

delvo[®]

General Catalog



NITTO KOHKI's Electric Screwdrivers "delvo" contribute to quality improvement of assembly work.



Professional Tools for Assembling High-Technology Goods

NITTO KOHKI's Electric Screwdrivers "delvo" are high-quality tools for professional use, with special emphasis on precise torque control and long-term reliability. "delvo" gives you the ability to get it right, every time.

- **Repeatable Accuracy**

Designed to provide more consistent torque, screw after screw.

- **Reduced Recoil**

Sophisticated clutches and a motor braking system reduce the hand recoil at the end of the screw tightening operation, reducing user fatigue.

- **Long-life**

Brushless electric screwdrivers assure you a long operating life.

- **Brushless motors**

No brushes to replace and a wide torque range allow brushless screwdrivers to be used in various applications for extended periods of time.

- **Faster**

High-speed motors cut down on screw tightening time and enhance productivity.

- **Quieter**

Compare "delvo" to conventional pneumatic screwdrivers and you will hear the difference.



Please ask for CE, CCC certified models.



NITTO KOHKI has made every effort in environmental improvement schemes on a company-wide basis through the implementation of ISO14001 to execute environmentally conscious business activities. As a part of our ongoing commitment to improve the environment, we are also committed to exclude or reduce restricted chemical substances in our products, as designated by the RoHS directives and Laws and Regulations of Chemical Substances in Japan. For further details, please see the following:

NITTO KOHKI group companies' Green Procurement Guidelines have been established by their environmental committee which consists of members from all the NITTO KOHKI group of companies. NITTO KOHKI group companies give preferential treatment to suppliers that work to an environmental policy framework. NITTO KOHKI group companies periodically survey their suppliers to ensure their chemical management systems include the monitoring of environmental issues such as the RoHS directives, and Japanese laws and regulations of Chemical Substances to minimize packaging and waste. We are continuing our goal to ensure that our made-to-order items are also covered by our environmental policy.

Green Procurement Policy

Each of the NITTO KOHKI group companies clarifies the control categories of the environmental management substances included in the parts and auxiliary materials constituting NITTO KOHKI products and those of the environmental management substances used in the manufacturing processes. We promote prohibition and reduction of use of the environmental management substances according to such control categories. Through these activities, we comply with various laws and regulations related to the environmental management substances and reduce the impact to the global environmental conservation and to the ecological system.

Scope of Application

Our Green Procurement Guideline applies to all materials, parts, products, and auxiliary materials which NITTO KOHKI Group companies purchase for production or sales.

Our Green Procurement Activities

NITTO KOHKI group companies continually aim to comply with RoHS directives and Japanese laws and regulations of Chemical Substances.





- Standard products are RoHS compliant. Green procurement activities on made-to-order products are continuing.
- NITTO KOHKI group companies are now working to the REACH Regulation.
- NITTO KOHKI group companies are building a database of the chemical management substances regulated by the RoHS directives, the REACH Regulation and Japanese laws and regulations of Chemical Substances.

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List of Screwdrivers



[Brush Motor - DC Power Supply]

Page	Outer Appearance	Series	Model	Torque Range	Screw Size		Weight	Lever Start	Push to Start	ESD Protection	Clean Room Type	High Speed	SPC Type available (for screw counter)	Controller			
					mm									lbs [g]	Model	Adjustable speed	Outer Appearance
					min.	max.											
5		5800	DLV5820U	0.2 - 1.8 [0.02 - 0.2]	1.0	2.3	0.51 [230]	●		●				DLC0350LU	●		
			DLV5820HU						●	●	●						
			DLV5840U	1.3 - 3.5 [0.15 - 0.4]	1.6	2.6		●	●								
		7300-BKU	DLV7321	0.4 - 4.4 [0.05 - 0.5]	1.0	3.0	0.77 [350]	●	●	●	●		DLC1213-LUB	●			
DLV7331	2.7 - 10.6 [0.3 - 1.2]	2.0	3.5	●	●	●		●									


[Brushless Motor - DC Power Supply]

Page	Outer Appearance	Series	Model	Torque Range	Screw Size		Weight	Lever Start	Push to Start	ESD Protection	Soft Stop	Low Speed	Medium Speed	High Speed	SPC Type available (for screw counter)	Built-in Screw Counter	Controller		
					mm												lbs [g]	Model	Outer Appearance
					min.	max.													
6	 	DLV02/12/16	DLV02SL-CKE	0.3 - 1.8 [0.03 - 0.2]	1.0	2.2	1.04 [470]	●					●				DLC16S-WUB		
			DLV02SL-BKE						●	●									
			DLV12SL-CKE	1.3 - 10.6 [0.15 - 1.2]	1.4	3.0		●	●	●									
			DLV12SL-BKE					●	●	●									
			DLV16SL-CKE	1.8 - 14.2 [0.2 - 1.6]	2.2	4.0		●	●	●									
			DLV16SL-BKE					●	●	●									



[Brush Motor - AC Power Supply]

Page	Outer Appearance	Series	Model	Torque Range	Screw Size		Weight	Lever Start	Push to Start	ESD Protection	High Speed	
					mm							lbs [g]
					min.	max.						
7	 	7104/8104/ 8204-LKU	DLV7124	2.2 - 6.6 [0.25 - 0.75]	2.6	3.0	1.59 [720]	●		●		
			DLV7134	4.4 - 15.1 [0.5 - 1.7]		4.0		●	●			
			DLV7144	10.6 - 26.6 [1.2 - 3.0]	3.5	5.0		●	●			
			DLV8124	2.2 - 6.6 [0.25 - 0.75]	2.6	3.0	1.57 [710]		●	●		
			DLV8134	4.4 - 15.1 [0.5 - 1.7]		4.0		●	●			
			DLV8144	10.6 - 26.6 [1.2 - 3.0]	3.5	5.0		●	●			
			DLV8154	17.7 - 39.8 [2.0 - 4.5]	4.5	6.0	2.01 [910]		●	●		
			DLV8224	3.1 - 6.2 [0.35 - 0.7]		3.0		●	●	●		
			DLV8234	4.4 - 15.1 [0.5 - 1.7]	2.6	4.0		●	●	●		
DLV8244	10.6 - 26.6 [1.2 - 3.0]	3.5	5.0		●	●						


[Brushless Motor - AC Power Supply]

Page	Outer Appearance	Series	Model	Torque Range	Screw Size		Weight	Lever Start	Push to Start	ESD Protection	Soft Stop	Low Speed	Medium Speed	High Speed	Built-in Screw Counter	SPC Type available (for screw counter)		
					Lb-in [Nm]	mm min. max.											lbs [g]	
8		A Series	DLV30A06L-ADK	3.5 - 26.6 [0.4 - 3.0]	2.6	5.0	1.54 [700]	●	●									
			DLV30A06P-ADK					●	●									
			DLV30A12L-ADK					●	●		●							
			DLV30A12P-ADK					●	●		●							
			DLV30A20L-ADK					●	●		●							
			DLV30A20P-ADK	●	●		●											
			DLV45A06L-ADK	17.7 - 39.8 [2.0 - 4.5]	4.5	6.0	1.92 [870]	●	●									
			DLV45A06P-ADK					●	●									
			DLV45A12L-ADK					●	●		●							
DLV45A12P-ADK	●	●						●										





[Brushless Motor - DC Power Supply]

Page	Outer Appearance	Series	Model	Torque Range	Screw Size		Weight	Lever Start	Push to Start	ESD Protection	Soft Stop	Low Speed	Medium Speed	High Speed	Built-in Screw Counter	SPC Type available (for screw counter)	Controller				
					Lb-in [Nm]	mm min. max.											lbs [g]	Model	Outer Appearance		
9		A Series	DLV30A06L-AYK	3.5 - 26.6 [0.4 - 3.0]	2.6	5.0	1.52 [690]	●	●								DEA0151N-AZ or DEA0241N-AZ				
			DLV30A06P-AYK					●	●												
			DLV30A12L-AYK					●	●		●										
			DLV30A12P-AYK					●	●		●										
			DLV30A20L-AYK					●	●		●										
			DLV30A20P-AYK	●	●		●														
			DLV45A06L-AYK	17.7 - 39.8 [2.0 - 4.5]	4.5	6.0	1.85 [840]	●	●												DEA0151N-AZ or DEA0241N-AZ
			DLV45A06P-AYK					●	●												
			DLV45A12L-AYK					●	●		●										
			DLV45A12P-AYK					●	●		●										
DLV70A06L-AYK	33.6 - 62.0 [3.8 - 7.0]	5.0	8.0	1.85 [840]	●	●										DEA0241N-AZ					
DLV70A06P-AYK					●	●															





[Brushless Motor - AC Power Supply]

Page	Outer Appearance	Series	Model	Torque Range	Screw Size		Weight	Lever Start	Push to Start	ESD Protection	Soft Stop	Low Speed	Medium Speed	High Speed	Built-in Screw Counter	SPC Type available (for screw counter)			
					Lb-in [Nm]	mm min. max.											lbs [g]		
10		A Series	DLV30A06L-SPC	3.5 - 26.6 [0.4 - 3.0]	2.6	5.0	1.54 [700]	●	●							●			
			DLV30A06P-SPC					●	●										
			DLV30A12L-SPC					●	●		●								
			DLV30A12P-SPC					●	●		●								
			DLV30A20L-SPC					●	●		●								
			DLV30A20P-SPC	●	●		●												
			DLV45A06L-SPC	17.7 - 39.8 [2.0 - 4.5]	4.5	6.0	1.92 [870]	●	●										●
			DLV45A06P-SPC					●	●										
			DLV45A12L-SPC					●	●		●								
DLV45A12P-SPC	●	●						●											

[Brushless Motor - DC Power Supply]

Page	Outer Appearance	Series	Model	Torque Range	Screw Size		Weight	Lever Start	Push to Start	ESD Protection	Soft Stop	Low Speed	Medium Speed	High Speed	Built-in Screw Counter	SPC Type available (for screw counter)	Controller		
					mm												lbs [g]	Model	Outer Appearance
					min.	max.													
13		C Series (Current control type)	DLV04C10L	0.4 - 3.5 [0.05 - 0.4]	1.2	3.0	0.82 [370]	●	●	●	●	●	●	●	●	DCC0101X-AZP			
			DLV10C10L	1.8 - 8.9 [0.2 - 1.0]	1.8	4.0		●	●	●	●	●	●	●	●				
15		S Series (Variable speed type)	DLV30S06L	3.5 - 26.6 [0.4 - 3.0]	2.6	5.0	1.57 [710]	●	●	●	●	●	●	●	●	DEA0151N-AZ or DEA0241N-AZ			
			DLV30S06P					●	●	●	●	●	●	●	●				
			DLV30S12L					●	●	●	●	●	●	●	●				
			DLV30S12P					●	●	●	●	●	●	●	●				
			DLV30S20L					●	●	●	●	●	●	●	●				
			DLV30S20P	●	●	●	●	●	●	●	●	●	DEA0241N-AZ						
			DLV45S06L	17.7 - 39.8 [2.0 - 4.5]	4.5	6.0	1.90 [860]	●	●	●	●	●	●	●	●	●		DEA0151N-AZ or DEA0241N-AZ	
			DLV45S06P					●	●	●	●	●	●	●	●				
			DLV45S12L					●	●	●	●	●	●	●	●				
			DLV45S12P	33.6 - 62.0 [3.8 - 7.0]	4.5	8.0	1.85 [840]	●	●	●	●	●	●	●	●	●		DEA0241N-AZ	
DLV70S06L	●	●	●					●	●	●	●	●							
DLV70S06P	●	●	●					●	●	●	●	●							

[Brushless Motor]

Page	Outer Appearance	Series	Model	Torque Range	Screw Size		Weight	Low Speed	Medium Speed	High Speed	Coupling			Type of couplings	
					mm						lbs [g]	Standard	Flange		M41 Screw
					min.	max.									
17		A Series (for automation)	DLV30A06A-N	3.5 - 26.6 [0.4 - 3.0]	2.6	5.0	1.54 [700]	●	●	●	●	●		Standard coupling	
			DLV30A06A-F				1.68 [760]	●	●	●	●				
			DLV30A06A-M				1.63 [740]	●	●	●	●				
			DLV30A12A-N				1.54 [700]	●	●	●	●				
			DLV30A12A-F				1.68 [760]	●	●	●	●				
			DLV30A12A-M				1.63 [740]	●	●	●	●				
			DLV30A20A-N	1.54 [700]	●	●	●	●		Flange coupling					
			DLV30A20A-F	1.68 [760]	●	●	●	●							
			DLV30A20A-M	1.63 [740]	●	●	●	●							
			DLV45A06A-N	17.7 - 39.8 [2.0 - 4.5]	4.5	6.0	1.72 [780]	●			●	●		M41 screw coupling	
			DLV45A06A-F				1.85 [840]	●			●	●			
			DLV45A06A-M				1.81 [820]	●			●	●			
			DLV45A12A-N				1.72 [780]	●	●	●					
			DLV45A12A-F				1.85 [840]	●	●	●					
DLV45A12A-M	1.81 [820]	●	●				●								

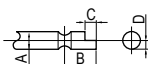
DLV5800 Series

Features

delvo responds to the needs of cell production systems with space-saving screwdrivers. The controller is lightweight and space-saving size.

