

The HIOS brand supports assembly lines throughout the world.



There are many factors that affect the overall quality of screw tightening.

HIOS aims to provide the highest quality and to create a comfortable working environment from the viewpoint of customers. We review the environment surrounding tightening operations from various aspects and try to improve it every day.

The HIOS New Fastening System is a comprehensive system that achieves highly reliable screw tightening and high quality control.





Problems with conventional tools

Cross recess



Damaged recess



Brushed screwdrivers



Regular maintenance



Torque control



Insufficient torque



Management of the number of screws to be tightened



Skipping screw tightening



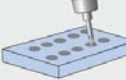
Screw tightening data management (tightening criteria)



Operator's judgment



Manual tools



Operator's skill



Improvements introduced with the New Fastening System

TCTSUPURA Screws (HIOS Pat. Screws)

prevents "Cam out" phenomenon and achieves highly reliable screw tightening and highly quality control.



Brushless® screwdrivers

Consumables are no longer required, providing outstanding durability and stability. We recommend more use of brushless screwdrivers because they are environmentally friendly.



Torque Meters

help to sustain screw tightening quality by checking torque of screwdrivers and already tightened screws.



Screw Counters

count the number of screws to be tightened, so operators do not have to worry about forgetting to tighten screws or insufficient tightening.



PC Brushless®Screwdrivers with built-in counter

Pass/Fail judgment based on preset acceptance criteria is available for every screw tightening. All the work data can be stored in a PC.



For automatic and labor-saving equipment
Auto-Screwdriver s/ Reciprocating Screwdrivers
improve productivity to reduce work hours and costs.



HIOS Products

Index

HIOS New Fastening System	P.1-2
Features of Electric Screwdrivers	P.3-4
Selection Chart of Electric Screwdrivers	P.5-6
DC Screwdrivers	P.7-30
●Brushless screwdrivers	
•PG (Pass Guard) series (P.7-8)	
•BLG-BC2 series (P.9-10)	
•BLG-BC1 series (P.11-12)	
•BLG-ZERO1 series (P.13-14)	
•BLG series (P.15-16)	
•BL series (P.17-18)	
●Brushed screwdrivers	
•CL series (P.19-22)	
•SS series (P.23-24)	
•α series (P.25-26)	
•Power supply for DC screwdrivers (P.27-30)	
AC Screwdrivers	P.31-36
●Brushless screwdrivers	
•VB series (P.31-32)	
•VBH series (super-high torque) (P.35)	
●Brushed screwdrivers	
•VZ series (P.33-34)	
•VZH series (super-high torque) (P.36)	
Screwdrivers for Automated Machines (DC type)	P.37-42
●Brushless screwdrivers	
•PGF series (P.37-38)	
•BLF series (P.39-40)	
●Brushed screwdrivers	
•CLF, α F, CL-A series (P.41-42)	
Reciprocating Screwdrivers (DC/AC type)	P.43-44
●Brushed screwdrivers	
•RN53 series (P.43-44)	
Accessories	P.45-46
•Screwdriver stand/Screwdriver cord/Hand screwdriver/Vacuum pump VP-3/Carbon brush/Grip ring/Spike bit	
Screw Counters	P.47-50
Torque Meters	P.51-52
Automatic Screw Feeders	P.53-54
Portable Screwdrivers (battery type)	P.55-56
Electric Tappers	P.57-58
Screwdriver Bits for Exchange	P.59-62
Accessories for Suction Screwdrivers	P.63-66
Order Codes	P.67-76

Electric Screwdrivers



Screwdrivers and Reciprocating Screwdrivers for Automated Machines



Torque Meters



Screw Counters



Automatic Screw Feeders



Electric Tappers



Accessories




Bits/ Suction Attachments (Vacuum Attachments)



Features of Electric Screwdrivers


DC type | **Low voltage direct current system**

With low voltage direct current power, it can be used with approx. 30V (HI) and approx. 20V (LOW).




AC type | **Transformerless system**

It can be used by connecting directly to the AC outlet.




Brushless Screwdrivers

DC type




AC type




Brushed Screwdrivers

DC type




AC type




1. Quick-release cord type (DC type)

The screwdriver cord features a quick release allowing easy maintenance. (The cord for the AC type cannot be detached.)



5P (pin)
Standard screwdriver



6P (pin)
Screwdriver compatible with the Screw Counter (BC2 / BC1 / ZER01 / OPC Type)

2. Start Type

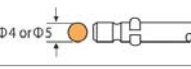

- **Lever start:** trigger the lever gently to start.
- **Push-to-start:** push the screwdriver gently to start.
- **Push and Lever:** Switchable

3. Torque Adjustment Nut for fine tuning

The tightening torque can be steplessly adjusted across a wide range. Repeatable high precision provides reliable screw tightening.

4. Bits

The types of bits that can be connected to the screwdriver include the HIOS bit and hexagonal bit. Refer to the specification chart of each screwdriver for bit shape.


HIOS shank shape (bit socket) <small>* Please purchase genuine HIOS bits.</small>	H4(Φ 4)	 $\Phi 4$ or $\Phi 5$
	H5(Φ 5)	
HEX shank shape (bit socket) <small>* Please purchase standard sized HEX bits from commercial stores.</small>	Width across flats: 6.35mm (1/4 HEX)	 $6.35 \rightarrow 9.0$
	Width across flats: 5mm (5 HEX)	


External carbon brush (Brushed Screwdriver)


The design for an external carbon brush makes your brush replacement easier. A carbon brush usually lasts for approximately one million tightening actions (depending on operational conditions).


Icon guide


«Brushless Screwdrivers»


 **Environmentally friendly brushless motor**
Without emission of carbon powder, providing a clean environment for electronic part as well as the workplace. There is also no risk of ground fault.


 **Safe and risk-free low voltage DC30V**
The low voltage design enables anyone to use it risk-free with easy maintenance.


 **Lever and push start type (two-way)**
The starting procedure is simple and can be switched from the lever type to push-to-start type.
* Depends on the model.

 **Anti-electrostatic body case**
(Surface resistance is less than $3 \times 10^{12} \Omega$)
Anti-electrostatic resin is employed for the body case of the screwdriver to prevent the generation of static electricity. This makes the screwdriver suitable for assembly of precision equipment and electronic parts.


 **Remarkable reduction in heat generation of the screwdriver**
Because a brushless motor is employed, the heat generation of the screwdriver can be reduced remarkably and doesn't compromise performance.


 **Easy maintenance**
By unitizing internal parts, only a screwdriver is required for maintenance.


 **Stable screw tightening quality**
High-precision torque can be maintained for a long time, providing reliable tightening quality.

 **Outstanding durability**
By eliminating malfunctions and failures due to wear of consumable parts, the screwdriver's durability has been remarkably improved.


«Brushless Screwdrivers / Brushed Screwdrivers»


 **RoHS compliant**
The screwdriver is RoHS compliant.


 **China RoHS compliant**

 **Anti-electrostatic**
Conductive resin is used throughout the body case, switch lever and screwdriver cord.

«International Standard Certifications»

 UL and cUL approved

 CE declared

 CCC certified

Please use this chart to select screwdrivers that suit your purpose.

For precision assembly

DC Screwdrivers

* BL-SS is an impact-absorbing model

For heavy-duty production	For cell production	For automated assembly line	Screw feeding system
AC Screwdrivers	Portable Screwdrivers (battery powered)	Screwdrivers for automation	Reciprocating Screwdrivers

Screwdriver Classification	Model name	Output Torque Range																				Unloaded Rotation Speed (r.p.m) (HI/LOW)	Screw Size (mm)		Applications				
		(kgf•cm)																					Machine Screw	Tapping Screw					
		N•m																											
		0	0.5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	▶30	▶40	▶50	▶80	▶90	▶100
		0	0.05	0.1	0.1	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	▶3	▶4	▶5	▶8	▶9	▶10
AC type/ Brushless	VBH Series Super hi-torque	VBH-1820PS (100V or 120V or 220-240V)																				3-7	470	5.0-6.0	5.0-6.0	Automobile parts, car audios, LCD car navigation displays, air conditioners, home lighting equipment, car door mirrors, tail lamps, headlights, gas appliances, vacuum cleaners, washing machines, video game players, VTR, communication equipment, copy machines, laser beam printers, microwave ovens, TVs, power tools, etc.			
		VBH-3012PS (100V or 120V or 220-240V)																				4-10	270	5.0-6.0	5.0-6.0				
AC type/Brushed	VZ Series Standard	VZ-1510 (100V)					0.15-1.5																1,000	2.0-4.0	2.0-3.0				
		VZ-1820 (100V or 120V)						0.4-1.8															2,000	2.6-4.0	2.6-3.0				
		VZ-3012 (100V or 120V)							0.9-3														1,200	3.0-5.0	3.0-4.0				
		VZ-4506/4506PS (100V or 120V)/(100V)								1-4.5													600	3.0-5.0	2.6-4.0				
		VZ-1812 (220V-240V)						0.4-1.8															1,200	2.6-4.0	2.6-3.0				
		VZ-3007 (100V or 220V-240V)							0.9-3														700	3.0-5.0	3.0-4.0				
		VZ-4504 (220V-240V)								1-4.5													400	3.0-5.0	2.6-4.0				
AC type/Brushless	VZH Series Super hi-torque	VZH-1820 (100V or 120V)																				3-7	470	5.0-6.0	5.0-6.0				
		VZH-3012 (100V or 120V)																				4-10	270	5.0-6.0	5.0-6.0				
DC type/Brushless	For automated machine PGF Series	PGF-3000					0.2-0.55																HI 625-950 LOW 115-325	1.7-2.3	2.0-2.3	Electrical components, automobile parts, pneumatic devices, etc.			
		PGF-5000						0.4-1.2															HI 690-985 LOW 115-320	2.3-3.0	2.0-2.3				
		PGF-7000											1.0-2.8										HI 645-935 LOW 210-595	2.6-5.0	2.6-4.0				
	For automated machine BLF Series	BLF-2000			0.03-0.35																		HI 690-975 LOW 120-345	1.0-2.3	1.0-2.0	Automobile- and motorcycle-related components (car navigation systems, headlights, junction boxes, sensors, carburetor mounting, resin panel mounting)			
		BLF-5000				0.3-1																	HI 660-940 LOW 115-320	2.0-3.0	2.0-3.0				
		BLF-7000											0.7-2										HI 495-735 LOW 150-450	2.6-5.0	2.6-4.0				
		BLF-7000X											0.7-2										HI 495-735 LOW 150-450	2.6-5.0	2.6-4.0				
	BLF-7025X												1.2-2.5									HI 600-400 LOW 120-350	3.0-5.0	3.0-4.0					
DC type/Brushed	For automated machine CLF Series	CLF-3000			0.03-0.15																		1,000 / 560	1.0-2.0	1.0-1.7	Cameras, cell phones, copy machines, TVs, audio equipment, home lighting equipment, air conditioners, health-care devices, switches, pneumatic devices, power meters, etc.			
		CLF-4000				0.10-0.35																	1,000 / 560	1.4-2.6	1.4-2.3				
		CLF-6000					0.3-0.6																750 / 400	2.0-3.0	2.0-2.6				
		CLF-6500						0.4-1															850 / 440	2.0-3.0	2.0-3.0				
		CLF-7000											0.5-1.5										780 / 420	2.0-4.0	2.0-4.0				
	For automated machine αF Series	αF-4500					0.4-0.6																1,700 / 940	2.0-3.0	2.0-2.6				
		αF-5000					0.4-0.75																1,100 / 600	2.0-3.0	2.0-3.0				
		αF-6500						0.5-1.1															1,700 / 950	3.0-4.0	2.6-3.0				
	For automated machine CL-A Series	CL-816A														1.5-2.5							550 / 310	3.0-4.0	3.0-4.0				
		CL-825A																		2-4					370 / 210	4.0-5.0	4.0-5.0		
		CL-850A																				2.4-4.5				570 / 320	4.0-5.0	4.0-5.0	Automobile parts, window frame parts, gas meters, electro-magnetic valves, seat belts, etc.
DC type/Brushed	Reciprocating screwdriver	RD-4000					0.1-0.55																1,000 / 690	1.4-2.6	1.4-2.3	Automobile parts, home lighting equipment, PC, video game players, TVs, power tools, wireless devices, gas equipment, VTR, medical devices, pneumatic devices, electronic parts, etc.			
		RD-4500						0.3-0.8															1,700 / 1,200	2.0-3.0	2.0-2.6				
		RD-10					0.2-1																1,500	2.0-4.0	2.0-3.0				
		RD-15						0.2-1.5															1,000	2.0-4.0	2.0-3.0				
		RD-20											1-2										1,600	3.0-5.0	3.0-4.0				
		RD-30												1-3									1,000	3.0-5.0	3.0-4.0				



Is that screw properly tightened? Pass Guard tightens, judges and records!

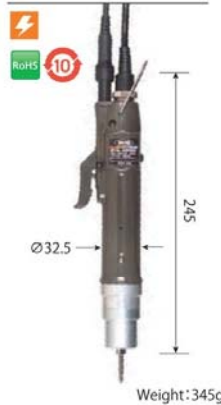
- The built-in torque sensor judges (OK/NG) for every screw fastening.
- Improperly fastened screws can be detected by automatically recognizing problems that are difficult to judge visually, such as insufficient torque, unseated screws, and cross threading.
- All the data are recorded and saved in an external device.

Lever start type

Lever start type

Unit: mm

PG-3000



PG-5000



PG-7000



Control Unit (optional)

PG-01

It reads the data from the torque sensor and judges OK/NG in real time.

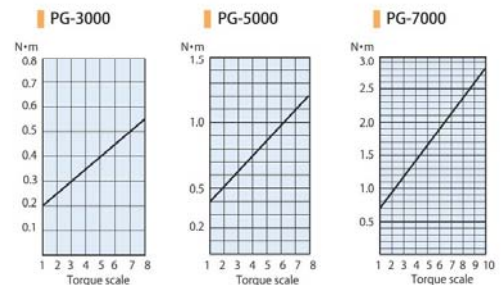


PG Series Specifications

Specifications

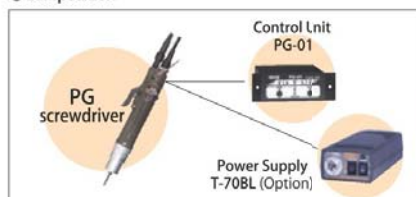
Model Name	PG-3000	PG-5000	PG-7000
Output Torque	N·m 0.2 - 0.55	N·m 0.4 - 1.2	N·m 1.0 - 2.8
Range	lbf·in 1.7 - 4.8 (kgf·cm 2 - 5.5)	lbf·in 3.5 - 10 (kgf·cm 4 - 12)	lbf·in 6.1 - 24 (kgf·cm 7 - 28)
Torque Switching	Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation	HI 980	900	960
Speed (r.p.m)	LOW 680	590	630
Screw Size	Machine Screw 1.7 - 2.3	2.3 - 3.0	2.6 - 5.0
(mm)	Tapping Screw 2.0 - 2.3	2.0 - 2.3	2.6 - 4.0
Bit	HIOS Shank H4	H4	H5 and SHEX
Drive	HEX Shank On request	On request	1/4HEX
Power Supply	T-70BL		
Accessories	Bit (one each)	H4 + # 0(Ø2.5×4mm) + # 1(Ø4.0×4mm) + # 2(Ø4.0×4mm)	H4 + # 0(Ø2.5×40mm) + # 1(Ø4.0×40mm) + # 2(Ø4.0×40mm)
		H5	+ # 0(Ø2.5×60mm) + # 1(Ø5.0×60mm) + # 2(Ø5.0×60mm)
	Cord length(m)	2m(6P)	2m(6P)
	Sensor cord(m)	1.7m(8P)	1.7m(8P)
Others	Sampling software (Japanese version Windows XP Excel), RS232C cable 1 pc, USB cable 1 pc, AC adapter 1 pc (AC100V-240V compatible)		

Output torque guide (HI input)

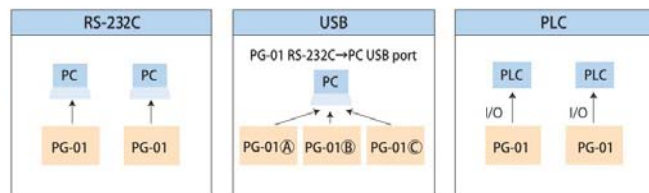


《Pass Guard System: Composition and Connection》

●Composition



Connection



《Workflow of Pass Guard System Use》

1 Setting the reference values for OK/NG criteria

● Determine the acceptable criteria (Teaching)

The acceptance criteria are determined by conducting an actual fastening procedure. The torque value, minimum work time (Min), maximum work time (Max) are then saved.

● Set the acceptable range (Percentage Setting)

The acceptable range for torque, minimum work time (Min) and maximum work time (Max) can be selected from 0, 2, 5, 10, 15, 20%.

2 Real operation

Every screw fastening can be judged in real time.

3 Judgement

OK/NG results are confirmed with the LED light and buzzer of PG-01.

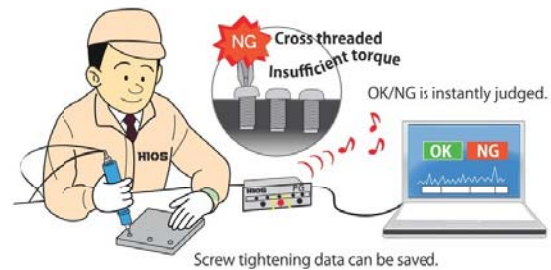
OK buzzer sounds once (beep)

NG buzzer sounds twice (beep, beep)

4 Record and save the data with a PC

As a standard feature, the measured data can be displayed both numerically and graphically with Excel. It is also possible to compose a customized program to meet customer's needs according to the current work environment.

Tighten while checking the tightening quality in real time.

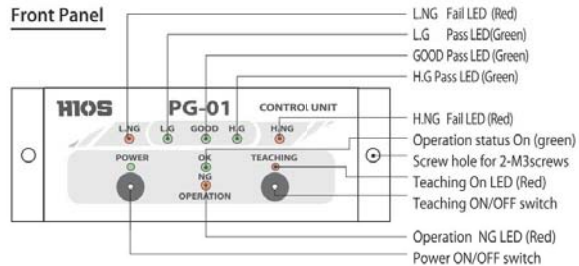


● OK/NG Criteria

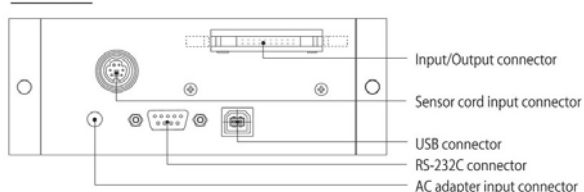
NG	L.G	GOOD	H.G	H.NG
Lower than the L.G Min. value	Minus Tolerance	OK Criterion	Plus Tolerance	Higher than the H.G Max. value
NG	OK			NG

《PG-01 Components and Specifications》

Front Panel



Rear Panel



● Specifications

Model	PG-01						
RS-232C Communication	Communication speed	Start Bit	Stop Bit	Data	Data format	Parity	Interface
	4800BPS	1Bit	1Bit	8Bit	ASCII	None	RS-232C
External Dimensions (mm)	<p>* The above dimensions don't include protrusions.</p>						
Weight(g)	520g						
AC Adaptor	Input: AC100V-240V (50 / 60 Hz), Output: DC12V						

《External Connection Cables》

● RS-232C cable (included)

Connector	D-SUB 9 pin	PC	9 pin (female)	9 pin (male)	PG-01
Cable	Straight cable	(Cross cable: not supported)			

● RS-232C conversion cable (included)

Connector	RS-232 side	9 pin (male)	PC	Type A	9 pin (male)	PG-01
	USB side	Type A	Conversion cable			

● USB

Version		Support up to Version 2.0	
Connector	PG-01 side	Type B	Type A — Type B
	PC side	Type A	
Cable		Straight	

PC





PG-01





《I/O Connector / Output: open connector》

I/O	Plus common/minus common shared, Output: sink type
Connector specifications	Male connector (P/N: Hirose HIF3BA-20PA-2.54DS) External connector (P/N: Hirose HIF3BA-20D-2.54R)
Type	Minus common (NPN supported)* Plus common PNP: not supported

* An external connector is not included. Please purchase it at a commercial store.

Output	Pin No.	Output signal	Description
100mA max.	13	L.NG (Fail)	Torque is lower than the L.G Min. value.
	14	L.G (Pass)	Minus Tolerance
	15	GOOD (Pass)	OK Criterion
	16	H.G (Pass)	Plus Tolerance
	17	H.NG (Fail)	Torque is higher than the H.G Max.value.
DC0V	12	COM GND	—
Pins other than the above are not used.			—



No more rely operations experience and skill.

- Detect errors in screw fastening in real time with high accuracy by counting the pulse of the motor.
- Misplaced screws of different type or length, recessed screws or floating screws due to seized cables are now detected.
- Installed serial port (RS-232C) makes it possible to set the driver by remote control and record pulse values of each screw tightening for traceability.
- Direct teaching allows a simple setting.

Lever Start Type

Lever Start Type

Two-way Start System

Two-way Start System

BLG-4000BC2



BLG-5000BC2



Hi-speed rotation BLG-5000BC2-15



Hi-speed rotation BLG-5000BC2-18



Hi-torque BLG-5000BC2-HT



Note: CCC certified models have different specification and order codes from the standard models. Please contact HIOS distributors before ordering.

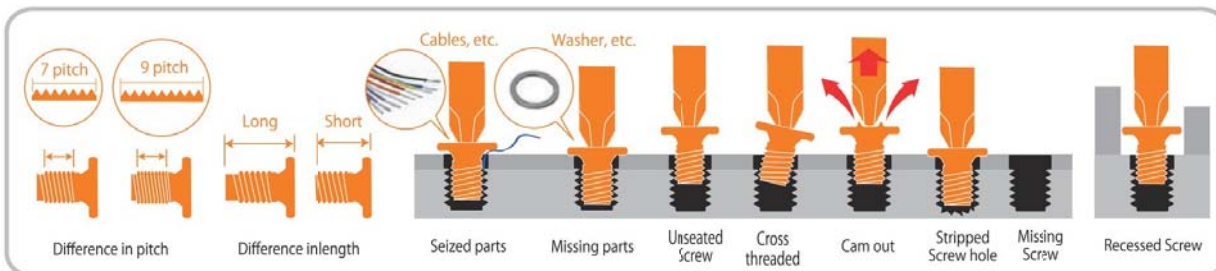
BLG-BC2 Series Specifications

Specifications

Model name		BLG-4000BC2	BLG-5000BC2	BLG-5000BC2-15	BLG-5000BC2-18	BLG-5000BC2-HT
Output torque range	N·m	0.1-5.5	0.2-1.2	0.3-1.0	0.5-1.5	0.5-2.0
	lbf·in	0.9-4.8	1.7-10	2.6-10	4.3-13	4.3-17
	(Kgf·cm)	(1-5.5)	(2-12)	(3-10)	(5-15)	(5-20)
Torque switching		Stepless Adjustment	Stepless Adjustment	Stepless adjustment	Stepless Adjustment	Stepless Adjustment
Unloaded Rotation	HI	1.010	1.000	1.500	1.800	730
	LOW	690	690	1.000	1.200	—
Screw Size	Machine Screw	1.4-2.6	2.0-3.0	2.3-3.0	2.3-3.0	2.0-4.0
	Tapping Screw	1.4-2.3	2.0-3.0	2.0-2.6	2.0-2.6	2.0-3.0
Bit Drive	HIOS Shank	H4	H4	H4	H5 and 5HEX	H5 and 5HEX
	HEX Shank	1/4HEX	H5 and 5HEX or 1/4HEX	H5 and 5HEX or 1/4HEX	1/4HEX	1/4HEX
Power Supply	T-45BL	○	○	○★	—	○★
	T-70BL	○	○	○★	○★	○★
Accessories	Bit (one each)	H4	+ #0 (Ø2.5×40mm) + #1 (Ø4.0×40mm)	+ #1 (Ø4.0×40mm) + #2 (Ø4.0×40mm)	+ #1 (Ø4.0×40mm) + #2 (Ø4.0×40mm)	+ #1 (Ø5.0×60mm) + #2 (Ø5.0×60mm)
		H5	+ #1 (Ø5.0×60mm) + #2 (Ø5.0×60mm)	+ #1 (Ø5.0×60mm) + #2 (Ø5.0×60mm)	+ #1 (Ø5.0×60mm) + #2 (Ø5.0×60mm)	+ #1 (Ø5.0×60mm) + #2 (Ø5.0×60mm)
		1/4HEX	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)
	Spring	White				
	Cord length (m)	2m(6P)	2m(6P)	2m(6P)	2m(6P)	2m(6P)
L-shaped HEX wrench			Width across flats: 5mm, 1 pc	Width across flats: 5mm, 1 pc	Width across flats: 5mm, 1 pc	Width across flats: 5mm, 1 pc

Use only 2(HI) power outlet with the ★ models. These models may not perform properly on 1(LOW) power outlet.

