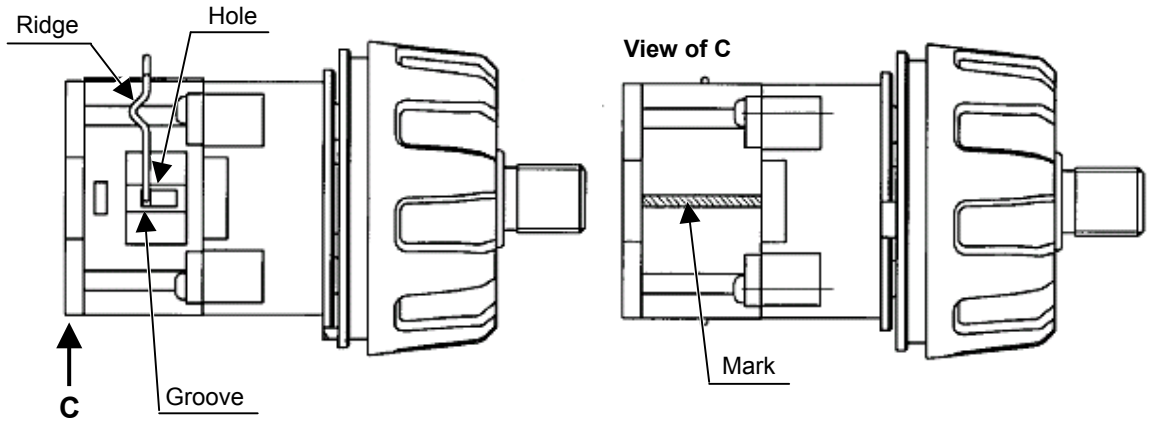


Fig. 10



(c) Mount the Shift Arm **[24]** into the groove of the Rear Case **[22]** reassembled in step (b) above.
Facing the ridge of the Shift Arm **[24]** toward the Motor **[36]** side, mount the Shift Arm **[24]** on the unmarked side of the assembly that was reassembled in step (b) above. Then insert the protrusions of the Shift Arm **[24]** into the holes of the Rear Case **[22]** and make sure that the protrusions fit into the grooves of the Slide Ring Gear **[25]** mounted in the Rear Case **[22]**. (See Fig. 11.)

Fig. 11

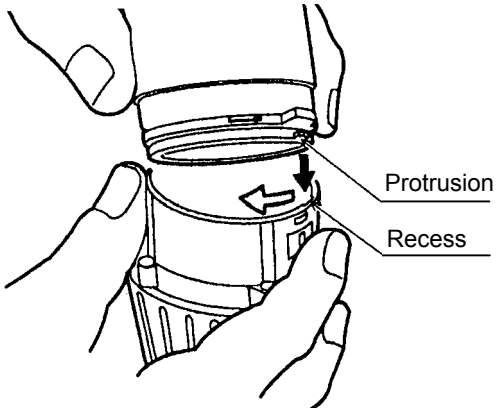


(d) Mount the Drill Chuck 13VLRS-N **[2]**.
Mount the Drill Chuck 13VLRS-N **[2]** by using the special repair tool (J-348, Code No. 349-886), and then secure it with Flat Hd. Screw (A) (Left Hand) M6 x 25 **[1]**.

(e) Mount the Shift Knob **[37]** onto the assembly that was reassembled in step (d) above.
When mounting the Shift Knob **[37]** to the Shift Arm **[24]**, check that the “LOW” mark on the Shift Knob **[37]** faces the Motor **[36]** with the Shift Arm **[24]** fitted into the recess of the Shift Knob **[37]**.

(f) Mount the assembly that was reassembled in step (1) and the assembly reassembled in step (e) above together. (See Fig. 12.) Fit the protrusion of the Motor Spacer **[31]** into the recess of the Rear Case **[22]**, while ensuring that the Shift Knob **[37]** is aligned with the positive side of the Motor **[36]**. Turn the Motor Spacer **[31]** clockwise as viewed from the rear of the Motor **[36]** until it stops. During reassembly, make sure that the pinions press-fitted onto the shaft of the Motor **[36]** and Planet Gear (A) Set **[27]** mesh properly.