- Clear disengagement of clutch (shock-less mechanism unavailable)
- Ergonomic start lever
- Precision holder reduces bit movement during use
- Compliant with EN100015-1 standard
- Grounded bit system standard (within a built-in 1 Mega ohm resistor)(DLC0350LU)

Specifications




Electric Screwdriver														
Model	Starting Method	Free Speed rpm	Torque Lb-in(Nm)	Screw Size (for reference)		Weight lbs(g)	Bit Type				Input Voltage	Power Consumption		
				inch thread	metric coarse thread		A	B	C	D				
DLV5820U	Lever Start	500 - 750	0.18 - 1.8 (0.02 - 0.20)	#2 or less	1.0 - 2.3 mm	0.51 (230)		in	0.16	0.43	0.14	0.08	40 V DC	10 W
DLV5820HU		700 - 1000							4	11	3.5	2		
DLV5840U		450 - 600							1.3 - 3.5 (0.15 - 0.40)	#1 - #3	1.6 - 2.6 mm			

Controller			
Model	Input Voltage	Function	Weight lbs(g)
DLC0350LU	115 V AC, 50/60 Hz	Grounding, Soft Start, Speed Control	1.98 (900)

Standard Accessories

For DLV5820 DLV5820H	• Bit No.0 × 1.8 × 44: 1 pc. • Bit No.0 × 2.5 × 44: 1 pc. • Suspension Bail: 1 pc.	• Connection Cable (60"): 1 pc. • Spring for Low Torque (Silver): 1 pc.
For DLV5840	• Bit No.0 × 2.5 × 44: 1 pc. • Bit No.1 × 4 × 44: 1 pc.	• Suspension Bail: 1 pc. • Connection Cable (60"): 1 pc.

Optional Accessories

		
Sleeve	Vacuum Pickup DLP5300 (TD04342)	Torque Adjustment Ring Cover TD02875
* Please see page 23 for details.		This minimizes tampering or accidental turning of the torque adjustment ring once the torque is set.

For Miniature Screws #3 or less (1.0 - 2.6 mm)

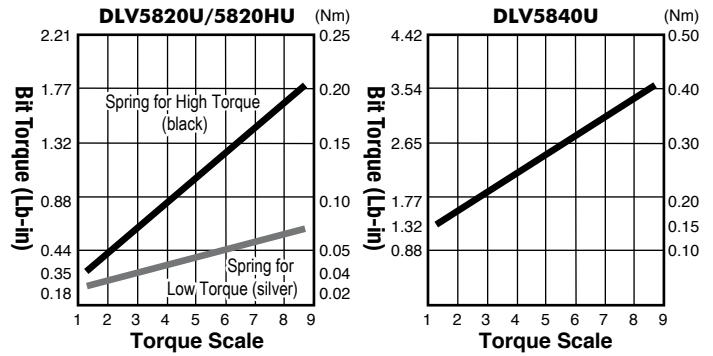


DLV5820U/
5820HU/5840U



DLC0350LU

Torque Diagram (for reference)



DLV7300-BKU Series

Features

Work-piece friendly electric screwdrivers

- Anti-Static, shielded design prevents electrostatic buildup and discharge
- DLC1213 provides adjustable soft-start + speed control
- Grounded bit system standard

Specifications

Electric Screwdriver									
Model	Starting Method	Free Speed rpm	Torque Lb-in(Nm)	Screw Size (for reference)		Weight lbs(g)	Bit	Input Voltage	Power Consumption
				inch thread	metric coarse thread				
DLV7321-BKU	Lever Start	700 - 1000	0.4 - 4.4 (0.05 - 0.5)	#4 or less	1.0 - 3.0 mm	0.77 (350)	Hex 1/4"	36 V DC	35 W
DLV7331-BKU		500 - 700	2.7 - 10.6 (0.3 - 1.2)						

Controller			
Model	Input Voltage	Function	Weight lbs(kg)
DLC1213-LUB	115 V AC, 50/60 Hz	Grounding, Soft Start, Speed Control	5.06 (2.3)

Standard Accessories

For DLV7321-BKU DLV7331-BKU	• Bit No.1 × 7 × 50: 1 pc. • Bit No.2 × 7 × 50: 1 pc. • Suspension Bail: 1 pc.
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For Miniature Screws #6 or less (1.0 - 3.5 mm)

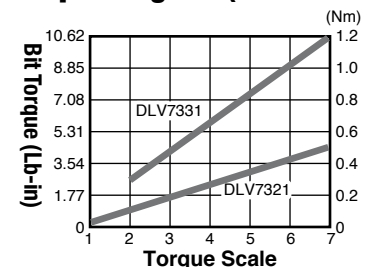


DLV7321-BKU
DLV7331-BKU



DLC1213-LUB

Torque Diagram (for reference)



DLV02/12/16 Series

For Machine Screws #8 or less (1.0 - 4.2 mm)

Features

Includes brushless motors for maximum tool life

- Ergonomic grip for greater operator comfort and increased maneuverability
- Includes a clear plastic torque adjustment cover as standard accessory (DLV02/12/16SL-CKE)
- Grounded bit system standard
- ESD (electrostatic discharge) protection (DLV02/12/16SL-BKE)
- Controllers feature an overload detection function to stop the screwdriver when an overload is detected. Operation can resume after the screwdriver is unloaded and the lever is released (DLC16S)



DLV02/12/16SL-CKE

DLV02/12/16SL-BKE



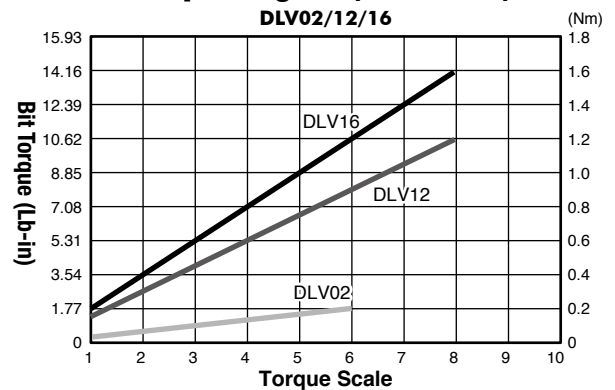
Specifications

Model	Starting Method	Free Speed rpm	Torque Lb-in(Nm)	Screw Size (for reference)		Weight lbs(g)	Bit	Input Voltage	Power Consumption
				inch thread	metric coarse thread				
Standard DLV02SL-CKE DLV12SL-CKE DLV16SL-CKE	Lever Start	700 - 1000	0.27 - 1.8 (0.03 - 0.2)	#2 or less	1.0 - 2.2 mm	1.04 (470)	Hex 1/4"	20 - 30 V DC	48 W
			1.33 - 10.6 (0.15 - 1.2)	#4 or less	1.4 - 3.0 mm				
			1.8 - 14.2 (0.2 - 1.6)	#2 - #8	2.2 - 4.2 mm				
ESD DLV02SL-BKE DLV12SL-BKE DLV16SL-BKE			0.27 - 1.8 (0.03 - 0.2)	#2 or less	1.0 - 2.2 mm				
			1.33 - 10.6 (0.15 - 1.2)	#4 or less	1.4 - 3.0 mm				
			1.8 - 14.2 (0.2 - 1.6)	#2 - #8	2.2 - 4.2 mm				

Standard Accessories

For DLV02	<ul style="list-style-type: none"> • Bit No.0 × 3.8 × 50: 1 pc. • Bit No.1 × 3.8 × 50: 1 pc. • Power Cord: 1 pc. • Suspension Bail: 1 pc.
For DLV12 DLV16	<ul style="list-style-type: none"> • Bit No.1 × 3.8 × 50: 1 pc. • Bit No.2 × 4.5 × 50: 1 pc. • Power Cord: 1 pc. • Suspension Bail: 1 pc.

Torque Diagram (for reference)



Controller for DLV02/12/16 series

DLC16S-WUB

Features

Universal input voltage from 100 V AC to 240 V AC for easy installation

- Variable speed adjustment to select optimal screw fastening speed
- Grounded bit system standard



DLC16S-WUB

Specifications

Model	Input Voltage	Function	Weight lbs(g)
DLC16S-WUB	100 - 240 V AC, 50/60 Hz	Grounding, Speed Control	0.84 (380)

DLV7104/8104/8204 Series

For Machine Screws #3 - #13 (2.6 - 6.0 mm)

Features

New design of our most popular screwdrivers

- Clear plastic cover mount over the torque adjustment ring to prevent unintentional changes of the preset torque amount
- Heavy-duty cam installed for maximum cycle life
- Changeover switch enables operators to switch between forward and reverse operation with one hand
- Ergonomically designed grip for easier handling minimizing operator fatigue
- Includes a detachable pistol grip as standard accessory (DLV8154)
- Grounded bit system standard



DLV7104 series

DLV8104/8204 series

DLV8154

Specifications

Model	Starting Method	Free Speed rpm	Torque Lb-in(Nm)		Screw Size (for reference)		Weight lbs(g)	Bit	Input Voltage	Power Consumption
			inch thread	metric coarse thread	inch thread	metric coarse thread				
DLV7124-LKU	Lever Start	900	2.2 - 6.6 (0.25 - 0.75)	#3 - #4	2.6 - 3.0 mm	1.58 (720)	Hex 1/4"	115 V AC, 50/60 Hz	35 W	
DLV7134-LKU			4.4 - 15.0 (0.5 - 1.7)	#3 - #8	2.6 - 4.0 mm					
DLV7144-LKU	600	10.6 - 26.6 (1.2 - 3.0)	#6 - #11	3.5 - 5.0 mm	1.56 (710)					
DLV8124-LKU	900	2.2 - 6.6 (0.25 - 0.75)	#3 - #4	2.6 - 3.0 mm						
DLV8134-LKU	Push to Start	900	4.4 - 15.0 (0.5 - 1.7)	#3 - #8	2.6 - 4.0 mm	2.00 (910)				
DLV8144-LKU			10.6 - 26.6 (1.2 - 3.0)	#6 - #11	3.5 - 5.0 mm					
DLV8154-LKU			400	17.7 - 39.8 (2.0 - 4.5)	#9 - #13	4.5 - 6.0 mm			1.56 (710)	
DLV8224-LKU			2000	3.1 - 6.2 (0.35 - 0.7)	#3 - #4	2.6 - 3.0 mm				
DLV8234-LKU	1800	1800	4.4 - 15.0 (0.5 - 1.7)	#3 - #8	2.6 - 4.0 mm	1.56 (710)				
DLV8244-LKU			1100	10.6 - 26.6 (1.2 - 3.0)	#6 - #11		3.5 - 5.0 mm			

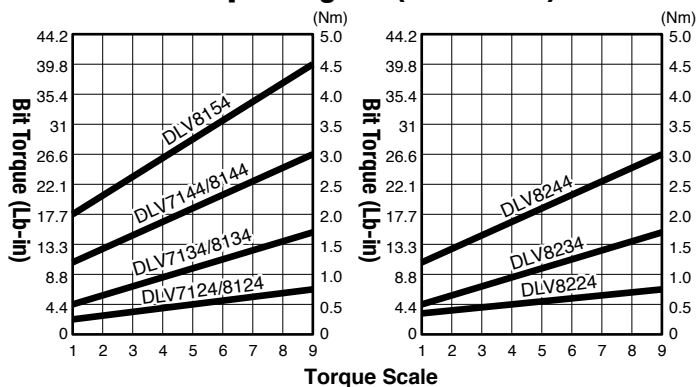
Standard Accessories

For LKU	<ul style="list-style-type: none"> • Bit No.1 × 7 × 75: 1 pc. • Bit No.2 × 7 × 75: 1 pc. • Spare Carbon Brush: 2 pcs. • Suspension Bail: 1 pc.
For 8154-LKU	<ul style="list-style-type: none"> • Bit No.2 × 7 × 75: 1 pc. • Bit No.3 × 7 × 50: 1 pc. • Spare Carbon Brush: 2 pcs. • Suspension Bail: 1 pc. • Pistol Grip (DLW2300)

