

delvo Brushless Type S Series (Variable speed type)

Model **DLV30S/DLV45S/DLV70S**



- Built-in brushless motor
- Automatic speed control function
- Built-in screw counting function
- Setting with the Remote Controller



0.4 to 7.0 Nm

Lever Start / Push to Start

This screwdriver can deal with various fastening conditions.



Website



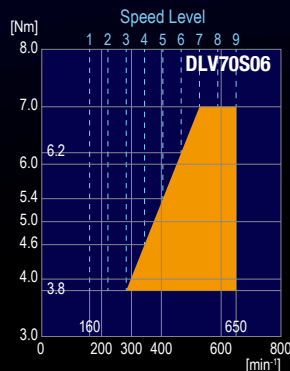
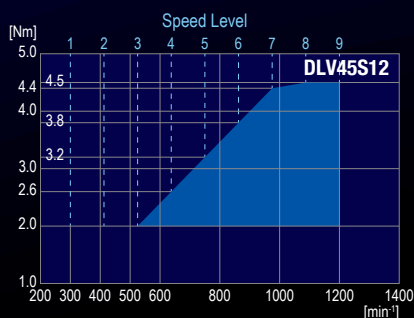
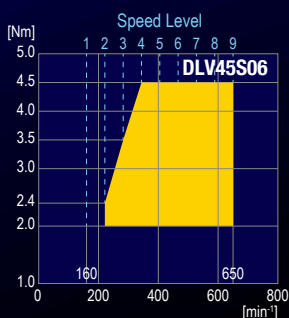
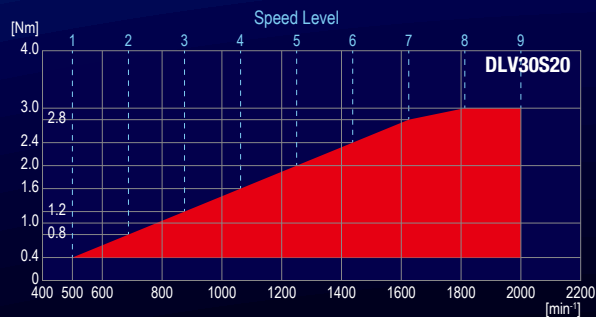
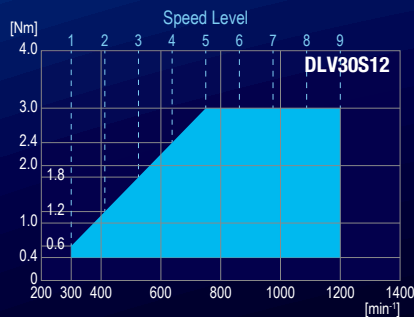
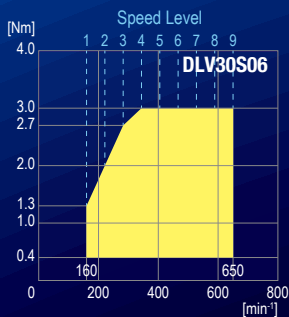
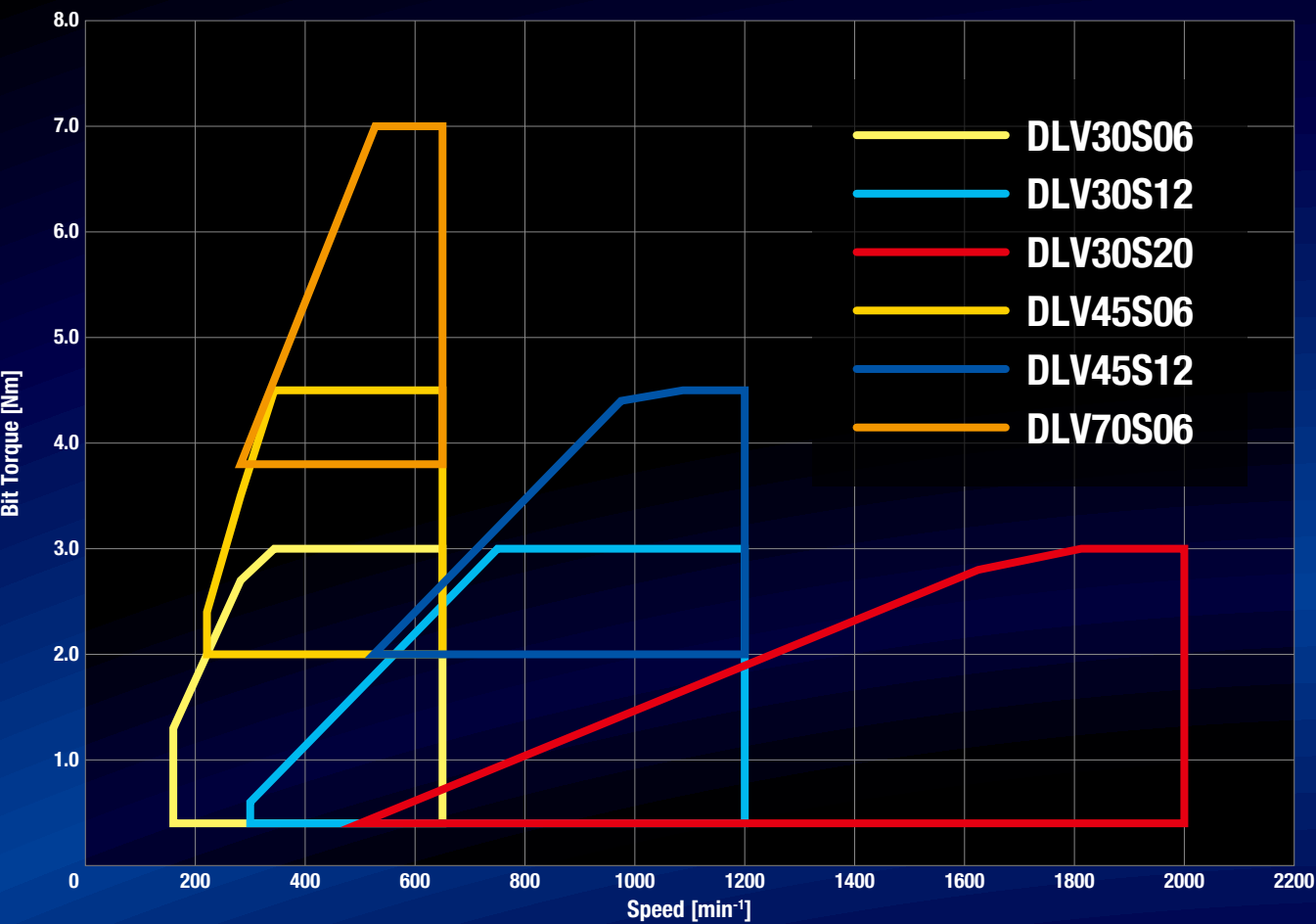
YouTube