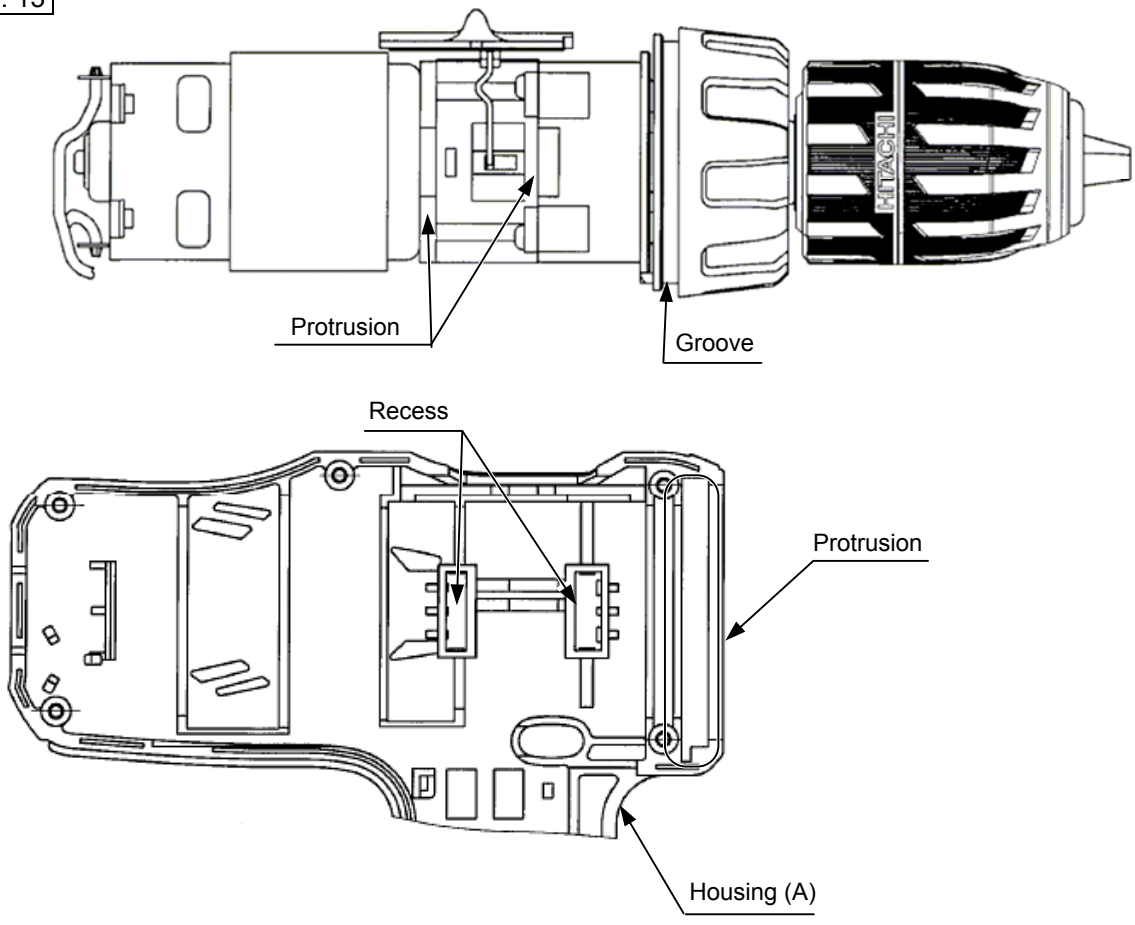
Fig. 12



4. Mounting the assembly reassembled in step (3) to Housing (A).(B) Set

(a) Mount the assembly that was reassembled in step (3) above to Housing (A). Confirm that the protrusions of the Front Case **[15]** and Motor Spacer **[31]** are engaged in the recesses of Housing (A), and that the protrusions of Housing (A) fit into the groove of the Clutch Dial **[4]**. (See Fig. 13.)

Fig. 13

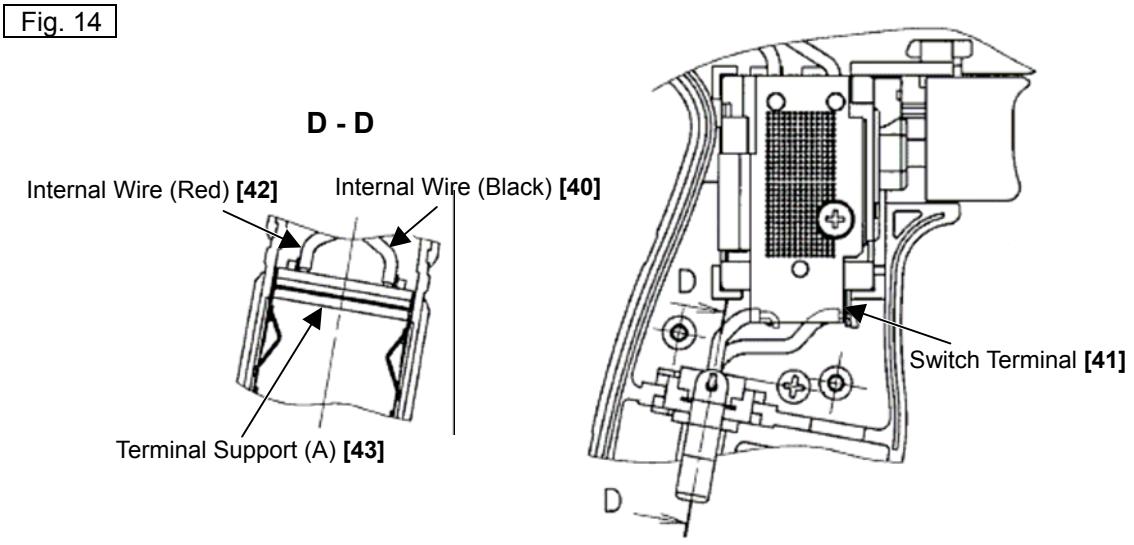


(b) Mount the Switch Terminal **[41]** to Housing (A). Insert Terminal Support (A) **[43]** to Housing (A), while being careful about the positioning of internal wires of the Switch Terminal **[41]**. (See Fig. 14.)

(c) Mount the Pushing Button **[35]** to Housing (A). Confirm that the protrusion of the forward/reverse changeover lever of the Switch Terminal **[41]** is inserted into the groove of the Pushing Button **[35]**.

(d) Mount the assembly that was reassembled in step (c) above to Housing (B), and then secure both with the nine Tapping Screw (W/Flange) D3 x 16 (Black) **[38]**.

Fig. 14



(e) Check for proper operation of the Clutch Dial **[4]** and Shift Knob **[37]**.

When the reassembly procedure up to step (d) is completed, ensure that every indication on the Clutch Dial **[4]** from number "1" to the hammer mark " ◀ " can be aligned with the triangle mark on Housing (A).(B) Set **[33],** respectively, and that the Clutch Dial **[4]** turns moderately. If any indication on the Clutch Dial **[4]** cannot be aligned with the triangle mark on Housing (A).(B) Set **[33]**, correctly remount the improperly mounted Clutch Dial **[4]** according to step (2). Check for proper operation of the Shift Knob **[37]**. Confirm that the speed changes properly between high and low by shifting the Shift Knob **[37]**. If the speed does not change properly or moderately, correctly remount the improperly mounted Shift Knob **[37]** according to step (3).

