

WH18DBDL2

18V Cordless Impact Driver
with Brushless Motor



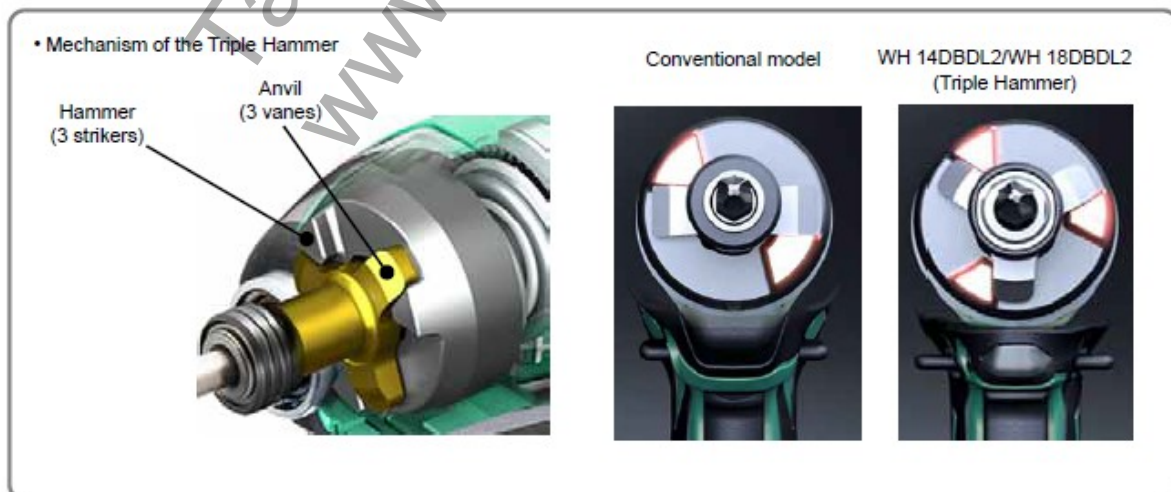
The new Models WH 14DBDL2 and WH 18DBDL2 are high-performance and user-friendly cordless impact drivers equipped with Hitachi original hammering mechanism "Triple Hammer" that reduces vibration and cam-out with greater comfort in "Normal" mode and offers the highest screw tightening speed and torque in its class in "Power" mode by the optimal impact control. These new models conform to the international standard IP56.

SELLING POINTS

Hitachi original hammering mechanism "Triple Hammer"

**TRIPLE
HAMMER**

An impact driver provides powerful tightening force when the strikers on the rotating hammer strike against the vanes on the anvil. Each of these new models has three strikers on the hammer and three vanes on the anvil, an increase of one from the conventional models, which makes three impacts per rotation. Thanks to this Triple Hammer, these models provide ease of use in Normal mode and high performance in Power mode.

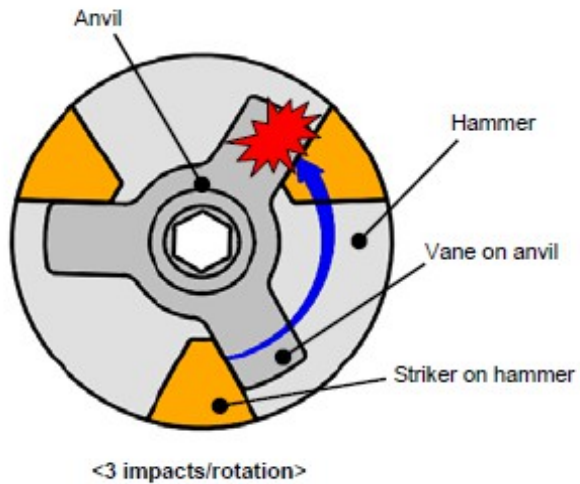


Normal mode

The Triple Hammer reduces vibration and cam-out with greater comfort through three strikers, an increase of one from the conventional models, which makes three impacts per rotation.

- Low vibration and cam-out
- Smooth screwing and easy to tighten up the screw head to wood surface
- Suitable for tightening screws under 90 mm in length and tightening screws into soft wood etc.