delvo

Setting Range for Standard Models

The low speed level is effective in hard-to-fasten applications such as tapped holes in sheet metal, stainless steel, and plastic.
The high speed level is effective in shortening the cycle time in an assembly line.



*Graphs are for reference only. The actual values depend on usage conditions.

Specifications

Electric Screwdrivers

			Low Speed		Standard		High Speed		Low Speed		Standard		Low Speed	
Model	Bit	Lever Start	DLV30S06L-AY	K	DLV30S12L-AY	K	DLV30S20L-AY	K	DLV45S06L-AY	K	DLV45S12L-AY	K	DLV70S06L-AY	K
		Push to Start	DLV30S06P-AY	K	DLV30S12P-AY	K	DLV30S20P-AY	K	DLV45S06P-AY	K	DLV45S12P-AY	K	DLV70S06P-AY	K
Power Source		DEA0151N-AZ or DEA0241N-AZ				DEA0241N-AZ		DEA0151N-AZ or DEA0241N-AZ		DEA0241N-AZ				
Torque Adjustment		Stepless												
Torque (Nm [lbf·in])		Low Torque Spring *1	0.4 to 1.6 [3.5 to 14.2]						2.0 to 4.5 [17.7 to 39.8]				3.8 to 7.0 [33.6 to 62.0]	
		High Torque Spring *2	1.2 to 3.0 [10.6 to 26.6]											
Free Speed		(min ⁻¹)	For the details, see separate setting range of speed and torque.											
Speed Level			Lv1(Min. Speed) to Lv9(Max. Speed)											
Power Consumption		(W)	44											
Screw Size (mm)		Machine Screw	2.6 to 5.0						4.5 to 6.0				5.0 to 8.0	
		Tapping Screw	2.5 to 4.0						4.0 to 5.0				4.5 to 6.0	
Mass		(g [lbs])	710 [1.57]						860 [1.90] (with pistol grip)					
Bit Type		(mm)												
Rated Operation			ON: 0.5 seconds / OFF: 3.5 seconds											
Bit Grounding			Equipped as standard											
Standard Accessories			• Bit NK35(No.2 × 7 × 75): 1 pc. • Suspension Bail: 1 pc. • Low Torque Spring: 1 pc. • Connection Cord 1.5 m (DLW9073): 1 pc. • Torque Adjustment Ring Cover (DLW5203)						• Bit NK35(No.2 × 7 × 75): 1 pc. • Suspension Bail: 1 pc. • Connection Cord 1.5 m (DLW9073): 1 pc. • Pistol Grip (DLW2300ESD): 1 pc. • Torque Adjustment Ring Cover (DLW5202)					
Input/Output Signal Type			PNP											

*1: Standard accessory *2: Installed

Power Supply

Model	DEA0151N-AZ	DEA0241N-AZ
Input	100 - 240 V AC, 50/60 Hz, 60 W	
Output	40 V DC	
Maximum Rated Power (W)	150	240
Mass (kg)	0.56	0.9
Power Cord 2m (Optional) *3	DLW9220 / DLW9240 / DLW9250	

*3: The power cord is sold separately. Ask us for the required power cord when ordering.