5. Other precautions on reassembly

After completing reassembly, confirm that the rotating direction of the Drill Chuck 13VLRS-N **[2]** matches the position of the Pushing Button **[35]**. When the Pushing Button **[35]** is pressed from the (R) side, the rotating direction of the Drill Chuck 13VLRS-N **[2]** should be clockwise as viewed from behind. Switch the Models DV 18DCL2, DV 18DVC2, DV 14DCL2 or DV 14DVC2 on and off by using the battery. Use a 12 mm dia. test bar to confirm that runout of the Drill Chuck 13VLRS-N **[2]** is 0.8 mm or less at the position 110 mm away from the tip of the chuck.

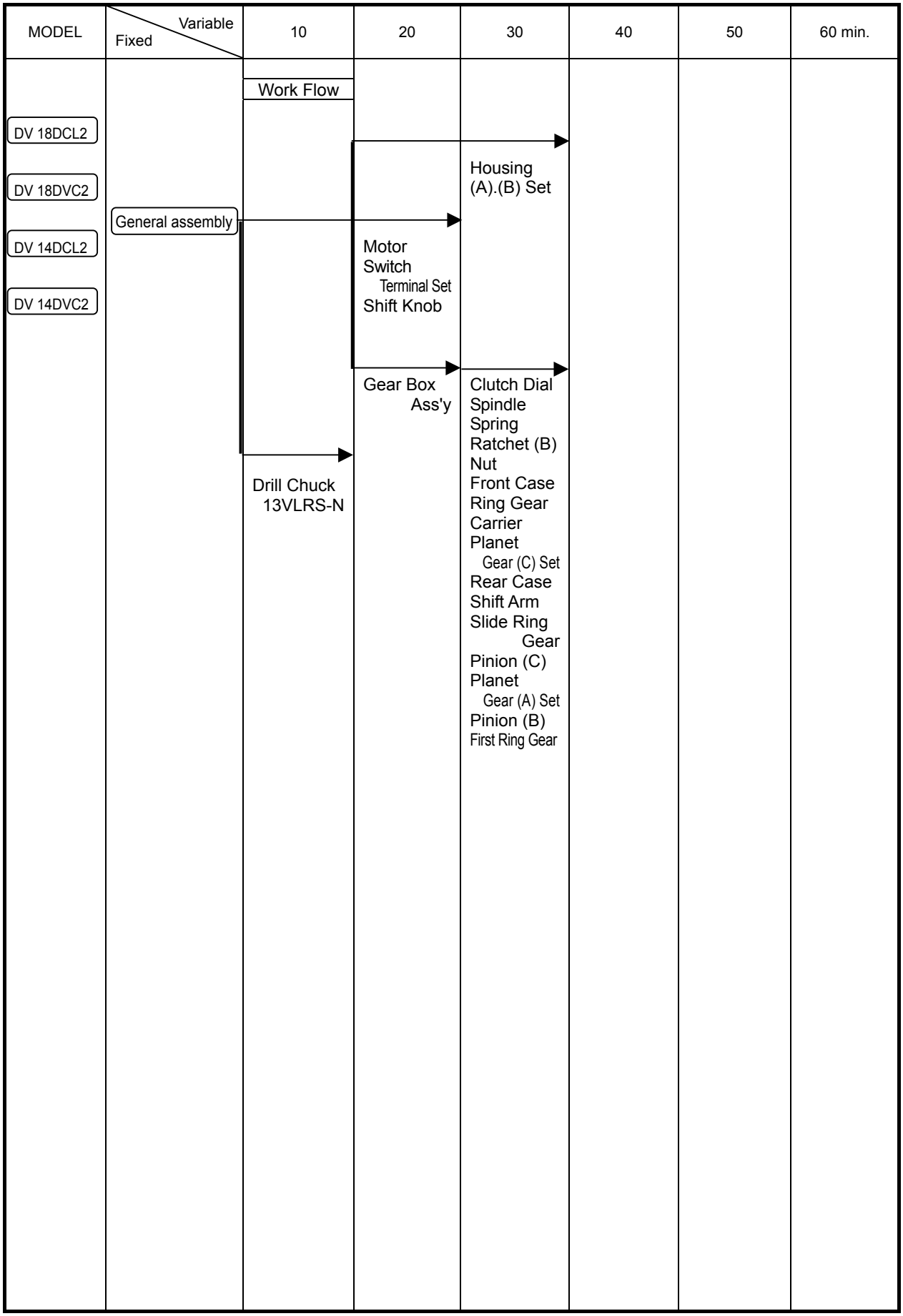
Screw Tightening Torque

- Flat Hd. Screw (A) (Left Hand) M6 x 25 **[1]** ---------- 3.9 to 4.9 N·m (40 to 50 kgf·cm)
- Drill Chuck 13VLRS-N **[2]** ---------- 17.6 to 21.6 N·m (180 to 220 kgf·cm)
- Screw Set D3 x 12 **[23]** ---------- 0.6 to 1.0 N·m (6 to 10 kgf·cm)
- Machine Screw (W/Sp. Washer) M4 x 6 **[32]** ---------- 1.1 to 1.9 N·m (11 to 19 kgf·cm)
- Tapping Screw (W/Flange) D3 x 16 (Black) **[38]** ---------- 1.0 to 1.5 N·m (10 to 15 kgf·cm)

2. Precautions on Disassembly and Reassembly of the Battery Charger

Please refer to the Technical Data and Service Manual for precautions on the disassembly and reassembly of Battery Charger Models UC 18YKL, UC 18YK and UC 18SF.