• Movement of the Triple Hammer in Normal mode

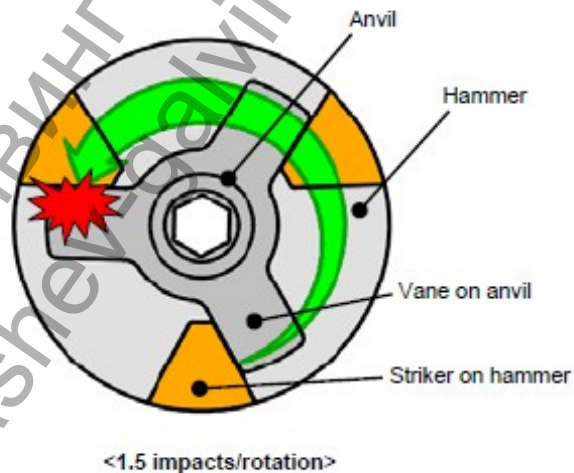


Power mode

The power mode automatically controls the impact rate under heavy load and remarkably increases the impact energy by reducing the impact rate to 1.5 times per rotation and turning the hammer more between impacts. Thus, each of these models provides the highest screw tightening speed and torque in its class.

The impact energy is increased by reducing the impact rate to 1.5 times per rotation automatically in order to provide overwhelming screw tightening speed. Suitable for tightening screws 90 mm or longer in length and tightening screws into hard wood etc.

• Movement of the Triple Hammer in Power mode



Optimal impact control

The optimal impact control suitable for Hitachi original Triple Hammer offers ease of use in Normal mode (low vibration and cam-out) and high performance in Power mode (highest screw tightening speed and torque). It automatically determines whether the operational load is low (tightening wood screws) or high (tightening bolts) and optimally controls the motor speed

Normal mode:

- The soft-start control reduces cam-out due to high-speed rotation.
- The motor is controlled to rotate at constant speed in order to optimize the amount of hammer back and stabilize the impact timing at short intervals (3 impacts/rotation). Thus, vibration and cam-out are reduced with greater comfort

Power mode:

- The soft-start control reduces cam-out due to high-speed rotation.
- The motor is controlled to rotate at high speed in order to increase the amount of hammer back and switch the impact rate to "1.5 impacts per rotation" skipping the neighbor vane on the anvil. Thus, the impact energy is increased resulting in overwhelming screw tightening speed.

Highest tightening speed in its class

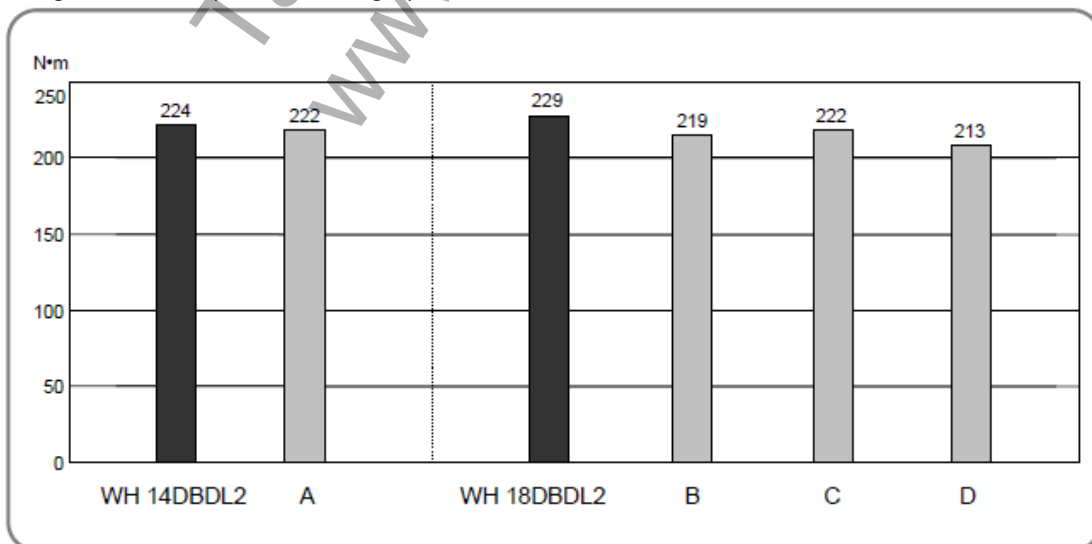
The table below shows the time needed to tighten a drywall screw 5.3 mm in diameter and 120 mm in length into a block of lauan. You can see that the Models WH 14DBDL2 and WH 18DBDL2 can quickly tighten long screws into hard wood.