Optional Accessories

<p>Easy-to-attach grip for horizontal operation.</p> <p>Pistol Grip DLW2300 (TD00335)</p>	<p>Torque Reaction Arm (TD06180)</p>	<p>Vacuum Pickup DLP7400 for high torque (TD07286-0) * Please see page 23 for details.</p>	<p>Sleeve DLS4220(TV06220-0) DLS4221(TV06221-0)</p>
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Torque Diagram (for reference)



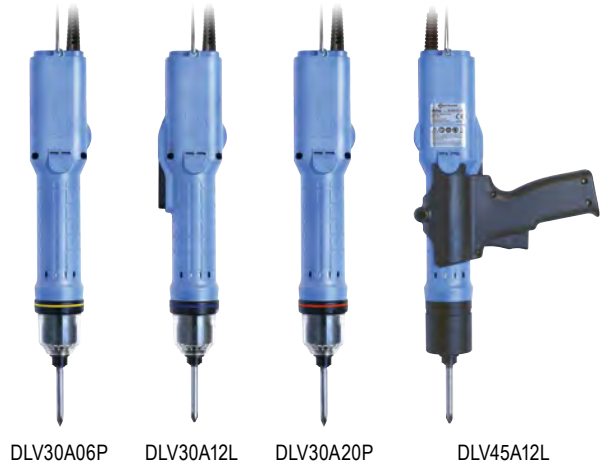
A Series (Transformerless Type) Model DLV30A/45A

For Machine Screws #3 - #13 (2.6 - 6.0 mm)

Features

Eco-friendly electric screwdrivers with built-in brushless motors in a transformerless profile

- Extensive torque range from 3.5 to 39.8 Lb-in
- Available models with speeds of 650, 1200 or 2000 rpm
- Lever Start and Push to Start type models are available
- Includes a torque adjustment ring cover
- Design conforms to the RoHS Directive for the environmentally conscious user
- Includes an easily detachable Pistol Grip DLW2300 (TD00335) as a standard accessory (DLV45A)



Specifications

Model	Starting Method	Free Speed rpm	Torque Adjustment Lb-in(Nm)		Screw Size (for reference)		Weight lbs(g)	Bit	Input Voltage	Power Consumption
			Low Torque Spring*1 (Standard Accessory)	High Torque Spring*2 (installed)	inch thread	metric coarse thread				
DLV30A06L-ADK	Lever Start	650	3.5 - 14.2 (0.4 - 1.6)	10.6 - 26.6 (1.2 - 3.0)	#3 - #11	2.6 - 5.0 mm	1.54 (700)	Hex 1/4"	115 V AC, 50/60 Hz	55 W
DLV30A12L-ADK		1200								
DLV30A20L-ADK		2000								
DLV30A06P-ADK	Push to Start	650	3.5 - 14.2 (0.4 - 1.6)	10.6 - 26.6 (1.2 - 3.0)	#3 - #11	2.6 - 5.0 mm	1.54 (700)	Hex 1/4"	115 V AC, 50/60 Hz	55 W
DLV30A12P-ADK		1200								
DLV30A20P-ADK		2000								
DLV45A06L-ADK	Lever Start	650	17.7 - 39.8 (2.0 - 4.5)	10.6 - 26.6 (1.2 - 3.0)	#9 - #13	4.5 - 6.0 mm	1.92 (870) with Pistol Grip	Hex 1/4"	115 V AC, 50/60 Hz	55 W
DLV45A12L-ADK		1200								
DLV45A06P-ADK		650								
DLV45A12P-ADK	Push to Start	1200								

*1: Standard Accessory, *2: Built-in.

Standard Accessories

For DLV30A	<ul style="list-style-type: none"> • Bit NK35 × 2 × 7 × 75 • Suspension Bail • Low Torque Spring
For DLV45A	<ul style="list-style-type: none"> • Bit NK35 × 2 × 7 × 75 • Suspension Bail • Pistol Grip (DLW2300)

Optional Accessories

Pistol Grip
DLW2300
(Non-ESD)

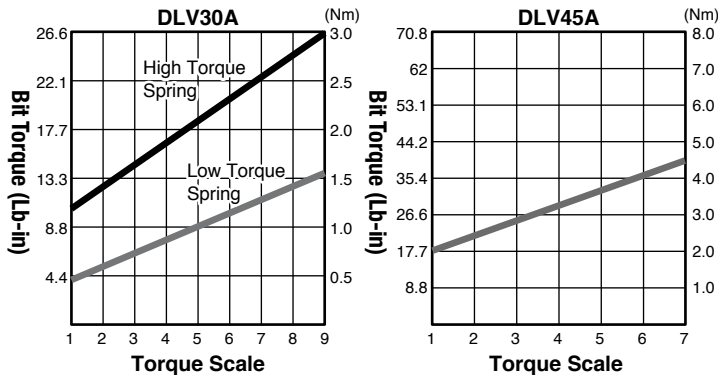
Torque Adjustment Ring Cover

DLW5203

DLW5202

DLW5201

Torque Diagram (for reference)



A Series (Low Voltage Type) Model DLV30A/45A/70A For Machine Screws #3 - #5/16 (2.6 - 8.0 mm)

Features

Eco-friendly electric screwdrivers with built-in brushless motors in a low voltage (DC) profile

- Extensive torque range
- Available model with speeds of 650, 1200 or 2000 rpm for DLV30A, 650 or 1200 rpm for DLV45A, and 650 rpm for DLV70A
- Lever Start and Push to Start type models are available
- Includes a torque adjustment ring cover
- Design conforms to the RoHS Directive for the environmentally conscious user
- Includes an easily detachable Pistol Grip DLW2300ESD (TD01965) as a standard accessory (DLV45A, DLV70A)
- ESD (electrostatic discharge) protected housing
- Detachable power code for easy maintenance



Specifications

Electric Screwdriver											
Model	Bit	Starting Method	Free Speed rpm	Torque Adjustment Lb-in(Nm)		Screw Size (for reference)		Weight lbs(g)	Bit	Power Source	Power Consumption
				Low Torque Spring*1 (Standard Accessory)	High Torque Spring*2 (installed)	Inch Thread	Metric Coarse Thread				
DLV30A06L-AY: K	K	Lever Start	650	3.5 - 14.2 (0.4 - 1.6)	10.6 - 26.6 (1.2 - 3.0)	#3 - #11	2.6 - 5.0 mm	1.52 (690)	Hex 1/4"	DEA0151N-A / DEA0241N-AZ	44 W
DLV30A12L-AY: K			1200							DEA0241N-AZ	
DLV30A20L-AY: K			2000							DEA0151N-A / DEA0241N-AZ	
DLV30A06P-AY: K	K	Push to Start	650	17.7 - 39.8 (2.0 - 4.5)	#9 - #13	4.5 - 6.0 mm	1.85 (840) with Pistol Grip	DEA0151N-A / DEA0241N-AZ			
DLV30A12P-AY: K			1200					DEA0241N-AZ			
DLV30A20P-AY: K			2000					DEA0151N-A / DEA0241N-AZ			
DLV45A06L-AY: K	K	Lever Start	650	33.6 - 62.0 (3.8 - 7.0)	#12 - #5/16"	5.0 - 8.0 mm	1.85 (840) with Pistol Grip	DEA0151N-A / DEA0241N-AZ			
DLV45A12L-AY: K			1200					DEA0241N-AZ			
DLV45A06P-AY: K			K					Push to Start		650	
DLV45A12P-AY: K	1200	DEA0241N-AZ									
DLV70A06L-AY: K	K	Lever Start	650	33.6 - 62.0 (3.8 - 7.0)	#12 - #5/16"	5.0 - 8.0 mm	1.85 (840) with Pistol Grip	DEA0241N-AZ			
DLV70A06P-AY: K		Push to Start						DEA0241N-AZ			

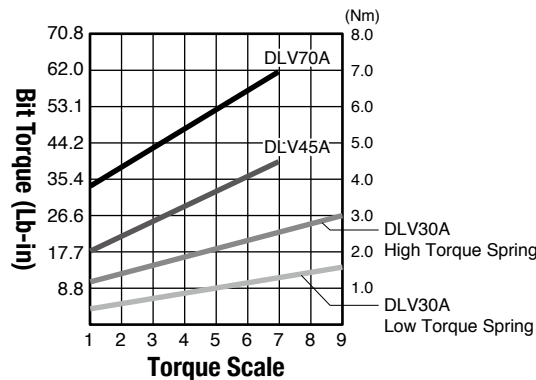
Power Supply					
Model	Input	Output	Maximum Rated Power	Weight lbs(g)	Standard Accessory
DEA0151N-AZ	100 - 240 V AC, 50/60 Hz, 60 W	40 V DC	150 W	1.23 (560)	80" (2 m) cord with UL three-prong plug
DEA0241N-AZ			240 W	1.98 (900)	

*1: Standard Accessory, *2: Built-in.

Standard Accessories

For DLV30A	<ul style="list-style-type: none"> • Bit NK35 × 2 × 7 × 75 • Suspension Bail • Low Torque Spring • Connection Cord (DLW9073)
For DLV45A, DLV70A	<ul style="list-style-type: none"> • Bit NK35 × 2 × 7 × 75 • Suspension Bail • Connection Cord (DLW9073) • Pistol Grip (DLW2300ESD)

Torque Diagram (for reference)



A Series (Transformerless Type) Model DLV30A/45A-SPC For Machine Screws #3 - #13 (2.6 - 6.0 mm)

Features

Eco-friendly electric screwdrivers with built-in brushless motors to use with a screw fastening counter

- Extensive torque range from 3.5 to 39.8 Lb-in
- Available models with speeds of 650, 1200 or 2000 rpm
- Lever Start and Push to Start type models are available
- Includes a torque adjustment ring cover
- Design conforms to the RoHS Directive for the environmentally conscious user
- Includes an easily detachable Pistol Grip DLW2300 (TD00335) as a standard accessory (DLV45A)



DLR5040A



DLR5340



DLV30A06P



DLV30A12L



DLV30A20P



DLV45A12L

Specifications

Electric Screwdriver										
Model	Starting Method	Free Speed rpm	Torque Adjustment Lb-in(Nm)		Screw Size (for reference)		Weight lbs(g)	Bit	Input Voltage	Power Consumption
			Low Torque Spring*1 (Standard Accessory)	High Torque Spring*2 (installed)	inch thread	metric coarse thread				
DLV30A06L-SPC (ADK)	Lever Start	650	3.5 - 14.2 (0.4 - 1.6)	10.6 - 26.6 (1.2 - 3.0)	#3 - #11	2.6 - 5.0 mm	1.54 (700)	Hex 1/4"	115 V AC, 50/60 Hz	55 W
DLV30A12L-SPC (ADK)		1200								
DLV30A20L-SPC (ADK)		2000								
DLV30A06P-SPC (ADK)	Push to Start	650								
DLV30A12P-SPC (ADK)		1200								
DLV30A20P-SPC (ADK)		2000								
DLV45A06L-SPC (ADK)	Lever Start	650	17.7 - 39.8 (2.0 - 4.5)	#9 - #13	4.5 - 6.0 mm	1.92 (870) with Pistol Grip				
DLV45A12L-SPC (ADK)		1200								
DLV45A06P-SPC (ADK)	Push to Start	650								
DLV45A12P-SPC (ADK)		1200								

Controller DLR5040A-WU,DLR5340-WU (see page 11)

Screw Counter for SPC (ADK)

Model	Count	Input Voltage	External Dimensions	Weight lbs(g)	Standard accessories
DLR5040A-WU	1 - 99	100 - 240 V AC, 50/60 Hz	W101 x H60 x D130 mm	1.21 (550)	80" (2 m) cord with UL three-prong plug
DLR5340-WU	0 - 99		W150 x H60 x D120 mm	1.76 (800)	

*1: Standard Accessory, *2: Built-in.

The voltage of the dedicated screwdrivers for DLR5040A/5340-WU is 115 V.