Detectable errors with BLG-BC2



Accessories

BLG-BC2 Accessories

Accessories

Accessories

Suction(Vacuum) Attachment for BLG Series

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A),(B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64

Model	(A) Mouthpiece model	(B) Bit length	(C) Suction attachment model
BLG-4000BC2	F3-Standard 18mm	H4 60mm	BLGQ4-SET
BLG-5000BC2		H4 40mm	BLQ5-SET/BLQ5-SET-ESD*
BLG-5000BC2-15		H4 60mm	BLQ5N-SET/B.Q5N-SET-ESD*

Note: The Suction Attachment cannot be used with 1/4HEX.

* ESD is anti-electrostatic

Please contact HIO's distributors for the attachment for the BLG-5000BC2-15

External Input/output cable BLG-BC2-3010

To use external I/O, the special cable with the sample application software is available as an option.



Vertical Screwdriver Operating Stand VMS-40/VMS-50

The stand keeps the screwdriver in a vertical position, allowing accurate screw fastening.



Compatible screwdrivers:

BLG-4000BC2
BLG-5000BC2 Series

See P.46 for details.



Related Products

Related Products

External I/O Box BLG-IO-Pro1



Operation Image



Connection with JUKUREN BLG-BC2 provides simple control of fastening a screw!

- ① Detects screw fastening errors and can be interlocked with revolving lights.
- ② Operations can be coordinated with PC (the dedicated software).
- ③ No preparation of a program like PLC controls is required.
- ④ Driver operation control is possible depending on whether work is available or not.
- ⑤ The driver terminates operation automatically when screw fastening error occurs.

Screwdriver



•BLG-4000BC2
•BLG-5000BC2系

BLG-IO-Pro1

Power Supply



•T-45BL
•T-70BL

※I/O cable "BLG-BC2-3010" needs to be purchased additionally.

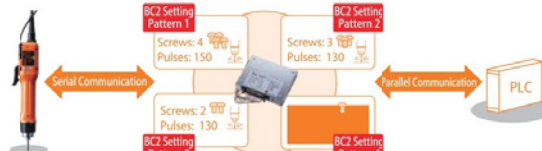
Serial-to-parallel Conversion Box BLG-IF2



The BLG-IF2 is a conversion box to convert the signal transmission of the BLG-BC2 driver from serial interface to parallel interface.

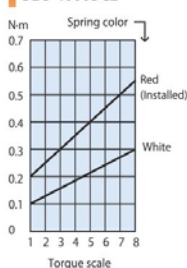
With the BLG-IF2 the driver can be interlocked with external devices such as a PLC by using input and output signals.

* The BLG BC2 I/O Cable "BLG-BC2-3010" needs to be purchased additionally.

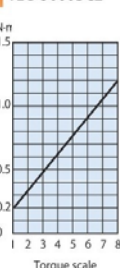


Output torque guide (HI input)

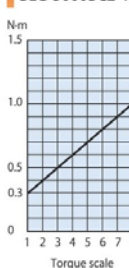
BLG-4000BC2



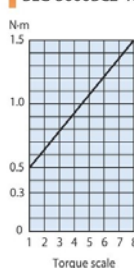
BLG-5000BC2



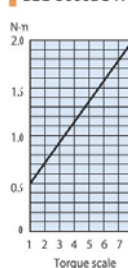
BLG-5000BC2-15



BLG-5000BC2-18



BLG-5000BC-HT



*There are two types of spring for torque adjustment: for HI (originally fixed to the unit) and for Low (accessory). Use one of them depending on your operating conditions.

Brushless® Screwdriver with a Built-in Screw Counter BLG-BC1 Series (DC Type)



No more overlooked tightening errors!

- It prevents human errors in operations! It supports accurate screw fastening and reduces the operator's fatigue.
- A conventional external screw counter is not required. This realizes low-cost introduction of new screwdrivers.
- The integration of the screwdriver and the counter is optimal for space-saving operations.

Lever Start Type

Lever Start Type

Unit : mm

BLG-4000BC1



Note: CCC certified models have different specification and order codes from the standard models. Please contact HIOS distributors before ordering.

Two-way Start System

Two-way Start System

Unit : mm

BLG-5000BC1



Hi-speed rotation BLG-5000BC1-15



Hi-speed rotation

BLG-5000BC1-18



Hi-torque

BLG-5000BC1-HT



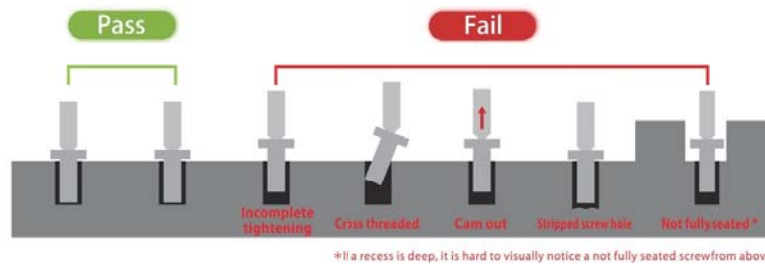
BLG-BC1 Series Specifications

Specifications

Model name		BLG-4000BC1	BLG-5000BC1	BLG-5000BC1-15	BLG-5000BC1-18	BLG-5000BC1-HT
Output torque range	N·m	0.1-0.5	0.2-1.2	0.3-1.0	0.5-1.5	0.5-2.0
	lbf·in (Kgf·cm)	0.9-4.3 (1-5.5)	1.7-10 (2-12)	2.6-10 (3-10)	4.3-13 (5-15)	4.3-17 (5-20)
Torque switching		Stepless Adjustment	Stepless Adjustment	Stepless adjustment	Stepless Adjustment	Stepless Adjustment
Unloaded Rotation	HI	1.00C	1.000	1.500	1.800	730
	LOW	690	690	1.000	1.200	—
Screw Size	Machine Screw	1.4-2.5	2.0-3.0	2.3-3.0	2.3-3.0	2.0-4.0
	Tapping Screw	1.4-2.3	2.0-3.0	2.0-2.6	2.0-2.6	2.0-3.0
Bit Drive	HIOS Shank	H4	H4	H4	H5 and 5HEX	H5 and 5HEX
	HEX Shank	1/4HEX	H5 and 5HEX or 1/4HEX	H5 and 5HEX or 1/4HEX	1/4HEX	1/4HEX
Power Supply	T-45BL	○	○	○★	—	○★
	T-70BL	○	○	○★	○★	○★
Accessories	Bit (one each)	H4	+ #0 (2.5×40mm) + #1 (2.4×40mm)	+ #1 (2.4×40mm) + #2 (2.4×40mm)	+ #1 (2.5×60mm) + #2 (2.5×60mm)	
		H5	+ #1 (2.5×60mm) + #2 (2.5×60mm)	+ #1 (2.5×60mm) + #2 (2.5×60mm)		
		1/4HEX	+ #1 (2.5×50mm) + #2 (2.5×50mm) — (2.5×50mm)	+ #1 (2.5×50mm) + #2 (2.5×50mm) — (2.5×50mm)	+ #1 (2.5×50mm) + #2 (2.5×50mm) — (2.5×50mm)	+ #1 (2.5×50mm) + #2 (2.5×50mm) — (2.5×50mm)
	Spring	White				
	Cord length (m)	2m(6P)	2m(6P)	2m(6P)	2m(6P)	2m(6P)
L-shaped HEX wrench			Width across flats: 5mm, 1 pc	Width across flats: 5mm, 1 pc	Width across flats: 5mm, 1 pc	Width across flats: 5mm, 1 pc

Use only 2(HI) power outlet with the ★models. These models may not perform properly on 1(LOW) power outlet.

From now on, the screwdriver itself detects and notifies you of screw fastening errors.



Major features

- Counter ON/OFF** You can turn off the counter function and use the screwdriver as an ordinary one; then you can connect your own HIOS counter to it.
- Counter** You can set the number of fastener count from 1 to 99. Screw tightening skipping can be prevented.
- Buzzer and LED** The buzzer and LED notify you of a result of each screw fastening (Pass/fail).
- Prevention of miscount** It prevents miscount caused by a re-tightening or double fastening.
- Error detection** Screw fastening errors can be detected (e.g., incomplete tightening, cross threaded, cam-out, stripped screw hole, etc.).
- Cycle Totals** The total number of cycles resulting in a clutch activation.
- Count timer** The buzzer notifies you of completion of screw fastening and then reset the number of fastener count on the display.

Accessories

BLG-BC1 Accessories

Accessories

Accessories

Suction(Vacuum) Attachment for BLG Series

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A), (B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64.

Model	(A) Mouthpiece model	(B) Bit length	(C) Suction Attachment model
BLG-4000BC1	F3-Standard 18mm	H4 60mm	BLGQ4-SET
BLG-5000BC1		H4 40mm	BLQ5-SET/BLQ5-SET-ESD*
BLG-5000BC1-15		H4 60mm	BLQ5N-SET/BLQ5N-SET-ESD*

Note: The Suction Attachment cannot be used with 1/4HEX.

* ESD is anti-electrostatic

Please contact HIOS distributors for the attachment for the BLG-5000BC1-18

Vertical Screwdriver Operating Stand

VMS-40/VMS-50

The stand keeps the screwdriver in a vertical position, allowing accurate screw fastening.



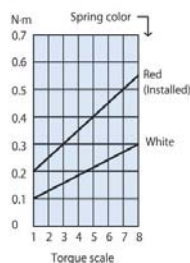
Compatible screwdrivers:

BLG-4000BC1
BLG-5000BC1 Series

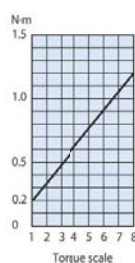
See P.46 for details.

Output torque guide (HI input)

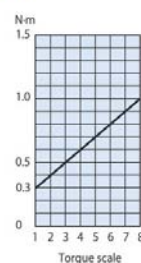
BLG-4000BC1



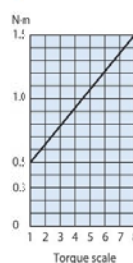
BLG-5000BC1



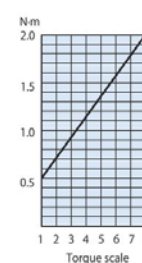
BLG-5000BC1-15



BLG-5000BC1-18



BLG-5000BC1-HT



*There are two types of spring for torque adjustment: for HI (originally fixed to the unit) and for Low (accessory). Use one of them depending on your operating conditions.



Anyone can be a skilled craftsman in Just 30 Seconds.

- Direct teaching makes it easy to configure settings.
- The pulse of the motor is counted, enabling real time detection of screw fastening errors with a high degree of accuracy.
- Errors such as mixing of wrong types of screws, unseated screws, cam out, stripped screw holes, or parts caught in screws can be detected.
- It displays the remaining number of screws to fasten every time a screw is fastened.

Lever Start Type

Lever Start Type

Unit : mm

BLG-4000ZERO1



Two-way Start System

Two-way Start System

Unit : mm

BLG-5000ZERO1



Hi-speed rotation BLG-5000ZERO1-15



Hi-speed rotation BLG-5000ZERO1-18



Hi-torque BLG-5000ZERO1-HT



Note: CCC certified models have different specification and order codes from the standard models. Please contact HIOS distributors before ordering.

BLG-ZERO1 Series Specifications

Specifications

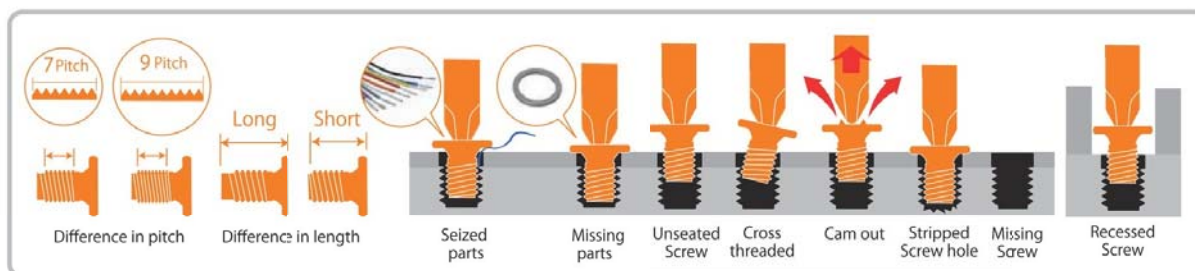
Model name		BLG-4000ZERO1	BLG-5000ZERO1	BLG-5000ZERO1-15	BLG-5000ZERO1-18	BLG-5000ZERO1-HT
Output torque range	N·m	0.1-0.5	0.2-1.2	0.3-1.0	0.5-1.5	0.5-2.0
	lbf·in	0.9-4.3	1.7-10	2.6-10	4.3-13	4.3-17
	(Kgf·cm)	(1-5.9)	(2-12)	(3-10)	(5-15)	(5-20)
Torque switching		Stepless Adjustment	Stepless Adjustment	Stepless adjustment	Stepless Adjustment	Stepless Adjustment
Unloaded Rotation	HI	1.00C	1.000	1.500	1.800	730
	LOW	690	690	1.000	1.200	—
Screw Size	Machine Screw	1.4-2.5	2.0-3.0	2.3-3.0	2.3-3.0	2.0-4.0
	Tapping Screw	1.4-2.3	2.0-3.0	2.0-2.6	2.0-2.6	2.0-3.0
Bit Drive	HIOS Shank	H4	H4	H4	H5 and 5HEX	H5 and 5HEX
	HEX Shank	1/4HEX	H5 and 5HEX or 1/4HEX	H5 and 5HEX or 1/4HEX	1/4HEX	1/4HEX
Power Supply	T-45BL	○	○	○★	—	○★
	T-70BL	○	○	○★	○★	○★
Accessories	Bit (one each)	H4	+ #0 (Ø2.5×40mm) + #1 (Ø4.0×40mm)	+ #1 (Ø4.0×40mm) + #2 (Ø4.0×40mm)	+ #1 (Ø5.0×60mm) + #2 (Ø5.0×60mm)	
		H5	+ #1 (Ø5.0×60mm) + #2 (Ø5.0×60mm)	+ #1 (Ø5.0×60mm) + #2 (Ø5.0×60mm)		
		1/4HEX	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)
	Spring	White				
	Cord length (m)	2m(6P)	2m(6P)	2m(6P)	2m(6P)	2m(6P)
L-shaped HEX wrench			Width across flats: 5mm, 1 pc	Width across flats: 5mm, 1 pc	Width across flats: 5mm, 1 pc	Width across flats: 5mm, 1 pc

Use only 2(HI) power outlet with the ★models. These models may not perform properly on 1(LOW) power outlet.

The 3-step procedure of "1-6-1" makes it easy to configure settings so that the driver itself securely guards against improper screw fastening.



Detectable errors



Accessories

BLG-BZERO1 Accessories

Accessories

Accessories

Suction(Vacuum) Attachment for BLG Series

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A),(B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64.

Model	(A) Mouthpiece model	(B) Bit length	(C) Suction Attachment model
BLG-4000ZERO1		H4 60mm	BLGQ4-SET
BLG-5000ZERO1	F3-Standard 18mm	H4 40mm	BLQ5-SET/BLQ5-SET-ESD*
BLG-5000ZERO1-15		H4 60mm	BLQ5N-SET/BLQ5N-SET-ESD*

Note: The Suction Attachment cannot be used with 1/4HEX.

* ESD is anti-electrostatic

Please contact HIO'S distributors for the attachment for the BLG-5000ZERO1-18

Vertical Screwdriver Operating Stand

VMS-40/VMS-50

The stand keeps the screwdriver in a vertical position, allowing accurate screw fastening.

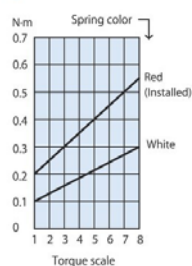


Compatible screwdrivers:
BLG-4000ZERO1
BLG-5000ZERO1 Series

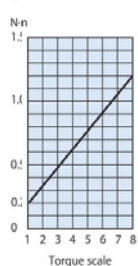
See P.46 for details.

Output torque guide (HI input)

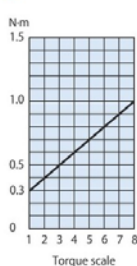
BLG-4000ZERO1



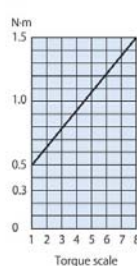
BLG-5000ZERO1



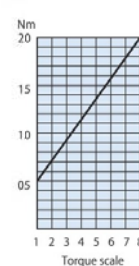
BLG-5000ZERO1-15



BLG-5000ZERO1-18



BLG-5000ZERO1-HT



*There are two types of spring for torque adjustment: for HI (originally fixed to the unit) and for Low (accessory). Use one of them depending on your operating conditions.

Brushless® Screwdriver

BLG Series

(DC Type)



The New Industry Benchmark in Electric Torque Drivers

- The BLG series has the performance, quality and durability equivalent to existing brushless screwdrivers (e.g., BL series), plus better maintenance efficiency.
- You can smoothly switch from a brushed screwdriver (e.g., CL and « series) to a brushless screwdriver (e.g., BLG series) without significant cost increase.

Lever Start Type

Lever Start Type

Unit : mm

BLG-4000



Note: CCC certified models have different specification and order codes from the standard models. Please contact HIOS distributors before ordering.

Two-way (Push/Lever) Start Type

Two-way Start System

Unit : mm

BLG-5000



Hi-speed rotation

BLG-5000-15



Hi-speed rotation

BLG-5000-18



Hi-torque

BLG-5000-HT



BLG series Specifications

Specifications

Model Name		BLG-4000	BLG-5000	BLG-5000-15	BLG-5000-18	BLG-5000-HT
Output Torque Range	N·m	0.1 - 0.55	0.2 - 1.2	0.3 - 1.0	0.5 - 1.5	0.5 - 2.0
	lbf·in	0.9 - 48	1.7 - 10	2.6 - 10	4.3 - 13	4.3 - 17
	(kgf·cm)	(1 - 5.5)	(2 - 12)	(3 - 10)	(5 - 15)	(5 - 20)
Torque Switching		Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment
Unloaded Rotation		1,000	1,000	1,500	1,800	730
Speed (r.p.m) ±10%		LOW	690	1,000	1,200	—
Screw Size (mm)	Machine Screw	1.4 - 2.6	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 4.0
	Tapping Screw	1.4 - 2.3	2.0 - 3.0	2.0 - 2.6	2.0 - 2.6	2.0 - 3.0
Bit Drive	HIOS Shank	H4	H4	H4	H5 & SHEX	H5 & SHEX
	HEX Shank	1/4HEX	H5 and SHEX or 1/4HEX	H5 and SHEX or 1/4HEX	1/4HEX	1/4HEX
Power Supply	T-45BL	○	○	○★	—	○★
	T-70BL	○	○	○★	○★	○★
Accessories	Bit (one each)	H4	+ # 0 (Ø1.5×40mm) + # 1 (Ø4.0×40mm)	+ # 1 (Ø4.0×40mm) + # 2 (Ø4.0×40mm)	+ # 1 (Ø5.0×60mm) + # 2 (Ø5.0×60mm)	+ # 1 (Ø5.0×60mm) + # 2 (Ø5.0×60mm)
		H5	+ # 1 (Ø5.0×60mm) + # 2 (Ø5.0×60mm)	+ # 1 (Ø5.0×60mm) + # 2 (Ø5.0×60mm)		
		1/4HEX	+ # 1 (Ø5.0×50mm) + # 2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ # 1 (Ø5.0×50mm) + # 2 (Ø5.0×50mm) — (Ø5.0×50mm)		
	Spring	White spring				
Cord length (m)		1.5m(5P)	1.5m(5P)	1.5m(5P)	1.5m(5P)	1.5m(5P)
L-shaped HEX wrench			Width across flats: 5mm, 1pc	Width across flats: 5mm, 1pc	Width across flats: 5mm, 1pc	Width across flats: 5mm, 1pc

Use only 2(HI) power outlet with the ★models. These models may not perform properly on 1(LOW) power outlet.



Suction(Vacuum) Attachment for BLG Series

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A),(B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64.

Model	(A) Mouthpiece model	(B) Bit length	(C) Suction Attachment model
BLG-4000	F3-Standard 18mm	H4 60mm	BLGQ4-SET
BLG-5000		H4 40mm	BLQ5-SET/BLQ5-SET-ESD*
BLG-5000-15		H4 60mm	BLQ5N-SET/BLQ5N-SET-ESD*

Note: The Suction Attachment cannot be used with 1/4HEX.

* ESD is anti-electrostatic

Please contact HIOS distributors for the attachment for the BLG-5000BC1-18

Vertical Screwdriver Operating Stand

VMS-40/VMS-50

The stand keeps the screwdriver in a vertical position, allowing accurate screw fastening.



Compatible screwdrivers:

BLG-4000BC1
BLG-5000 Series

▶ See P.46 for details.



For use with HIOS Screw Counters

BLG-OPC
RoHS 10 CE CCC

Models:
BLG-4000-OPC BLG-5000-OPC-18*
BLG-5000-OPC BLG-5000-OPC-HT*
BLG-5000-OPC-15*

These models prevent skipping screw fastening in combination with the HIOS Screw Counter.

- They have a function to output positive rotation, reverse rotation and Torque-up (finish) signals.

Compatible counters

Power supply with HIOS Screw Counter
BLOP-STC3

Separate Counter
BLOP-SC1



* CCC not applicable

▶ See P. 47-50 for details.

I/O Signal Relay Box

BLOP-AF

A complete signal from the screwdriver can be easily extracted and used by connecting this Relay box to an external device such as a PLC.



Compatible screwdrivers:

BLG-4000 (OPC)
BLG-5000 Series (OPC)

▶ See P.30 for details.

BLG - OPC Series I/O Signal Relay Box for Automation

BLOP-OST2

By connecting this box to a set of the BL-OPC or BLG-OPC and its power supply, the driver can start / stop by inputting D-ACT signals into the CN3 connector with external devices.



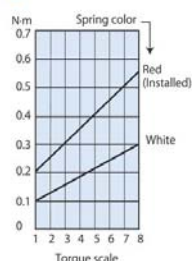
Compatible screwdrivers:

BLG-4000 (OPC)
BLG-5000 Series (OPC)

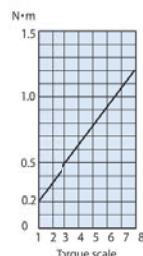
▶ See P.30 for details.

Output torque guide (HI input)

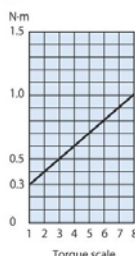
BLG-4000



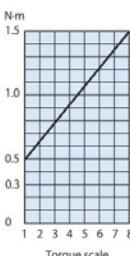
BLG-5000



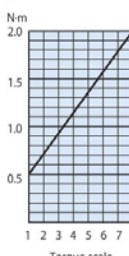
Hi-speed rotation BLG-5000-15



Hi-speed rotation BLG-5000-18



Hi-torque BLG-5000-HT



*There are two types of spring for torque adjustment: for HI (originally fixed to the unit) and for Low (accessory). Use one of them depending on your operation conditions.



The first Brushless Electric Torque driver in the world!

- There is no carbon powder emission and maintains a dean environment.
- Significant durability improvement considerably reduces maintenance cost.
- Reduces the temperature rise of the motor by about 30% and mitigates problems related to heating.
- Two types of start systems (push and lever) are available with one screwdriver (except BL-2000).
- High-speed rotation shortens screw fastening time and improves work efficiency.