Voltage	Model	← Fast → Slow →									
		1	2	3	4	5	6	7	8	9	10 (sec.)
14.4 V	WH 14DBDL2	3.7									
	A	4.5									
18 V	WH 18DBDL2	3.3									
	B	3.6									
	C	4.8									
	D	3.7									

Symbol utilized	Competitor		
	Company name	Model name	Battery voltage
A	MAKITA	DTD 137	14.4 V
B	MAKITA	DTD 148 XDT09 (For the USA and Canada)	18 V
C	MILWAUKEE	M18FID 2753 (For the USA and Canada)	
D	DEWALT	DCF887	

Highest tightening torque in its class

The Model WH 14DBDL2 is 175 N•m and the Model WH 18 DBDL2 is 207 N•m in tightening torque. The graph below shows the comparative data of actually measured tightening torques on our products and the competitive products when tightening an M14 high-strength bolt with a socket adapter and a hexagonal socket (40 mm in length) for three seconds.:

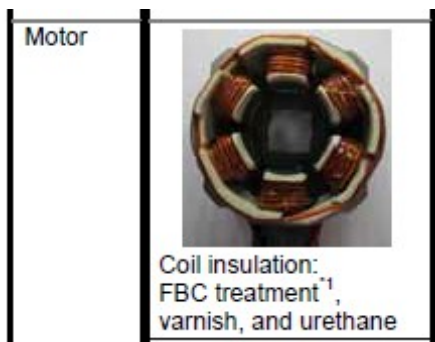


Conforming to IP56 (dust and water resistant)

1. Ventilator window



2. Coil insulation

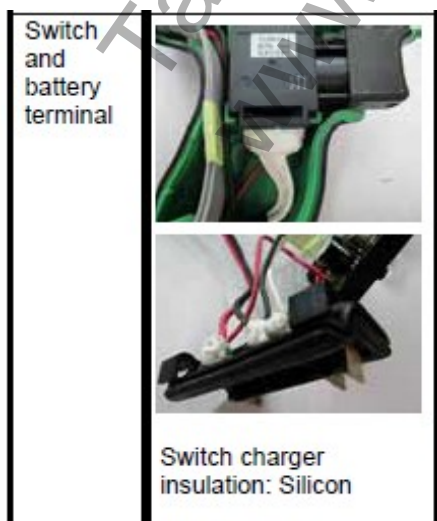


FBC treatment is a method of coil insulation. The stator with only its coil heated is dipped in fluidized epoxy powder resin for a certain time, thereby allowing the resin to melt and be deposited only on the coil.

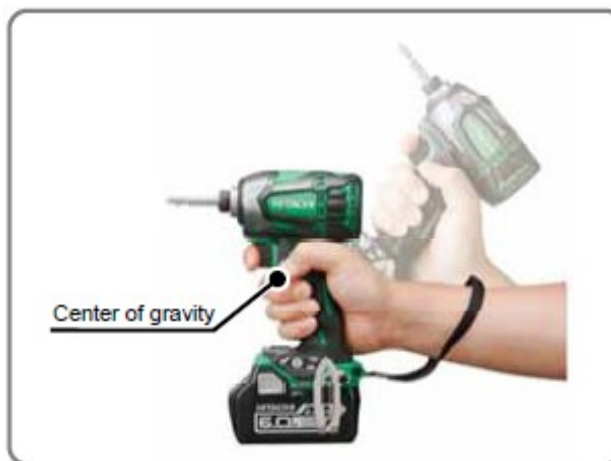
3. FTB board surface treatment



4. Switch and battery treatment



The Models WH 14DBDL2 and WH 18DBDL2 are optimally balanced by positioning the center of gravity at the middle finger point of the grip. This center balance design reduces user fatigue even when the tool is operated for a prolonged time.



Position of the center of gravity:

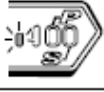



HITACHI WH 18DBDL2 (18 V)	B	C	D
 Middle finger	 Annular finger	 Between the annular finger and little finger	 Annular finger