Remote Controller

Model	RC1000
Mass (kg)	0.11 (including 3 batteries)
Battery	3 AAA batteries
Battery life	250 hours
Continuous Standby Time (for reference only)	
Battery life	10000 times
Number of Data Transmission (for reference only)	



LEDs Mounted on the Screwdriver

OK(pass) or NG(fail) operation and various setting statuses are displayed on the LCD and LEDs.

*The Remote Controller is available as an option.

LEDs and Setting Buttons on the Screwdriver



Part Names of the Remote Controller



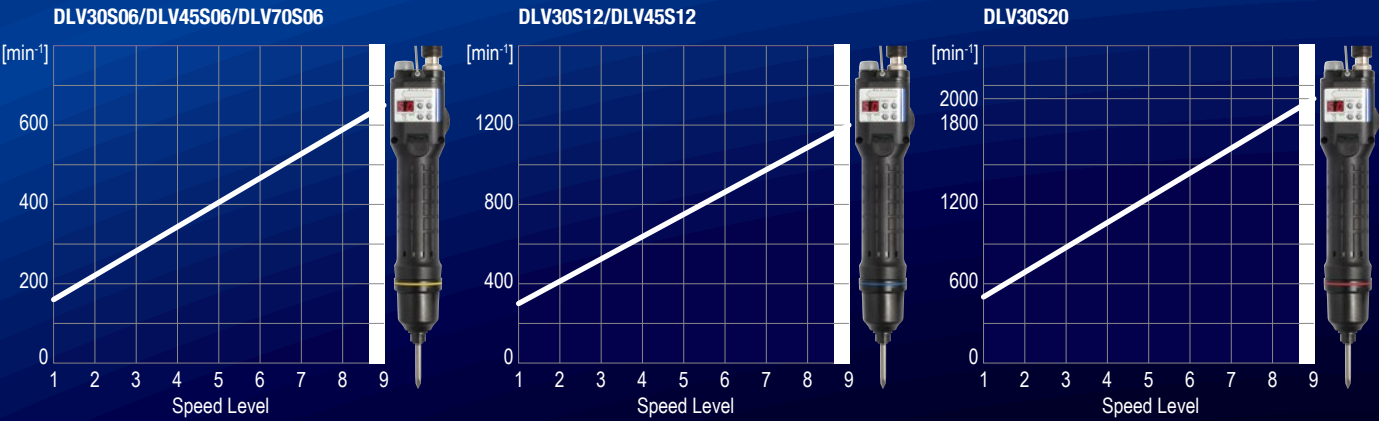
ESD Protection

Compliant with IEC61340-5-1.
ESD is the abbreviation of Electro-Static-Discharge. It means the discharge of static electricity.



1 to 9 speed setting available

Wide range of specifications meet various screw fastening conditions.



Setting Range of Speed and Torque (for reference only)

Setting Range of MAX 650 min ⁻¹ Series					Setting Range of MAX 1200 min ⁻¹ Series				Setting Range of MAX 2000 min ⁻¹ Series		
		DLV30S06	DLV45S06	DLV70S06			DLV30S12	DLV45S12			DLV30S20
Speed Level	Speed (min ⁻¹)	Torque (Nm)			Speed Level	Speed (min ⁻¹)	Torque (Nm)		Speed Level	Speed (min ⁻¹)	Torque (Nm)
Lv1	160	0.4 to 1.3	—	—	Lv1	300	0.4 to 0.6	—	Lv1	500	0.4
Lv2	220	0.4 to 2.0	2.0 to 2.4	—	Lv2	420	0.4 to 1.2	—	Lv2	690	0.4 to 0.8
Lv3	280	0.4 to 2.7	2.0 to 3.5	3.8	Lv3	530	0.4 to 1.8	2.0	Lv3	880	0.4 to 1.2
Lv4	340	0.4 to 3.0	2.0 to 4.5	3.8 to 4.6	Lv4	640	0.4 to 2.4	2.0 to 2.6	Lv4	1,060	0.4 to 1.6
Lv5	410	0.4 to 3.0	2.0 to 4.5	3.8 to 5.4	Lv5	750	0.4 to 3.0	2.0 to 3.2	Lv5	1,250	0.4 to 2.0
Lv6	470	0.4 to 3.0	2.0 to 4.5	3.8 to 6.2	Lv6	860	0.4 to 3.0	2.0 to 3.8	Lv6	1,440	0.4 to 2.4
Lv7	530	0.4 to 3.0	2.0 to 4.5	3.8 to 7.0	Lv7	980	0.4 to 3.0	2.0 to 4.4	Lv7	1,630	0.4 to 2.8
Lv8	590	0.4 to 3.0	2.0 to 4.5	3.8 to 7.0	Lv8	1,090	0.4 to 3.0	2.0 to 4.5	Lv8	1,810	0.4 to 3.0
Lv9	650	0.4 to 3.0	2.0 to 4.5	3.8 to 7.0	Lv9	1,200	0.4 to 3.0	2.0 to 4.5	Lv9	2,000	0.4 to 3.0

*Speed and torque are for reference only. The actual values depend on the materials to be fastened and size of screws. The values are not guaranteed.