Two-way Start System

Two-way Start System

BL-2000 (Lever Start)

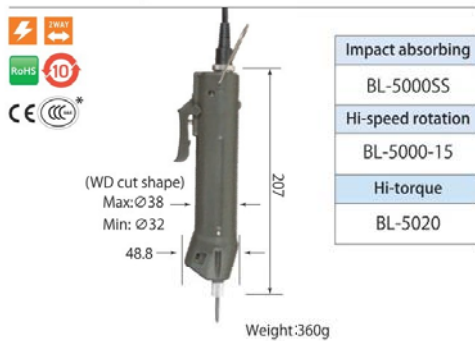


BL-3000 Two-way(Push/Lever)

Unit : mm



BL-5000 Two-way(Push/Lever)



BL-7000 Two-way(Push/Lever)



Note: CCC certified models have different specification and order codes from the standard models. Please contact your HIOS distributor before ordering.

BL Series Specifications

Specifications

Model Name		BL-2000 BL-2000SS	BL-3000 BL-3000SS*	BL-5000 BL-5000SS	BL-5000-15	BL-5020	BL-7000	BL-7000HT
Output torque range	N·m	0.02 - 0.2	0.2 - 0.55 0.2-0.35*	0.2 - 1.2	0.3 - 1.2	0.5 - 2.0	0.7 - 2.8	0.7 - 3.5
	lbf·in	0.17 - 1.7	1.7 - 4.8 1.7 - 4.8*	1.7 - 10	2.6 - 10	4.3 - 17.4	6.1 - 24	6.1 - 30
	(kgf·cm)	(0.2 - 2)	(2 - 5.5) (2-3.5)*	(2 - 12)	(3 - 12)	(5 - 20)	(7 - 28)	(7 - 35)
Torque switching		Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment	Stepless Adjustment
Unloaded Rotation Speed (r.p.m) ±10%	HI	990	980	900	1,500	750	960	700
	LOW	650	680	590	1,000	500	630	500
Screw Size (mm)	Machine Screw	1.0 - 2.3	1.7 - 2.3	2.0 - 3.0	2.0 - 3.0	2.0 - 4.0	2.6 - 5.0	2.6 - 4.0
	Tapping Screw	1.0 - 2.0	2.0 - 2.3	2.0 - 3.0	2.0 - 2.6	2.0 - 3.0	2.6 - 4.0	2.6 - 4.0
Bit Drive	HIOS Shank	H4	H4	H4		H5 and 5HEX		
	HEX Shank	—	1/4HEX	H5 and 5HEX or 1/4HEX		1/4HEX		
Power Supply	T-45BL	○	○	○	○*	○*	—	—
	T-70BL	○	○	○	○*	○*	○	○
Accessories	Bit (one each)	H4	+ #0 (2.0×40mm) + #0 (2.5×40mm)	+ #1 (2.0×40mm) + #2 (2.0×40mm)	+ #1 (2.0×40mm) + #2 (2.0×40mm)	+ #1 (2.0×40mm) + #2 (2.0×40mm)	+ #1 (2.0×40mm) + #2 (2.0×40mm)	+ #1 (2.0×40mm) + #2 (2.0×40mm)
		H5	—	+ #1 (2.0×50mm) + #2 (2.0×50mm)	+ #1 (2.0×50mm) + #2 (2.0×50mm)	+ #1 (2.0×50mm) + #2 (2.0×50mm)	+ #1 (2.0×50mm) + #2 (2.0×50mm)	+ #1 (2.0×50mm) + #2 (2.0×50mm)
		1/4 HEX	—	+ #1 (2.0×50mm) + #2 (2.0×50mm) — (2.0×50mm)	+ #1 (2.0×50mm) + #2 (2.0×50mm) — (2.0×50mm)	+ #1 (2.0×50mm) + #2 (2.0×50mm) — (2.0×50mm)	+ #1 (2.0×50mm) + #2 (2.0×50mm) — (2.0×50mm)	+ #1 (2.0×50mm) + #2 (2.0×50mm) — (2.0×50mm)
	Spring	Yellow spring						
	Cord length (m)	2m (5P) ESD design						
L-shaped HEX wrench		Width across flats: 5mm, 1 pc						

Use only 2(HI) power outlet with the *models. These models may not perform properly on 1(LOW) power outlet.

Suction(Vacuum) Attachment for BL Series

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A),(B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to: P. 63-64

Model	(A) Mouthpiece model	(B) Bit Length	(C) Suction Attachment model
BL-2000	F3-Standard 18mm	H4 60mm	CLQ2-SET/CLQ2-SET-ESD*
BL-3000	F3-Standard 18mm	H4 60mm	BLQ3N-SET/BLQ3N-SET-ESD*
BL-5000	F3-Standard 18mm	H4 40mm	BLQ5-SET/BLQ5-SET-ESD*
		H4 60mm	BLQ5N-SET/BLQ5N-SET-ESD*
BL-7000	F6-Standard 31mm	H5 80mm	BLQ7-SET/BLQ7-SET-ESD*

Note: The Suction Attachment cannot be used with 1/4HEX.

* ESD is anti-electrostatic

Suction + Anti-electrostatic

BLQ-ESD

Models: BLQ-3000ESD
BLQ-5000ESD
BLQ-5000ESD-15

Clean Room

BLQ-CR

Models: BLQ-2000CR
BLQ-3000CR
BLQ-5000CR
BLQ-5000CR-15

Anti-electrostatic

BL-ESD

Models: BL-3000ESD
BL-5000ESD
BL-5000ESD-15
BL-5020ESD

The screwdriver body is made from an anti-electrostatic material to prevent the generation of static electricity which is suitable for the assembly of precision equipment and electronic parts.

[Surface resistance: max. $10^9 \Omega$]

Clean Room + Anti-electrostatic

BLQ-CR-ESD

Models: BLQ-2000CR
BLQ-3000CR-ESD
BLQ-5000CR-ESD
BLQ-5000CR-ESD-15
BLQ-7000CR-ESD

In addition to anti-electrostatic, two vacuum units are installed in both the body and the Suction Attachment to remove powder dust generated in screw fastening.

[Class 100 equivalent]

[Surface resistance: max. $10^9 \Omega$]

For use with HIOS Screw Counter

BL-OPC

Models: BL-2000-OPC
BL-3000-OPC
BL-5000-OPC

These models prevent skipping screw fastening in combination with the HIOS Screw Counter.

- They have a function to output positive rotation, reverse rotation and Torque-up (finish) signals.

Compatible Counters

Power supply with HIOS Screw Counter

BL-OPC-SC3

Separate Counter

BL-OPC-SC1

* BL-3000-OPC excluded.

▶ See P. 47-50 for details.

Accessories & Applicable Screwdrivers

BL Accessories & Applicable Drivers

Pistol Attachment

PAB-70

This attachment converts a screwdriver to a pistol-style screwdriver, most suitable for horizontal screw fastening.



Compatible screwdrivers: BL-7000 Series

I/O Signal Relay Box

BLOP-AF

A complete signal from the screwdriver can be easily extracted and used by connecting this Relay box to an external device such as a PLC.



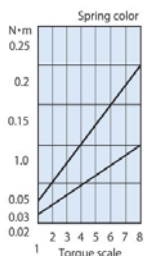
Compatible screwdrivers: BL-4000 (OPC)
BL-5000 Series (OPC)

▶ See P.30 for details.

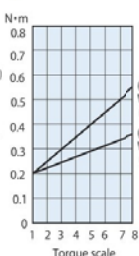
Output torque guide (HI input)

(Including PS type)

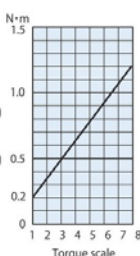
BL-2000 BL-2000SS



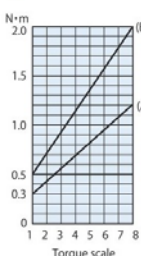
BL-3000 (A) BL-3000SS (B)



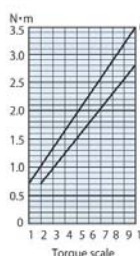
BL-5000 BL-5000SS



BL-5000-15 (A) BL-5020 (B)



BL-7000 (A) BL-7000HT (B)



* There are two types of spring for torque adjustment: for HI (originally fixed to the unit) and for Low (accessory). Use one of them depending on your operating conditions.

BLG - OPC Series

I/O Signal Relay Box for Automation

BLOP-OST2

By connecting this box to a set of the BL-OPC or BLG-OPC and its power supply, the driver can start / stop by inputting D-ACT signals into the CN3 connector with external devices.



Compatible screwdrivers: BL-4000 (OPC)
BL-5000 Series (OPC)

▶ See P.30 for details.



Light torque, small screw applications .

- This screwdriver is specially designed to deliver accurate, low torque for fastening small sized screws.
- Compact and light-weight design makes it easy for female operators to use.
- Model CL-2C00 has a coreless motor with an especially long life.
- With safety design running on low voltage and direct current, these screwdrivers can be used safely.

Lever Start Type

Lever Start Type

Push-to-Start Type

Push-to-Start Type

CL-2000



CL-3000



CL-4000PS



CL-4000



Note: CCC certified models have different specification and order codes from the standard models.
Please contact HIOS distributors before ordering.

CL Series Specifications

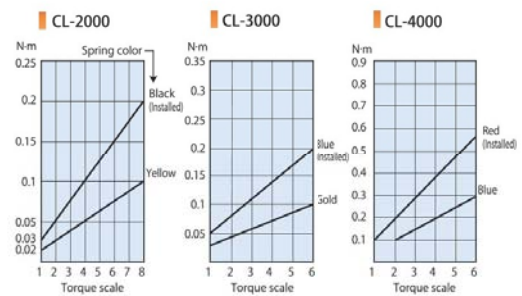
Specifications

Lever Start-Type Model		CL-2000	CL-3000	CL-4000
Push-to-Start-Type Model				CL-4000PS
Output	N·m	0.02 - 0.2	0.03 - 0.2	0.1 - 0.55
Torque Range	lbf·in	0.17 - 1.7	0.3 - 1.7	0.9 - 4.8
	(kgf·cm)	(0.2 - 2)	(0.3 - 2)	(1 - 5.5)
Torque Switching		Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation	HI	680	1,000	1,000
Speed (r.p.m)±10%	LOW	490	670	690
Screw Size	Machine Screw	1.0 - 2.3	1.0 - 2.0	1.4 - 2.6
	Tapping Screw	1.0 - 2.0	1.0 - 1.7	1.4 - 2.3
Bit Drive	HIOS Shank	H4	H4	H4
	HEX Shank	—	—	1/4HEX or 5HEX
Power Supply	CLT-45	○	○	○
	CLT-60	○	○	○
	CLT-100*	○	○	○
	MC-70L*	○	○	○
Accessories	Bit (one each)	H4 + #0 (Ø2.0×40mm) + #0 (Ø2.5×40mm)	+ #0 (Ø2.0×40 mm) + #0 (Ø2.5×40 mm)	+ #0 (Ø2.5×40 mm) + #1 (Ø4.0×40 mm) + #0 (Ø5.0×50 mm) + #2 (Ø5.0×50 mm) — (Ø5.0×50 mm)
	1/4HEX			
Spring		Yellow	Gold	Blue
Cord length (m)		1.5 m (5P)	1.5m (5P)	1.5m (5P)
Carbon brush (Order code)			1 pair (A45-0420)	1 pair (CL4-0420)

*CLT-100 and MC-70L are AC100V Only.

Output torque guide (HI input)

(Including PS type)



Notes:

- The carbon brush for CL-2000 is enclosed in the motor and cannot be replaced. Although the life of the carbon brush depends on use conditions, as a guide, if you tighten about 6,000 screws a day, you need to replace the carbon brush 3 to 4 years after you started using it. Please contact HIOS distributors for maintenance and repair.



Standard to medium torque applications

- This screwdriver has been a long-selling product thanks to its operability, reliability and stability.
- With low DC voltage these screwdrivers can be used safely.
- The grip design helps operators to reduce fatigue caused by long hours operation.

Lever Start Type

Lever Start Type

CL-6000



CL-6500



Unit : mm

CL-7000



Push-to-Start Type

Push-to-Start Type

CL-6000PS



CL-6500PS



Unit : mm

CL-7000PS



Note: CCC certified models have different specification and order codes from the standard models.
Please contact HIO's distributors before ordering.

Also, the body color of the CCC certified CL-6500/CL-6500PS/CL-7000/CL-7000PS is different from that of the standard models. The body color of the CCC certified models is available on the page "CCC certified models" on our website.

CL Series Specifications

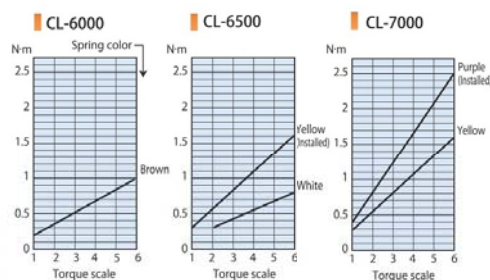
Specifications

Lever Start-Type Model		CL-6000	CL-6500	CL-7000
Push-to-Start-Type Model		CL-6000PS	CL-6500PS	CL-7000PS
Output	N·m	0.2 - 1	0.3 - 1.6	0.3 - 2.5
Torque Range	lbf·in	1.7 - 3.8	2.6 - 14	2.6 - 22
	(kgf·cm)	(2 - 10)	(3 - 16)	(3 - 25)
Torque Switching		Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation	HI	800	900	750
Speed (r.p.m) ±10%	LOW	500	600	-
	-	-	-	-
Screw Size	Machine Screw	2.0 - 3.0	2.0 - 4.0	2.0 - 5.0
	Tapping Screw	2.0 - 2.6	2.0 - 3.0	2.0 - 4.0
Bit Drive	HIOS Shank	H5	H5	H5
	HEX Shank	1/4HEX or 5/16HEX	1/4HEX or 5/16HEX	1/4HEX or 5/16HEX
Power Supply	CLT-45	○	○	—
	CLT-60	○	○	○
	CLT-100*	○	○	—
	MC-70L*	○	○	○
Accessories	Bit (one each)	H5	+ #1 (5.0×50 mm) + #2 (5.0×60 mm)	+ #1 (5.0×60 mm) + #2 (5.0×60 mm)
		1/4HEX	+ #1 (5.0×50 mm) + #2 (5.0×50 mm) — (5.0×50 mm)	+ #1 (5.0×50 mm) + #2 (5.0×50 mm) — (5.0×50 mm)
	Spring	White	White	Yellow
	Cord length (m)	2 m (5P)	2 m (5P)	2 m (5P)
Carbon brush (Order code)		1 pair (CL65-0490)	1 pair (CL65-0490)	1 pair (CL65-0490)

*CLT-100 and MC-70L are AC100V Only.

Output torque guide (HI input)

(Including PS type)



The unloaded rotation speed (r.p.m.) in the specifications is measured when the screwdriver is operated with the HIOS standard power supply. Therefore, if you use another power supply or when input voltage varies, the rotation speed will also vary. Please refer to the value in the specifications only as a guide.



High torque applications up to 5N·m (50kgf·cm).

- This driver can tighten high-torque required screws which are tightened by pneumatic screwdrivers.
- can always fasten screws with stable torque.
- The Shockless Stand absorbs reaction force created by the clutch.

Push-to-Start Type

Push-to-Start Type

Unit : mm

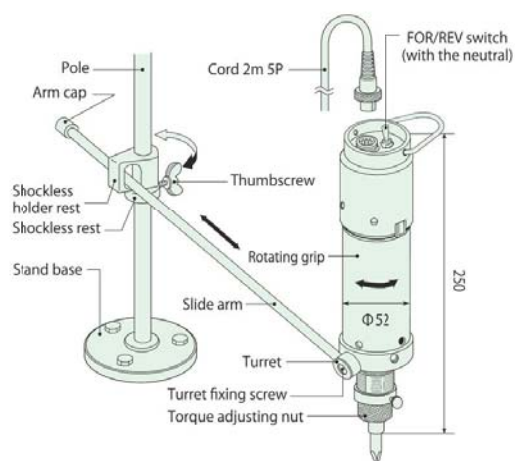
CL-9000 (with shockless stand)



Weight : 3,010g
(Driver Cord, Slide Arm : 2,360g)
(Pole, Stand Base : 650g)

Main Components of Shockless Stand

Unit : mm



Weight : 1,300 g
(body only)

Specifications

Slide arm length	530
Effective sliding range	475
Support rod height	570
Stand base	Height 8
	Diameter of fixing bolt hole Ø6
	Distance between fixing bolt holes 52 (one side of the equilateral triangle)

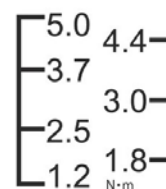
CL Series Specifications

Specifications

Push-to-Start Type Model		CL-9000
Out put Torque Range	N·m	1.2 - 5
	lbf·in (kgf·cm)	10 - 43 (12 - 50)
Torque Switching		Stepless adjustment
Unloaded Rotation Speed (r.p.m.) ± 5%		530
Screw Size (mm)	Machine Screw	4.0 - 6.0
	Tapping Screw	4.0 - 6.0
Bit Drive	HEX shank	1/4HEX
Power Supply		CLT-80
Accessories	1/4HEX	+ #2 (Ø7.0×100mm) + #3 (Ø7.0 × 100mm)
	Stand ASSY	Pole, stand base shockless rest, thumbscrew (1pc each)
	Arm ASSY	Shockless holder, slide arm with arm cap, turret, turret fixing screw (1pc each)
	Cord Length(m)	2m (5P)
	Carbon brush (Order code)	1 pair (CL9-0410)

Scale of Output Torque

A label that indicates output torque values is placed on the body of CL-9000.



Suction(Vacuum)Attachment

CLQ

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A),(B) and (C) below needed to be purchased separately .

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 53-64.

Model	(A) Mouthpiece model	(B) Bit length	(C) Suction Attachment model
CLQ-2000	F3-Standard 18mm	H4 60mm	CLQ2-SET/CLQ2-SET-ESD*
CLQ-3000	F3-Standard 18mm	H4 60mm	CLQ4-SET/CLQ4-SET-ESD*
CLQ-4000	F3-Standard 18mm	H4 60mm	CLQ4-SET/CLQ4-SET-ESD*
CLQ-6000	F6-Standard 31mm	H5 80mm	CLQ65-SET/CLQ65-SET-ESD*
CLQ-6500	F6-Standard 31mm	H5 80mm	CLQ65-SET/CLQ65-SET-ESD*
CLQ-7000	F6-Standard 31mm	H5 80mm	CLQ65-SET/CLQ65-SET-ESD*

(Including PS type)

*ESD is anti-electrostatic

Note: The Suction Attachment cannot be used with 1/4HEX.



Anti-electrostatic

CL-ESD



The screwdriver body is made from an anti-electrostatic material to prevent the generation of static electricity which is suitable for the assembly of precision equipment and electronic parts.

[Surface resistance: max. $10^9 \Omega$]

Models:

CL-2000ESD CL-6000ESD
CL-3000ESD CL-6500ESD
CL-4000ESD CL-7000ESD

(Including PS Type)



Clean Room + Anti-electrostatic

CLQ-CR-ESD



In addition to anti-electrostatic, both the body and the Suction Attachment are tubed to remove powder dust generated in the body and in screw fastening.

[Class 100 equivalent]

[Surface resistance: max. $10^9 \Omega$]

Models:

CLQ-3000CR-ESD
CLQ-4000CR-ESD
CLQ-6000CR-ESD
CLQ-6500CR-ESD
CLQ-7000CR-ESD

(Including PS Type)

Related Products

Related Products

Noiseless Screwdriver

CL-NL



Electrical noise is more subdued than standard screwdrivers.

*This product is not CE certified.

Models:

CL-6500NL
CL-3000NL * CL-7000NL
CL-4000NL CL-9000NL
CL-6000NL *

(Including PS Type)

Power supply with HIOS Screw Counter

CLT-70STC3

Power supply with HIOS Screw Counter helps to prevent skipping screw fastening.



Compatible screwdrivers:
CL-2000 CL-3000 CL-4000 CL-6000
CL-6500 CL-7000 (Including PS Type)

Separate Counter

CLOP-SC1

Separate Counter helps to prevent skipping screw fastening.



► See P. 47-50 for details.

Accessories

Accessories

Pistol Attachment

PA-65

This attachment converts a screwdriver to a pistol-style screwdriver, most suitable for horizontal screw fastening.



Compatible screwdrivers:
CL-6000, CL-6500, CL-7000 (Including PS Type)

Angle Attachment

ANGL-Z (For HIOS H5 and 5HEX drive)

ANGLX-Z (For 1/4 HEX drive)

This attachment is most suitable when the available space is very small for screw fastening. The attachment can be fitted to the tip of the screwdriver.

* Always set the output torque at 1.2N·m or lower when you use this attachment.



Compatible screwdrivers:
CL-6000, CL-6500, CL-7000 (Lever Type only)

Push-to-Start Grip Attachment

PS-1

PS-1-ESD



This attachment converts a screwdriver from lever start to push-to-start.



Compatible screwdrivers:
CL-4000 (Image of fitting)

Brushed Screwdriver

SS Series
(DC Type)

For sensitive assemblies.

Soft stop screwdrivers.

- Designed to minimize the effects of vibrations or impacts to the assembly parts.
- Optimal tool for assembly of hard disks, liquid crystal displays, high-density boards or other precision parts.
- SS-2000 has superb durability thanks to a coreless motor.
- SS Series is noiseless as standard.

Lever Start Type

Lever Start Type

Push-to-Start Type

Push-to-Start Type

SS-2000



SS-3000



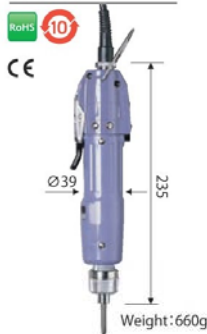
SS-4000



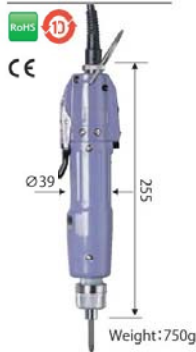
SS-4000PS



SS-6500

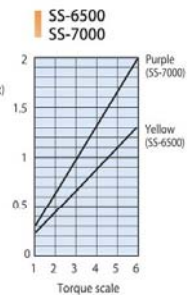
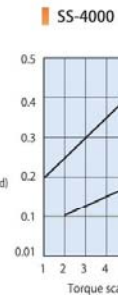
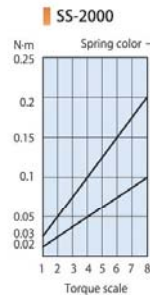


SS-7000



Output torque guide (HI input)

(Including PS type)



SS Series Specifications

Specifications

Lever Start-Type Model			SS-2000	SS-3000	SS-4000	SS-6500	SS-7000
Push-to-Start-Type Model					SS-4000PS		
Output	N·m		0.02 - 0.2	0.02 - 0.2	0.1 - 0.45	0.25 - 1.3	0.3 - 2
	lbf·in		0.17 - 1.7	0.3 - 1.7	0.9 - 3.9	2.2 - 11	2.6 - 17
Torque Rang		(kgf·cm)	(0.2 - 2)	(0.3 - 2)	(1 - 4.5)	(2.5 - 13)	(3 - 20)
Torque Switching			Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation	HI		680	1,000	1,000	900	750
	LOW		490	670	690	600	—
Speed (r.p.m) ±10%	Machine Screw		1.0 - 2.3	1.0 - 2.0	1.4 - 2.6	2.0 - 3.0	2.0 - 4.0
	Tapping Screw		1.0 - 2.0	1.0 - 1.7	1.4 - 2.3	2.0 - 3.0	2.0 - 4.0
Bit	HIOS Shank		H4	H4	H4	H5	H5
Drive	HEX Shank		—	—	1/4HEX or 5HEX	1/4HEX or 5HEX	1/4HEX or 5HEX
Power Supply	CLT-45		○	○	○	○	—
	CLT-60		○	○	○	○	○
	CLT-100*		○	○	○	○	—
	MC-70L*		○	○	○	○	○
Accessories	Bit (one each)	H4	+ #0 (Ø2.0×40mm) + #0 (Ø2.5×40mm)	+ #0 (Ø2.0×40 mm) + #0 (Ø2.5×40 mm)	+ #0 (Ø2.5×40 mm) + #1 (Ø4.0×40 mm)		
		H5				+ #1 (Ø5.0×60 mm) + #2 (Ø5.0×60 mm)	+ #1 (Ø5.0×60 mm) + #2 (Ø5.0×60 mm)
		1/4HEX			+ #1 (Ø5.0×50 mm) + #2 (Ø5.0×50 mm) — (Ø5.0×50 mm)	+ #1 (Ø5.0×50 mm) + #2 (Ø5.0×50 mm) — (Ø5.0×50 mm)	+ #1 (Ø5.0×50 mm) + #2 (Ø5.0×50 mm) — (Ø5.0×50 mm)
	Spring		Yellow	Gold	Blue		
	Cord length (m)		1.5 m (5P)	1.5m (5P)	1.5m (5P)	2m (5P)	2m (5P)
	Carbon brush (order code)			1pair (A45-0420)	1pair (CL4-0420)	1pair (CL65-0490)	1pair (CL65-0490)

*CLT-100 and MC-70L are AC100V Only.