Soon with new extra slim 3.0 Ah battery

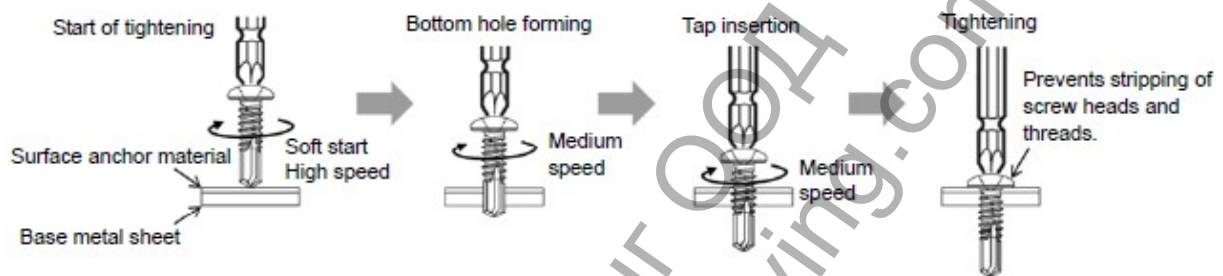


Self-drilling screw tightening mode

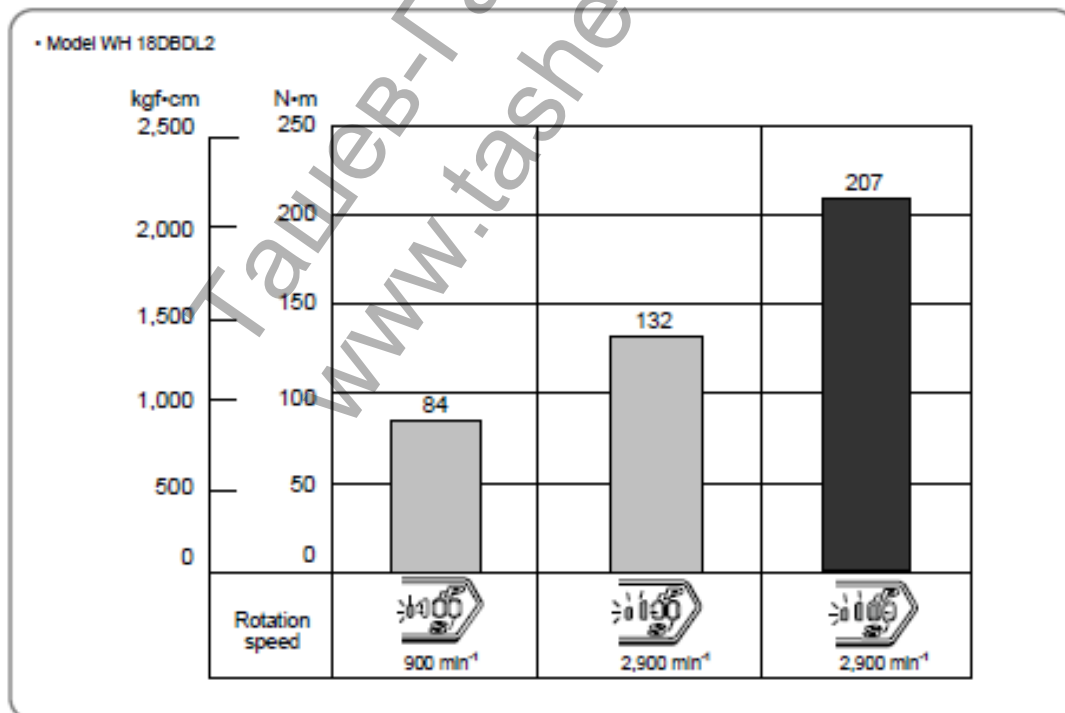
Each of the Models WH 14DBDL2 and WH 18DBDL2 features the self-drilling screw tightening mode in addition to the three standard tightening modes. This allows the unit to handle a much wider range of work than that of conventional models

		Soft mode	Normal mode	Power mode	Self-drilling screw mode
					
Rotation speed	WH 14DBDL2	0 - 900 min ⁻¹	0 - 2,800 min ⁻¹		
	WH 18DBDL2		0 - 2,900 min ⁻¹		
Use		"Delicate work" Tightening small diameter screws (M6 or similar), etc.	"Normal work" Tightening short screws, affixing plasterboard, etc.	"Heavy load work" Tightening long screws, coach screws, bolts, etc.	Self-drilling screw tightening

Self-drilling screw mode is used for tightening self-drilling Teks screws. This mode reduces the chances of overtightening that could result in severing of the screw head, breakage of the screw, or slippage.



Comparison of tightening torque in each tightening mode set by the tightening mode selector switch. The graph below shows the tightening torque in each tightening mode when tightening an M14 high-strength bolt with a socket adapter and a hexagonal socket (40 mm in length) for three seconds. Note that the values below are intended for reference purposes only, as the actual tightening torque may vary depending on the hardness of the workpiece, screw size, ambient temperature, battery characteristics, and other factors.