STANDARD REPAIR TIME (UNIT) SCHEDULES



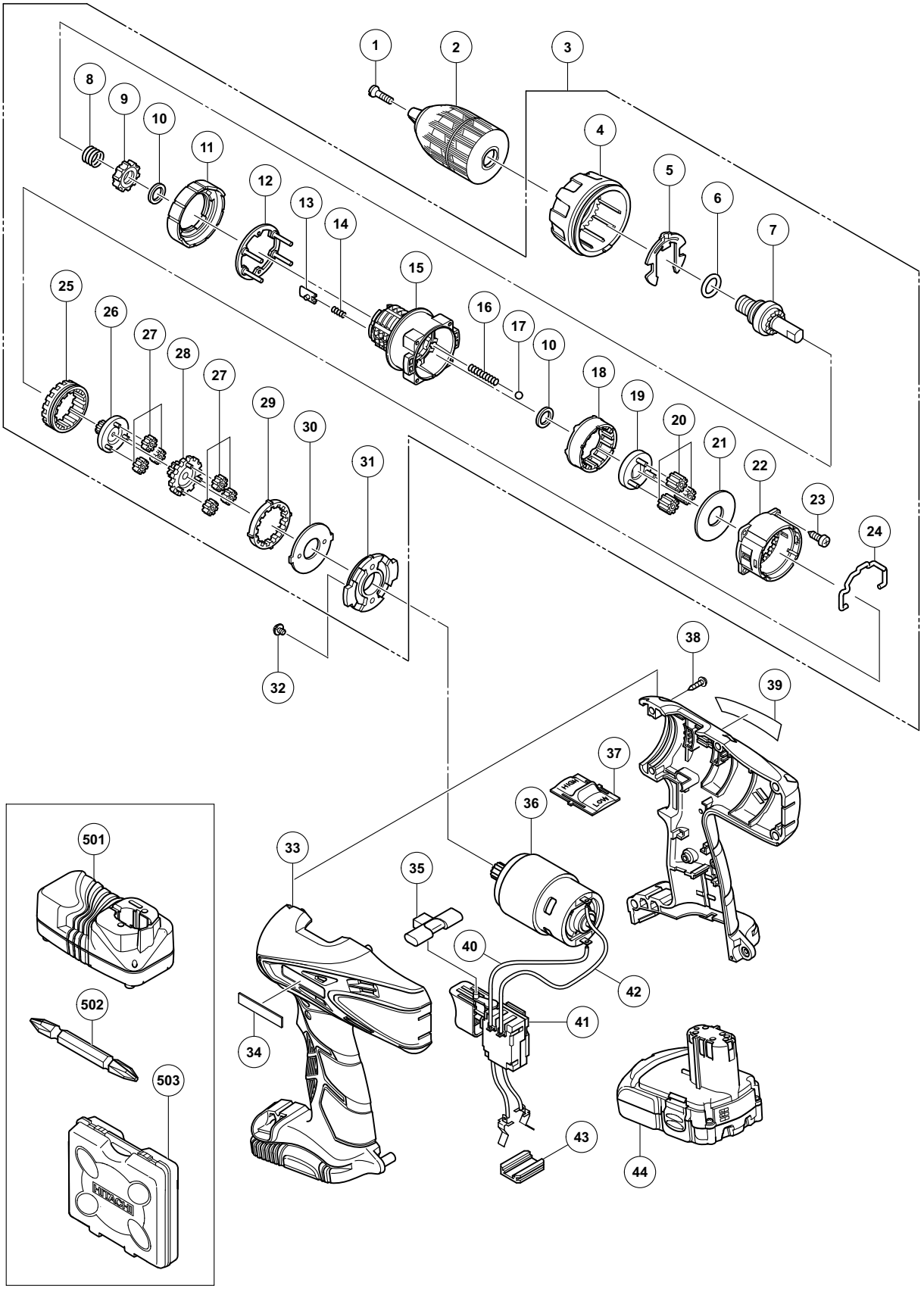
Hitachi Power Tools

LIST NO. H867

ELECTRIC TOOL PARTS LIST

■ CORDLESS IMPACT DRIVER DRILL 2010･6･9

Model DV 18DCL2 (E1)



ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
1	995-344	FLAT HD. SCREW (A) (LEFT HAND) M6 X 25	1		
2	332-049	DRILL CHUCK 13VLRS-N	1		
3	332-008	GEAR BOX ASS'Y	1	INCLUD. 4-31	
4	332-015	CLUTCH DIAL	1		
5	327-146	CLICK SPRING	1		
6	327-142	O-RING	1		
7	332-010	SPINDLE	1		
8	327-136	SPRING (C)	1		
9	327-134	RATCHET (B)	1		
10	327-147	WASHER (A)	2		
11	327-145	NUT	1		
12	332-016	WASHER	1		
13	327-135	SLIP BLOCK	2		
14	327-133	STOPPER SPRING	2		
15	332-009	FRONT CASE	1		
16	332-018	SPRING (A)	4		
17	306-936	STEEL BALL D5	4		
18	328-055	RING GEAR	1		
19	332-011	CARRIER	1		
20	312-705	PLANET GEAR (C) SET (3 PCS.)	3		
21	312-704	WASHER (A)	1		
22	327-140	REAR CASE	1		
23	324-357	SCREW SET D3 X 12 (4 PCS.)	4		
24	332-017	SHIFT ARM	1		
25	332-013	SLIDE RING GEAR	1		
26	332-012	PINION (C)	1		
27	332-019	PLANET GEAR (A) SET (6 PCS.)	6		
28	332-014	PINION (B)	1		
29	332-023	FIRST RING GEAR	1		
30	312-716	WASHER (B)	1		
31	312-698	MOTOR SPACER	1		
32	317-333	MACHINE SCREW (W/SP. WASHER) M4 X 6	2		
33	332-039	HOUSING (A). (B) SET (GREEN)	1		
34	330-719	HITACHI LABEL	1		
35	332-836	PUSHING BUTTON	1		
36	332-020	MOTOR DC 18V	1		
37	332-036	SHIFT KNOB	1		
38	313-687	TAPPING SCREW (W/FLANGE) D3 X 16 (BLACK)	9		
39		NAME PLATE	1		
40	332-843	INTERNAL WIRE (BLACK) 130L	1		
41	332-842	SWITCH TERMINAL SET	1		
42	324-499	INTERNAL WIRE (RED) 140L	1		
43	315-141	TERMINAL SUPPORT (A)	1		
44	327-731	BATTERY BCL 1815 (EUROPE, AUS, NZL)	2		