Note:
The carbon brush for SS-2000 is enclosed in the motor and cannot be replaced. Although the life of the carbon brush depends on use conditions, as a guide, if you tighten about 6,000 screws a day, you need to replace the carbon brush 3 to 4 years after you started using it. Please contact HIOS distributors for maintenance and repair.

The unloaded rotation speed (r.p.m.) in the specifications is measured when the screwdriver is operated with the HIOS standard power supply. Therefore, if you use another power supply or when input voltage varies, the rotation speed will also vary. Please refer to the value in the specifications only as a guide.

Suction(Vacuum)Attachment

SSQ



By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A),(B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64.

Model	(A) Mouthpiece model	(B) Bit length	(C) Suction Attachment model
SSQ-2000	F3-Standard 18mm	H4 60mm	CLQ2-SET/CLQ2-SET-ESD*
SSQ-3000	F3-Standard 18mm	H4 60mm	CLQ4-SET/CLQ4-SET-ESD*
SSQ-4000	F3-Standard 18mm	H4 60mm	CLQ4-SET/CLQ4-SET-ESD*
SSQ-6500	F6-Standard 31mm	H5 80mm	CLQ65-SET/CLQ65-SET-ESD*
SSQ-7000	F6-Standard 31mm	H5 80mm	CLQ65-SET/CLQ65-SET-ESD*

(Including PS Type)

*ESD is anti-electrostatic

Note: The Suction Attachment cannot be used with 1/4HEX.



Anti-electrostatic

SS-ESD



The screwdriver body is made from an anti-electrostatic material to prevent the generation of static electricity which is suitable for the assembly of precision equipment and electronic parts.

[Surface resistance: max. $10^9\Omega$]

Models:
SS-2000ESD SS-6500ESD
SS-3000ESD SS-7000ESD
SS-4000ESD (Including PS Type)



Clean Room + Anti-electrostatic SSQ-CR-ESD



In addition to anti-electrostatic, both the body and the Suction Attachment are tubed to remove powder dust generated in the body and in screw fastening.

[Class 100 equivalent]

[Surface resistance: max. $10^9\Omega$]

Models:
SSQ-2000CR-ESD
SSQ-3000CR-ESD
SSQ-4000CR-ESD
SSQ-6500CR-ESD
SSQ-7000CR-ESD
(Including PS Type)

Related Products

Power supply with HIOS Screw Counter CLT-70STC3

Power supply with HIOS Screw Counter helps to prevent skipping screw fastening.



Compatible screwdrivers:
SS-2000 SS-3000 SS-4000
SS-6500 SS-7000 (Including PS Type)

Separate Counter CLOP-SC1

Separate Counter helps to prevent skipping screw fastening.



▶ See P. 47-50 for details.

Related Products

Accessories

Accessories

Pistol Attachment PA-65

This attachment converts a screwdriver to a pistol-style screwdriver, most suitable for horizontal screw fastening.



Compatible screwdrivers:
SS-6500, SS-7000 (Including PS Type)

Push-to-Start Grip Attachment

PS-1 PS-1-ESD



This attachment converts a screwdriver from lever start to push-to-start.



Compatible screwdrivers:
SS-4000

(Image of fitting)



High speed rotation

- α-Series increases operating efficiency by reducing screw fastening time with high speed rotation (1,700 rpm).
- A low DC voltage power safety design.
- α-Series is noiseless as standard.

Lever Start Type

Lever Start Type

Push-to-Start Type

Push-to-Start Type

α-4500



α-5000



Unit: mm

α-4500PS



α-5000PS



Unit: mm

α-6500



α-6500PS



Note: CCC certified models have different specification and order codes from the standard models. Please contact HIOS distributors before ordering.

α-Series Specifications

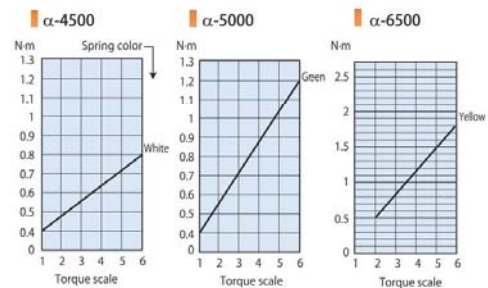
Specifications

Lever Start Type Model		α-4500	α-5000	α-6500	
Push-to-Start Type Model		α-4500PS	α-5000PS	α-6500PS	
Output	N·m	0.4 - 0.8	0.4 - 1.2	0.5 - 1.8	
Torque Range	lbf·in	3.5 - 7	3.5 - 10	4.3 - 16	
	(kgf·cm)	(4 - 8)	(4 - 12)	(5 - 18)	
Torque Switching		Stepless adjustment	Stepless adjustment	Stepless adjustment	
Unloaded Rotation	HI	1,700	1,000	1,700	
Speed (r.p.m) ±10%	LOW	1,200	700	—	
Screw	Machine Screw	2.0 - 3.0	2.3 - 3.0	3.0 - 4.0	
Size(mm)	Tapping Screw	2.0 - 2.6	2.3 - 3.0	2.6 - 3.0	
Bit	HIOS Shank	H4	H4	H5	
Drive	HEX Shank	1/4HEX or 5HEX	1/4HEX or 5HEX	1/4HEX or 5HEX	
Power Supply	CLT-45	○	○	—	
	CLT-60	○	○	○	
	CLT-100*	○	○	—	
	MC-70L*	○	○	—	
Accessories	Bit (one each)	H4	+ #1 (∅4.0×40 mm) + #2 (∅4.0×40 mm)	+ #1 (∅4.0×40 mm) + #2 (∅4.0×40 mm)	
		H5			
	1/4HEX	+ #1 (∅5.0×50 mm) + #2 (∅5.0×50 mm) — (∅5.0×50 mm)	+ #1 (∅5.0×50 mm) + #2 (∅5.0×50 mm) — (∅5.0×50 mm)	+ #1 (∅5.0×50 mm) + #2 (∅5.0×50 mm) — (∅5.0×50 mm)	
			1.5 m (5P)	1.5 m (5P)	2 m (5P)
	Carbon brush (order code)		1pair (A45-0420)	1pair (A45-0420)	1pair (CL65-0490)

*CLT-100 and MC-70L are AC100V Only.

Output torque guide (HI input)

(Including PS type)



The unloaded rotation speed (r.p.m.) in the specifications is measured when the screwdriver is operated with the HIOS standard power supply. Therefore, if you use another power supply or when input voltage varies, the rotation speed will also vary. Please refer to the value in the specifications only as a guide.

Suction(Vacuum)Attachment

αQ



By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A),(B) and (C) below needed to be purchased separately .

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64.

Model	(A) Mouthpiece model	(B) Bit length	(C) Suction Attachment model
αQ-4500	F3-Standard 18mm	H4 60mm	CLQ4-SET / CLQ4-SET-ESD*
αQ-5000	F3-Standard 18mm	H4 60mm	CLQ4-SET / CLQ4-SET-ESD*
αQ-6500	F6-Standard 31mm	H5 80mm	CLQ65-SET / CLQ65-SET-ESD*

(Including PS Type)

*ESD is anti-electrostatic

Note: The Suction Attachment cannot be used with 1/4HEX.



Anti-electrostatic

αQ-ESD



The screwdriver body is made from an anti-electrostatic material to prevent the generation of static electricity which is suitable for the assembly of precision equipment and electronic parts.

[Surface resistance: max. 10⁹Ω]

Models:
αQ-4500ESD αQ-6500ESD
αQ-5000ESD (Including PS Type)



Clean Room + Anti-electrostatic

αQ-CR-ESD



In addition to anti-electrostatic, both the body and the Suction Attachment are tubed to remove powder dust generated in the body and in screw fastening.

[Class 100 equivalent]

[Surface resistance: max. 10⁹Ω]

Models:
αQ-4500CR-ESD
αQ-5000CR-ESD
αQ-6500CR-ESD
(Including PS Type)

* Push-to-start grip attachment PS-1-ESD (anti-electrostatics) is attached to αQ-4500CR-ESD and αQ-5000CR-ESD.

Related Products

Related Products

Power supply with HIOS Screw Counter CLT-70STC3

Power supply with HIOS Screw Counter helps to prevent skipping screw fastening.



Compatible screwdrivers:
αQ-4500, αQ-5000, αQ-6500
(Including PS Type)

Separate Counter CLOP-SC1

Separate Counter helps to prevent skipping screw fastening.



▶ See P. 47-50 for details.

Accessories

Accessories

Pistol Attachment PA-65

This attachment converts a screwdriver to a pistol-style screwdriver, most suitable for horizontal screw fastening.



Compatible screwdrivers:
αQ-6500 (Including PS Type)

Angle Attachment ANGL-Z (For HIOS H5 and 5HEX drive) ANGLX-Z (For 1/4 HEX drive)

This attachment is most suitable when the available space is very small for screw tightening. The attachment can be fitted to the tip of the screwdriver.



Compatible screwdrivers:
αQ-6500 (Lever Type only)

* Always set the output torque at 1.2N·m or lower when you use this attachment.

Push-to-Start Grip Attachment PS-1 PS-1-ESD

This attachment converts a screwdriver from lever start to push-to-start.



Compatible screwdrivers:
αQ-4500, αQ-5000

(Image of fitting)

For DC screwdrivers

Power Supply

Exclusive power supply is required for HIOS DC screwdrivers.

- Exclusive power supply converts the electric current from AC outlet (on the primary side) to low-voltage output (HI: DC30V) or (LOW: about DC20V) to supply it to the screwdriver.
- Safe and quiet rotation.
- Please use HIOS screwdriver in combination with HIOS power supply for safe screw tightening.
- Stable power supply with multiple inputs (AC100V to 240V).
(Not applicable to CLT-100 and MC-70L)

Power supply for HIOS Brushless screwdrivers

Combination of power supply and screwdriver

Number of connectable screwdrivers		1 unit	
Power supply		T-45BL	T-70BL
Screwdriver (Including OPC type)			
PG Series	PG-3000	—	●
	PG-5000	—	●
	PG-7000	—	●
BLG-BC2 Series BLG-BC1 Series BLG-ZERO1 Series BLG Series	BLG-4000系	●	●
	BLG-5000系	●*	●
BL Series	BL-2000	●	●
	BL-3000	●	●
	BL-5000	●	●
	BL-7000	—	●

*Not applicable to BLG-5000BC2-18, BLG-5000BC1-18, BLG-5000ZERO1-18 and BLG-5000-18

Plug type

Type A 100V		Type C 220V-240V	
Type A-1 100V		Type BF 220V-240V	
Type A-2 120V		Type S 220V-240V	
Type A-3 220V-240V			

Model: T-45BL (for one screwdriver)		
Compatible screwdrivers		
BLG-BC2 Series BLG-BC1 Series BLG-ZERO1 Series BLG Series BL Series (Including OPC type)		
Primary input power source	AC100-240V (47-63 Hz)	
Secondary output voltage	HI(2): DC30V, LOW(1): DC20V (2-step switchable)	
External dimensions (mm)	71.5(W) × 146(D) × 42.6 (H) mm	
Weight (g)	320 g	
Accessories	Power supply cord 1.8m (1pc), Flat 2P conversion plug (1pc) (only for 100V), Mounting hardware (2pcs), Mounting screws (4pcs)	
Plug type	A A-2 A-3/C/BF/S	
Compatible screwdriver	BLG-BC2 Series	BLG-4000BC2, BLG-5000BC2, BLG-5000BC2-15*, BLG-5000BC2-HT*
	BLG-BC1 Series	BLG-4000BC1, BLG-5000BC1, BLG-5000BC1-15*, BLG-5000BC1-HT*
	BLG-ZERO1 Series	BLG-4000ZERO1, BLG-5000ZERO1, BLG-5000ZERO1-15*, BLG-5000ZERO1-HT*
	BLG-BLG Series	BLG-4000, BLG-5000, BLG-5000-15*, BLG-5000-HT*
	BL Series	BL-2000, BL-2000SS, BL-3000, BL-3000SS, BL-5000, BL-5000SS, BL-5000-15*, BL-5020*

Use only 2(HI) power outlet with the ★models. These models may not perform properly on 1(LOW) power outlet.

Model: T-70BL (for one screwdriver)		
Compatible screwdrivers		
PG Series BLG-BC2 Series BLG-BC1 Series BLG-ZERO1 Series BLG Series BL Series (Including OPC type)		
Primary input power source	AC100-240V (47-63 Hz)	
Secondary output voltage	HI(2): DC30V, LOW(1): DC20V (2-step switchable)	
External dimensions (mm)	88(W) × 210(D) × 52 (H) mm	
Weight (g)	685 g	
Accessories	Power supply cord 1.8m (1pc), Flat 2P conversion plug (1pc) (only for 100V), Mounting hardware (2pcs), Mounting screws (4pcs)	
Plug type	A A-2 A-3/C/BF/S	
Compatible screwdriver	PG Series	PG-3000, PG-5000, PG-7000
	BLG-BC2 Series	BLG-4000BC2, BLG-5000BC2, BLG-5000BC2-15*, BLG-5000BC2-18*, BLG-5000BC2-HT*
	BLG-BC1 Series	BLG-4000BC1, BLG-5000BC1, BLG-5000BC1-15*, BLG-5000BC1-18*, BLG-5000BC1-HT*
	BLG-ZERO1 Series	BLG-4000ZERO1, BLG-5000ZERO1, BLG-5000ZERO1-15*, BLG-5000ZERO1-18*, BLG-5000ZERO1-HT*
	BLG-BLG Series	BLG-4000, BLG-5000, BLG-5000-15*, BLG-5000-18*, BLG-5000-HT*
BL Series	BL-2000, BL-2000SS, BL-3000, BL-3000SS, BL-5000, BL-5000SS, BL-5000-15*, BL-5020*	

Power supply for Brushed screwdrivers

Combination of power supply with HIOS Brushed screwdriver

Number of connectable screwdrivers		1 unit		2 units		More than 2 MC-70L + CB-105 (SUB) Control box	
Power supply		CLT-45	CLT-60	CLT-80	CLT-100	MC-70L	
Screwdriver							
CL Series	CL-2000	●	●	—	●	●	(Max. 20 units)
	CL-3000	●	●	—	●	●	
	CL-4000	●	●	—	●	●	
	CL-6000	●	●	—	●	●	(Max. 10 units)
	CL-6500	●	●	—	●	●	
	CL-7000	—	●	—	—	●	
	CL-9000	—	—	●	—	—	
SS Series	SS-2000	●	●	—	●	●	(Max. 20 units)
	SS-3000	●	●	—	●	●	
	SS-4000	●	●	—	●	●	
	SS-6500	●	●	—	●	●	(Max. 10 units)
	SS-7000	—	●	—	—	●	
α Series	α-4500	●	●	—	●	●	(Max. 5 units)
	α-5000	●	●	—	●	●	
	α-6500	—	●	—	—	●	

Model: CLT-45 (for one screwdriver)		RoHS	10	CE	UL	CCC
Compatible screwdrivers						
CL Series SS Series α Series						
Primary input power source		AC100-240V (47-63Hz)				
Secondary output voltage		HI(2): DC30V, LOW(1): DC20V (2-step switchable)				
External dimensions (mm)		71.5(W)×146(D)×42.6(H) mm				
Weight (g)		330 g				
Accessories		Power supply cord 1.8m (1pc), Flat 2P conversion plug (1pc) (only for 100V), Mounting hardware (1pcs), Mounting screws (1pcs)				
Plug type		A A-2 A-3/C/BF/S				
Compatible screwdriver	CL Series	CL-2000, CL-1000, CL-4000, CL-6000, CL-6500				
	SS Series	SS-2000, SS-3000, SS-4000, SS-6500				
	α Series	α-4500, α-5000				

Model: CLT-60 (for one screwdriver)		RoHS	10	CE	UL	CCC
Compatible screwdrivers						
CL Series SS Series α Series						
Primary input power source		AC100-240V (47-63Hz)				
Secondary output voltage		HI(2): DC30V, LOW(1): DC20V (2-step switchable)				
External dimensions (mm)		88(W)×210(D)×52(H) mm				
Weight (g)		715 g				
Accessories		Power supply cord 1.8m (1pc), Flat 2P conversion plug (1pc) (only for 100V), Mounting hardware (2pcs), Mounting screws (4pcs)				
Plug type		A A-2 A-3/C/BF/S				
Compatible screwdriver	CL Series	CL-2000, CL-3000, CL-4000, CL-6000, CL-6500, CL-7000				
	SS Series	SS-2000, SS-3000, SS-4000, SS-6500, SS-7000				
	α Series	α-4500, α-5000, α-6500				

Model: CLT-80 (for one screwdriver)		RoHS	10	CE	UL	CCC
Compatible screwdrivers						
CL-9000 only						
Primary input power source		AC100V-240V (47/63Hz)				
Secondary output voltage		HI(2): DC30V, LOW(1): DC20V (2-step switches)				
External dimensions (mm)		114(W)×215(D)×52(H)mm				
Weight (g)		1.6kg				
Accessories		Power supply cord 1.8m (1pc), Flat 2P conversion plug (1pc) (only for 100V), Mounting hardware (2pcs), Mounting screws (4pcs)				
Plug type		A A-2 A-3/C/BF/S				
Compatible screwdriver		CL Series CL-9000				

Model: CLT-100 (for two screwdrivers)		RoHS	10	CE	UL	CCC
Compatible screwdrivers						
CL Series SS Series α Series						
Primary input power source		AC100V (50/60Hz)				
Secondary output voltage		HI(2): approx. DC30V, LOW(1): approx. DC20V (2-step switchable)				
External dimensions (mm)		182(W)×145(D)×132(H)mm				
Weight (g)		4kg				
Accessories		Power supply cord 1.8m with ground wire (1pc)				
Plug type		A-				
Compatible screwdriver	CL Series	CL-2000, CL-3000, CL-4000, CL-6000, CL-6500				
	SS Series	SS-2000, SS-3000, SS-4000, SS-6500				
	α Series	α-4500, α-5000				


Model: **MC-70L** (for multiple screwdrivers)

RoHS

10

Compatible screwdrivers

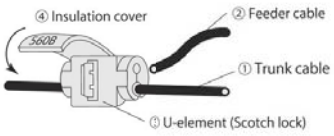
CL Series
SS Series
α Series



Primary input power source	AC100V (50/60Hz)	
Secondary output voltage	HI(2): about DC30V, LOW(1): about DC20V (2-step switchable)	
External dimensions (mm)	320(W) × 220(D) × 153(H)mm	
Weight (kg)	12kg	
Accessories	Power supply cord 1.8m with ground wire (1pc), 1 trunk cable 20m (1 set, black & red), Feeder cable 0.5m (10 sets, black & red), U-element (Scotch lock) #560B (20 pcs)	
Plug type	A-1	
Supported models	Up to 20 units	CL-2000, CL-3000, CL-4000, SS-2000, SS-3000, SS-4000
	Up to 10 units	CL-6000, CL-6500, CL-7000, SS-6500, SS-7000 α-4500, α-5000
	Up to 5 units	α-6500

How to use U-element (Scotch lock)

It is recommended to use U-element (included in this product) to attach a feeder cable to the trunk cable.




- While push-opening the slot at the bottom of the U-element, push in the trunk cable into the groove.
- Insert the end of the feeder cables through the upper hole from the right side and push it in all the way to the opposite end.
- Insert the end of the feeder cable through the upper hole from the right side and push it in all the way to the opposite end.
- Snap on the insulation cover.

Control Box **CB-105(SUB)**

RoHS

10

When you use MC-70L, you need to connect a control box (CB-105, optional) between a screwdriver and MC-70L. CB-105 is a compact control box to control the current in response to the clutch motion of a driver.



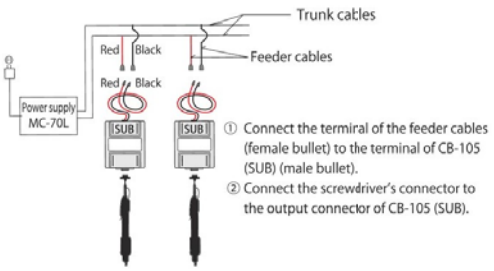
Primary input power source	DC20V/31V
Secondary output voltage	Same as the primary input power source
External dimensions (mm)	70(W) × 42(D) × 100 (H) mm
Weight (g)	240 g
Input cord length	2m with a bullet terminal (1pc, fixed to the body)
Accessories	Mounting hardware (2pcs)

《Accessories》 LEAD KIT for MC-70L Part No. MCCB-SET

- U-element 20pieces
- Feeder cables 10pieces (Black&Red)
- Trunk cables 20m 1piece each (Black&Red)

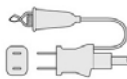
How to connect CB-105 (SUB)

There should be an appropriate clearance between the trunk cables laid along the assembly line and branch wires.



(Note)
The trunk cables (included) of MC-70L should be used with the length within 20m. If you make it longer than 20m, there may be voltage reduction and cause failure of the screwdriver.

● Plug type


Voltage	100V
Plug type	Type A-1
	

- 29 -

Special Power Supply • Relay Box

● Power supply with Complete Signal + I/O Signal Relay Box


Use these products to prevent screw tightening skipping or manufacturing line control including a screw counter.

Model: **BLOP-AF** (I/O Signal Relay Box) 

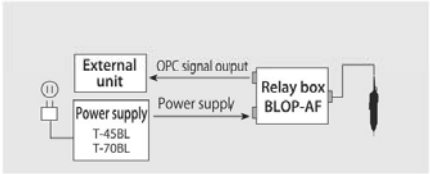
Output signals ● FOR (forward) ● REV (reverse) ● T-UP (finish)

Compatible screwdrivers


BLG Series (OPC type)
BL Series (OPC type)



The signals (FOR, REV and T-UP) from the screwdrivers of OPC-type screwdriver with signal output function, can be extracted with this unit to connect to an external unit such as a sequencer.




Primary input power source	DC30V
Secondary output voltage	Same as the primary input
External dimensions (mm)	70(W) × 42(D) × 100(H)mm
Weight (g)	160g
Accessories	Screwdriver cable 1.5m (1pc) Mounting hardware (2pcs), Plug for I/O
Compatible screwdrivers	BLG Series BLG-4000-OPC, B.G-5000-OPC
	BL Series BL-2000-OPC, BL-3000-OPC, BL-5000-OPC, BL-5020-OPC

Model: **BLOP-OST2** (I/O Signal Relay Box for Automation) 

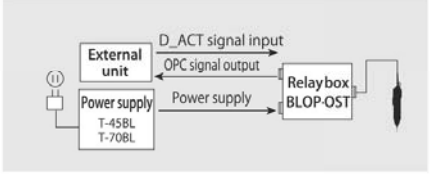
Input signals ● D_ACT(Start) Output signals ● FOR (forward) ● REV (reverse) ● T-UP (finish)

Compatible screwdrivers

ELG Series (OPC type)
EL Series (OPC type)



The signals (FOR, REV and T-UP) from the OPC-type screwdriver can be output with this box to connect to an external device such as a sequencer. Also power delivery to the screwdriver can be controlled.



Primary input power source	DC30V
Secondary output voltage	Same as the primary input
External dimensions (mm)	70(W) × 42(D) × 100(H)mm
Weight (g)	160g
Accessories	Screwdriver cable 1.5m (1pc) Mounting hardware (2pcs), Plug for I/O
Compatible screwdrivers	BLG Series BLG-4000-OPC, BLG-5000-OPC
	BL Series BL-2000-OPC, BL-3000-OPC, BL-5000-OPC, BL-5020-OPC



Energy saving and cost reduction can be achieved by reducing power consumption by about 50% (compared with conventional HIOS product).