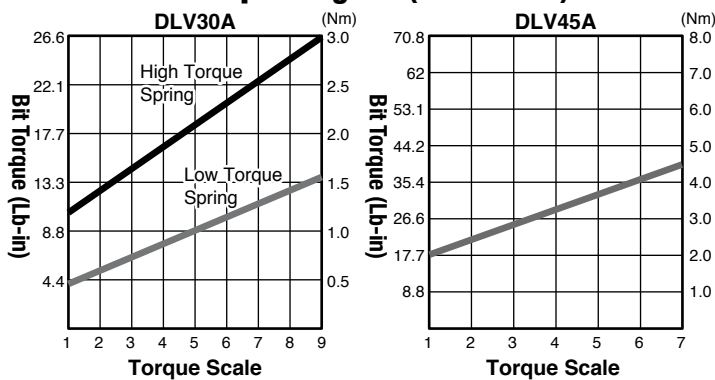
Standard Accessories

For DLV30A	<ul style="list-style-type: none"> • Bit NK35 x 2 x 7 x 75 • Suspension Bail • Low Torque Spring
For DLV45A	<ul style="list-style-type: none"> • Bit NK35 x 2 x 7 x 75 • Suspension Bail • Pistol Grip (DLW2300)

Optional Accessories



Torque Diagram (for reference)



DLR5040A-WU

Features

Improves screw fastening accuracy by monitoring counts and torqued status

- Ideally suited for vehicle assembly lines and products produced in high-volume that require accurate screw fastening
- Controller evaluates torque signals from electric screwdriver to monitor fastening counts and provides torque status information
- Count Return Function: When loosening a screw, a reverse signal is sent to the controller to reverse the screw count by one
- Count Correction Function: Controller ignores counts on screws that are outside the preset parameters or double fastened
- Driver Lock Function: Controller prevents unexpected startup of screwdrivers
- Link Connection: Creates a simple sequential screw fastening system by connecting the DLR5040A screw fastening counters in series without using any external controller such as a programmable controller
- 30 % smaller and 38 % lighter than our conventional models
- Designed for transformer-less screwdrivers SPC series
- Grounded bit system standard



Specifications

Model	DLR5040A-WU	
Count	1 - 99	
Counting Method	Count-up / Count-down	
Count Correction Function	Count normal fastening only	
Self Adjustable Timer Setting	0.01 to 0.99 sec.	
Work Detection Function	Yes (1 terminal) / No	
External Count Input	2 terminals (PARTS A / PARTS B)	
Work Installation Timer Setting	0 to 9.5 sec.	
OK Output Timer Setting	0 to 9.5 sec.	
NG Alarm	ON(1) / ON(2) / OFF	
OK Buzzer	ON(1) / ON(2) / ON(3) / OFF	
Count Return Function	ON / OFF	
NG Judge Timing	WORK SET / DRIVER ON	
Automatic / Manual OK Judge	AUTO / MANUAL	
Screwdriver Lock Function	ON / OFF	
Multiple Link	Up to 10 counters can be connected.	
External Inputs on Terminal Block	SENSOR / RESET / LINK-IN / PARTS A / PARTS B	
External Outputs on Terminal Block	OK / NG / LINK-OUT	
Parameter Memory	Parameters stored in internal nonvolatile memory	
Input Voltage	100 - 240 V AC, 50/60 Hz See the bottom asterisk.*1	
Size W x L x H	inch(mm)	3.98" x 5.12" x 2.36" (101 x 130 x 60)
Weight	lbs(kg)	1.21 (0.55)
Standard Accessory	80"(2 m) cord with UL three-prong plug	



Example of use together with a sensor available in the market

LINK Function

When counters are connected and activated in the screw fastening sequence as shown in page 12, all screwdrivers are on standby except the first one in the sequence. Only when the first screw fastening is finished, can the next screwdriver change from standby to ready. When the last fastening in the sequence is finished, the first screwdriver is once again ready and the sequence can be repeated again. Up to 10 screwdriver/counter sets can be connected to the LINK.

DLR5340-WU

Features

Improves screw fastening accuracy by monitoring counts and torqued status

- Internal memory stores up to eight screw fastening conditions for a wide range of assembly work
- Count-Up signal outputs for external monitoring
- Count Correction Function: Controller ignores counts on screws that are outside the preset parameters or double fastened
- Count Return Function: When loosening a screw, a reverse signal is sent to the controller to reverse the screw count by one
- Space saving design
- Grounded bit system standard



Specifications

Model	DLR5340-WU	
Count	0 - 99	
Counting Method	Count-up / Count-down	
Count Correction Function	Count normal fastening only	
Self Adjustable Timer Setting	0.01 to 2.50 sec.	
Work Detection Function	Yes (1 terminal) / No	
Work Installation Timer Setting	0 to 9.5 sec.	
OK Output Timer Setting	0 to 9.5 sec.	
NG Alarm	ON(1) / ON(2) / OFF	
OK Buzzer	ON(1) / ON(2) / ON(3) / ON(4) / ON(5) / OFF	
Count Return Function	ON / OFF	
Screwdriver Lock Function	ON / OFF	
Screwdriver Cord Connection	Single cord connection (Signal and power lines)	
External Inputs on Terminal Block	SENSOR / RESET / TORQUE CHECK ch1/2/3	
External Outputs on Terminal Block	OK, NG, COUNT-UP, DRIVER A/B/C	
Input Voltage	100 - 240 V AC, 50/60 Hz See the bottom asterisk.*1	
Size W x L x H	inch(mm)	5.94" x 5.51" x 2.36" (151 x 140 x 60)
Weight	lbs(kg)	1.76 (0.8)
Standard Accessory	80"(2 m) cord with UL three-prong plug	

*1 : The voltage of the dedicated screwdrivers for DLR5040A-WU and DLR5340-WU is 115 V. When you need different voltage screwdrivers, please contact NITTO KOHKI U.S.A.

Screw Fastening Counter Series

Provides functions to prevent human error. *Special models available on request

Error detection based on set fastening time

Auto configures timer function

Controller uses fastening samples to set the optimum fastening time value.

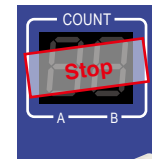
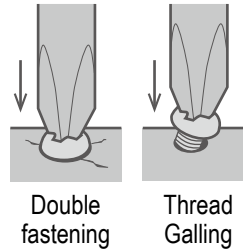


The best time is X seconds per screw



Count Correction Function

Stop count when error is detected.



Audible Warning!



Human error prevention

Link Connection Function

Ability to link multiple screwdriver systems. The screwdrivers will be in standby state until previous screw fastening is finished.

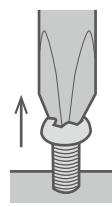


Link Connection

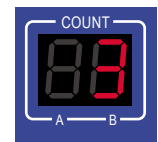
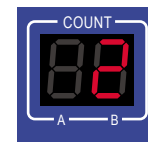
Link Connection

Count Return Function

The remaining number of screw fastenings returns to the previous number when the rotation is reversed.



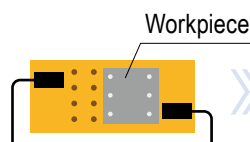
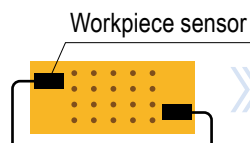
Reverse



Decrements count by one

Driver Lock Function

Locks unnecessary screwdrivers, used with the workpiece sensor.



Lock screwdrivers when workpiece is not in place!



C Series (Current control Type) Model DLV04C/10C

For Machine Screws #1 - #4 (1.2 - 4.0 mm)

Features

- Fastening values are easily set in the controller
- Current Controlled Torque System suitable for screw fastening work in different torque settings
- Low-voltage brushless motor
- ESD (electrostatic discharge) protection structure
- For both hand-held and automatic machines
- Controller has built-in screw fastening counting function.

DLV04C10L

DLV10C10L

DCC0101X-AZ



One screwdriver, four settings

- Controller offers multiple torque and speed settings.

* The range varies depending on SOFT fastening or HARD fastening.

2.21 Lb-in	450 rpm		1st unit
1.33 Lb-in	600 rpm		2nd unit
3.1 Lb-in	1000 rpm		3rd unit
2.66 Lb-in	450 rpm		4th unit



Torque: 0.44 - 3.54 Lb-in (DLV04C)
[0.05 - 0.4 Nm]
1.77 - 8.85 Lb-in (DLV10C)
[0.2 - 1.0 Nm]
Speed: 100 - 1000 rpm

Torque range **0.44 - 8.85 Lb-in**



* When the same bit is used.

Specifications

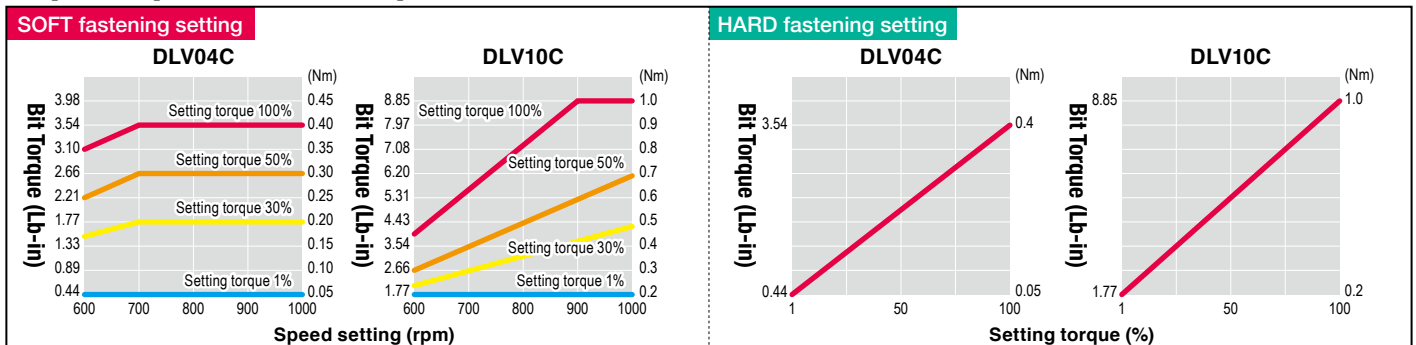
Model	Bit	CE/UL	DLV04C10L-AY	K	DLV10C10L-AY	K
Power Source			DCC0101X-AZP			
Torque Adjustment			Adjustment from 1 to 100% in 1% increments			
Torque	SOFT fastening setting (1000 min ⁻¹ setting)		0.4 - 3.5 (0.05 - 0.4)		1.8 - 8.9 (0.2 - 1.0)	
	SOFT fastening setting (600 min ⁻¹ setting)		0.4 - 3.1 (0.05 - 0.35)		1.8 - 4.0 (0.2 - 0.45)	
	HARD fastening setting		0.4 - 3.5 (0.05 - 0.4)		1.8 - 8.9 (0.2 - 1.0)	
Free Speed	SOFT fastening setting		600 - 1000			
	HARD fastening setting		100 - 1000			
Screw Size	inch thread		#1 - #3		#2 - #4	
	(for reference) metric coarse thread		1.2 - 3.0 mm		1.8 - 4.0 mm	
Bit Type	NK35 (OD6.35 mm [1/4"] Hex. Shank)					
Input Voltage	24 V DC					
Weight	lbs (g)		0.82 (370)			
Rated Operation	ON: 0.5 seconds / OFF: 3.5 seconds					

Please contact us for 4 mm bit type ("M" Bit) of CE/UL models.

Model	DCC0101X-AZ	P*
Input Voltage	AC100 - 240 V AC, 50/60 Hz	
Operation Channel	Torque and speed setting in 4-channel memory	
Function	Can switch to any operation channel	
Count Function	Counts the number of screws fastened Workpiece detector can be linked	
External Start up Control Function	Start up control can be enabled by external input signal	
Input Signal Method	Photocoupler input (24 V DC drive (5 mA/1 input), respond to PNP output)	
Output Signal Method	Photocoupler output (30 V DC or less, 30 mA/1 output or less, PNP output method)	
Service Power Source	24 V DC (Maximum capacity 200 mA)	
Power consumption	When on standby: 20 W During electric screwdriver rotation (rated): 30 W	
Weight	lbs (g)	2.4 (1100)
Standard Accessory	80" (2 m) cord with UL three-prong plug.	

*DCC0101X-AZN with NPN output also available

Output Torque and Rotation Speed



*The graph is for guidance only. The output torque range is not guaranteed.