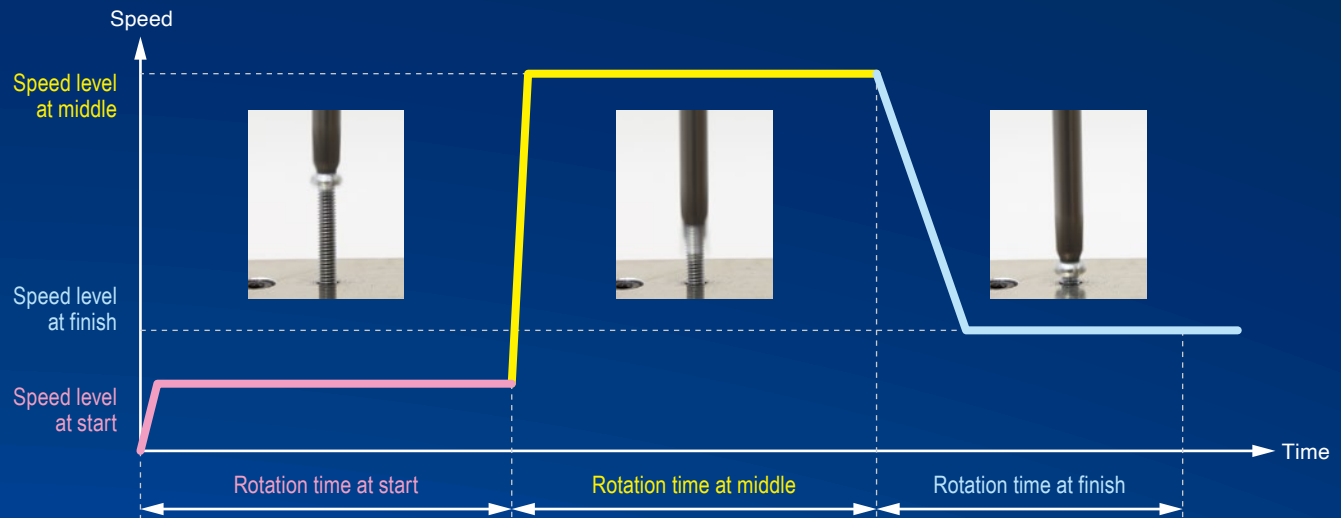
Built-in Automatic Speed Control Function

Contributing to improvement of efficiency and quality of screw fastening work.

The industry's first automatic three-step speed control — built in.

(Combination of low speed at start, high speed during feeding, and low speed at the final stage of fastening)

Operation Timing Chart (an example of speed and time)



Low speed starting reduces the following problems.

- If a bit is not well down in the cross-section of a screw, the cross-section may be damaged.
- If a screw does not fit in a thread, the screw may be cross-threaded and seated partially.

High speed feeding at middle improves efficiency and quality of screw fastening work.

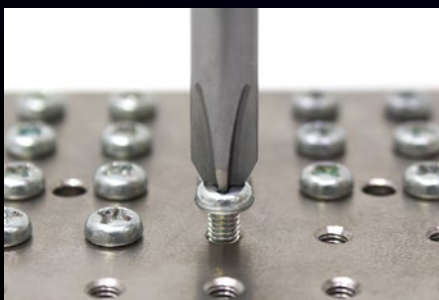
- High speed feeding at middle improves efficiency compared with conventional low speed models.
- Low speed starting and low speed fastening at finish improve quality of screw fastening work compared with conventional high speed models.

Low speed fastening at finish reduces the following problems.

- If a bit is not well down in the cross-section of a screw, the cross-section may be damaged.
- High speed fastening from start to finish generates overshoot torque (overtightening by an inertial force) and may cause breakage of a screw neck part.