- The temperature rise of the motor is reduced by about 30% and reduces errors caused by heating.
- Can be directly plugged into AC outlet.

Lever Start Type

Lever start type

Unit:mm

VB-1510

(100V)
(120V)
(220-240V)



Hi-speed rotation
VB-15 0-18



Weight: 526g

VB-1820/VB-3012

(100V)
(120V)
(220-240V) C E



Hi-speed rotation
and Hi-torque
VB-3020
(only for 100V)



Weight: 750g

VB-4504

(120V)
(220-240V) C E



Weight: 750g

Push-to-Start Type

Push-to- start type

Unit:mm

VB-1510PS

(100V)
(120V)
(220-240V)



Hi-speed rotation
VB-1510-18PS



Weight: 526g

VB-1820PS / VB-3012PS / VB-4504PS

(100V)
(120V)
(220-240V) C E



Hi-speed rotation
and Hi-torque
VB-3020PS
(only for 100V)



Weight: 754g

VB-4504PS (with Shockless Stand)

(100V)
(120V)
(220-240V) C E



Weight: 2,080g
(Driver Cord, Slide Arm: 1,430g)
(Pole, Stand Base: 650g)



VB Series Specifications

Specifications

Lever Start Model		VB-1510			VB-1510-18			VB-1820			VB-3012			VB-3020			VB-4504		
Push-to-Start Model		VB-1510PS			VB-1510PS-18			VB-1820PS			VB-3012PS			VB-3020PS			VB-4504PS		
AC input power (±5%)		100V	120V	220-240V	100V	120V	220-240V	100V	120V	220-240V	100V	120V	220-240V	100V			100V	120V	220-240V
Power consumption(W)*1		20W	20W	25W	20W	20W	25W	40W	40W	40W	40W	40W	32W	20W			40W	40W	32W
Output Torque Range	N·m	0.25 - 1.5			0.2 - 1			0.4 - 1.8			0.5 - 3			1 - 3			1 - 4.5		
	lbf·in	2.2 - 13			2.2 - 8.7			3.5 - 16			4.3 - 26			8.7 - 26			8.7 - 39.1		
	(kgf·cm)	(2.5 - 15)			(2 - 10)			(4 - 18)			(5 - 30)			(10 - 30)			(10 - 45)		
Torque Switching		Stepless adjustment			Stepless adjustment			Stepless adjustment			Stepless adjustment			Stepless adjustment			Stepless adjustment		
Unloaded Rotation Speed (r.p.m) ±10%		970			1,800			2,000			1,200			2,000			400		
Screw Size (mm)	Machine Screw	20 - 4.0			2.0 - 4.0			2.6 - 4.0			3.0 - 5.0			3.0 - 5.0			3.0 - 5.0		
	Tapping Screw	20 - 3.0			2.0 - 3.0			2.6 - 3.0			3.0 - 4.0			3.0 - 4.0			3.0 - 4.0		
Bit Drive	HIOS Shank	H4			H4			H5 and SHEX (both can be used)			H5 and SHEX (both can be used)			H5 and SHEX (both can be used)			—		
	HEX Shank	H5 and SHEX or 1/4HEX			H5 and SHEX or 1/4HEX			1/4HEX			1/4HEX			1/4HEX			1/4HEX		
AC Screwdriver Cord length		3m			3m			3m			3m			3m			3m		
Accessories	Bit (one each)	H4	+ #1 (Ø4.0×40mm)		+ #1 (Ø4.0×40mm)														
			+ #2 (Ø4.0×40mm)		+ #2 (Ø4.0×40mm)														
		H5	+ #1 (Ø5.0×60mm)		+ #1 (Ø5.0×60mm)		+ #1 (Ø5.0×60mm)		+ #1 (Ø5.0×60mm)		+ #1 (Ø5.0×60mm)		+ #1 (Ø5.0×60mm)		+ #1 (Ø5.0×60mm)				
			+ #2 (Ø5.0×60mm)		+ #2 (Ø5.0×60mm)		+ #2 (Ø5.0×60mm)		+ #2 (Ø5.0×60mm)		+ #2 (Ø5.0×60mm)		+ #2 (Ø5.0×60mm)		+ #2 (Ø5.0×60mm)				
	1/4HEX	+ #1 (Ø5.0×50mm)		+ #1 (Ø5.0×50mm)		+ #1 (Ø5.0×50mm)		+ #1 (Ø5.0×50mm)		+ #1 (Ø5.0×50mm)		+ #1 (Ø5.0×50mm)		+ #1 (Ø5.0×50mm)		+ #1 (Ø5.0×50mm)			
		+ #2 (Ø5.0×50mm)		+ #2 (Ø5.0×50mm)		+ #2 (Ø5.0×50mm)		+ #2 (Ø5.0×50mm)		+ #2 (Ø5.0×50mm)		+ #2 (Ø5.0×50mm)		+ #2 (Ø5.0×50mm)		+ #2 (Ø5.0×50mm)			
			— (Ø5.0×50mm)		— (Ø5.0×50mm)		— (Ø5.0×50mm)		— (Ø5.0×50mm)		— (Ø5.0×50mm)		— (Ø5.0×50mm)		— (Ø5.0×50mm)		— (Ø5.0×50mm)		
Torque adjustment spring		Silver																	
Plus screw for adjustment								M2.6 (Pan head machine screw)			M2.6 (Pan head machine screw)			M2.6 (Pan head machine screw)					
Flat 2P conversion plug (only for 100V)		1pc (with ground wire)			1pc (with ground wire)			1pc (with ground wire)			1pc (with ground wire)			1pc (with ground wire)			1pc (with ground wire)		

*1 The value of power consumption is an approximative estimate.



Suction(Vacuum) Attachment for VB Series

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A),(B) and (C) below needed to be purchased separately .

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 53-64.

Model		(A) Mouthpiece model	(B) Bit length	(C) Suction Attachment model
AC100V	VB-3020	F6-Standard 31mm	H5 100mm	VZQ18-SET
AC100V	VB-1820			
AC120V AC220V-240V	VB-3012			

Including PS type. Not applicable to VB-4504PS (100V).



For use with HIOS Screw Counter

VB-OPC

Models:
(100V, 120V) VB-1510-OPC
(100V, 120V) VB-1510-18-OPC
(100V, 120V) VB-1820-OPC
(100V, 120V) VB-3012-OPC
(100V) VB-3020-OPC
(100V, 120V) VB-4504PS-OPC
(Including PS type)

These models prevent skipping screw fastening in combination with the HIOS Screw Counter.

● They have a function to output positive rotation, reverse rotation and Torque-up (finish) signals.

If you would like to purchase AC220V-240V type, please contact HIOS distributors.

Compatible counters

Power supply with HIOS Screw counter
VZOP-STC



▶ See P. 47-50 for details.

Pistol Attachment

PAB-18 (for Lever Start)

PAB-18PS (for Push-to-Start)

This attachment converts a screwdriver to a pistol-style screwdriver, most suitable for horizontal screw fastening.



Compatible screwdrivers:

PAB-18

VB-1820, VB-3012, VB-3020

PAB-18PS

VB-1820PS, VB-3012PS, VB-3020PS

Angle Attachment

ANGLV-Z-CH1 (For HIOS H5 and SHEX drive*)

ANGLV-Z-XX1 (For 1/4 HEX drive)

This attachment is most suitable when the available space is very small for screw fastening. The attachment can be fitted to the tip of the screwdriver.



Always set the output torque at 1.8N·m or lower when you use this attachment.

Compatible screwdrivers:

VB-1820, VB-3012, VB-3020 (Lever Type only)

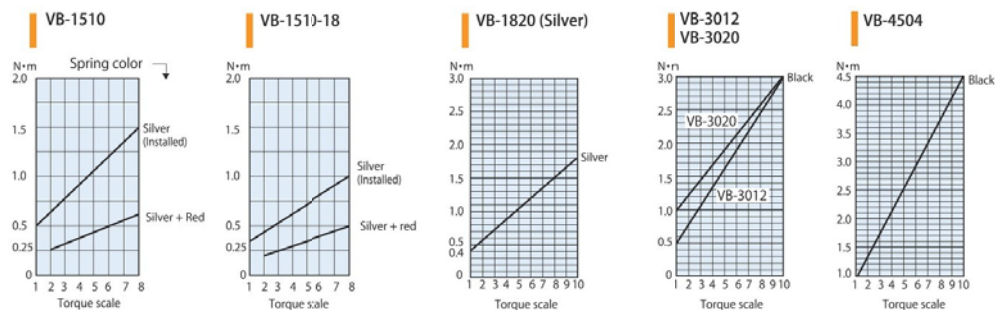
*The bit drive for ANGLV-Z-CH1 is H5.
Please contact HIOS distributors for ANGLV-Z-CH1 to use with SHEX drive bit.

CCC certified models

(100V/220V) ... VB-1510, VB-1510PS (100V/220V) ... VB-3012, VB-3012PS
(100V/220V) ... VB-1820, VB-1820PS (100V/220V) ... VB-4504, VB-4504PS

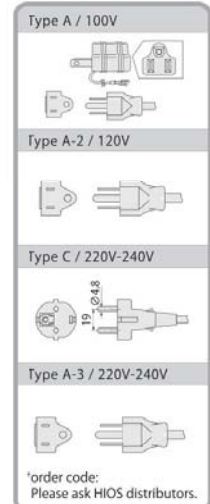
Note: CCC certified models have different specification and order codes from the standard models.
Please contact HIOS distributors before ordering.

Output torque guide



*There are two types of spring for torque adjustment: for HI (originally fixed to the unit) and for Low (accessory). Use one of them depending on your operating conditions.

Plug type



Brushed Screwdriver

VZ Series
(AC Type)
Transformerless

Transformerless screwdrivers suitable for heavy-duty Production.

- Can be directly plugged into an AC outlet.
- Light and slim balanced body design that minimizes operator fatigue.

Lever Start Type

VZ-1510



VZ-1820 VZ-3012/VZ-3007



VZ-1820 VZ-3012/VZ-4506



VZ-1812 VZ-3007/VZ-4504



Push-to-Start Type

VZ-1510PS



VZ-1820PS VZ-3012PS/VZ-3007PS



VZ-1820PS VZ-3012PS/VZ-4506PS



VZ-1812PS VZ-3007PS/VZ-4504PS



VZ-4506PS (with Shockless Stand)



VZ Series Specifications

Specifications

Lever Start Model		VZ-1510	VZ-1812	VZ-1820	VZ-3007	VZ-3012	VZ-4504	VZ-4506
Push-to-Start Model		VZ-1510PS	VZ-1812PS	VZ-1820PS	VZ-3007PS	VZ-3012PS	VZ-4504PS	VZ-4506PS
AC Input Power (±5%)		100V	220 - 240V	100V 120V	100V 220-240V	100V 120V	220 - 240V	100V 120V
Power Consumption (W)*1		25W	72W	40W 60W	40W 72W	40W 60W	72W	40W 60W
Output Torque Range	N·m	0.15 - 1.5	0.4 - 1.8	0.4 - 1.8	0.9 - 3	0.9 - 3	1 - 4.5	1 - 4.5
	lbf·in	1.3 - 13	3.5 - 16	3.5 - 16	7.8 - 26	7.8 - 26	8.8 - 39	8.8 - 39
	(kgf·cm)	(1.5 - 15)	(4 - 18)	(4 - 18)	(9 - 30)	(9 - 30)	(10 - 45)	(10 - 45)
Torque Switching		Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation Speed (r.p.m) ±10%		1,200	1,200	2,000	700	1,200	400	600
Screw Size (mm)	Machine Screw	2.0 - 4.0	2.6 - 4.0	2.6 - 4.0	3.0 - 5.0	3.0 - 5.0	3.0 - 5.0	3.0 - 5.0
	Tapping Screw	2.0 - 3.0	2.6 - 3.0	2.6 - 3.0	3.0 - 4.0	3.0 - 4.0	2.6 - 4.0	3.0 - 4.0
Bit Drive	HIOS Shank	H4	H5 and 5HEX	H5 and 5HEX	H5 and 5HEX	H5 and 5HEX	—	—
	HEX Shank	5HEX or 1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX
AC Screwdriver Cord Length		3m	3m	3m	3m	3m	3m	3m
Accessories	Bit (one each)	H4	+ #1 (Ø5×40mm) + #2 (Ø5×40mm)					
		H5	+ #1 (Ø5×60mm) + #2 (Ø5×60mm)	+ #1 (Ø5×60mm) + #2 (Ø5×60mm)	+ #1 (Ø5×60mm) + #2 (Ø5×60mm)	+ #1 (Ø5×60mm) + #2 (Ø5×60mm)		
		1/4HEX	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)	+ #1 (Ø5.0×50mm) + #2 (Ø5.0×50mm) — (Ø5.0×50mm)
	Torque adjustment spring		Red (Ø1.5)					
Plus screw for adjustment				M2.6 (pan head machine screw)	M2.6 (pan head machine screw)	M2.6 (pan head machine screw)		
Carbon brush (Order code)		1 pair (ACL10-0490)	1 pair (VZ18-0480B)	1 pair (VZ18-0480)	1 pair (VZ18-0480B)	1 pair (VZ18-0480)	1 pair (VZ18-0480B)	1 pair (VZ18-0480)
Flat 2P conversion plug (only for 100V)		1pc (with ground wire)		1pc (with ground wire)	1pc (with ground wire)	1pc (with ground wire)	1pc (with ground wire)	1pc (with ground wire)

*1 The value of power consumption is approximative estimate. *2 If you select the HEX Shank, no bit is included. Please purchase standard-sized HEX Shank bits from commercial stores (refer to P.53).



Suction (Vacuum) Attachment

VZQ

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A), (B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64.

Model	(A) Mouthpiece model	(B) Bit length	(C) Suction attachment model
AC100V VZQ-1510	F3-standard 18mm	H4 60mm	VZQ10-SET
AC100V, AC120V, AC220V-240V	VZQ-1812, 1820, 3007, 3012	F6-Standard 31mm H5 100mm	VZQ18-SET



For use with HIOS Screw Counters

VZ-OPC

Models:
(100V) VZ-1510-OPC
(100V, 120V) VZ-1820-OPC
(100V) VZ-3007-OPC
(100V, 120V) VZ-3012-OPC
(100V) VZ-4506PS-OPC (with Shockless Stand)
(Including PS type)

Compatible counter

Power supply with HIOS Screw counter
VZOP-STC



▶ See P. 47-50 for details.

These models prevent skipping screw fastening in combination with the HIOS Screw Counter.

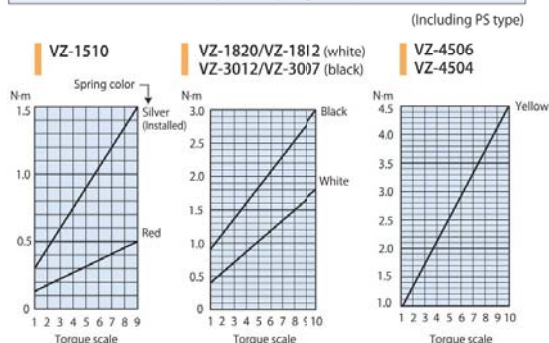
- They have a function to output positive rotation, reverse rotation and Torque-up (finish) signals.

CCC certified models

(100V/220V) ... VZ-1510, VZ-1510PS (100V/220V) ... VZ-1820, VZ-1820PS
(100V/220V) ... VZ-3012, VZ-3012PS (100V/220V) ... VZ-4504, VZ-4504PS

Note: CCC certified models have different specification and order codes from the standard models.
Please contact your HIOS distributor before ordering.

Output torque guide



* There are two types of spring for torque adjustment: for HI (originally fixed to the unit) and for Low (accessory). Use one of them depending on your operating conditions.

Pistol Attachment

PA-18 (for Lever Start*)

PA-18PS (for Push-to-Start*)

This attachment converts a screwdriver to a pistol-style screwdriver, most suitable for horizontal screw fastening.



* Not applicable to VZ-1510 and VZ-1510PS

Angle Attachment

ANGLV-Z-CH1 (For HIOS H5 and SHEX drive*)

ANGLV-Z-XX1 (For 1/4 HEX drive)

This attachment is most suitable when the available space is very small for screw fastening. The attachment can be fitted to the tip of the screwdriver.



Always set the output torque at 18N·m or lower when you use this attachment.

Compatible screwdrivers:
VZ-1812 VZ-1820 VZ-3007 VZ-3012 (Lever Type only)

* The bit drive for ANGLV-Z-CH1 is H5.
Please contact HIOS distributors for ANGLV-Z-CH1 to use with SHEX drive bits.

PS Front Cover Ring

VZ18-0960

This helps you to easily apply load in the axial direction to reduce workload.



Protective Cover for Torque Adjustment Nut

VZ18-0970

This cover prevents change in torque by operation during operation.



Shockless Stand

VZ18PS-SAS

The Shockless Stand absorbs reaction force created by the clutch. The Stand can be used only with Push-to-Start-type screwdrivers.

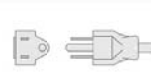


Plug type

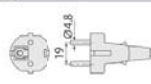
Type A / 100V



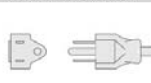
Type A-2 / 120V



Type C / 220V-240V



Type A-3 / 220V-240V



* Order code:
Please ask HIOS distributors.



Hammer-head screwdriver ideal for assembling products requiring high torque

- These screwdrivers can apply high torque like pneumatic screwdrivers.
- can always tighten screws with stable torque.
- The Shockless Stand absorbs reaction force created by the clutch.

Lever Start Type

Lever Start Type

Unit: mm

VBH-1820 / VBH-3012 (with Shockless Stand)

(100V)
(120V)
(220-240V) C E



Weight: 2,550g
(Driver Cord, Slide Arm: 1,900g)
(Pole, Stand Base: 650g)

Variations

VBH Applicable Drivers



For use with HIOS Screw Counters

VBH-OPC

Models:
(100V, 120V) VBH-1820-OPC
(100V, 120V) VBH-3012-OPC
(Including PS type)

These models prevent skipping screw fastening in combination with the HIOS Screw Counter.

- They have a function to output positive rotation, reverse rotation and Torque-up (finish) signals.

Compatible counter

HIOS Screw Counter
VZOP-STC

▶ See P. 47-50 for details.



If you would like to purchase AC220V-240V type, please contact HIOS distributors.

Push-to-Start Type

Push-to-Start Type

Unit: mm

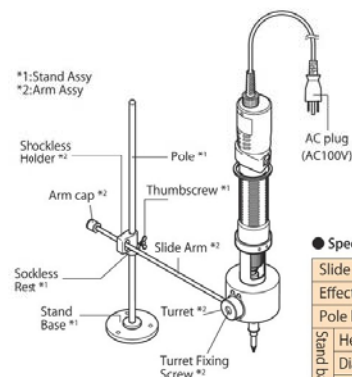
VBH-1820PS / VBH-3012PS (with Shockless Stand)

(100V)
(120V)
(220-240V) C E



Weight: 2,550g
(Driver Cord, Slide Arm: 1,900g)
(Pole, Stand Base: 650g)

Main Components of Shockless Stand



Specifications

Slide Arm length	530
Effective sliding range	475
Pole height	570
Stand base	
Height	8
Diameter of fixing bolt hole	Ø6
Distance between fixing bolt holes	52 *

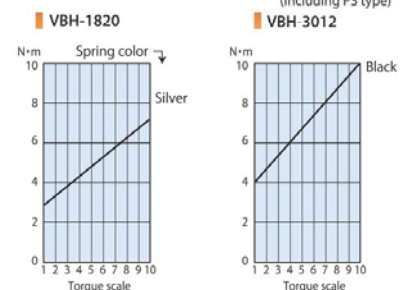
* One side of the equilateral triangle Unit: mm

VBH Series Specifications

Specifications

Lever Start Model	VBH-1820			VBH-3012		
Push-to-Start Model	VBH-1820PS			VBH-3012PS		
Input Power (±5%)	100V	120V	220-240V	100V	120V	220-240V
Power Consumption (W)	40W	40W	32W	40W	40W	32W
Controlled Torque Range	N·m			N·m		
	3 - 7			4 - 10		
	lbf·in			35 - 100		
Unloaded Rotation Speed (r.p.m) ±10%	(30 - 70)			(40 - 100)		
	4'0			270		
	Machine Screw			5.0 - 6.0		
Screw Size (mm)	5.0 - 6.0			5.0 - 6.0		
	Tapping Screw			5.0 - 6.0		
Bit Drive	HEX Shank			1/4HEX		
Cord Length				3m		
Accessories	Hollow set screws (M4 x 6mm) 3pcs					
	L-shaped HEX wrench (width across flats 2mm) 1pc					
	Stand Assy	Pole, stand base, shockless rest, thumbscrew (1pc each)		Arm Assy	Shockless Holder, Slide Arm with Arm Cap, Turret, Turret Fixing Screw (1pc each)	

Output torque guide



To customers who consider purchasing VBH (Lever Type) or VBH-OPC (Lever Type)

Please contact HIOS distributors before orders.



Lever Start Type

Lever Start Type

Unit : mm

VZH-1820/VZH-3012 (with Shockless Stand)



Push-to-Start Type

Push-to-Start Type

Unit : mm

VZH-1820PS/VZH-3012PS (with Shockless Stand)



VZH Series Specifications

Specifications

Lever Start Model	VZH-1820	VZH-3012
Push-to-Start Model	VZH-1820PS	VZH-3012PS
Input Power (±5%)	100V 120V	100V 120V
Power Consumption (W)	40W 60W	40W 60W
Controlled Torque Range	N·m 3 - 7 lbf·in 26 - 61 (kgf·cm) (30 - 70)	N·m 4 - 10 lbf·in 35 - 100 (kgf·cm) (40 - 100)
Unloaded Rotation Speed(r.p.m) ±10%	170	270
Screw Size (mm)	Machine Screw 5.0 - 6.0 Tapping Screw 5.0 - 6.0	Machine Screw 5.0 - 6.0 Tapping Screw 5.0 - 6.0
Bit Drive	HEX Shank	1/4HEX
Cord Length	3m	
Accessories	Hollow set screws (M4 x 6mm) 3pcs L-shaped HEX wrench (width across flats 2mm) 1pc	
	Stand Assy	Pole, stand base, shockless rest, thumbscrew (1pc each)
	Arm Assy	Shockless Holder, Slide Arm with Arm Cap, Turret, Turret Fixing Screw (1pc each)

Variations

VZH Applicable Drivers

For use with HIOS Screw Counters

VZH-OPC

Models:
(100V, 120V) VZH-1820-OPC
(100V, 120V) VZH-3012-OPC
(Including PS type)

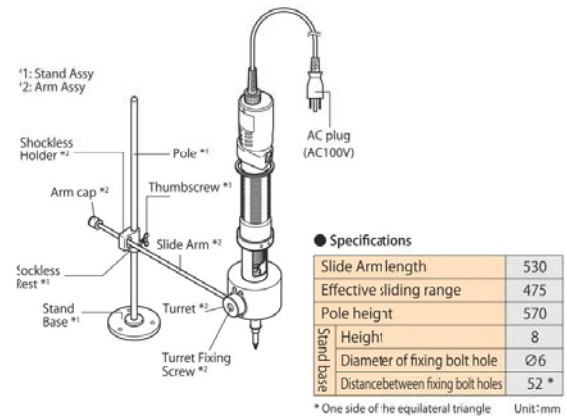
These models prevent skipping screw fastening in combination with the HIOS Screw Counter.

- They have a function to output positive rotation, reverse rotation and Torque-up (finish) signals.

Compatible counter:
HIOS Screw Counter
VZOP-STC

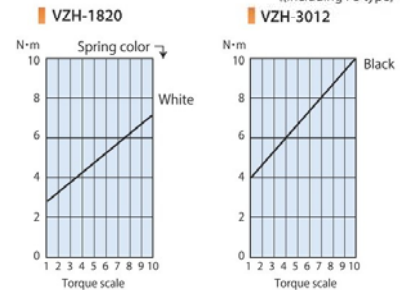
See P. 47-50 for details.