Comparison of Adjustment Method with Conventional Model











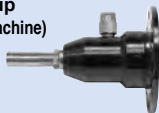



Torque adjustment		Torque is adjusted by turning the adjustment ring at the end of the screwdriver.		Torque is set with the external controller. No need to adjust the screwdriver body.
Conventional		C Series		
Speed setting		The speed of transformerless type screwdrivers is fixed for each series.		Speed is set with the external controller. Adjustable speeds between 100 to 1000 rpm.

Image of Automation



Optional Accessories

<p>Screw joint (with white rubber) DLW4540</p> 	<p>Screw joint (with black rubber) DLW4550</p> 	<p>Screw joint (with metal washer) DLW4560</p> 	<p>Screw vacuum pump Connect the tube to the vacuum pickup port. The vacuum will pick up the screw.</p> 	<p>Torque checker DLT1173A</p> 
<p>For "K" Bit</p> <p>Vacuum pickup DLP6640</p> 	<p>Vacuum pickup (for automatic machine) DLP6650</p> 	<p>For "M" Bit</p> <p>Vacuum pickup DLP6600</p> 	<p>Vacuum pickup (for automatic machine) DLP6610</p> 	<p>Flanged coupling (for automatic machine) DLW9015</p> 

* Please see page 22, 23 for details.

SOFT / HARD Fastening Settings

Two fastening mode settings available.

Choose the setting based on the type of workpiece, screws, and your operating conditions.

SOFT fastening setting Suitable for workpieces with high fastening load such as tapping screws or fastening soft objects such as rubber.

HARD fastening setting Suitable for workpieces with small fastening load such as threaded holes or rigid bodies such as metal.

External Signals You can input or output external signals via a signal terminal block.

Terminal No.	Function	Details	I/O	
1 (+)	+24 V DC	Built-in service power source (Capacity: Maximum 200 mA) • Use power source for input/output signal common wire, or for the workpiece detection sensor, etc.	Service power source	
2 (-)	0 V DC			
3	Channel A	In the 2-bit input signal, specify the operation channel (CH1 to CH4) • Valid only when "operation channel switching method" (No.1 CH-CHG) is set to "INPUT"	Input	
4	Channel B			
5	Forward rotation startup	Startup with external input signal		
6	Reverse rotation startup			
7	WORK	Input the workpiece signal (workpiece detection sensor output) • When "count function" (No.11 COUNT-FNC) and "workpiece signal" (No.12 WORK-SNSR) set to ON, the workpiece signal input is valid		
8	WORK RESET	Reset operation (same as controller [WORK RESET] button)		
9	Keylock	Lock the controller button operation • Disable the controller button operation, and prevent setting changes by the operator		
10	Input signal negative common wire	Connect 0 V DC* • Service power source (terminal No.2) or external 0 V DC power source can be connected		
11	Forward rotation signal	Set output signal during forward rotation to ON		Output
12	Reverse rotation signal	Set output signal during reverse rotation to ON		
13	Count-up (C-UP)	Performance of normal screw fastening (torque-up) sets output signal to 0.3 seconds ON		
14	Screw fastening NG (F-NG)	If screw fastening NG, sets output signal to 0.3 seconds ON		
15	Operation channel 1 (CH1)	Set the channel output signal to ON during operation or settings		
16	Operation channel 2 (CH2)			
17	Operation channel 3 (CH3)			
18	Operation channel 4 (CH4)			
19	Operation OK	If the set count screw fastening is completed and operation OK, the output signal is set to ON		
20	Operation NG	When the WORK input signal is OFF during an operation, and the operation is judged to be NG, the output signal is ON		
21	Space	No connection		
22	Output signal positive common wire	Connect +24 V DC* • Service power source (terminal No.1) or external +24 V DC can be connected		

*When PNP output

S Series (Variable speed Type) Model DLV30S/45S/70S  For Machine Screws #3 - #5/16 (2.6 - 8.0 mm)

Features

- High power brushless motor
- Adjustable speed control for machine or tapping screws
- Programmable three stage speed control
- Built-in screw counting function
- Configures setting with optional remote controller
- ESD(electrostatic discharge) protected housing
- Detachable power cord for easy maintenance



Programmable Three Stage Speed Control Function

Low speed start-up minimizes cross-threading, stripped screws.

High speed drive increases productivity.

Low speed at torque-up minimizes stripped screw and overshott torque.

<Step 1>

<Step 2>

<Step 3>

Built-in Screw Fastening Counter

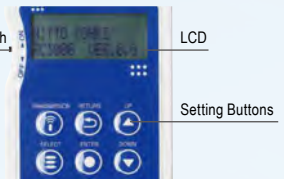
- Batch counting
- Fastening time monitoring, OK(Pass)/Fail(NG) decision



LEDs and Setting Buttons on the Screwdriver



Part Names of the Remote Controller



Specifications

Model	Starting Method	Torque Adjustment Lb-in(Nm)		Screw Size (for reference)		Weight lbs(g)	Bit	Power Source	Power Consumption	
		Low Torque Spring (Standard Accessory)	High Torque Spring (installed)	Inch Thread	Metric Coarse Thread					
DLV30S06L-AYK	Lever Start	3.5 - 14.2 (0.4 - 1.6)	10.6 - 26.6 (1.2 - 3.0)	#3 - #11	2.6 - 5.0 mm	1.57 (710)	Hex 1/4"	DEA0151N-A / DEA0241N-AZ	44 W	
DLV30S12L-AYK								DEA0241N-AZ		
DLV30S20L-AYK								DEA0151N-A / DEA0241N-AZ		
DLV30S06P-AYK								DEA0241N-AZ		
DLV30S12P-AYK	Push to Start	17.7 - 39.8 (2.0 - 4.5)	#9 - #13	4.5 - 6.0 mm	1.90 (860) with Pistol Grip	DEA0151N-A / DEA0241N-AZ				
DLV30S20P-AYK						DEA0241N-AZ				
DLV45S06L-AYK						DEA0151N-A / DEA0241N-AZ				
DLV45S12L-AYK						DEA0241N-AZ				
DLV45S06P-AYK	Lever Start	33.6 - 62.0 (3.8 - 7.0)	#12 - #5/16"	5.0 - 8.0 mm	1.85 (840)	DEA0151N-A / DEA0241N-AZ				
DLV45S12P-AYK						DEA0241N-AZ				
DLV70S06P-AYK	Lever Start									
DLV70S12P-AYK	Push to Start									

Power Supply

Model	Input	Output	Maximum Rated Power	Weight lbs(g)	Standard Accessory
DEA0151N-AZ	100 - 240 V AC, 50/60 Hz, 60 W	40 V DC	150 W	1.23 (560)	80" (2 m) cord with UL three-prong plug
DEA0241N-AZ			240 W	1.98 (900)	

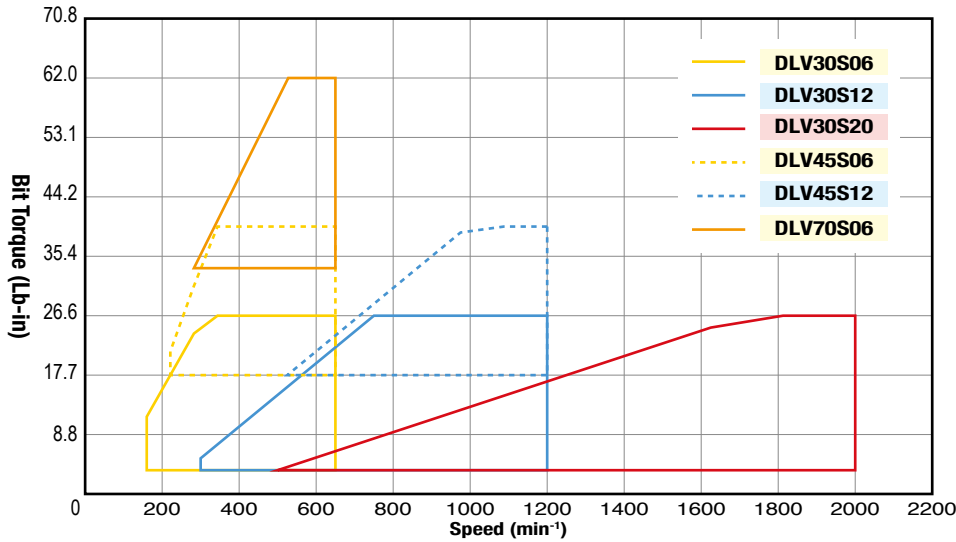
Setting Range of Speed and Torque (for reference only)

		DLV30S06	DLV45S06	DLV70S06			DLV30S12	DLV45S12			DLV30S20
Speed Level	Speed (rpm)	Torque (Lb-in [Nm])			Speed Level	Speed (rpm)	Torque (Lb-in [Nm])		Speed Level	Speed (rpm)	Torque (Lb-in [Nm])
Lv1	160	3.5 - 11.5 [0.4 - 1.3]	-	-	Lv1	300	3.5 - 5.3 [0.4 - 0.6]	-	Lv1	500	3.5 [0.4]
Lv2	220	3.5 - 17.7 [0.4 - 2.0]	17.7 - 21.2 [2.0 - 2.4]	-	Lv2	420	3.5 - 10.6 [0.4 - 1.2]	-	Lv2	690	3.5 - 7.0 [0.4 - 0.8]
Lv3	280	3.5 - 23.9 [0.4 - 2.7]	17.7 - 30.9 [2.0 - 3.5]	33.6 [3.8]	Lv3	530	3.5 - 15.9 [0.4 - 1.8]	17.7 [2.0]	Lv3	880	3.5 - 10.6 [0.4 - 1.2]
Lv4	340	3.5 - 26.6 [0.4 - 3.0]	17.7 - 39.8 [2.0 - 4.5]	33.6 - 40.7 [3.8 - 4.6]	Lv4	640	3.5 - 21.2 [0.4 - 2.4]	17.7 - 23.0 [2.0 - 2.6]	Lv4	1,060	3.5 - 14.1 [0.4 - 1.6]
Lv5	410	3.5 - 26.6 [0.4 - 3.0]	17.7 - 39.8 [2.0 - 4.5]	33.6 - 47.8 [3.8 - 5.4]	Lv5	750	3.5 - 26.6 [0.4 - 3.0]	17.7 - 28.3 [2.0 - 3.2]	Lv5	1,250	3.5 - 17.7 [0.4 - 2.0]
Lv6	470	3.5 - 26.6 [0.4 - 3.0]	17.7 - 39.8 [2.0 - 4.5]	33.6 - 54.9 [3.8 - 6.2]	Lv6	860	3.5 - 26.6 [0.4 - 3.0]	17.7 - 33.6 [2.0 - 3.8]	Lv6	1,440	3.5 - 21.2 [0.4 - 2.4]
Lv7	530	3.5 - 26.6 [0.4 - 3.0]	17.7 - 39.8 [2.0 - 4.5]	33.6 - 62.0 [3.8 - 7.0]	Lv7	980	3.5 - 26.6 [0.4 - 3.0]	17.7 - 38.9 [2.0 - 4.4]	Lv7	1,630	3.5 - 24.7 [0.4 - 2.8]
Lv8	590	3.5 - 26.6 [0.4 - 3.0]	17.7 - 39.8 [2.0 - 4.5]	33.6 - 62.0 [3.8 - 7.0]	Lv8	1,090	3.5 - 26.6 [0.4 - 3.0]	17.7 - 39.8 [2.0 - 4.5]	Lv8	1,810	3.5 - 26.6 [0.4 - 3.0]
Lv9	650	3.5 - 26.6 [0.4 - 3.0]	17.7 - 39.8 [2.0 - 4.5]	33.6 - 62.0 [3.8 - 7.0]	Lv9	1,200	3.5 - 26.6 [0.4 - 3.0]	17.7 - 39.8 [2.0 - 4.5]	Lv9	2,000	3.5 - 26.6 [0.4 - 3.0]

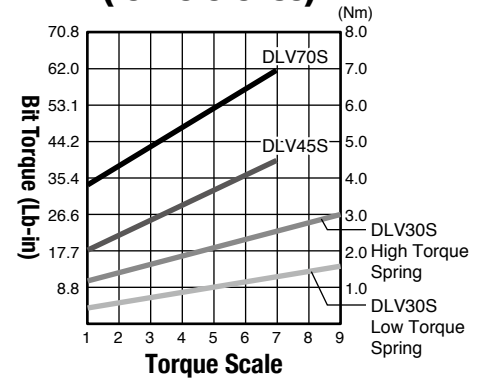
*Speed and torque are for reference only. The actual values depend on the fastening material and size of screws. The values are not guaranteed.