STANDARD ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
501		CHARGER (MODEL UC 18YKL)	1		
502	983-006	+ DRIVER BIT NO. 2 65L	1		
503	332-022	CASE (BLACK)	1		

*ALTERNATIVE PARTS

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	

*ALTERNATIVE PARTS

Printed in Japan (100609N)

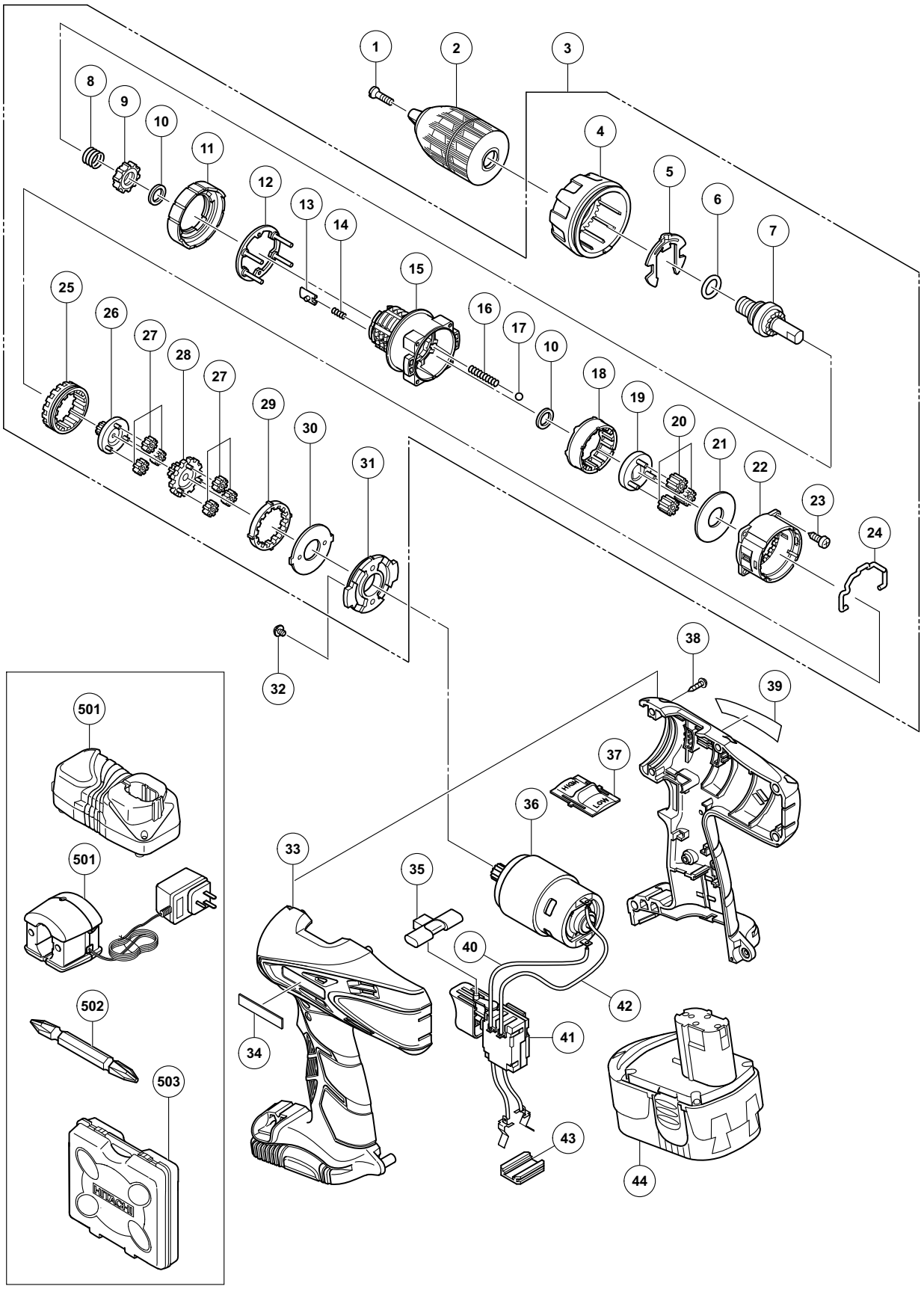
Hitachi Power Tools

LIST NO. H869

ELECTRIC TOOL PARTS LIST

■ CORDLESS IMPACT DRIVER DRILL 2010・6・14

Model DV 18DVC2 (E1)



	ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
	1	995-344	FLAT HD. SCREW (A) (LEFT HAND) M6 X 25	1		
*	2	332-049	DRILL CHUCK 13VLRS-N	1		
*	2	322-625	DRILL CHUCK 13VLRJ-N (W/O CHUCK WRENCH)	1	FOR USA, CAN	
	3	332-008	GEAR BOX ASS'Y	1	INCLUD. 4-31	
	4	332-015	CLUTCH DIAL	1		
	5	327-146	CLICK SPRING	1		
	6	327-142	O-RING	1		
	7	332-010	SPINDLE	1		
	8	327-136	SPRING (C)	1		
	9	327-134	RATCHET (B)	1		
	10	327-147	WASHER (A)	2		
	11	327-145	NUT	1		
	12	332-016	WASHER	1		
	13	327-135	SLIP BLOCK	2		
	14	327-133	STOPPER SPRING	2		
	15	332-009	FRONT CASE	1		
	16	332-018	SPRING (A)	4		
	17	306-936	STEEL BALL D5	4		
	18	328-055	RING GEAR	1		
	19	332-011	CARRIER	1		
	20	312-705	PLANET GEAR (C) SET (3 PCS.)	3		
	21	312-704	WASHER (A)	1		
	22	327-140	REAR CASE	1		
	23	324-357	SCREW SET D3 X 12 (4 PCS.)	4		
	24	332-017	SHIFT ARM	1		
	25	332-013	SLIDE RING GEAR	1		
	26	332-012	PINION (C)	1		
	27	332-019	PLANET GEAR (A) SET (6 PCS.)	6		
	28	332-014	PINION (B)	1		
	29	332-023	FIRST RING GEAR	1		
	30	312-716	WASHER (B)	1		
	31	312-698	MOTOR SPACER	1		
	32	317-333	MACHINE SCREW (W/SP. WASHER) M4 X 6	2		
*	33	332-039	HOUSING (A). (B) SET (GREEN)	1		
*	33	332-985	HOUSING (A). (B) SET (GREEN)	1	FOR USA, CAN	
	34	330-719	HITACHI LABEL	1		
	35	332-836	PUSHING BUTTON	1		
	36	332-020	MOTOR DC 18V	1		
	37	332-036	SHIFT KNOB	1		
	38	313-687	TAPPING SCREW (W/FLANGE) D3 X 16 (BLACK)	9		
	39		NAME PLATE	1		
	40	332-843	INTERNAL WIRE (BLACK) 130L	1		
	41	332-038	SWITCH TERMINAL	1		
	42	324-499	INTERNAL WIRE (RED) 140L	1		
	43	315-141	TERMINAL SUPPORT (A)	1		
*	44	332-083	BATTERY BCC 1812 (EUROPE, AUS, NZL)	2		
*	44	332-583	BATTERY BCC 1812 (USA)	2		
*	44	332-083	BATTERY BCC 1812 (EUROPE, AUS, NZL)	3	FOR GBR	

STANDARD ACCESSORIES

	ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
*	501		CHARGER (MODEL UC 18YK)	1		
*	501		CHARGER (MODEL UC 18SF)	1		
	502	983-006	+ DRIVER BIT NO. 2 65L	1		
	503	332-022	CASE (BLACK)	1		

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	

*ALTERNATIVE PARTS

Printed in Japan 6 - 10
(100614N)