Built-in the Functions of Screw Fastening Counter

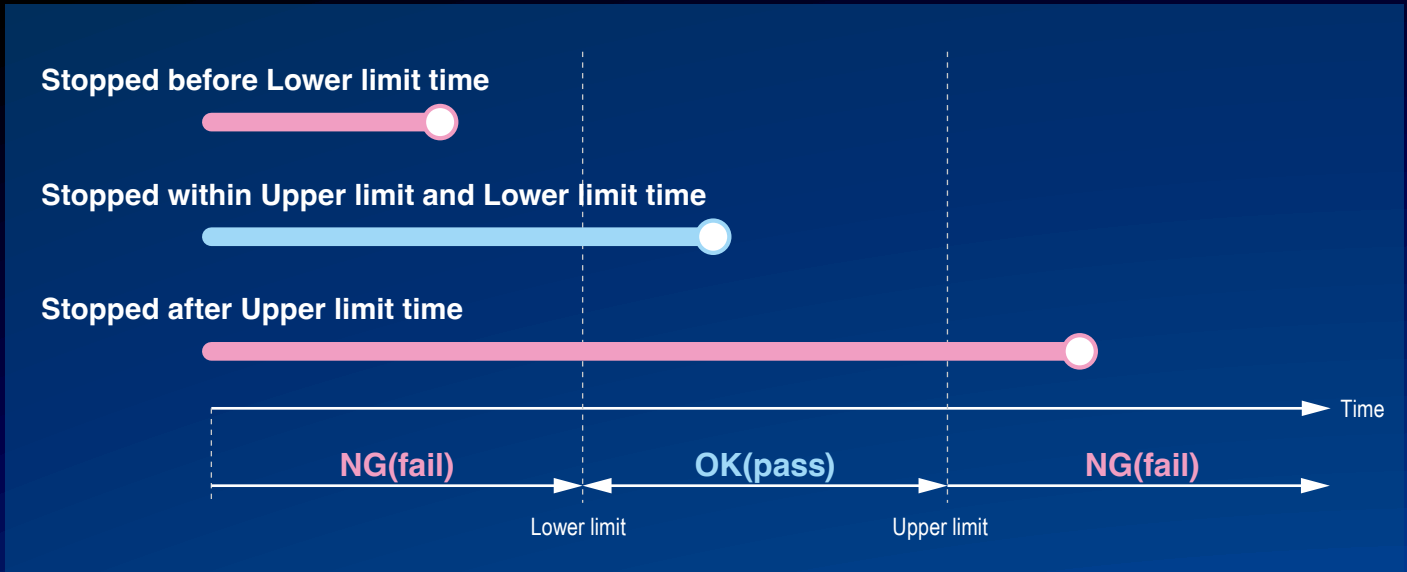
The screwdriver comes equipped with the functions of our screw fastening counter such as screw count setting, min/max fastening time setting, and fastening time measurement, resulting in a compact space-saving design.



DLR5040A-WE

Screw Fastening Time measuring

The upper/lower limit of screw fastening time can be set.
Helps prevent incorrect screw mix-ups and detects partially seated screws or damaged screws.



Built-in Auto Reverse Mode

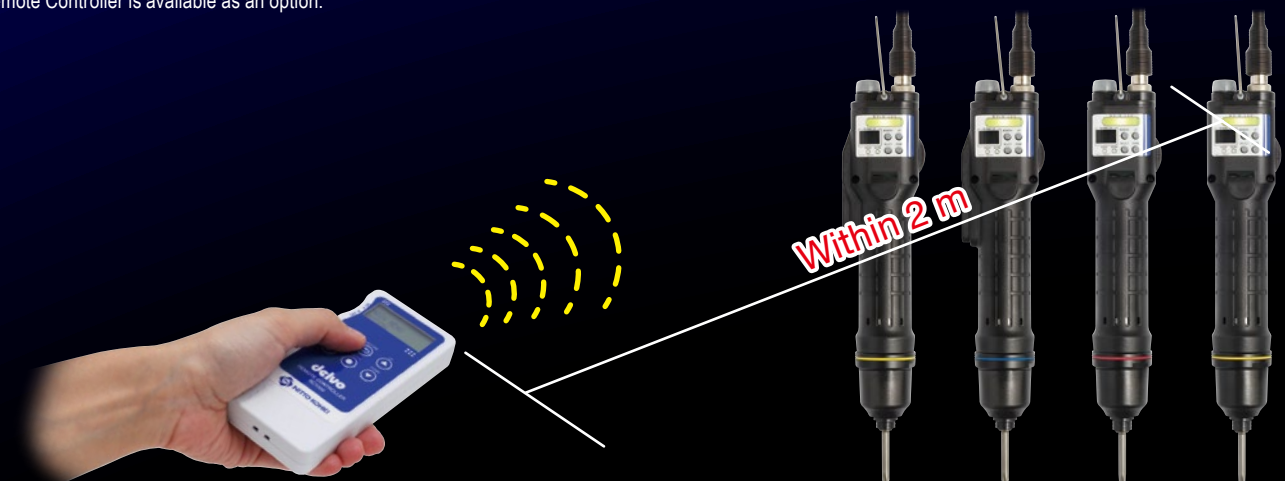
The screwdriver automatically reverses after torque-up or reaching the preset time.
Auto reverse mode can be used for temporarily fastening screws or verifying tapped holes.



Setting with the Remote Controller

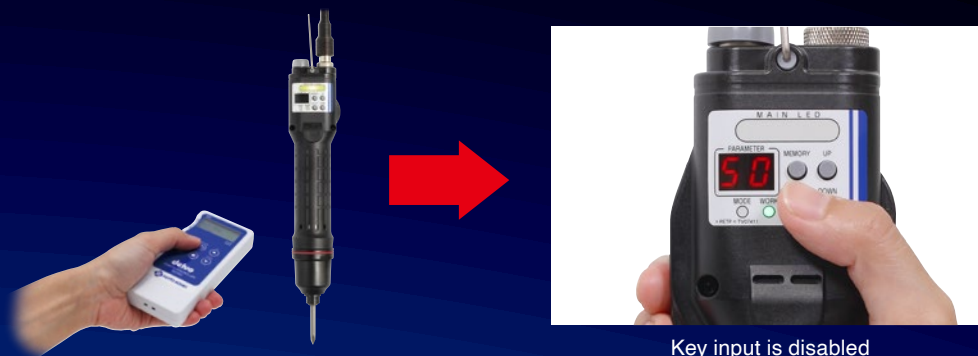
Infrared data transmission and the LCD display shorten the setting time.
Simultaneous setting of multiple screwdrivers with the Remote Controller.