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.



Torque Diagrams (for reference)



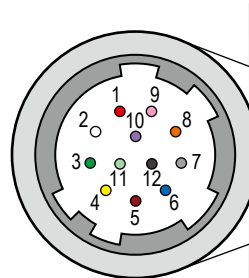
*Graphs are for reference only. The actual values depend on usage conditions.

Equipped with the External Signal Connector

The screwdriver can accept an external signal or output a signal externally 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 Forced stop signal	Input
5	Brown	OK Signal	Output
6	Blue	NG Signal	Output
7	Gray	LINK-OUT Channel switching signal	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.

Standard Accessories

For DLV30S	<ul style="list-style-type: none"> • Bit NK35 x 2 x 7 x75 • Suspension Bail • Low Torque Spring • Connection Cord (DLW9073)
For DLV45S DLV70S	<ul style="list-style-type: none"> • Bit NK35 x 2 x 7 x75 • Suspension Bail • Connection Cord (DLW9073) • Pistol Grip (DLW2300ESD)

Optional Accessories

Remote Controller
RC1000



Signal Cable Ass'y
DLW9090 (3 m)



Connection Cord
DLW9073 (1.5 m)



Relay Cord
(To connect DLW9073 and DLW9074)



*Standard accessory of screwdrivers

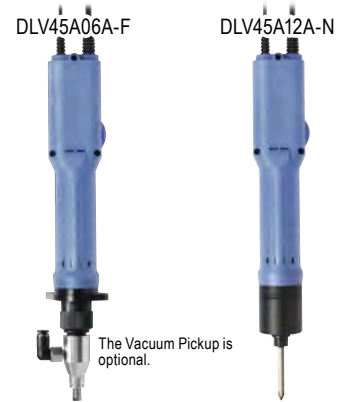
A Series (For Automation) Model DLV30A/45A

For Machine Screws #3 - #13 (2.6 - 8.0 mm)

Features

For automatic assembly robot

- Three series of screwdrivers can be mounted on the XY robot
- Automatic screw fastening achieves a labor-saving or unattended process
- Long-life brushless motors are incorporated in the electric screwdrivers
- Standard coupling, flange coupling, and left-hand thread coupling are available for installation
- The electric screwdriver generates the torque-up signal
- The screwdrivers can be connected to a sequencer to control start-up, forward rotation, and reverse rotation
- An electrical noise preventive measure is employed to avoid malfunction. Each input/output signal is insulated from a screwdriver's internal circuit by a photocoupler.



Specifications

Model	Bit	Type of couplings Method	Free Speed rpm	Torque Adjustment Lb-in(Nm)		Screw Size (for reference)		Weight lbs(g)	Bit	Input Voltage	Power Consumption
				Low Torque Spring*1 (Standard Accessory)	High Torque Spring*2 (installed)	inch thread	metric coarse thread				
DLV30A06A-N(AA)	J	Standard coupling	650	3.5 - 14.2 (0.4 - 1.6)	10.6 - 26.6 (1.2 - 3.0)	#3 - #11	2.6 - 5.0 mm	1.54 (700)	Hex 5 mm ³	100 V AC, 50/60 Hz	45 W
DLV30A12A-N(AA)	J		1200								
DLV30A20A-N(AA)	J		2000								
DLV30A06A-F(AA)	J	Coupling with flange	650								
DLV30A12A-F(AA)	J		1200								
DLV30A20A-F(AA)	J		2000								
DLV30A06A-M(AA)	J	Coupling with M41 screw	650								
DLV30A12A-M(AA)	J		1200								
DLV30A20A-M(AA)	J		2000								
DLV45A06A-N(AA)	K	Standard coupling	650	17.7 - 39.8 (2.0 - 4.5)	#9 - #13	4.5 - 6.0 mm	1.72 (780)	Hex 1/4"			
DLV45A12A-N(AA)	K		1200								
DLV45A06A-F(AA)	K		650								
DLV45A12A-F(AA)	K	1200									
DLV45A06A-M(AA)	K	Coupling with M41 screw	650								
DLV45A12A-M(AA)	K		1200								

*1: Standard Accessory, *2: Built-in, *3: Hex 1/4" type available on request

Standard Accessories

For DLV30A	<ul style="list-style-type: none"> • Bit NK31 × 2 × 6 × 70: 1 pc. • Low torque spring: 1 pc.
For DLV45A	<ul style="list-style-type: none"> • Bit NK35 × 2 × 7 × 75: 1 pc.

Optional Accessories

Vacuum Pickup
DLP7400(M3/M4 screws)
DLP7400 for high torque (M5/M6 screws)



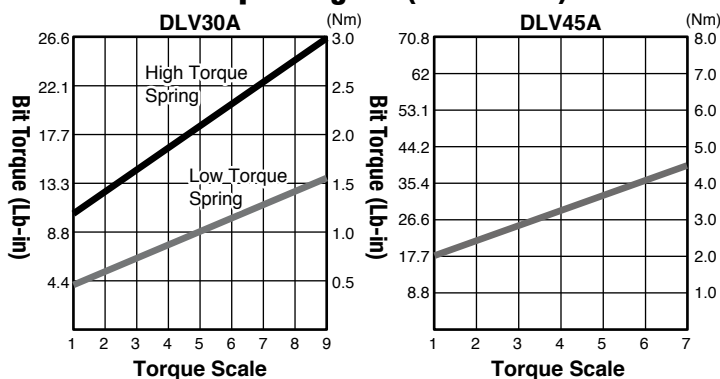
Part No.
TD07285
TD07286

Vacuum Pump
DLP2540



* Please see page 22, 23 for details.

Torque Diagram (for reference)



Standard coupling



Flange coupling



M41 screw coupling

Screwdriver Cable Breakdown List

Power/Input Signal Cable

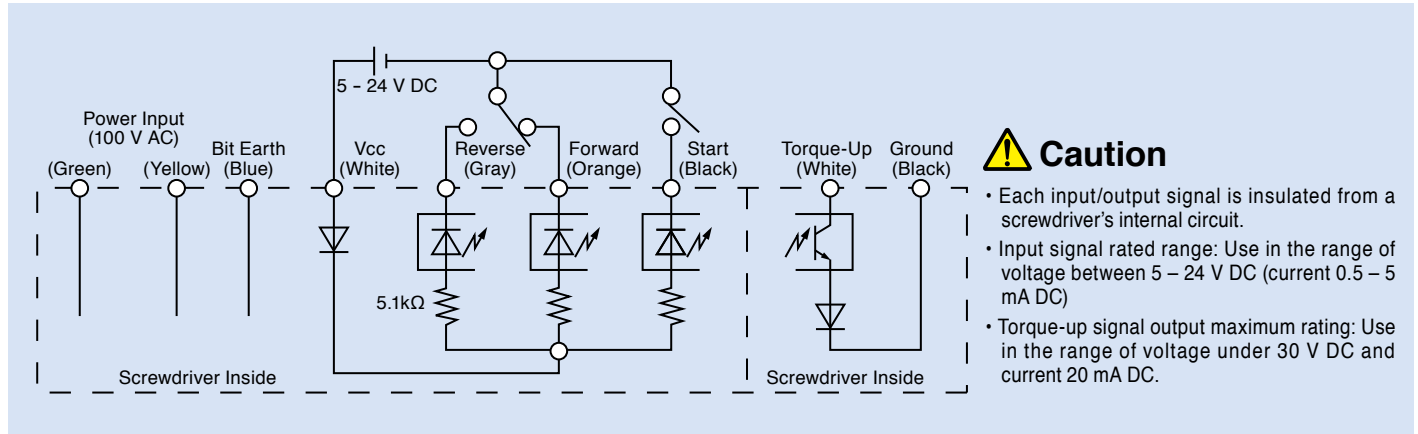
Color	Details
Green	Power input
Yellow	Power input
Blue	Bit earth
White	Input signal common (Vcc)
Black	Start signal input
Orange	Forward signal input
Gray	Reverse signal input

Output Signal Cable

Color	Details
White	Torque-up signal output
Black	Ground

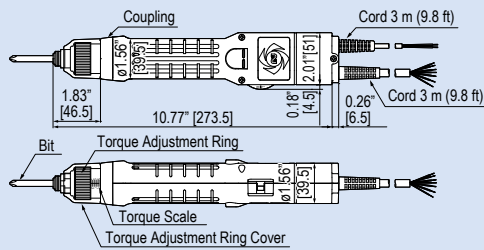
Power input voltage: 100 V AC

Power Input/Output Signal Schematic Diagram

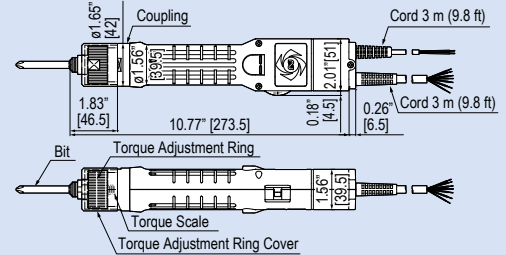


External Dimensions

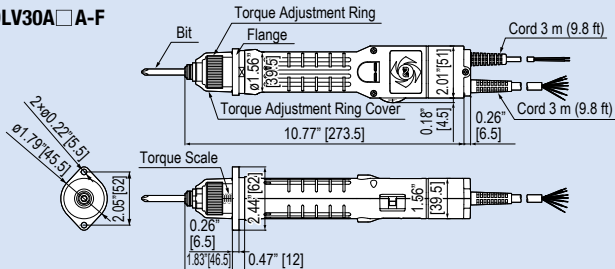
•DLV30A□A-N



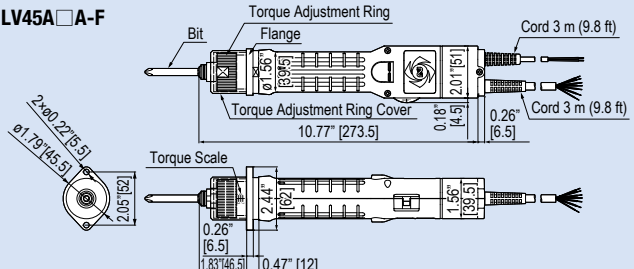
•DLV45A□A-N



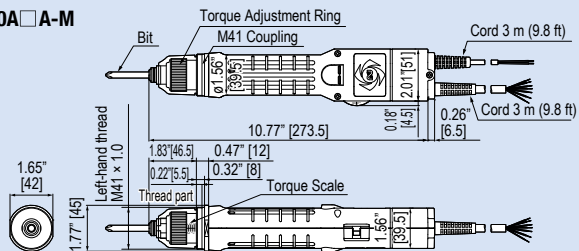
•DLV30A□A-F



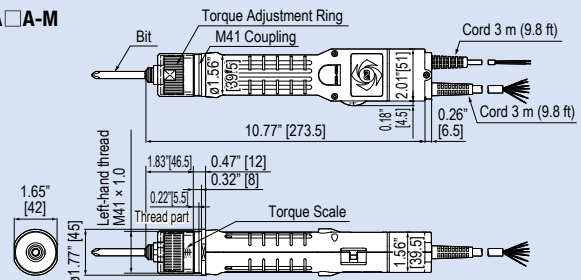
•DLV45A□A-F



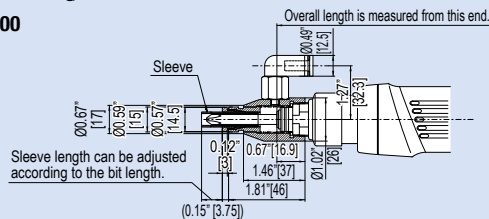
•DLV30A□A-M



•DLV45A□A-M



•DLP7400



unit: inch [mm]

DLT1173A/1673A Series

Features

Measure and calibrate screwdrivers fastening torque to keep your screwdriver properly tuned

- Measured data is stored even after the power is turned off to prevent any data loss
- AUTO POWER OFF FUNCTION saves energy by turning off power after 10 minutes of unuse.
- Verified torque accuracy of +/- 0.5 %
- A program to upload stored data from the Torque Checkers to a computer is available to download free from NITTO KOHKI website



DLT1173A



DLT1673A

Click



www.nittokohki.com

Specifications

Model	Measurement Range Lb-in(Nm)	Calibration Precision Lb-in(Nm)	Display	Measuring Unit	Data Memory	Measuring Direction	Measuring Mode	Auto Power Off	
DLT1173A	0.13 - 13.3 (0.015 - 1.500)	Within ± 0.5% (Full Scale) For 2.0 (0.2) or less ± 1 digit	4-digit digital display (Single-line) Data sampling : 1000 times/sec. Display rate : 12 times/sec.	kgf · cm, Nm, lbf · in (selectable)	800 pieces of data	CW and CCW	3 modes : PD-TR-PP	Power off if left untouched for 10 minutes	
DLT1673A	1.3 - 88.5 (0.15 - 10.00)	Within ± 0.5% (Full Scale) For 20 (2) or less ± 1 digit							
Model	External Output	Analog Output		Continuous Operation Time	Size W × L × H inch(mm)	Weight lbs(kg)	Charger Type	Input Voltage for Charger	Charging Time
DLT1173A	As per USB output Mitsutoyo Digimatic	Approx. 1.5 V max.	No zero offset; identical waveforms produced in PP, PD, and TR modes	20 hours	6.4" × 4.4" × 1.9" (160 × 110 × 47)	2.42 (1.1)	DLE1833A	100 - 240 V AC, 50/60 Hz	4 hours
DLT1673A		Approx. 1.0 V max.							
Plug Shape									

Standard Accessories

For DLT1173A	• Screw Joint (DLW4430): 1 pc.
For DLT1673A	• Bit Joint (DLW4360): 1 pc. • Spring for Joint (DLW4660): 1 pc.