Main Components of Shockless Stand



Output torque guide

((Including PS type))



To customers who consider purchasing VZH (Lever Type) or VZH-OPC (Lever Type)

Please contact HIOS distributors before order.

Brushless® Screwdrivers for automated assembly machines

PGF PGF Series
(DC Type)



Utilize the data of screw fastening operations.

- The built-in torque sensor judges (OK/NG) for every screw fastening.
- The problems that are difficult to see such as insufficient torque, cross threaded and floating screw can be detected.
- Screw fastening operation data can be output to a PLC or computer.
- An external device can be used to control the direction and speed of driver rotation.

PGF Series

PGF-Series

単位: mm

PGF-3000



PGF-5000



PGF-7000



Control Unit (optional)

PG-01

It reads the data from the torque sensor and judges OK/NG in real time.

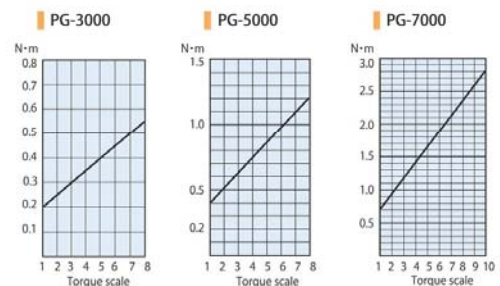


PGF Series Specifications

Specifications

Model Name	PG-3000	PG-5000	PG-7000
Output Torque	N·m 0.2 - 0.55	N·m 0.4 - 1.2	N·m 1.0 - 2.8
Range	lbf·in (2 - 5.5)	3.5 - 10 (4 - 12)	6.1 - 24 (7 - 28)
Torque Switching	Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation Speed (r.p.m)	HI 980 LOW 680	900 590	960 630
Screw Size	Machine Screw 1.7 - 2.3 (mm)	2.3 - 3.0	2.6 - 5.0
Tapping Screw	2.0 - 2.3	2.0 - 2.3	2.6 - 4.0
Bit	HIOS Shank H4	H4	H5 and SHEX
Drive	HEX Shank	On request	1/4HEX
Power Supply	BLT-AY-61	BLT-AY-61	BLT-AY-71
Accessories	Driver cord (3m), Sensor cord (3m), CD-ROM×2, PGF-SUBBOX, Cord for PGF-SUBBOX(40cm), Start/torque-up cable (40cm), I/O flat cable (30cm), AC adapter (1.5m), RS-232C cable (2m), USB→RS-232C converter (35cm), Spare fixing inch screws×4		

Output torque guide (HI input)



Note:

- The torque line indicates the values that are measured when the rotation speed is set to 30. The values are approximate and are for reference only.
- These torque measurements were performed using an HIOS torque meter and Fidaptor.

《Workflow of Pass Guard System Use》

1 Setting the reference values for OK/NG criteria

- **Determine the acceptable criteria (Teaching)**
The acceptance criteria are determined by conducting an actual fastening procedure. The torque value, minimum work time (Min), maximum work time (Max) are then saved.
- **Set the acceptable range (Percentage Setting)**
The acceptable range for torque, minimum work time (Min) and maximum work time (Max) can be selected from 0, 2, 5, 10, 15, 20%.

2 Real operation

Every screw fastening can be judged in real time.

3 Judgement

OK/NG results are confirmed with the LED light and buzzer of PG-01.

4 Record and save the data with a PC



● OK/NG Criteria

NG	L.G	GOOD	H.G	H.NG
Lower than the L.G Min. value	Minus Tolerance	OK Criterion	Plus Tolerance	Higher than the H.G Max. value
NG	OK			NG



Suction(Vacuum)Attachment

PGFQ

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Models: PGFQ-3000 PGFQ-5000 PGFQ-7000

Order guide

(A),(B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64.

Model	(A) Mouthpiece model	(B) Bits total length	(C) Suction Attachment model	Accessories: Tube
PGFQ-2000	F-Standard 18mm	H4 60mm	BLFQ2-SET	3.5m
PGFQ-5000	F-Standard 31mm	H5 100mm	BLFQ5-SET	(I/D:Ø4 X O/D:Ø7)
PGFQ-7000			BLFQ7-SET	

Note: If the bit has the HEXShank with the width across flats of 6.35mm (1/4"HEX), the Suction Attachment cannot be used.



For deeply recessed screws

PGFR

(Special order)

The PGFR Attachment is ideal for deeply recessed screws. Torque adjustment is possible without removing the attachment, or removing the driver from the machine. The attachment uses threaded bits which means replacement bits is less costly than long bits.

Models: PGFR-7000

If you order PGFR

See P. 65-66.

Construction of Suction (Vacuum pick up) screwdrivers



Power supply for Brushless drivers for automated machines

- 2WS(2 Speed) and REV(Reversing) capabilities formerly optional are in these power supply as standard.
- Can be connected to external devices, such as a PLC to control the direction and speed of driver rotation.

BLT-AY-61 (for one screwdriver)

Applicable screwdrivers:
PGF-3000, PGF-5000



BLT-AY-71 (for one screwdriver)

Applicable screwdrivers:
PGF-7000



Specifications

Model	BLT-AY-61	BLT-AY-71
Primary input power source	AC100-240V, 47-63Hz	
Secondary output voltage	LOW: 5V-15V, HI: 20V-30V (LOW and HI: switchable in 11 steps each)	
External dimensions (mm)	202(W) × 143(D) × 87(H)mm	
Weight (Kg)	1.75kg	
Accessories	Power supply cord 1.8m with ground wire (1pc), Terminal block connector 1pc	
Plug Type	A-1/A2/A3/C/BF/S	

* For left hand screws, please contact HIOS distributors.

* The power supply should be compatible with your screwdriver. Please check the combination before purchase.

Driver Cord BLF7-0612-VI

Compatible screwdrivers:
PGF Series, BLF Series



Specifications

Model	BLF7-0612-VI
Cord length	3m (10P)
Weight	320g

BLF Damper Unit

BLF-DP

This unit absorbs the impact against the workpiece while the Z-axis is descending and reduces the load on



Thrust Load Specifications

Model	BLF-DP
Initial load 0mm	Approx. 0.12N · m (1.2kgf · cm or 1.0 lbf · in)
Stroke 7mm	Approx. 0.6N · m (1.2kgf · cm or 5.3 lbf · in)

Brushless® Screwdrivers for automated assembly machines

BLF BLF Series
(DC Type)



Simple structure provides high durability and easy maintenance!

- Simplified controls and increased durability.
- Tools offer accurate torque to uniform fastening quality.
- The BLFQ and BLFR versions are available for vacuum pick up. The new BLFR versions are designed for recessed screws and it minimizes runout of bits.
- The power supply can run the tool in reverse and switch between two speed settings.

BLF-Series

BLF-Series

Unit : mm



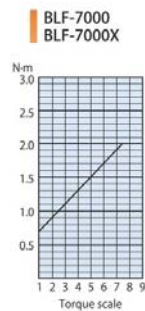
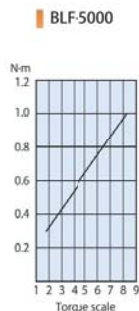
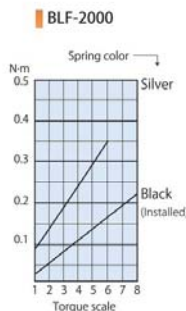
How to mount the flange

Thanks to the common dimensions of the flange, it is easy to switch your screwdriver to another among HIOS screwdrivers for automation.



51-Ø5.5×2 t4
(The dimensions of the holes in all the flanges are the same.)

Output torque guide (HI input)



Notes:

*For the torque adjustment spring for BLF-2000, two types are available. The silver spring for high torque (accessory), the black spring for low torque (installed in the main body). Please select a suitable one for your work.

*The torque lines in the guideline tables show values measured when the rotation speed is set to 30. Use them for guidance.

*Torque measurement is performed using a combination of a torque meter (HP) and fidaptor manufactured by HIOS.

Specifications of Screwdrivers for Automatic Assembly Machines

Specifications

Model	Standard		BLF-2000	BLF-5000	BLF-7000	BLF-7000X	BLF-7025X
	Suction	BLFQ BLFR	BLFQ-2000	BLFQ-5000 BLFR-5000	BLFQ-7000	BLFR-7000X	BLFR-7025X
Controlled Torque Range	N·m		0.03 - 0.35	0.3 - 1	0.7 - 2	0.7 - 2	1 - 2.5
	lbf·in		0.26 - 3.0	2.6 - 8.8	6 - 17	6 - 17	9 - 22
	(kgf·cm)		(0.3 - 3.5)	(3 - 10)	(7 - 20)	(7 - 20)	(10 - 25)
Torque Switching			Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation Speed (r.p.m) ± 10%	LOW 11 Steps (05 to 15)		120 - 345	115 - 320	150 - 450	150 - 450	120 - 350
	HI 11 Steps (20 to 30)		690 - 975	660 - 940	495 - 735	495 - 735	400 - 600
Screw Size (mm)	Machine Screw		1.0 - 2.3	2.0 - 3.0	3.0 - 4.0	3.0 - 4.0	3.0 - 4.0
	Tapping Screw		1.0 - 2.0	2.0 - 2.6	3.0 - 4.0	3.0 - 4.0	3.0 - 4.0
Bit Drive	Standard		HIOS Shank H4	HIOS H5 and shank S HEX	HIOS Shank H5	HEX Shank 1/4HEX	HEX Shank 1/4HEX
	Suction	BLFQ BLFR				HEX Shank 1/4HEX	HEX Shank 1/4HEX
Accessories	Driver cord	Length (m)	3m(10P)	3m(10P)	3m(10P)	3m(10P)	3m(10P)
		Weight (g)	320g	320g	320g	320g	320g
		P/N	BLF7-0611	BLF7-0611	BLF7-0611	BLF7-0611	BLF7-0611
	Spring		Silver				



Suction(Vacuum)Attachment

BLFQ

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw fastening.

Order guide

(A),(B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64.

Model	(A) Mouthpiece model	(B) Bits total length	(C) Suction Attachment model	Accessories: Tube
BLFQ-2000	F3-standard 18mm	H4 60mm	BLFQ2-SET	3.5m
BLFQ-5000	F6-standard 31mm	H5 100mm	BLFQ5-SET	
BLFQ-7000			BLFQ7-SET	(I/D: Ø4 X O/D: Ø7)

Note: If the bit has the HEX Shank with the width across flats of 6.35mm (1/4HEX), the Suction Attachment cannot be used.



For deeply recessed screws

BLFR

(Special order)

The BLFR Attachment is ideal for deeply recessed screws. Torque adjustment is possible without removing the attachment, or removing the driver from the machine. The attachment uses threaded bits which means replacement bits is less costly than long bits.

Models:

BLFR-5000 BLFR-7000X BLFR-7025X

If you order BLFR

See P. 65-66.

Power supply for Brushless drivers for automated machines

- 2WS(2 Speed) and REV(Reversing) capabilities formerly optional are in these power supply as standard.
- Can be connected to external devices, such as a PLC to control the direction and speed of driver rotation.

BLT-AY-61 (for one screwdriver)

Applicable screwdrivers:
BLF-2000, BLF-5000



CE



BLT-AY-71 (for one screwdriver)

Applicable screwdrivers:
BLF-7000, BLF-7000X, BLF-7025X



Specifications

Model	BLT-AY-61	BLT-AY-71
Primary input power source	AC100-240V, 47-63Hz	
Secondary output voltage	LOW: 5V-15V, HI: 20V-30V (LOW and HI: switchable in 11 steps each)	
External dimensions (mm)	202(W) × 143(D) × 87(H)mm	
Weight (Kg)	1.75kg	
Accessories	Power supply cord 1.8m with ground wire (1pc), Terminal block connector 1pc	
Plug Type	A-1/A2/A3/C/BF/S	

* For left hand screws, please contact HIO's distributors.

* The power supply should be compatible with your screwdriver. Please check the combination before purchase.

Driver Cord

BLF7-0612-VI

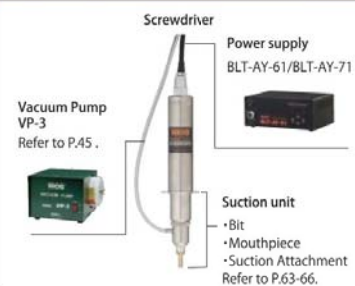
Compatible screwdrivers:
BLF-2000, BLF-5000, BLF-7000
BLF-7000X, BLF-7025X



Specifications

Cord length	3m (10P)
Weight	320g

Construction of Suction (Vacuum pick up) screwdrivers



Rotation speed of driver and its possible output torque.

BLF-2000/BLF-5000

* For the unloaded rotation speed, consider the value in the chart with the range of $\pm 10\%$.

Model	Rotation setting	BLF-2000		BLF-5000	
		r.p.m	Torque (N·m)	r.p.m	Torque (N·m)
			Max. Min.		Max. Min.
LOW 11 steps	05	120		115	
	06	150		135	0.6
	07	165		150	
	08	187		180	
	09	210		195	
	10	232	0.35	210	0.8
	11	270		240	
	12	285		255	
	13	300		285	1
	14	315		300	
	15	345		320	
HIGH 11 steps	20	690		660	
	21	720		690	
	22	750		720	
	23	780		750	
	24	810		780	
	25	825	0.35	810	1
	26	870		840	0.3
	27	975		940	
	28	975		940	
	29	975		940	
	30	975		940	

BLF-7000/BLF-7000X/BLF-7025X

* For the unloaded rotation speed, consider the value in the chart with the range of $\pm 10\%$.

Model	Rotation setting	BLF-7000 BLF-7000X		BLF-7025X	
		r.p.m	Torque (N·m)	r.p.m	Torque (N·m)
			Max. Min.		Max. Min.
LOW 11 steps	05	150		120	
	06	180		140	
	07	210	1.1	160	
	08	240		180	1.4
	09	270		210	
	10	300		230	
	11	330	0.7	250	1.2
	12	360		280	
	13	390		300	
	14	420		320	2
	15	450		350	
HIGH 11 steps	20	495		400	
	21	510		420	
	22	540		440	
	23	570		470	
	24	600		490	
	25	615	2	510	2.5
	26	645	0.7	540	1.2
	27	735		600	
	28	735		600	
	29	735		600	
	30	735		600	

Brushed Screwdrivers for automated assembly machines

CLF/αF Series
(DC Type)



Suitable for automated assembly machines

- Stable torque accuracy helps to uniform screw fastening for automation.
- Easy to install to the existing assembly system thanks to the compact body.
- Many variations

Low torque CLF Series

- *CLF-3000 (HH•HN)
- CLF-4000 (HH•XH / HN•XN)
- *CLF-6000 (HH•XH / HN•XN)
- CLF-6500 (HH•XH / HN•XN)
- CLF-7000 (HH•XH / HN•XN)

CLF-3000
CLF-4000



CLF-6000
CLF-6500
CLF-7000



* Not applicable to CLF-3000, CLF-6000.

High-speed αF Series

- αF-4500 (HH•XH / HN•XN)
- αF-5000 (HH•XH / HN•XN)
- αF-6500 (HH•XH / HN•XN)

αF-4500
αF-5000



αF-6500



High torque CL-A Series

- CL-816A (XH / XN)
- CL-825A (XH / XN)
- CL-850A (XH / XN)

CL-816A
CL-825A



CL-850A



How to read a model number

CLF-3000HH

Bit Drive

- (H) HIOS Shank (H4 or H5)
- (X) HEX Shank (1/4HEX)

Power Supply

- (H) HIOS power supply
- (N) Nitto Seiko power supply

List of symbol combinations

HH	HIOS Shank + HIOS power supply
HN	HIOS Shank + Nitto Seiko power supply
XH	HEX Shank + HIOS power supply
XN	HEX Shank + Nitto Seiko power supply

Specifications of screwdrivers for automatic assembly machines

Specifications

Model		CLF-3000	CLF-4000	CLF-6000	CLF-6500	CLF-7000	αF-4500	αF-5000	αF-6500	CL-816A	CL-825A	CL-850A
Controlled Torque Range	N • m	0.03 - 0.15	0.1 - 0.35	0.3 - 0.6	0.4 - 1	0.5 - 1.5	0.4 - 0.6	0.4 - 0.75	0.5 - 1.1	1.5 - 2.5	2 - 4	2.4 - 4.5
	lbf • in	0.3 - 1.3	0.9 - 3.1	3 - 5.3	3.5 - 9	4.3 - 13	3.5 - 5.3	3.5 - 6.6	4.3 - 9.7	13 - 22	17 - 35	21 - 39
	(kgf • cm)	0.3 - 1.5	1 - 3.5	3 - 6	4 - 10	5 - 15	4 - 6	4 - 7.5	5 - 11	15 - 25	20 - 40	24 - 45
Torque Switching		Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation Speed (r.p.m) ±10%	HI (about 30V)	1,000	1,000	750	850	780	1,700	1,100	1,700	550	370	570
	LOW (about 20V)	560	560	400	440	420	940	600	950	310	210	320
Screw Size (mm)	Machine Screw	1.0 - 2.0	1.4 - 2.6	2.0 - 3.0	2.0 - 3.0	2.0 - 4.0	2.0 - 3.0	2.0 - 3.0	3.0 - 4.0	3.0 - 4.0	4.0 - 5.0	4.0 - 5.0
	Tapping Screw	1.0 - 1.7	1.4 - 2.3	2.0 - 2.6	2.0 - 3.0	2.0 - 4.0	2.0 - 2.6	2.0 - 3.0	2.6 - 3.0	3.0 - 4.0	4.0 - 5.0	4.0 - 5.0
Bit Drive	HIOS Shank	H4	H4	H5	H5	H5	H4	H4	H5	—	—	—
	HEX Shank	—	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX	1/4HEX
Total Length (mm)		182	197	234	234	266	207	207	248	251	251	261
Grip Diameter (ø)		ø32.5	ø32.5	ø37	ø37	ø37	ø32.5	ø32.5	ø37	ø50	ø50	ø62
Weight(g)		400g	430g	610g	670g	754g	430g	430g	670g	1,270g	1,270g	1,700g
Accessories	Spring	Gold	Blue	White	White	Yellow				White	Yellow	Yellow
	Cord length(m)	3m (5P)	3m (5P)	3m (5P)	3m (5P)	3m (5P)	3m (5P)	3m (5P)	3m (5P)	3m (4P5P)	3m (4P5P)	3m (4P4P)
	Carbon brush (Order code)	1 pair (A45-0420)	1 pair (CL4-0420)	1 pair (CL65-0490)	1 pair (CL65-0490)	1 pair (CL65-0490)	1 pair (A45-0420)	1 pair (A45-0420)	1 pair (CL65-0490)	1 pair (CL9-0410)	1 pair (CL9-0410)	1 pair (CL850-0381)

* The rotation speed may slightly differ from the specifications depending on the input voltage. Please refer to the value in the specifications only as a guide.

Suction(Vacuum)Attachment

CLFQ / αFQ

By negative pressure, the effort needed to pick up screws is reduced. This attachment can even pick up non-ferrous screws such as stainless steel screws by vacuuming, and improve operation efficiency. It also removes powder dust generated in screw tightening.

Order guide

(A),(B) and (C) below needed to be purchased separately.

* The size of (A) and (B) depends on the screw size. For more information, please refer to P. 63-64.

Model	(A) Mouthpiece model	(B) Bit length	(C) Suction Attachment model
CLF-3000, CLF-4000 αF-4500, αF-5000	I3-Standard 18mm	H4 60mm	CLFQ4-SET
CLF-6000, CLF6500 CLF-7000, αF-6500	I6-Standard 36mm	H5 100mm	CLFQ65-SET



Construction of Suction (Vacuum pick up) screwdrivers



About Automated Assembly Machine

For details, please refer to the information guide or HIOS website.

www.hios.com

HIOS
Information Guide
for Automatic
Assembly
Machines

Left-hand screw R

The screwdrivers for left-hand screws (CCW rotation).

Oil seal O

The screwdriver that has a mechanism to prevent gear grease penetration into the motor when the screwdriver is installed facing upward.

One-way clutch OW

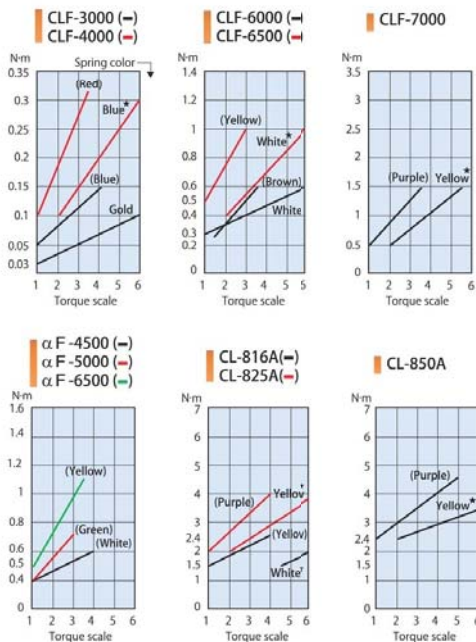
When both forward and reverse rotations are required, reverse rotation has larger torque than forward rotation.

Other special specifications

We also supply screwdrivers with low speed rotation (gear ratio: 25:1) or noiseless. Please contact HIOS distributors.

* Please contact HIOS distributors before ordering these variations.

Output torque guide (HI input)



Note: There are two types of spring for torque adjustment: for HI (originally fixed to the unit, marked in brackets) and for Low (accessory). Use one of them depending on your operating conditions.

Note 1: The number of enclosed torque adjustment springs varies depending on the model.

Note 2: For the screwdrivers with Nitto Seiko specifications, the springs with star marks are not included.

Power Supply for Brushed Screwdrivers for Automatic Assembly Machines

Please use them with screwdrivers for automated assembly machines.

100V only

CLT-AY-61 (for one screwdriver)

Compatible screwdrivers:
CLF-3000, CLF-4000, CLF-6000, CLF-6500
CLF-7000, αF-4500, αF-5000, αF-6500



CLT-AY-81 (for one screwdriver)

Compatible screwdrivers:
CL-816A, CL-825A, CL-850A



Specifications

Model	CLT-AY-61	CLT-AY-81
Primary input power source	AC100V, 120V, 220-240V ± 5%, 50/60Hz	AC100V ± 5%, 50/60Hz
Secondary output voltage	About DC17-30V (stepless adjustment)	
External dimensions (mm)	232(W) × 177(D) × 106(H)mm	320(W) × 220(D) × 154(H)mm
Weight(kg)	4.2kg	13.5kg
Accessories	Power supply cord 1.8m with ground wire (1pc), Spare fuse (1pc), Fork terminals (5pcs)	
Plug Type	A-1 A-2 C / BF / S	A-1

Variations for power supply

2WV type

Low rotation (5 to 15V) can be externally controlled.
Models: CLT-AY-61-2WV / CLT-AY-81-2WV

REV type

Reverse rotation can be externally controlled.
Models: CLT-AY-61-REV / CLT-AY-81-REV

2WV+REV type

Models: CLT-AY-61-REV-2WV / CLT-AY-81-REV-2WV

Note: These functions cannot be added after purchase.

Reciprocating Brushed Screwdriver

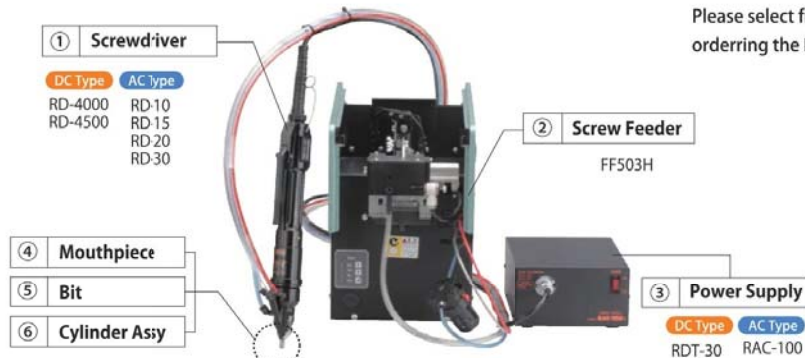
RN53

Recipro Series
(DC Type)
(AC Type)

Unique automatic feeding system allows wider variations in screw tightening.

- Ideal for deeply recessed screws.
- Easy maintenance because the screwdriver, screw feeder, power supply and hose assy can be separated.