Built-in LED light

In addition to the normal ON-OFF operation for turning on the LED light with the conventional button, it is also possible to turn on the LED light with operation interlocked with the ON-OFF operation of the trigger switch. The conditions of turning on the LED light can be selected in accordance with preference

	Always-ON mode	SW interlocked mode	Always-OFF mode
Panel display			
State	Always ON (turn off after 2 minutes)	Light only SW-ON	Always OFF

• Light selector switch
The LED light switch mode alternates whenever the light selector switch is pressed.

SPECIFICATIONS:

Model		WH 14DBDL2	WH 18DBDL2		
Capacity	Small screw	4 to 10 mm (5/32" to 3/8")	4 to 10 mm (5/32" to 3/8")		
	Ordinary bolt	M5 to M18 (3/16" to 5/8")	M5 to M18 (3/16" to 23/32")		
	High-strength bolt	M5 to M14 (3/16" to 9/16")	M5 to M14 (3/16" to 9/16")		
	Self-drilling screw	Φ3.5 to Φ6 (#8 to 1/4")	Φ3.5 to Φ6 (#8 to 1/4")		
Tightening torque ¹⁾		175 N·m (1,786 kgf·cm)	207 N·m (2,112 kgf·cm)		
Tip condition		6.35 mm (1/4") bit holder			
Type of motor		Fan-cooled DC brushless motor			
Enclosure	Housing	Polyamide resin and elastomer			
	Hammer case	Aluminum alloy die casting			
	Front cap	NBR			
Protector		Polycarbonate resin			
Type of switch		Variable speed trigger switch with forward/reverse changeover lever (with brake)			
No-load rotation speed	Soft mode	0 to 900 min ⁻¹	Soft mode 0 to 900 min ⁻¹		
	Normal mode	0 to 2,800 min ⁻¹	Normal mode 0 to 2,900 min ⁻¹		
	Power mode	0 to 2,800 min ⁻¹	Power mode 0 to 2,900 min ⁻¹		
	Self-drilling screw mode	0 to 2,800 min ⁻¹	Self-drilling screw mode 0 to 2,900 min ⁻¹		
Impact rate	Soft mode	0 to 1,800 min ⁻¹	Soft mode 0 to 1,900 min ⁻¹		
	Normal mode	0 to 3,900 min ⁻¹	Normal mode 0 to 4,000 min ⁻¹		
	Power mode	0 to 3,900 min ⁻¹	Power mode 0 to 4,000 min ⁻¹		
	Self-drilling screw mode	0 to 1,900 min ⁻¹	Self-drilling screw mode 0 to 2,100 min ⁻¹		
Weight		1.4 kg (3.1 lbs.)	1.6 kg (3.5 lbs.) with BSL 1860/1850/1830 1.3 kg (2.9 lbs.) with BSL 1830C		
Overall length x height		127 mm x 240 mm with BSL 1860/1850/1830/1460/1450/1430 battery 127 mm x 222 mm with BSL 1830C battery			
LED lamp		White LED (Always-ON mode/SW interlocked mode/Always-OFF mode)			
LED light mode indicator lamp		Green LED			
Remaining battery indicator lamp		Red LED			
Tightening mode selector lamp		Power mode: red LED and blue LED Normal mode and Soft mode: red LED Self-drilling screw mode: red LED and green LED			
Standard accessories	2LJRK	Charger (Model UC 18YFSL) -----	1	Charger (Model UC 18YFSL) -----	1
		Battery (Type BSL 1450) -----	2	Battery (Type BSL 1850) -----	2
		Case -----	1	Case -----	1
		Battery cover -----	1	Battery cover -----	1
	2LSRK	Charger (Model UC 18YFSL) -----	1	Charger (Model UC 18YFSL) -----	1
		Battery (Type BSL 1430) -----	2	Battery (Type BSL 1830) -----	2
		Case -----	1	Case -----	1
		Battery cover -----	1	Battery cover -----	1
	2LYCK	Charger (Model UC 18YSL3) -----	1	Charger (Model UC 18YSL3) -----	1
		Battery (Type BSL 1460) -----	2	Battery (Type BSL 1860) -----	2
		Case -----	1	Case -----	1
		Battery cover -----	1	Battery cover -----	1
	2LSCK	-----	-----	Charger (Model UC 18YSL3) -----	1
		-----	-----	Battery (Type BSL 1830C) -----	2
	NNK	-----	-----	Case -----	1
		-----	-----	-----	-----
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