Optional Accessories

Model	Part No.	Shape	Torque Range	DLT1173A	DLT1673A	
Bit Joint	DLW4330	TD03305	OD 0.16" type	0.13 - 2.2 Lb-in (0.015 - 0.25 Nm)	○	—
	DLW4340	TD03306	OD 0.16" type	1.3 - 13.3 Lb-in (0.15 - 1.5 Nm)	○	○
	DLW4350	TD03307	Hex 0.2" and Hex 1/4" types	1.3 - 13.3 Lb-in (0.15 - 1.5 Nm)	○	○
	DLW4360	TD03308	Hex 0.2" and Hex 1/4" types	1.3 - 57.5 Lb-in (0.15 - 6.5 Nm)	—	◎
Screw Joint	DLW4430	TD03309	screw type(Bit size No.1)	1.3 - 13.3 Lb-in (0.15 - 1.5 Nm)	◎	○
	DLW4530*1	TD03310	screw type(Bit size No.2)	1.3 - 44.3 Lb-in (0.15 - 5 Nm)	—	○
	DLW4540	TD08736	screw type(Bit size No.2)	0.4 - 3.5 Lb-in (0.05 - 0.4 Nm)	○	—
	DLW4550	TD08739	screw type(Bit size No.2)	1.8 - 8.9 Lb-in (0.2 - 1.0 Nm)	○	—
Soft Joint	DLW4000	TD04123	Hex 0.51" type(Hex. head bolt)	35.4 - 106.2 Lb-in (4.0 - 12.0 Nm)	—	○
	DLW4660	TV03826	Spring for DLW4340, 4350, 4430	1.3 - 13.3 Lb-in (0.15 - 1.5 Nm)	○	◎

◎ : Standard accessories ○ : Available as option — : Unsupported
 *1 DLW4530 must be used at 44.3 Lb-in (5 Nm) or less.

Bit Joint



Screw Joint



Soft Joint



DLW4000

Spring



DLW4660 (TV03826)

Selection of Torque Checker

For DLT1173A (for miniature screw)	<ul style="list-style-type: none"> • DLV5800 series • DLV7300 series • DLV02 / 12 series
For DLT1673A	<ul style="list-style-type: none"> • DLV16 series • DLV7104 / 8104 / 8204 series • A series • S series

Tool Balancers



Easy to adjust tension.

Model	Capacity lbs(kg)	Stroke inch(m)	Weight lbs(kg)
TW-06R	0.44 - 1.32 (0.2 - 0.6)	59" (1.5)	0.66 (0.3)
TW-1R	1.1 - 3.31 (0.5 - 1.5)	59" (1.5)	0.66 (0.3)
TW-3	2.2 - 6.61 (1.0 - 3.0)	51.2" (1.3)	3.09 (1.4)

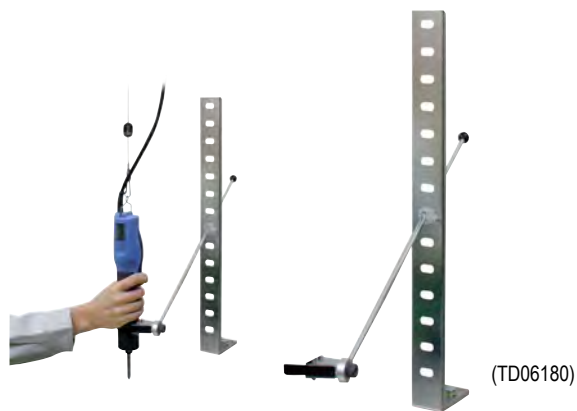
Pistol Grip DLW2300/2300ESD

(for DLV7104/8104/8204, A(DLV30A/45A) and S(DLV30S/45S) series Electric Screwdrivers)



Easy-to-attach grip suitable for horizontal operation

Torque Reaction Arm



To enhance productivity and prevent operator's repetitive motion injury

Torque Adjustment Ring Cover



Fits over torque adjustment ring to minimize tampering or accidental turning once the torque is set.

Part No.	Applicable Screwdriver
TD05639*1	DLV7104/8104/8204 series and DLV30A
TD08486	DLV45A
TV06787	DLV02/12/16 series
TD01883	DLV7300 series (for 1/4" bit)
TD02875	DLV5800 series

*1 : As this is a clear plastic cover, torque scale can be seen even after mounted on the screwdriver.

Vacuum Pump DLP2540



Electric Screwdrivers can be used with Vacuum Pump and Vacuum Pickup to facilitate easy pickup. The vacuum Pickup sleeve picks up the screw and holds it on the bit, thus improving operational efficiency and operator's productivity.

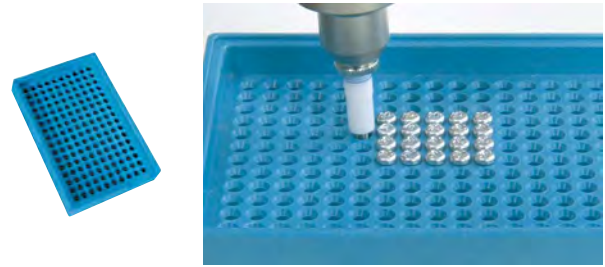
Model	DLP2540	
Input Voltage	115 V AC, 50/60 Hz	
No-load Current	A	1/0.75
Power Consumption	W	30/26
Achievable Vacuum	mmHg(kPa)	-160 (-21.3)
Flow Rate at Outlet	L/min	24/26
Weight	lbs(kg)	8.36 (Approx. 3.8) except Power Cord
Size W x L x H	in(mm)	6.1" x 7.3" x 5.5" (152 x 182 x 138)
Standard Accessories	Power Cord Assembly : 1	

Linicon (Vacuum Pump)



Model	LV-125A	
Voltage	115 V AC	
Power Consumption	14 W	
Rated Frequency	60 Hz	
Maximum Vacuum	-33.3 kPa (-250 mmHg, -333 mbar, -9.84 in. Hg)	
Dimensions	5.31" (L) x 3.58" (W) x 5.75" (H) (135 mm x 91 mm x 146 mm)	
Duty Cycle	Continuous	
Coil Insulation Class	B or its equivalent	
Weight	lbs [g]	3.3 [1500]
Accessories	MICRO CUPLA (MC-04PH) 1 piece	

Shaker Box Made of Anti-electrostatic Resin



The screws will fall into the heads-up position for easier vacuum or magnetic pickup. The anti-electrostatic resin greatly reduces static build-up and dust attached to the shaker box.

Model	Part No.	Hole Pitch	Hole Depth	No. of Holes	Screw Size(for reference)	
					inch thread	metric coarse thread
DLW3402	TD04110	0.24"	0.53"	273	#2 or less	1.7 - 2 mm
DLW3602	TD04111	0.24"	0.53"	273	#2 - #3	2 - 2.6 mm
DLW3802	TD04112	0.31"	0.49"	160	#4 - #8	3 - 4 mm

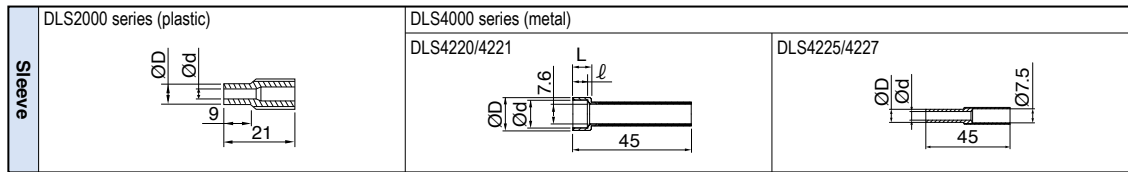
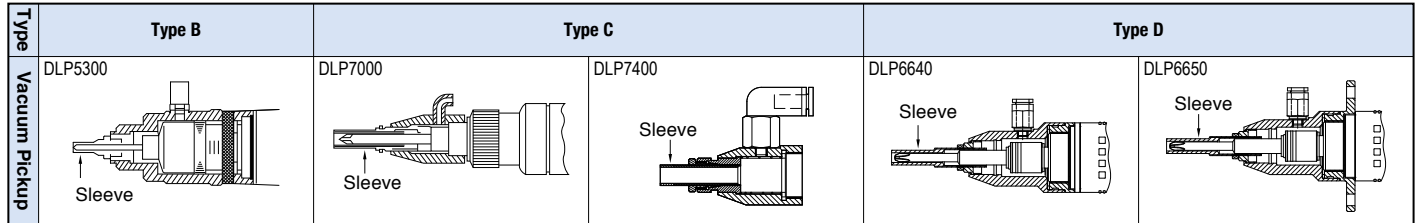
Linicon (Vacuum Pump)



Model	LV-660-D1	
Voltage	115 V AC	
Power Consumption	70 W	
Rated Frequency	60 Hz	
Maximum Vacuum	-80 kPa (-600 mmHg, -800 mbar, -23.6 in. Hg)	
Dimensions	9.49" (L) x 7.0" (W) x 8.03" (H) (241 mm x 177 mm x 204 mm)	
Duty Cycle	Continuous	
Coil Insulation Class	B or its equivalent	
Weight	lbs [g]	13.9 [6300]
Accessories	SUPER CUPLA (02SM • 02PH) Each 1 piece	

Vacuum Pickups and Sleeves

Screwdriver series		Vacuum Pickup			Sleeve (Standard accessory)	
		Type	Model	Part No.	Model	
DLV5800		Type B	DLP5300	TD04342	DLS2120/DLS2124	
DLV7104/DLV8104/DLV8204		Type C	DLP7400	TD07286-0	DLS4220/DLS4221	
delvo Brushless A series						
delvo Brushless S series		For Hex. 6.35 mm (1/4") (M5, M6)				
delvo Brushless C series		Type D	DLP6640/DLP6650	TD08804/TD08805	DLS4225/DLS4227	



DLS2000 series For $\varnothing 0.16''$ (4 mm)

Model	Part No.	Sleeve				Bit (No. x d x L) (+)
		ød		øD		
		inch	mm	inch	mm	
DLS2120	TD00348	0.08	2	0.14	3.5	No. 0 x 1.8 x 44
DLS2121	TD00349	0.09	2.2			
DLS2122	TD00350	0.1	2.5			
DLS2123	TD00351	0.11	2.7			
DLS2124	TD00352	0.12	3.1	0.18	4.5	No. 0 x 2.5 x 44
DLS2125	TD00353	0.13	3.3			
DLS2126	TD00354	0.14	3.5			
DLS2127	TD00355	0.15	3.7			
DLS2128	TD00356	0.16	4	0.22	5.5	No. 1 x 3 x 44
DLS2129	TD00357	0.17	4.2			
DLS2130	TD00358	0.18	4.5			
DLS2131	TD00359	0.19	4.7			
DLS2132	TD00360	0.2	5.1	0.26	6.5	No. 2 x 4 x 44
DLS2133	TD00361	0.21	5.3			
DLS2134	TD00362	0.22	5.6			
DLS2135	TD00363	0.24	6.1			