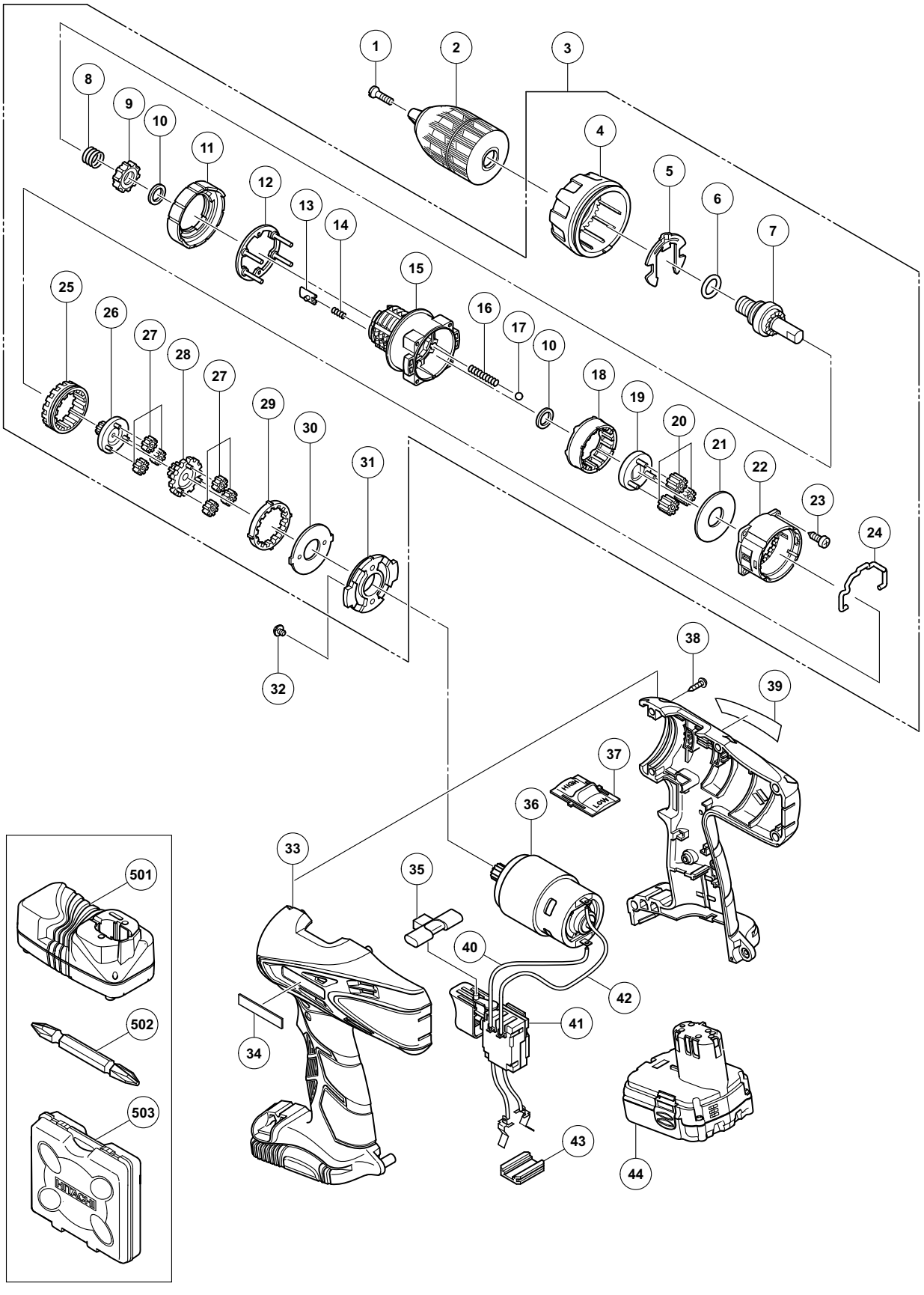
Hitachi Power Tools

LIST NO. H866

ELECTRIC TOOL PARTS LIST

■ CORDLESS IMPACT DRIVER DRILL 2010･6･9

Model DV 14DCL2 (E1)



ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
1	995-344	FLAT HD. SCREW (A) (LEFT HAND) M6 X 25	1		
2	332-049	DRILL CHUCK 13VLRS-N	1		
3	332-008	GEAR BOX ASS'Y	1	INCLUD. 4-31	
4	332-015	CLUTCH DIAL	1		
5	327-146	CLICK SPRING	1		
6	327-142	O-RING	1		
7	332-010	SPINDLE	1		
8	327-136	SPRING (C)	1		
9	327-134	RATCHET (B)	1		
10	327-147	WASHER (A)	2		
11	327-145	NUT	1		
12	332-016	WASHER	1		
13	327-135	SLIP BLOCK	2		
14	327-133	STOPPER SPRING	2		
15	332-009	FRONT CASE	1		
16	332-018	SPRING (A)	4		
17	306-936	STEEL BALL D5	4		
18	328-055	RING GEAR	1		
19	332-011	CARRIER	1		
20	312-705	PLANET GEAR (C) SET (3 PCS.)	3		
21	312-704	WASHER (A)	1		
22	327-140	REAR CASE	1		
23	324-357	SCREW SET D3 X 12 (4 PCS.)	4		
24	332-017	SHIFT ARM	1		
25	332-013	SLIDE RING GEAR	1		
26	332-012	PINION (C)	1		
27	332-019	PLANET GEAR (A) SET (6 PCS.)	6		
28	332-014	PINION (B)	1		
29	332-023	FIRST RING GEAR	1		
30	312-716	WASHER (B)	1		
31	312-698	MOTOR SPACER	1		
32	317-333	MACHINE SCREW (W/SP. WASHER) M4 X 6	2		
33	332-042	HOUSING (A). (B) SET (GREEN)	1		
34	330-719	HITACHI LABEL	1		
35	332-836	PUSHING BUTTON	1		
36	332-021	MOTOR DC 14.4V	1		
37	332-036	SHIFT KNOB	1		
38	313-687	TAPPING SCREW (W/FLANGE) D3 X 16 (BLACK)	9		
39		NAME PLATE	1		
40	332-843	INTERNAL WIRE (BLACK) 130L	1		
41	332-842	SWITCH TERMINAL SET	1		
42	324-499	INTERNAL WIRE (RED) 140L	1		
43	315-141	TERMINAL SUPPORT (A)	1		
44	327-729	BATTERY BCL 1415 (EUROPE, AUS, NZL)	2		

STANDARD ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
501		CHARGER (MODEL UC 18YKL)	1		
502	983-006	+ DRIVER BIT NO. 2 65L	1		
503	332-022	CASE (BLACK)	1		

*ALTERNATIVE PARTS

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	

*ALTERNATIVE PARTS

Printed in Japan 6 - 10
(100609N)