*The Remote Controller is available as an option.



Key Lock Command

The Remote Controller can transmit the key lock command to a screwdriver.
The key lock command prevents accidental button operation on the screwdriver.



Built-in Security Function

A password can be set on the screwdriver using the Remote Controller.

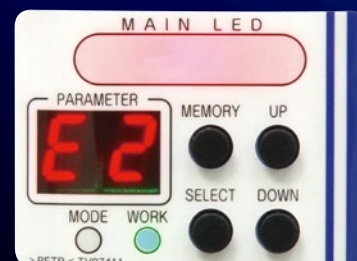


You can set a password to each screwdriver.
When the power switch is turned on,
the electric screwdriver will not operate without a password.
*Security function can be changed to on/off.

NG(fail) display

When an NG (fail) operation occurs, the parameter LED displays a number from E1 to E9, and the main LED lights red. While the main LED is lit red, the electric screwdriver does not operate (rotate).

No.	Details
E1	When rotation stopped before the screw fastening time lower limit elapses (when torque reached the set torque or the start switch is pressed)
E2	When the screwdriver is rotating longer than the screw fastening time upper limit
E3	When the operation time setting is as follows: • Screw fastening time upper limit < Screw fastening time lower limit • Screw fastening time lower limit < Start rotation time or middle rotation time
E4	In auto reverse mode setting, the torque reached the set torque and rotation stopped during reverse turning
E5	In auto reverse mode setting, rotation stopped when the start switch is released during reverse turning
E6	In auto reverse mode with the "Reverse after the screw fastening time lower limit" setting, when the torque reached the set torque and rotation stopped before switching to reverse rotation
E7	When work-piece signal input is set, the work-piece signal is turned OFF (the work-piece is removed) during the period between when the work-piece setup NG starts and when the OK signal is output
E8	When the motor has insufficient power (Motor-Lock) The motor stops automatically and protects the motor and circuit board
E9	When the board has failed and the setting conditions cannot be read



Up to 8 types of motion settings or up to 8 channels can be saved in the screwdriver

Eleven functions in the motion setting can be saved in each channel.

Example of motion settings

	Channel				
	CH1	CH2	CH3		CH8
1 : Number of screw fastening	2 pieces	3 pieces	1 piece		4 pieces
2 : Speed level at start	Level 2	Level 1	Level 1		Level 2
3 : Rotation time at start	0.20 sec.	0.30 sec.	0.30 sec.		0.20 sec.
4 : Speed level at middle	Level 7	Level 9	Level 9		Level 9
5 : Rotation time at middle	0.30 sec.	0.50 sec.	3.0 sec.		7.5 sec.
6 : Speed level at finish	Level 2	Level 1	Level 1		Level 2
7 : Min. screw fastening time	0.60 sec.	0.80 sec.	3.5 sec.		8.0 sec.
8 : Max. screw fastening time	1.0 sec.	1.2 sec.	4.0 sec.		9.0 sec.
9 : Auto reverse mode setting	OFF	OFF	Reverse after torque-up		Reverse after reaching the min. screw fastening time
10 : Reverse rotation speed level	—	—	Level 2		Level 1
11 : Reverse rotation time	—	—	0.20 sec.		0.30 sec.

Automatic Channel Switching

Channels can be switched automatically if the channel switching order is preset.

*Setting with the Remote Controller is required.

Example : Channel switching is set to CH3 » CH1 » CH2.



Setting of automatic channel switching pattern

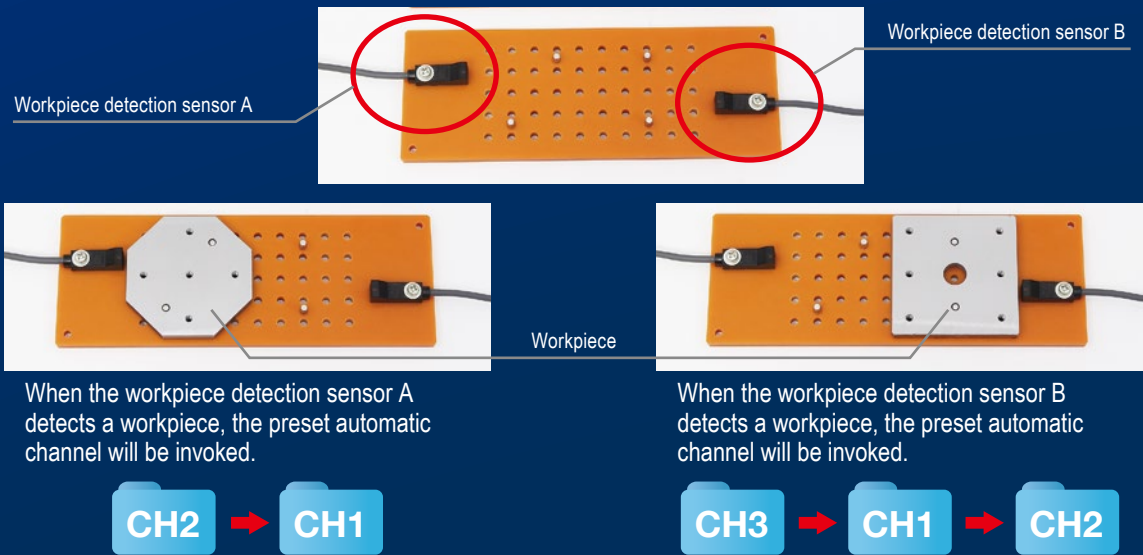
Up to four automatic channel switching patterns can be set with an external signal.