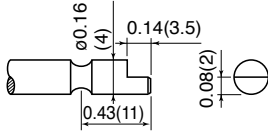
DLS4000 series For Hex. 1/4" (6.35 mm)

Model	Part No.	Sleeve								Bit (No. x d x L) (+)
		ød		øD		L		L		
		inch	mm	inch	mm	inch	mm	inch	mm	
DLS4225	TD09344	0.18	4.6	0.28	7	/	/	/	/	No. 1 x 4 x 75
DLS4227	TD09345	0.22	5.6							No. 1 x 5 x 75
DLS4220	TD08001	0.36	9.1	0.43	11	0.2	5	0.24	6	No. 2 x 7 x 75
DLS4221	TD08002	0.42	10.6	0.49	12.5	0.22	5.5	0.28	7	

NK BITS

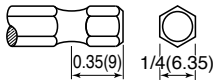
Unit: inch(mm)

OD 0.16"(4 mm) Shank



Model	Part No.	Size			Dimensions
		No.	x	L	
Phillips NK4D	TD20009	00	0.08 (2)	1.73 (44)	
	TD20010			2.52 (64)	
	TD20021			1.73 (44)	
	TD20022	0	0.07 (1.8)	1.73 (44)	
	TD20029			2.52 (64)	
	TD20030			1.73 (44)	
	TD20037	1	0.12 (3)	2.52 (64)	
	TD20038			1.73 (44)	
	TD20039			2.52 (64)	
	TD20040	2	0.16 (4)	1.73 (44)	
	TD20047			2.52 (64)	
	TD20048			1.73 (44)	
TD20050	3	0.24 (6)	1.73 (44)		
Model	Part No.	W	T	L	Dimensions
Plain Slot NK4DM	TD20051	0.08 (2)	0.012 (0.3)	1.73 (44)	
	TD20052	0.1 (2.5)	0.016 (0.4)		
	TD20053	0.12 (3)	0.02 (0.5)		
	TD20054	0.16 (4)	0.026 (0.65)		
	TD20055	0.2 (5)			
Model	Part No.	H	L	Dimensions	
Hexagon Head NK4DX	TD20056	0.06 (1.5)	1.73 (44)		
	TD20057	0.08 (2)			
	TD20058	0.1 (2.5)			
	TD20059	0.12 (3)			
	TD20060	0.16 (4)			

OD 1/4"(6.35 mm) Hex. Shank



Model	Part No.	Size			Dimensions
		No.	x	L	
Phillips NK35	TD20306	1	0.16 (4)	2.95 (75)	
	TD20307			3.94 (100)	
	TD20308			1.97 (50)	
	TD20309			2.95 (75)	
	TD20310			3.94 (100)	
	TD20311			4.72 (120)	
	TD20312			5.91 (150)	
	TD20313			7.87 (200)	
	TD20319			1.97 (50)	
	TD20320			2.95 (75)	
	TD20321	2	0.28 (7)	3.94 (100)	
	TD20322			4.72 (120)	
	TD20323			5.91 (150)	
	TD20324			7.87 (200)	
	TD20327			1.97 (50)	
	TD20328			2.95 (75)	
	TD20329			3.94 (100)	
	TD20330			4.72 (120)	
	TD20331			5.91 (150)	
	TD20332			7.87 (200)	
Model	Part No.	No.	d	L	Dimensions
Phillips NK36	TD20335	0	0.15 (3.8)	1.97 (50)	
	TD20336	1			
	TD20337	2			
	TD20338	0.18 (4.5)			
Model	Part No.	Size		Dimensions	
Phillips NK15	TD20354	1	1.97 (50)		
	TD20355			2.95 (75)	
	TD20356			3.94 (100)	
	TD20357			4.72 (120)	
	TD20358			5.91 (150)	
	TD20359			7.87 (200)	
	TD20362	1.97 (50)			
	TD20363	2.95 (75)			
	TD20364	2	3.94 (100)		
	TD20366			5.91 (150)	
	TD20367			7.87 (200)	
	TD20371			2.95 (75)	
	TD20372			3.94 (100)	
	TD20374			5.91 (150)	
	TD20375	7.87 (200)			
	Model	Part No.	W	T	
Plain Slot NK35M	TD20378	0.28 (7)	0.035 (0.9)	1.97 (50)	
	TD20379			2.95 (75)	
	TD20380			3.94 (100)	
Model	Part No.	H	d	L	Dimensions
Hexagon Head NK35X	TD20382	0.05 (1.27)	0.12 (3)	2.76 (70)	
	TD20385	0.06 (1.5)			
	TD20388	0.08 (2)			
	TD20391	0.1 (2.5)	2.76 (70)		
	TD20394			0.12 (3)	
	TD20397			0.16 (4)	
	TD20400			0.2 (5)	
	TD20404			0.24 (6)	

If Bits other than the above are required, please contact NITTO KOHKI U.S.A.

SAFETY GUIDE

Be sure to read and understand the following safety notations and all safety precautions.



WARNING:

Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in death or serious injury.



CAUTION:

Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in injury or material damage.

Safety Precautions

- Be sure to follow the safety precautions to keep accidents such as fires, electroshock, and injuries from occurring.
- Before using your tool, please read this manual carefully so that you may use it properly to get the most out of it.
- Keep the manual handy – so you can use it whenever necessary.



WARNING

- Keep work area clean. Cluttered work areas and benches invite accidents and injuries.
- Consider proper working environments for each tool carefully. Do not expose electric tools to extreme amounts of moisture or direct contact with water or rain. Keep area well lit at all times to prevent hidden dangers and never operate the equipment near flammable liquids or in gaseous or explosive atmospheres.
- Prevent operators from electric shock. When using electric tools, prevent body contact with grounded surfaces (e.g. pipes and outer frames of radiators, microwave ovens, and refrigerators, etc.).
- Keep all electric tools and power cords away from children and all unauthorized personnel. Also all visitors should be kept away from work area.
- Properly store tools and accessories while not in use. They should be kept in a dry, locked-up location out of reach of children or unauthorized personnel.
- Do not force tool. It will do the job better and more safely at the rate for which it was intended.
- Use the right electric power tool that can complete the job within its specifications. Do not attempt to adapt improper attachments or accessories to complete a job. Do not use the tool for other than what they were designed for.
- Dress properly. Do not wear loose clothing and/or accessories. (gloves, necklace etc.) They can be caught in moving parts. Non-skid footwear is recommended in outdoor operation. Wear protecting hair covering to contain long hair.
- Always wear safety glasses during operation. Wear respiratory protection when working in an environment where dust particles are generated during operation.
- Do not abuse cord. Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- Always secure the work piece with clamps or in a vise. Keep both hands on the electric tool or use a torque reaction arm to help reduce possible repetitive motion injuries.
- Do not overreach. Keep proper footing and balance at all times.
- Maintain tools with care. For safe and efficient work, use the proper bit and check it regularly. Do not use the bit with a worn out or deformed tip. When oiling and replacing parts, follow the instructions given by the instruction manual. Inspect tool cords periodically and if damaged, have them replaced by an authorized service facility. Keep handles dry, clean, and free from oil and grease.
- Unplug a tool or a controller when not in use, when repairing, or when changing accessories and bits, etc.
- Remove adjusting keys and wrenches. Form habit of checking to see that keys and adjusting wrenches are removed from tools before turning it on.
- Always avoid an unexpected start by having all power switches in the off position prior to attaching to a power supply. Never carry tools with your finger on the on/off switch when the power is attached. Never plug the cord into a receptacle while your finger is on the on/off switch.
- When the tool is used outdoors, use an electric extension cord or cable suitable for outdoor use.
- Stay alert. Watch what you are doing. When using electric tools, take good care of tool handling, working manner, and surrounding conditions. Use common sense. Do not operate tool when you are tired.
- Check damaged parts. Before further use of the tool, an accessory or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended functions. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. When repairing or replacing parts, follow the directions of the instruction manual. The part that is damaged should be properly repaired or replaced by an authorized service facility unless otherwise indicated elsewhere in this operation manual. Have defective switches replaced by an authorized service facility. Do not use the tool if the switch cannot be turned on and off.
- Use only recommended accessories and attachments as per tool operator manual and "delvo" general catalog. Use of improper accessories and attachments may result in an accident or serious injury.
- Any repairs on the tool should be performed only by an authorized service facility. Do not modify the tool that is complying with the safety standard. If the repairman who has poor knowledge and skill repairs the tool, the tool may not give a good performance and result in an increased risk of injury to the user.
- The power source must be limited to the individual tools specifications as stated on the nameplate or instruction manual. If used at a higher or lower voltage than indicated, it may cause failure and result in an increased risk of injury to the user.
- Before work operation carefully check if there are underground installations such as conduit, water pipe, and gas pipe, etc. If a tool should touch them, it might cause electric shock, electric leak, or gas leak.
- Hold the body of the tool firmly to help prevent the users wrist from twisting during the tightening sequence, possibly resulting in injury.
- Do not bring hand or face close to moving parts such as bit etc. when using. This may cause injury.
- When you have dropped the tool by mistake, carefully check the tool if there is breakage, cracks or deformation. This may cause injury.



CAUTION

- Install bits or accessories securely in accordance with the operation manual. Insufficient installation may cause injury.
- Whenever setting the torque, unplug the cable of the tools. Adjusting the torque setting during rotation may cause injury.
- When operating a tool at high places, check that there is no person under the places. Do not stumble over the cord nor drop the material or tool body. This may cause injury.
- Never leave a tool running unattended on the working bench or floor. Always turn the power switch or lever to the off position and disconnect from the power source when not in use.
- Do not overload to the extent that the motor locks or the clutch malfunctions. This may cause smoke, fire, failure or injury.
- If the tool is overheating or functioning abnormally, stop using the screwdriver immediately and inspect it to see whether any repairs are necessary. Otherwise this may cause failure or injury.
- The electric screwdriver may overheat depending on the type of screw, type of screw-tightened material, or frequency of use. To avoid overheating, stop operating the screwdriver for a time or use several drivers in alteration. Overheating may reduce the life of the product or cause failure or injury.
- The fastening torque may vary depending on how the product is operated or held, the type of screw, and the fastening conditions. Use a torque wrench or similar tool to check that the fastening torque is appropriate.

About us

NITTO KOHKI U.S.A., Inc. was founded in 1969 to provide sales and service of machine tools and quick-connecting fluid couplings that are designed and manufactured by NITTO KOHKI Company, Ltd. located in Tokyo, Japan. We attained a position at the forefront of the industry, pioneering the development of unique, high quality products based on the core technologies of fluid mechanics, precision engineering and, more recently, electronic engineering. Through our products, NITTO KOHKI has consistently offered customers advantages in terms of labor savings, improved working environments and efficient manufacturing.

NITTO KOHKI's products fulfill vital roles in fields ranging from applications in the construction industry and the automotive industry, to high-tech engineering. We will continue to capitalize on these favorable trends and precisely meet market needs in a timely manner.



NITTO KOHKI Group... a corporation rising to the challenge of creating products and building a better tomorrow by responding to the needs of today. With the incessant challenge of developing energy and labor saving technology, we will contribute to society in a variety of ways through original technology that corresponds to users' needs.

NITTO KOHKI's Laborsaving Products

NITTO KOHKI is capturing the needs of users by introducing to the world not only "CUPLA" quick connect couplings, but also next-generation laborsaving devices, including various "machine tools and hand tools", high precision "delvo" electric screwdrivers, and linear-motor-driven piston "compressors / vacuum pumps".



CUPLA Enable Flexible, Fast, and secure Connections in Various Fluid Lines

NITTO KOHKI's unique technologies and dedicated research have been proven by numerous patents, which led to the development of 25,000 different CUPLA variations.



Machines and Tools to Achieve Energy and Labor Savings in Processing Work

Machines and tools are used at various processing sites for such work as cutting, polishing, scaling, drilling and chamfering of steel materials. We have created a product line up of pneumatic, electric and hydraulic machines and tools to match the diversification of processing methods and the conditions of work operations.



Compressors, Vacuum Pumps and Their Applied Products

NITTO KOHKI pumps are unique products featuring a linear-motor-driven free piston system. NITTO KOHKI has made available a complete series of air compressors and suction pumps that incorporate this uniquely functional design. These are quite appropriate as air sources or suction power units for various pneumatically operated equipment and apparatus in advanced industries.

***World-class innovation with precision torque control.
More than 35 years experience electric screwdrivers “delvo”
by NITTO KOHKI.***

[trademark (delvo)] is registered in the United States.



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