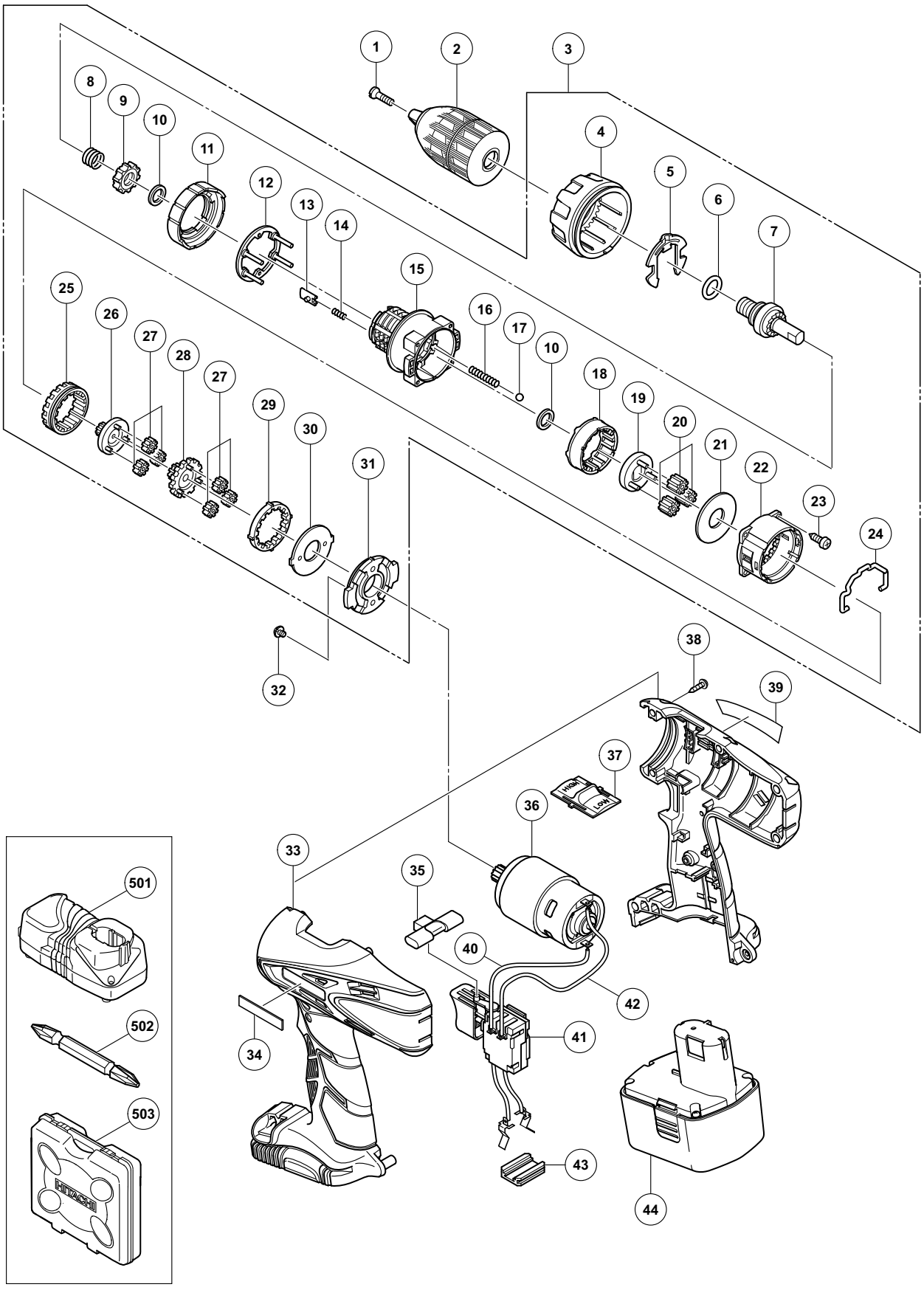
Hitachi Power Tools

LIST NO. H868

ELECTRIC TOOL PARTS LIST

■ CORDLESS IMPACT DRIVER DRILL 2010･6･9

Model DV 14DVC2 (E1)



ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
1	995-344	FLAT HD. SCREW (A) (LEFT HAND) M6 X 25	1		
2	332-049	DRILL CHUCK 13VLRS-N	1		
3	332-008	GEAR BOX ASS'Y	1	INCLUD. 4-31	
4	332-015	CLUTCH DIAL	1		
5	327-146	CLICK SPRING	1		
6	327-142	O-RING	1		
7	332-010	SPINDLE	1		
8	327-136	SPRING (C)	1		
9	327-134	RATCHET (B)	1		
10	327-147	WASHER (A)	2		
11	327-145	NUT	1		
12	332-016	WASHER	1		
13	327-135	SLIP BLOCK	2		
14	327-133	STOPPER SPRING	2		
15	332-009	FRONT CASE	1		
16	332-018	SPRING (A)	4		
17	306-936	STEEL BALL D5	4		
18	328-055	RING GEAR	1		
19	332-011	CARRIER	1		
20	312-705	PLANET GEAR (C) SET (3 PCS.)	3		
21	312-704	WASHER (A)	1		
22	327-140	REAR CASE	1		
23	324-357	SCREW SET D3 X 12 (4 PCS.)	4		
24	332-017	SHIFT ARM	1		
25	332-013	SLIDE RING GEAR	1		
26	332-012	PINION (C)	1		
27	332-019	PLANET GEAR (A) SET (6 PCS.)	6		
28	332-014	PINION (B)	1		
29	332-023	FIRST RING GEAR	1		
30	312-716	WASHER (B)	1		
31	312-698	MOTOR SPACER	1		
32	317-333	MACHINE SCREW (W/SP. WASHER) M4 X 6	2		
33	332-042	HOUSING (A). (B) SET (GREEN)	1		
34	330-719	HITACHI LABEL	1		
35	332-836	PUSHING BUTTON	1		
36	332-021	MOTOR DC 14.4V	1		
37	332-036	SHIFT KNOB	1		
38	313-687	TAPPING SCREW (W/FLANGE) D3 X 16 (BLACK)	9		
39		NAME PLATE	1		
40	332-843	INTERNAL WIRE (BLACK) 130L	1		
41	332-038	SWITCH TERMINAL	1		
42	324-499	INTERNAL WIRE (RED) 140L	1		
43	315-141	TERMINAL SUPPORT (A)	1		
44	332-084	BATTERY BCC 1412 (EUROPE, AUS, NZL)	2		

STANDARD ACCESSORIES

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	
501		CHARGER (MODEL UC 18YK)	1		
502	983-006	+ DRIVER BIT NO. 2 65L	1		
503	332-022	CASE (BLACK)	1		

*ALTERNATIVE PARTS

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS	

*ALTERNATIVE PARTS

Printed in Japan 6 - 10
(100609N)