*Setting with the Remote Controller is required.

Example of setting : Installation of the workpiece detection sensors A and B connected to the external signal connector.

Automatic channel switching is set to CH2 » CH1 on the side of the workpiece detection sensor A.

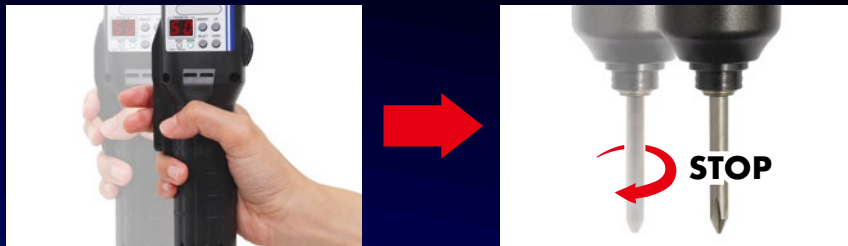
Automatic channel switching is set to CH3 » CH1 » CH2 on the side of the workpiece detection sensor B.



Built-in Bit Brake Function

Upon releasing the start switch of the screwdriver, the bit will stop instantly.

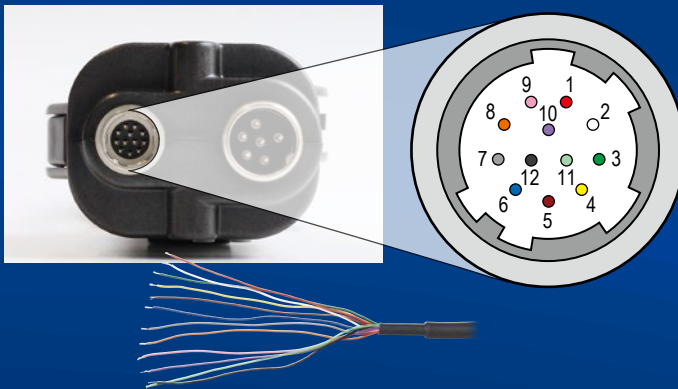
*Bit brake function can be changed to on/off.



Upon releasing the start switch, the bit will stop instantly.

Equipped with an External Signal Connector

The screwdriver can input/output external signals or output signals through the external signal connector.



Pin No.	Lead wire color	Signal	Input/output
1	Red	+24 V DC power (supplied from outside)	
2	White	Workpiece Signal	Input
3	Green	Reset signal	Input
4	Yellow	LINK-IN	Input
5	Brown	OK Signal	Output
6	Blue	NG Signal	Output
7	Gray	LINK-OUT	Output
8	Orange	Torque-up (count) signal	Output
9	Peach	Channel A	Input
10	Purple	Channel B	Input
11	Yellow Green	Channel C	Input
12	Black	0 V DC	

Lead wire colors are the ones used in the optional signal cable ass'y DLW9090.

*Either Pin No.4 or 7 must be selected, but not both.

*Input / Output signal type is PNP.

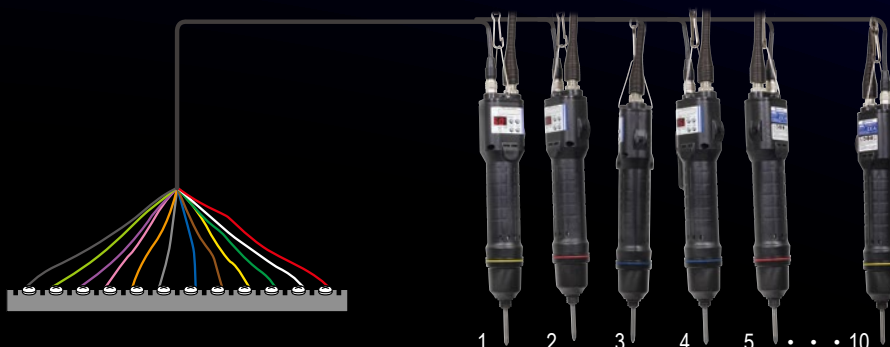
Forced Stop Signal Input

The electric screwdriver can be stopped forcefully with an external signal.



Link Function

The screwdrivers operate in the screw fastening sequence. Up to 10 screwdrivers can be connected to the Link. Standby screwdrivers will not operate.