Configuration of Recipro System



① Screwdriver

only Lever: start type available

RD-4000

DC Type



Weight : 680g

RD-4500

DC Type



Weight : 745g

RD-10/RD-15

AC Type



Weight : 825g

RD-20/RD-30

AC Type



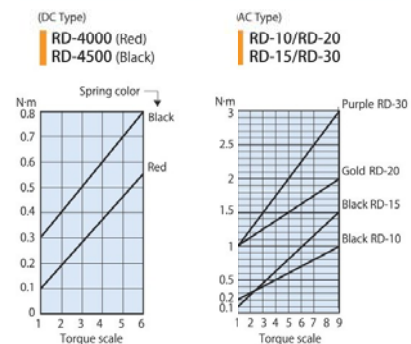
Weight : 1,140g

● Specifications

		DC Type		AC Type			
Model		RN53-200	RN53-260	RN53-300	RN53-400	RN53-400	RN53-400
Recipro Screwdriver		RD-4000	RD-4500	RD-10	RD-15	RD-20	RD-30
Output	N · m	0.1 - 0.55	0.3 - 0.8	0.2 - 1	0.2 - 1.5	1 - 2	1 - 3
	lbf · in	0.9 - 4.8	2.6 - 7	1.7 - 9	1.7 - 13	9 - 17.4	9 - 26
Torque Range		(1 - 5.5)	(3 - 8)	(2 - 10)	(2 - 15)	(10 - 20)	(10 - 30)
Unloaded Rotation Speed (r.p.m) ± 10%		(HI) 1,000 (LOW) 690	(HI) 1,700 (LOW) 1,200	1,500	1,000	1,600	1,000
Screw Size (mm)	Screw type	Machine screw & tapping screw					
	Nominal diameter	M2.0	M2.6	M3.0	M3.0	M4.0	M4.0
	Max length	14	14	14	14	14	14
	Min length	Pan	6.0	7.0	8.0	8.0	8.0
	Binding	6.0	7.0	8.0	8.0	8.0	8.0
Flat head		8.0	9.0	9.0	9.0	12.0	12.0
Bit Drive (base diameter)		Ø3	Ø3*, Ø4*	Ø4	Ø4	Ø4	Ø4
Cord length (m)		2m (6P)	2m (6P)	2m (7P)	2m (7P)	2m (7P)	2m (7P)
Accessories		Mouthpiece, bit, hand-driver, L-shaped HEX wrench, hose & screwdriver cord (with mist regulator), power cable, O-ring (1pc each)					

* The bit type (Ø3) (base diameter) of RN53-260 is for M2.6 (pan head) and the bit type (Ø4) is for M2.6 (binding head).
The model of the AC type Reciprocating screwdriver depends on the screw size.

Output torque guide



② Screw Feeder

FF503H

- Feeding speed is adjustable according to screw type and size.
- The air feed system automatically and instantly feeds a screw to the bit.
- The vibrational frequency and amplitude of the feeder is adjustable.



● Specifications

Model	FF503H	
Air pressure control unit	Air pressure (Mpa)	0.4
	Input power supply	AC100V 50/60Hz
	Screw Feeding hose length (m)	2.5m
	Hopper capacity (CC)	About 450CC
	External dimensions (mm)	220(W)×412(D)×334.6(H)
	Weight (kg)	18kg

③ Power Supply

EC Type RDT-30 (DC20V/30V)



Reciprocating
Screwdriver
RD-4000/
RD-4500



AC Type RAC-100 (DC100V)



Reciprocating
Screwdriver
RD-10/
RD-15/
RD-20/
RD-30



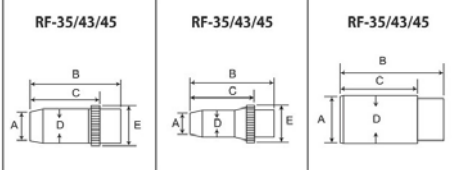
● Specifications

Model	RDT-30	RAC-100
Input power source	AC100V 50/60Hz	AC100V 50/60Hz
Output voltage	DC20 / 30V	DC100V
Screwdriver rotation speed setting	2-way (HI/LOW)	
External dimensions (mm)	170(W)×240(D)×100(H)	170(W)×240(D)×100(H)
Weight (kg)	4.2kg	2.5kg
AC power cord (m)	1.8m with ground wire (3L2P)	1.8m with ground wire (3L2P)

④ Mouthpiece

Screw size (mm)	Head type	Mouthpiece	Dimensions				
			A	B	C	D	E
M2.0	Pan head	RF-35	3.5	15.5	11.5	5.5	7
	Bind head	RF-43	4.3	15.5	11.5	5.5	7
	Truss head	RF-45	4.5	15.5	11.5	5.5	7
M2.6	Pan head	RF-45	4.5	15.5	11.5	5.5	7
	Bind head	RF-55	5.5	17	13	7.4	8
M3.0	Pan head	RF-55	5.5	17	13	7.4	8
	Bind head	RF-63	6.3	17	13	7.4	8
M3.5	Flat head	RF-70	7	25	20	10	
M4.0	Pan head	RF-70	7	25	20	10	
	Bind head	RF-83	8.3	25	20	10	

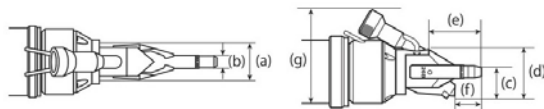
External Appearance



⑤ Bit

Recess type	Driver Bit Code	Bit Size	Recipro Model	Shape
Cross-recessed screw	RBP3130	H type #1 $\varnothing 3.0 \times 35$	RN53-200P / RN53-200B RN53-200PL / RN53-200BL	
	RBP4140	H type #1 $\varnothing 4.0 \times 40$	RN53-260B / RN53-260BSL RN53-260BL	
	RBP4240	H type #2 $\varnothing 4.0 \times 40$	RN53-300P / RN53-300B RN53-300PL / RN53-300BL RN53-300PSL / RN53-300BSL	
Slotted screw	RBS330	0.4	RN53-200P / RN53-200B RN53-200PL / RN53-200BL	
	RBS440	0.6	RN53-300P / RN53-300B RN53-300PL / RN53-300BL RN53-300PSL / RN53-300BSL	
TORX screw	RBX306	T6 $\varnothing 3.0 \times 35$	RN53-200P / RN53-200B RN53-200PL / RN53-200BL	
	RBX308X	T8H $\varnothing 3.0 \times 35$		
	RBX408H	T8H $\varnothing 4.0 \times 40$		
	RBX410H	T10H $\varnothing 4.0 \times 40$		
	RBX420H	T20H $\varnothing 4.0 \times 40$		

⑥ Cylinder Assy Specifications



(a) to (g) in the table correspond to those in the figures above.

Screw size	Screw type	Detailed dimensions						
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
M2.0	Pan/Binding	19.8	$\varnothing 7.0$	11.8	25	43	23.5	60
M2.6	Pan	19.8	$\varnothing 7.0$	11.8	25	43	23.5	60
	Binding	23	$\varnothing 8.0$	15.5	30.5	37	18	62
M3.0	Pan/binding	23	$\varnothing 8.0$	15.5	30.5	37	18	62
M4.0	Pan/binding	27	$\varnothing 10$	17.5	32.8	46	28.5	69

Cylinder Assy variations

Screw Size	Head	Code	Standard	Code	Long	Code	Super Long
M2.0	Pan	RPS-200P		RPS-200PL			
	Binding	RPS-200B		RPS-200BL			
M2.6	Pan	RPS-260P		RPS-260PL			
M2.6	Binding	RPS-260B		RPS-260BL		RPS-260BSL	
M3.0	Pan	RPS-300P		RPS-300PL		RPS-300PSL	
	Binding	RPS-300B		RPS-300BL		RPS-300BSL	
M4.0	Pan	RPS-400P				RPS-400PSL	
	Binding	RPS-400B				RPS-400BSL	

To customers who consider purchasing Recipro Series

Please feel free to contact HIOS distributors.

Peripherals and Accessories

Screwdriver Cord

1.5m (5P) Compatible models: BLG-4000, BLG-3000, BL-3000, BL-5000 Series, CL-2000, CL-3000, CL-4000, SS-2000, SS-3000, SS-4000, α-4500, α-5000

2m (5P) Compatible models: BL-7000 Series, CL-6000, CL-6500, CL-7000, SS-6500, SS-7000, α-6500

2m (6P) Compatible models: PG, BLG-BC2, BLG-BC1, BLG-ZERO1, BLG-OPC, BL-OPC Series

3m (5P) Compatible models: Screwdrivers for automatic assembly machine CLF-6000, CLF-6500, CLF-7000, αF-6500

Flexible Screwdriver Cord

Flexible cord that endures kinking and bending.

2m (5P) Compatible models: BLG, BL, CL, SS, α Series

3m (6P) Compatible models: BLG-BC2, BLG-BC1, BLG-ZERO1, BL-OPC, BLG-OPC Series

Curled Cord

Elastic and flexible cord

Length at maximum extension

7.5m (5P) Compatible models: BL, CL, SS, α Series

Extension Cord

Use this cord as an extension cord when the standard screwdriver cord is not long enough.

3m (5P) Compatible models: BLG, BL, CL, SS, α Series

5m (5P) Compatible models: BLG, BL, CL, SS, α Series

For Suction type screwdrivers

Vacuum Pump

VP-3

A vacuum is generated to pick up and hold the screw on the bit tip.

Specifications

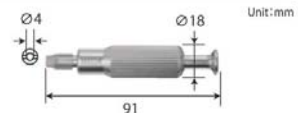
Specifications	VP-3
Primary input power	AC100V, 120V, 220-240V ± 5%
Maximum power consumption	39W ± 20%
Ultimate vacuum	-350mm Hg
Air capacity	25L/min
Dimensions(mm)	200 × 188 × 142(H)
Weight(kg)	3.8kg
Plg type	A-1 / A-2 / A-3 / C / BF / S



Aluminum Handle Screwdriver

WOOD-4AL

Applicable bit: HIOS H4(Ø4)



Wooden Handle Screwdriver

WOOD-5

Applicable bit: HIOS H5(Ø5)



Screwdriver can be securely gripped and doesn't slip!

Grip Ring

- Reduce operation fatigue by preventing grip slip.
- Multiple color rings help identification of drivers.
- Protects the screwdriver from shock and scratches.
- Can be removed cleanly without damage.

Description	Color (order codes)
Single color (10 pcs in 1 pack)	Red (GRIP-R10), Green (GRIP-G10) Blue (GRIP-BL10), Yellow (GRIP-Y10) White (GRIP-W10)

Grip dimensions

Unit: mm



Compatible models: All models (except BL-2000/CL-2000/SS-2000)

Stripped Screw Remover

HIOS Spike® Bit D.PAT (for precision screws)

SPK Series

This is a specially designed tool to easily remove screws with damaged recesses. Ideal for unscrewing high-end products such as HDD.

Grip color: Yellow



Applicable screw size: M1.2-M1.4

Grip color: Blue



Applicable screw size: M1.4-M1.7

Grip color: Red



Applicable screw size: M1.7-M2.0

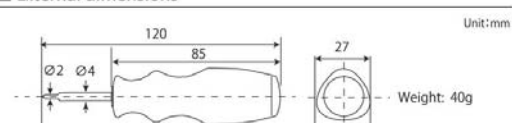


It's easy to use!

Push the bit vertically and turn it **very** slowly.

Description	Color (order codes)
Spike bit	Yellow, blue and red (SPK-SET01)
3 pcs in 1 pack	
Single color 1 pc	Yellow (SPK-1214) Blue (SPK-1417) Red (SPK-1720)

External dimensions



Vertical Screwdriver Operating Stand


VMS-40 : for BLG-BC2 / BLG-BC1 / BLG / BL / CL / SS / α / VZ-1510

VMS-50 : for PG / BLG-BC2/BLG-BC1/ BLG / BL / CL / SS / α / VZ-1510

VMS-50VZ : for PG / VB / VZ (except VZ-1510)

The Stand keeps the screwdriver in a vertical position, allowing accurate screw tightening.



Model	VMS-40	VMS-50	VMS-50VZ		
Pole height (mm)	515	615	615	Screwdriver Holder/corder (Order code)	
Weight (kg)	2.5	2.65	2.65		
BL Series	BL-2000/BL-3000/BL-5000			VMS40-0180	(Included as standard)
CL Series	CL-2000/CL-3000/CL-4000/ CL-6000/CL-6500/CL-7000				
SS Series	SS-2000/SS-3000/SS-4000/ SS-6500/SS-7000				
α Series	α -4500/ α -5000/ α -6500				
VZ Series				All models (except VZ-1510)	VMS-0900-VZ180
PG Series		PG-3000		VMS-0900-PG3	
		PG-5000		VMS-3910-PG5 (with a spacer)	
		PG-7000		VMS-0900-PG7	
BLG-BC2	BLG-4000BC2	 (without BC2 I/O Cable)		VMS-0900-BLG	
	BLG-5000BC2			VMS-0900-BLG5BC2	
	BLG-5000BC2			VMS-0900-BLG	
BLG-BC1 Series	BLG-4000BC1 / BLG-5000BC1			VMS-0900-BLG	
BLG-ZERO1 Series	BLG-4000ZERO1/BLG-5000ZERO1			VMS-0900-BLG	
BLG Series	BLG-4000 / BLG-5000			VMS-0900-BLG	
BL Series	BL-7000			VMS-0900-BL7	
VB Series		VB-1510/VB-1510PS		VMS-0910-PG5	
		VB-1820/VB-3012		VMS-0900-PG7	
		VB-1820PS/VB-3012PS		VMS-0900-VB18PS	
VZ Series	VZ-1510/VZ-1510PS			VMS50-0190	
Accessories	Pole (1pc) / Arm Stopper (1pc) / Arm Set (1pc) / Pole Holder (1pc) / Base (1pc) / Mount Ring (1pc) (for CL-2000) / Hexagonal wrench *				

* A hexagonal wrench is not included with the VMS-50VZ.



For BLG-BC2

The Holder Model No. depends on whether to use with or without the BC2 I/O cable.



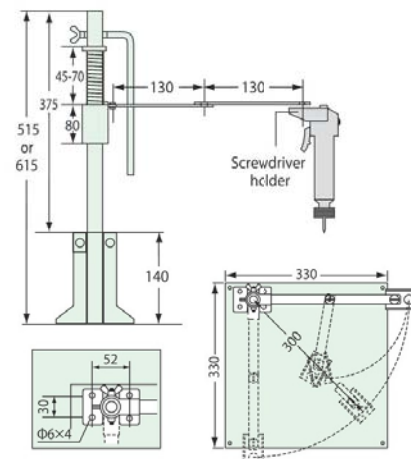
BC2 I/O Cable
Order code: BLG-BC2-3010



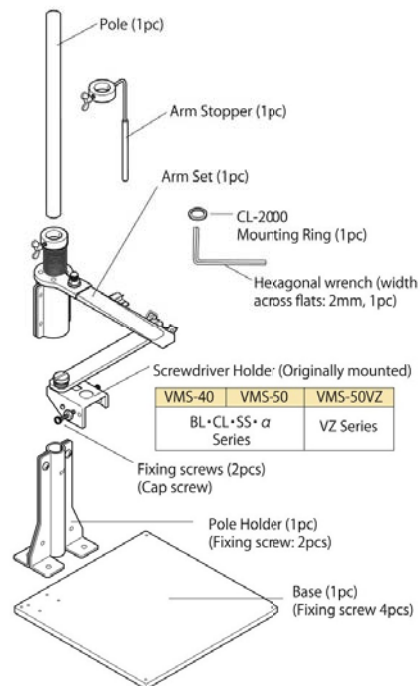
Note that the holder for the BLG-4000BC2 can be used only when the BC2 I/O cable is not attached.

External dimensions

Unit: mm



Components of screwdriver stand



Carbon brush

The carbon brush should be replaced when abrasion reaches the groove on its side. Replace 2 carbon brushes at the same time.

List of carbon brushes and compatible screwdrivers (1 pair = 2pcs)

Compatible models	CL / SS / α / SB Series (including PS type)				VZ Series (including PS type)		
	CL-3000, SS-3000 α -4500, α -5000	CL-4000, SS-4000 SB-400C	CL-6000, CL-6500 CL-7000, SS-6500 SS-7000, α -6500, SB-650C	CL-9000	(100V) VZ-1510	(100V/120V) VZ-1820, VZ-3007 VZ-3012, VZ-4506	(220V-240V) VZ-1812, VZ-3007 VZ-4504
Order code	A45-0420	CL4-0420	CL65-0490	CL9-0410	ACL10-0490	VZ18-0480	VZ18-0480B

Note: The carbon brush for CL-2000 and SS-2000 are enclosed type and cannot be replaced by a user. Although the life of the carbon brush depends on use conditions, as a guide, if you tighten about 6,000 screws a day, you have to replace the carbon brush 3 to 4 years after you started using it. When a replacement is required, please contact HIOS distributors.



The number of the fastener count can be set from 1 to 99.

- A buzzer will sound when the final screw has been fastened to notify you of screw fastening completion.
- The fastener count number is automatically reset after all screws have been fastened. The screwdriver will be disabled until the next "work set confirmation" SET signal is input (not applicable to SC3 Series).
- Prevents counting double-fastening.
- Can be used as a normal power supply by disabling the count function.
(Applicable only to BLOP-STC3 and CLT-70STC3)

Model		Screw Counter			Separate counter(external type)	
		STC3 Series		STC Series	SC1 Series	
		BLOP-STC3 (power supply type)	CLT-70STC3 (power supply type)	VZOP-STC	BLOP-SC1	CLOP-SC1
Functions & compatible screwdrivers						
Counting	Fastener count (1 to 99)	●	●	●	●	●
	Counting direction	●	●	●	●	●
	Forward (count-down)	●	●	●	●	●
	Reverse (count-up*)	●	—	●	●	—
	Display	●	●	●	●	●
	LED	●	●	●	●	●
	Count Timer	●	●	●	●	●
Build-in timer	Work Set Timer	●	●	●	●	●
	Work Reset Timer	●	●	●	●	●
	Reverse Count Timer	●	—	●	●	—
Terminal block	Power supply for external devices ⑤	●	●	●	●	●
	Control output (A, F, G)	●	●	●	●	●
	Control input (B, C)	●	●	●	●	●
	Error output ④	●	●	●	●	●
Screwdrivers	DC type	Brushless	BLG-BC2 Series	●*2	—	—
			BLG-BC1 Series	●*2	—	—
			BLG-ZERO1 Series	●*2	—	—
			BLG Series (OPC)	●	—	—
			BL Series (OPC)	●	—	—
	Brushed		CL Series	—	—	●
			SS Series	—	—	●
			α Series	—	—	●
	AC type	Brushless	VB Series (OPC)	—	—	—
			VBH Series (OPC)	—	—	—
			VZ Series (OPC)	—	—	—


*1 If you unscrew during operation, the count number will go back by one.

*2 These Screw Counter do not interlock with the counter function of the BLG-BC1/BC2. Please turn off the counter function when you use with the Screw Counter.

● Plug Type

Voltage	100V		120V	220-240V			
Plug Type	Type A	Type A-1	Type A-2	Type A-3	Type C	Type BF	Type S

DC Type / For BL, BLG, BLG-ZERO1, BLG-BC1, BLG-BC2, CL, SS, α Series

Model: BLOP-STC3 (for one screwdriver)		RoHS	10	CE
Compatible screwdrivers		《With power supply》		
Brushless screwdrivers				
● BL Series (OPC) BL-2000-OPC, BL-3000-OPC, BL-5000-OPC, BL-7000-OPC				
● BLG Series (OPC) BLG-4000-OPC BLG-5000-OPC				
● BLG-ZERO1 Series * BLG-4000-OPC BLG-5000-OPC				
● BLG-BC1Series * BLG-4000BC1 BLG-5000BC1				
● BLG-BC2Series * BLG-4000BC2 BLG-5000BC2				
Primary input power source	AC100-240V, 47-63Hz			
Secondary output voltage	HI (2): about DC30V, LOW (1): about DC20V, 2-step switchable			
External dimensions (mm)	127(W) × 208(D) × 76(H)mm			
Weight (kg)	1.8kg			
Accessories	Power supply cord: 1.8m with ground wire (1pc) Crimp-type terminals: 8pcs			
Plug Type	A-1	A-2	A-3/C/BF/S	

* These Screw Counter do not interlock with the counter function of the BLG-BC1/BC2.
Please turn off the counter function when you use with the Screw Counter.

Model: **CLT-70STC3**(for one screwdriver)

Compatible screwdrivers

Brushed screwdrivers

- **CL series**
CL-2000, CL-3000, CL-4000,
CL-6000, CL-6500, CL-7000
- **SS series**
SS-2000, SS-3000, SS-4000,
SS-6500, SS-7000
- **α series**
 α -4500, α -5000, α -6500

(With power supply)

Primary input power source	AC100-240V, 47-63Hz		
Secondary output voltage	HI (2): about DC30V, LOW (1): about DC20V, 2-step switchable		
External dimensions (mm)	127(W) × 208(D) × 76(H)mm		
Weight (kg)	1.8kg		
Accessories	Power supply cord: 1.8m with ground wire (1pc) Crimp-type terminals: 8pcs		
Plug Type	A 1	A 2	A 3/C/BF/S

● Components and Functions of Screw Counter STC3

Function switches (F1, F2, F3)

F1	Set fastener Count: 1 to 99	→ Set the number of screws to be tightened
	Set Count Timer: 0.00 to 0.99 sec.	→ Prevents counting of secondary tightening operations
	Set Work set Timer: 0.0 to 3.9 sec.	→ Time until the screwdriver becomes operational
	Set Work reset Timer: 0.0 to 3.9 sec.	→ Time until the screwdriver becomes non-operational
F2	Set Reverse Count Timer: 0.1 to 1.0 sec.	→ Time until the count start after reverse rotation
	Display the number of screws remaining. Control the sound of the buzzer. Setting of ON/OFF of the reverse count control	
F3	Control the motion of the counter at any time. Setting the ON/OFF of the torque-up buzzer sound control	

Notes:

- Display and functions of VZOP-STC are partially different from the above.
- The Reverse Count Timer is not included with CLT-70STC3 and CLOP-STC3.
- CLT-70STC3 and CLOP-STC3 do not have the Reverse Count timer.

Terminal block

A	COMP	"Work complete" signal output terminal, open collector output (maximum load rating: DC30V/80mA)
B	RESET	Resets the count timer, input terminal for the "work forced release" signal from external device
C	SET	Input terminal for the "work set confirmation" signal
D	GND (Terminal for grounding)	—
E	+DC24V	Power supply terminal for external device (maximum rating: DC24V/0.2A)
F	VALVE	Output terminal for external equipment, open collector output (maximum load rating: DC30V/80mA)
G	BZ (Buzzer)	Work complete output terminal, open collector output (maximum load rating: DC30V/80mA)
H	ER BZ (Error Buzzer)	Warning output open collector output if work is removed before operation is complete (maximum load rating: DC30V/80mA)

Model: VZOP-STC (for one screwdriver)			
Compatible screwdrivers			
Brushless screwdrivers			
● VB Series (OPC) (only 100 V / 120V) VB-1510-OPC, VB-1510-18-OPC VB-1820-OPC, VB-3012-OPC (including PS type) VB-4504PS-OPC			
● VBH Series (OPC) (only 100 V / 120V) VBH-1820PS-OPC, VBH-3012PS-OPC (including PS type)			
Brushed screwdrivers			
● VZ Series (OPC) (100 V) VZ-1510-OPC, VZ-1820-OPC, VZ-3012-OPC, VZ-4506-OPC (including PS type) VZ-4506PS-OPC (120 V) VZ-1820-OPC, VZ-3012-OPC (including PS type)			
● VZH Series (OPC) (only 100 V / 120V) VZH-1820-OPC, VZH-3012-OPC (including PS type)			
Primary input power source	AC100V (50/60HZ)	AC120V (50/60HZ)	
External dimensions (mm)	160(W) × 175(D) × 84(H)mm		
Weight (kg)	1.5kg		
Accessories	Power supply cord: 1.8m with ground wire (1pc) Crimp-type terminals: 8pcs		
Plug Type	A-1	A-2	

Connection to PLC (programmable controller)

You can use the screwdriver with OPC specifications by cutting the cable for OPC at the tip to expose the lead and connect it to the PLC.