Optional Accessories



Power Supply DEA0151N-AZ
• Power cord is not included



Power Supply DEA0241N-AZ
• Power cord is not included



North America
DLW9220



Europe
DLW9240



UK
DLW9250

Grounded 3-Prong Power Cord



Remote Controller RC1000



Signal Cable Ass'y DLW9090



Connection Cord DLW9073
*Standard accessory of screwdrivers



Relay Cord
(To connect DLW9073 and DLW9073) DLW9074



Torque Checker DLT1973A



DLT1673A



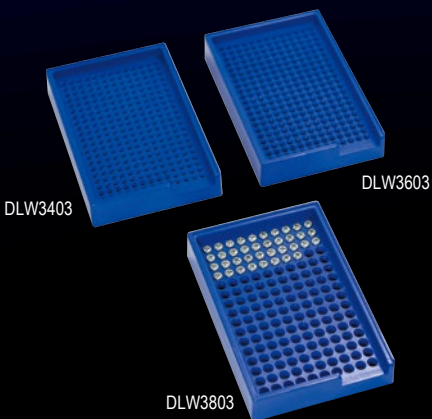
Pistol Grip DLW2300ESD



Tool Balancer TW-06R/1R



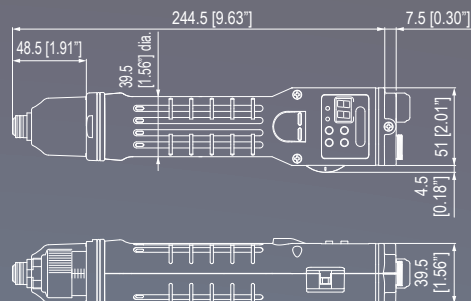
RW-3/5



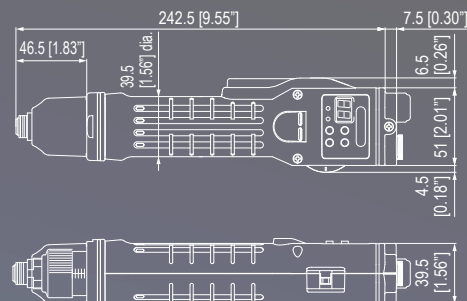
Shaker Box

External Dimensions

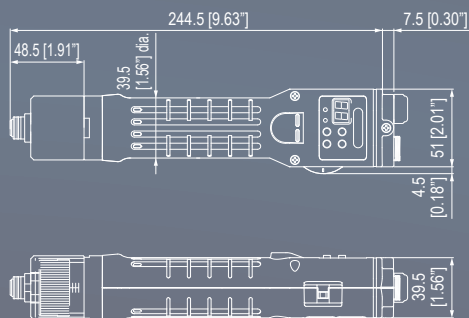
DLV30S06P/DLV30S12P/DLV30S20P



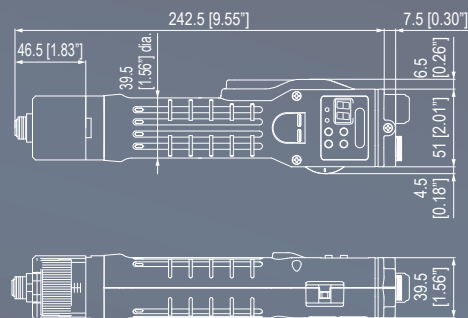
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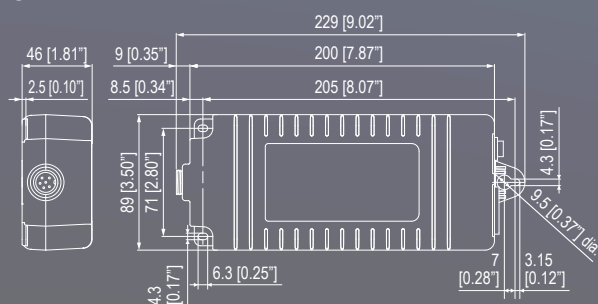
DLV45S06P/DLV45S12P/DLV70S06P



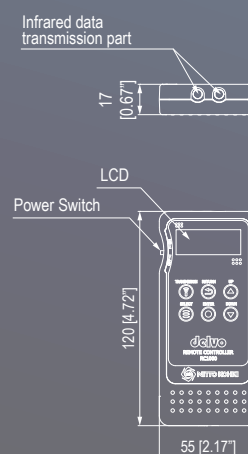
DLV45S06L/DLV45S12L/DLV70S06L



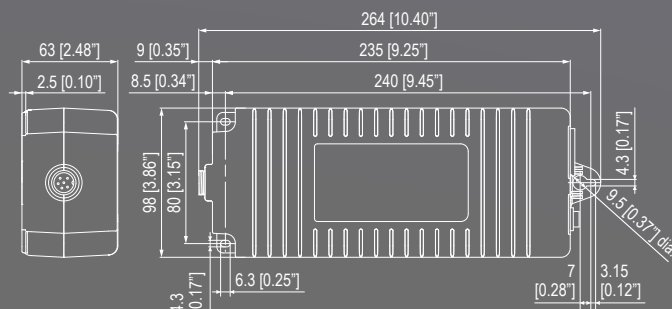
DEA0151N-AZ



RC1000



DEA0241N-AZ



(Unit : mm)

About certifications

“delvo” electric screwdrivers are safe, secure and high quality products that are compliant with the international standards.



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