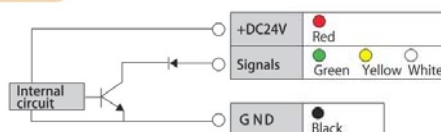
Note: The models connectable to the PLC are only AC type/VB, VBH, VZ screwdrivers (OPC).

Screwdrivers with OPC Specification

- These screwdrivers have the function to output signals of forward, reverse rotation and finish.
- The signals are separated by the photo coupler for safety.
- The output form is open collector output (Max. 24V/20mA) and the driver can be directly connected to the PLC, etc.



Internal circuit diagram



Guide for output wire colors

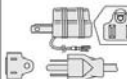
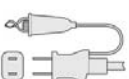

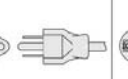
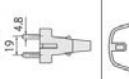




- Red: input of +DC24V
- Black: input of GND
- Green: output of forward rotation signal
- White: output of finish signal
- Yellow: output of reverse rotation signal

About PLC

For the time chart, please download the operation manuals of VB-OPC or VZ-OPC in PDF available on the HIOS website.

● Plug Type

Voltage	100V		120V	220-240V			
Plug Type	Type A	Type A-1	Type A-2	Type A-3	Type C	Type BF	Type S
							

- To prevent screw tightening skipping!
Separate screw counter

SC1 Series

The counter function can be added easily by connecting this to the existing HIOS power supply.


DC Type / For BL, BLG, BLG-ZERO1, BLG-BC1, BLG-BC2 Series

Model: BLOP-SC1 (for one screwdriver)

Compatible screwdrivers

Brushless screwdrivers

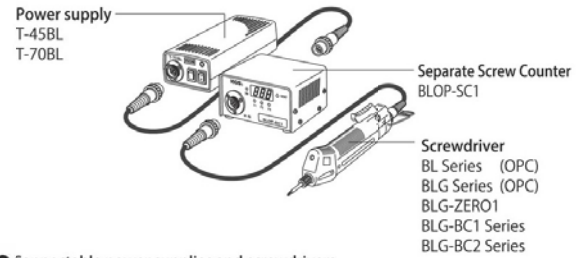
- BL Series (OPC)
- BLG Series (OPC)
- BLG-ZERO1 Series *
- BLG-BC1 Series *
- BLG-BC2 Series *



Primary input power source	DC20~31V
Secondary output voltage	Same as the secondary output voltage of the connected power supply.
External dimensions (mm)	110(W) × 100(D) × 55(H)mm
Weight (g)	600g
Accessories	Power supply cord: 1.5m (1pc) Crimp-type terminals: 8pcs

* These Screw Counter do not interlock with the counter function of the BLG-BC1/ BC2. Please turn off the counter function when you use with the Screw Counter.

Configuration of components



Connectable power supplies and screwdrivers

Power supplies	Connectable screwdrivers (OPC)
T-45BL (for one screwdriver)	BL-2000-OPC, BL-3000-OPC, BL-5000-OPC, BLG-4000-OPC, BLG-5000-OPC, BLG-4000ZERO*, BLG-5000ZERO1, BLG-4000BC1, BLG-5000BC1, BLG-4000BC2, BLG-5000BC2
T-70BL (for one screwdriver)	BL-2000-OPC, BL-3000-OPC, BL-5000-OPC, BL-5020-OPC, BL-7000-OPC, BLG-4000-OPC, BLG-5000-OPC, BLG-4000ZERO1, BLG-5000ZERO1, BLG-4000BC1, BLG-5000BC1, BLG-4000BC2, BLG-5000BC2


For CL, SS and α Series

Model: CLOP-SC1 (for one screwdriver)

Compatible screwdrivers

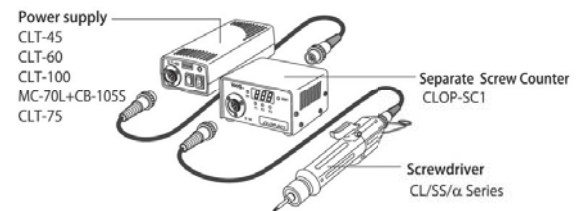
Brushed screwdrivers

- CL Series
- SS Series
- α Series



Primary input power source	DC20~31V
Secondary output voltage	Same as the secondary output voltage of the connected power supply.
External dimensions (mm)	110(W) × 100(D) × 55(H)mm
Weight (g)	600g
Accessories	Power supply cord: 1.5m (1pc) Crimp-type terminals: 8pcs

Configuration of components

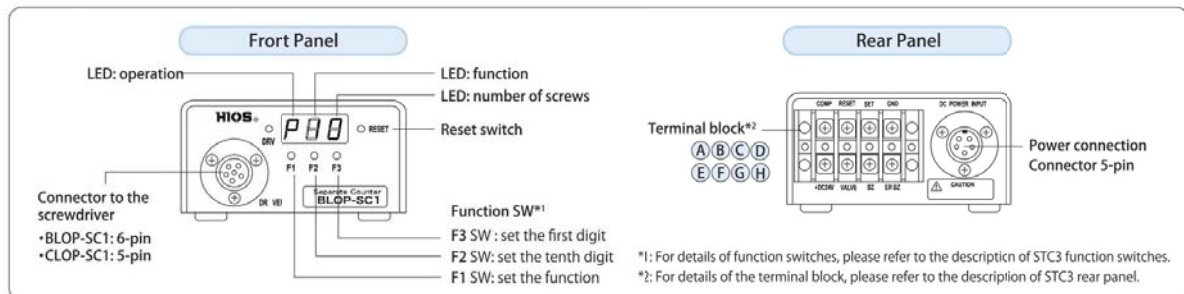


Connectable power supplies and screwdrivers

	Connectable screwdrivers
CLT-45 (for one screwdriver)	CL-2000, CL-3000, CL-4000, CL-6000, CL-6500 SS-2000, SS-3000, SS-4000, SS-6500, α-4500, α-5000
CLT-60 (for one screwdriver)	CL-2000, CL-3000, CL-4000, CL-6000, CL-6500, CL-7000
CLT-100 (for two screwdrivers)	SS-2000, SS-3000, SS-4000, SS-6500, SS-7000, α-4500, α-5000, α-6500*
MC-70L (Up to 20 screwdrivers)	CL-2000, CL-3000, CL-4000, SS-2000, SS-3000, SS-4000
+CB-105 (Up to 20 screwdrivers)	CL-6000, CL-6500, CL-7000, SS-6500, SS-7000, α-4500, α-5000
(multiple) (Up to 20 screwdrivers)	α-6500
CLT-80 (for one screwdriver)	CL-9000

* α-6500 cannot be connected with CLT-100 (for two screwdrivers).

Components of Separate Counter SC1



*1: For details of function switches, please refer to the description of STC3 function switches.
*2: For details of the terminal block, please refer to the description of STC3 rear panel.

Torque Meter

HP/HDP HM/HIT Series

HIOS Torque Meters are the industry benchmark.

- Measured data can be imported to a computer.
- Up to 100 data items can be stored in the memory and controlled (applicable to HP and HDP only).
- With one unit of Torque Meter, max, min and ave torque values can be measured (applicable to HP and HDP only).
- New product, H²-1 is ideal for measuring 10N·cm or smaller torque.
- Torque for both clockwise or counterclockwise can be measured.
- As a standard specification, data output and analogue output are available.
- We offer calibration and maintenance services.
- "Inspection Report" is attached to all the Torque Meters.

HP

HP-1*
HP-10
HP-100



* Available on request.

Use for making torque settings on electric screwdrivers, checking torque of torque wrenches or measuring torque of various rotating units, etc.



HP-1

Model		HP-1	HP-10	HP-100
Peak	N·m		0.015 - 1.000	0.15 - 10.00
measuring	N·mm	1.5 - 1000		
range	lbf·in	0.015 - 0.30	0.15 - 9.00	1.5 - 90.0
	(kgf·cm)		(0.15 - 10.00)	(1.5 - 100.0)
Accuracy		Within ±0.5% (F.S.)		
Measuring modes		TRACK, PEAK, FIRST PEAK		
External dimensions (mm)		230 × 124 × 65.2 (H)		
Weight (kg)		1.8kg		
Battery pack (charging time)		1.2V NiMH x 5 cells 1,000mA (within 6 hours)		
Continuous operating time on a full charge		8 hours		
Battery life		About 300 charges		
Exclusive battery charger		Input: AC 100-240V (50 / 60Hz) Output: DC 7.3-8V 0.5 A		

HDP

HDP-5
HDP-50
HDP-100*



* Available on request.

Use for measuring loosened torque of tightened screws or additional tightening torque.



Model		HDP-5	HDP-50	HDP-100
Peak measuring range	N • m lbf • in (kgf • cm)	0.015 - 0.500 0.15 - 4.40 (0.15 - 5.00)	0.15 - 5.00 1.5 - 44.0 (1.5 - 50.0)	0.15 - 10.00 1.5 - 90.0 (1.5 - 100.0)
Accuracy	Within ±0.5% (F.S.)			
Measuring modes	TRACK, PEAK, FRST PEAK			
External dimensions (mm)	Display unit	125 × 95.6 × 42 (H)		
	Detector	104(L) × Ø 21	160(L) × Ø 34.5	
	Detector bit socket	H4 or 1/4HEX	H5 or 1/4HEX	1/4HEX
Weight (kg)	Torque display	0.78kg		
	Detector	0.068kg	0.25kg	
Detector cord	1.7m (P/N: DPC-0506)			
Battery pack (charging time)	1.2V NiMH x 5 cells 1,000mA (within 6 hours)			
Continuous operating time on a full charge	8 hours			
Battery life	About 300 charges			
Exclusive battery charger	Input: AC 100-240V (50 / 60Hz) Output: DC 7.3-8V 0.5 A			

HM

HM-10
HM-100



Use for torque control of screwdrivers for automatic assembly machines



Model		HM-10	HM-100
Peak	N·m	0.015 - 1.000	0.15 - 10.00
measuring	lbf·in	0.15 - 9.0	1.5 - 90.0
range	(kgf·cm)	(0.15 - 10.0)	(1.5 - 100.0)
Accuracy		Within ±0.5% (F.S.)	
Measuring modes		TRACK and PEAK	
External dimensions (mm)	Torque display	165 × 95 × 55 (H)	
	Detector	119 × 45 × 33 (H)	
Weight (kg)	Torque display	1kg	
	Detector	0.35kg	
Detector cord		1.7m (P/N: DPC-0506)	
Battery pack (charging time)		6V NiMH (within 8 hours)	
Continuous operating time on a full charge		30 hours	
Battery life		About 300 charges	
Exclusive battery charger		Input: AC 100V, 120V, 220-240V Output: DC 7.2V 120mA	

HIT

HIT-200
HIT-500
HIT-2000



HIT Series is available on request.












Use for control of impact drivers and torque wrenches



Model		HIT-200	HIT-500	HIT-2000
Peak measuring range	N • m lbf • in (kgf • cm)	0.15 - 18.00 1.5 - 160.0 (1.5 - 180.0)	1.5 - 50.0 15 - 440 (15 - 500)	25.0 - 180.0 250 - 1600 (250 - 1800)
Accuracy		Within ± 1% (F.S.)		
Measuring modes		TRACK, PEAK, FIRST PEAK		
External dimensions of torque display (mm)		165 × 95 × 55 (H)		
Weight (kg)	Torque display	1kg		
	Detector	0.85kg		1.65kg
Socket mating diameter		9.5 square		12.7 square
Detector cord		1.7m (P/N:DPC-0506)		
Battery pack (charging time)		6V NiMH (with in 8 hours)		
Continuous operating time on a full charge		30 hours		
Battery life		About 300 charges		
Exclusive battery charger		Input: AC100V, 120V, 220-240V Output: DC 7.2V 120mA		






● HP Standard Accessories

RoHS 10 All fidaptor is RoHS compliant

Drive size	H4	H5	1/4HEX or 5HEX	1/4HEX or 5HEX
Model	HP-10	HP-100	HP-10	HP-100
Fidaptor with safety cover	P/N:TF4G-Z (Yellow) 1pc 	P/N:TF5G-Z (Black) 1pc 	P/N:TF6SG-Z (Yellow) 1pc 	P/N:TF6XG-Z (Black) 1pc 
Shaft with screw		HIOS Shank (H4) P/N:TF5G-0010-4 1pc  HEX Shank (2-step shaft) Upper: 5HEX Lower: 1/4HEX P/N:TF6XG-0010 1pc 		
Buffer spring		Measuring range: 0.15-0.6 N·m P/N:CL65-0040 (Yellow) 1pc 		Measuring range: 0.15-0.6 N·m P/N:CL65-0040 (Yellow) 1pc 
Others	● Exclusive battery charger* 1pc P/N:TCH-MULTI 	● Grease (only for HP-100) P/N:TF-G3 1pc 	● Inspection report 1 copy 	* For a battery charger to be used in a country other than Japan, see the battery charger list on P.74 because the applicable battery charger varies depending on the country.




* We do not sell the grease TF-G3 separately.

● Fidaptor List of HP Series (Fidaptor has started to have a limit line since April 2013 so that the output of electric screwdrivers can be measured under certain conditions.)







Model	HP-10					HP-100				
Classification	Options					Options				
P/N	TF4G-Z	TF6SG-Z	TF4SG-Z	TF4S-Z	TF5G-Z	TF5G-Z	TF6XG-Z	TF6LZ	TF6UP-Z*	
Measuring range (N·m)	0.15-0.6	0.15-0.6	0.25 or smaller	0.25 or smaller	0.5-1	0.5-3	0.5-3	3-9	3-9	
										
Bit drive	HIOS Shank H4	HEX Shank (2-step shaft) Upper: 5HEX Lower: 1/4HEX	HIOS Shank H4	HIOS Shank H4	HIOS Shank H5	HIOS Shank H5	HEX Shank (2-step shaft) Upper: 5HEX Lower: 1/4HEX	HEX Shank 1/4HEX	HEX Shank 1/4HEX	HEX Shank 1/4HEX

* The fidaptor for CL-9000 has to be TF6UP-Z.

● HDP Series Standard Accessories

Drive size	H4	H5	1/4HEX	1/4HEX	1/4HEX
Model	HDP-5	HDP-50	HDP-100	HDP-5	HDP-50
Bit type (1 bit each)	HIOS Shank (H4) + #0 × 40 mm + #1 × 40 mm + #2 × 40 mm	HIOS Shank (H5) + #0 × 60 mm + #1 × 60 mm + #2 × 60 mm	HEX Shank (1/4HEX) + #1 × 50 mm + #2 × 50 mm	HEX Shank (1/4HEX) + #1 × 50 mm + #2 × 50 mm	HEX Shank (1/4HEX) + #1 × 50 mm + #2 × 50 mm
Support arm				1pc	1pc
Others	● Exclusive battery charger* 1pc P/N:TCH-MULTI 	● Detector cord: 1.7m 1pc P/N:DPC-0506 	● Inspection report 1 copy 	* For a battery charger to be used in a country other than Japan, see the battery charger list on P.74.	

● HM Series Standard Accessories

Model	Fidaptor with screw	Buffer spring	Screw	L-wrench	Others
HM-10	P/N:TFM26-Z 1pc (Yellow) 		Replacement screws on the top of fidaptor: 5pcs	1.5mm (1pc)	● Exclusive battery charger* 1pc P/N:TCH-000N  ● Detector cord: 1.7m 1pc P/N:DPC-0506  ● Inspection report 1 copy 
HM-100	P/N:TFM40-Z 1pc (Black) 	P/N:CL65-0040 Measuring range: 0.15 to 0.6 N·m 	HEX socket set screws for fixing: 2 pcs	1.5mm (1pc) & 2mm (1pc)	

* For a battery charger to be used in a country other than Japan, see the battery charger list on P.74.

Those who use the old models of HP/HDP Series

The exclusive battery charger for the old models of HP/HDP Series (see the photos below) should be TCH-100N, TCH-120N, TCH-230G or TCH-230B. Check your Torque Meter. Please see the battery charger list on P.70.



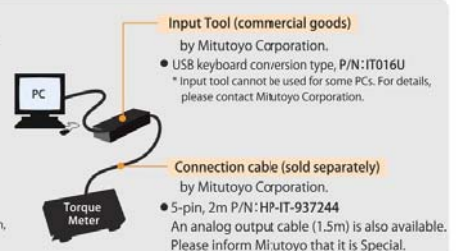
● Fidaptor List of HM Series

Model	HM-10		HM-100
Classification	Standard accessories	Options(to be purchased separately)	Standard accessories
P/N	TFM26-Z	TFM20-Z	TFM40-Z
Measuring range (N·m)	0.15-0.6	0.25 or below	0.5-3
			
	(Yellow)	(Red)	(Black)
Applicable tip No.	+ #1	+ #0	+ #2
Screw head diameter	M2.6	M2.0	M4.0

About data output

When you output the data, you have to connect the Torque Meter to the Input Tool to import the output data to a PC. Connect the input tool and the Torque Meter with a cable. You have to purchase the input tool and the cable separately.

* If you have any inquiries about the connection, please contact HIOS distributors.


























































Neji Taro aligns screws! The work efficiency of a production line will be dramatically improved.

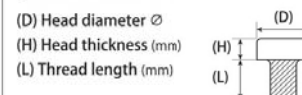
- A single unit can handle different screw sizes by changing rails.
- Easy rail replacement.
- Screws are stably aligned and quickly fed to a line.
- Feeding speed can be adjusted depending on operational conditions.
- Some models can handle special screws.

● Model selection chart

Model		Neji Taro V		Neji Taro II		Neji Taro III		HSF
		For manual operation HSV series	For automatic assembly machines HSV-RB series	For manual operation HS series	For automatic assembly machines HS-RB series	For manual operation HS III series	For automatic assembly machines HS III-RB series	For manual operation HSF series
								
Screw size (nominal)	M1.0	 HSV-10	 HSV-10RB	—	—	 HS III-10	—	 HSF-10
	M1.2	 HSV-12	 HSV-12RB	—	—	 HS III-12	—	 HSF-12
	M1.4	 HSV-14	 HSV-14RB	—	—	 HS III-14	 HS III-14RB	 HSF-14
	M1.7	 HSV-17	 HSV-17RB	—	—	 HS III-17	 HS III-17RB	 HSF-17
	M2.0	 HSV-20	 HSV-20RB	—	—	 HS III-20	 HS III-20RB	 HSF-20
	M2.3	 HSV-23	 HSV-23RB	—	—	 HS III-23	 HS III-23RB	 HSF-23
	M2.6	 HSV-26	 HSV-26RB	—	—	 HS III-26	 HS III-26RB	 HSF-26
	M3.0	 HSV-30	 HSV-30RB	—	—	 HS III-30	 HS III-30RB	 HSF-30
	M3.5	—	—	 HS-35	 HS-35RB	—	—	—
	M4.0	—	—	 HS-40	 HS-40RB	—	—	—
M5.0	—	—	 HS-50	 HS-50RB	—	—	—	
Screw transport type		 Horizontal feeder Rotary escaper		 Horizontal feeder Slide escaper (applicable only to automatic assembly machines)				

● Guide of specifications

The sizes (D), (H) and (L) of screws in the specifications refers to the following parts



About dimensions of screw feeders

The dimensions in the left chart don't include projections and depressors. See the DXF files from HIOS website for more information. www.hios.com

Go to DOWNLOAD -> DXF -> Automatic screw feeder

* Special software is required to view DXF files.

Configuration of Screw feeder

Main unit		Main unit only
Model		Main unit + applicable rail (1pc)
Replacement rail		Specify the rail's model number for ordering a rail.

Neji Taro V

HSV Series

Multiple input type
AC100V-240V

- A single unit can handle eight screw sizes by simply replacing the rail.
- The Rotary Escaper has been adopted to take out screws.
 - It has realized stable catching of screws by eliminating tangling of screws.
- Quickly catches unstable screws.
 - For examples, countersunk screws, screws with washer and thinner head screws can be handled
- Can be used with the vacuum pick up driver (for automatic assembly machines)

For manual operation

For automatic assembly machines

HSV Series



Models:

HSV-10 (M1.0) HSV-20 (M2.0)
HSV-12 (M1.2) HSV-23 (M2.3)
HSV-14 (M1.4) HSV-26 (M2.6)
HSV-17 (M1.7) HSV-30 (M3.0)

HSV-RB Series



Models:

HSV-10RB (M1.0) HSV-20RB (M2.0)
HSV-12RB (M1.2) HSV-23RB (M2.3)
HSV-14RB (M1.4) HSV-26RB (M2.6)
HSV-17RB (M1.7) HSV-30RB (M3.0)

● Specifications

Classification	HSV Series	HSV-RB Series
Power Supply	AC100-240V (50/60Hz)	
(AC adapter) Input	DC15V 1A	
Output		
Dimensions (mm)	123(W) × 181(D) × 145(H)	
Weight (kg)	About 3kg (including the rail)	
Screw capacity	80cc	
Overload protection circuit	Reverse rotation when overloaded, Forward rotation when restored	
Included Accessories:	1 installed standard rail, 2 guide plates (1 installed), 1 hexagonal wrench (width across flats 2mm), 1 screwdriver (for timer adjustment), 2 escaper guides for robot (1 installed), 1 AC adapter	

* AC adapter is included for overseas use.

● Range of screws that can be supplied

Main unit	Model	Nominal screw diameter	(D) Head diameter (φ)	(H) Head thickness (mm)	(L) Thread length (mm)	Replacement rail model number
HSV	HSV-10	M1.0	1.2-4.5	0.35-1.0	1.6-10	HSV-BI-10
	HSV-12	M1.2	1.4-4.5	0.35-1.0	1.8-10	HSV-BI-12
	HSV-14	M1.4	1.7-4.5	0.35-1.0	2.0-10	HSV-BI-14
	HSV-17	M1.7	2.0-4.5	0.35-1.0	2.3-10	HSV-BI-17
	HSV-20	M2.0	2.4-6	0.35-4.5	2.6-20	HSV-BI-20
	HSV-23	M2.3	2.7-6	0.35-4.5	2.9-20	HSV-BI-23
	HSV-26	M2.6	3.0-6	0.35-4.5	3.2-20	HSV-BI-26
	HSV-30	M3.0	3.5-6	0.35-4.5	3.6-20	HSV-BI-30
	HSV-10RB	M1.0	1.2-4.5	0.35-1.0	1.6-10	HSV-RI-10
	HSV-12RB	M1.2	1.4-4.5	0.35-1.0	1.8-10	HSV-RI-12
HSV-RB	HSV-14RB	M1.4	1.7-4.5	0.35-1.0	2.0-10	HSV-RI-14
	HSV-17RB	M1.7	2.0-4.5	0.35-4.5	2.3-10	HSV-RI-17
	HSV-20RB	M2.0	2.4-6	0.35-4.5	2.6-20	HSV-RI-20
	HSV-23RB	M2.3	2.7-6	0.35-4.5	2.9-20	HSV-RI-23
	HSV-26RB	M2.6	3.0-6	0.35-4.5	3.2-20	HSV-RI-26
	HSV-30RB	M3.0	3.5-6	0.35-4.5	3.6-20	HSV-RI-30

- A single unit can handle three screw sizes by changing rails.
- A large screw capacity of 150cc.
- Can be used with the vacuum pick up driver (for automatic assembly machines)

For manual operation

HS Series



Models:

HS-35 (M3.5) HS-40 (M4.0)
HS-50 (M5.0)

For automatic assembly machines

HS-RB Series



Models:

HS-35RB (M3.5) HS-40RB (M4.0)
HS-50RB (M5.0)

● Specifications

Classification	HS Series	HS-RB Series
DC out put	DC12V 500mA	
Dimensions (mm)	130(W)×215(D)×136(H)	134(W)×275(D)×136(H)
Weight (kg)	About 3.2kg (including the rail)	About 4.2kg (including the rail)
Screw capacity	150cc	
Overload protection circuit	Reverse rotation when overloaded, Forward rotation when restored	
Included Accessories:	1 installed standard rail, 1 guide plate, 1 hexagonal wrench (width across flats 2mm), 1 screwdriver (for timer adjustment)	

*AC adapter is excluded for overseas use. It should be selected and purchased locally according to the voltage.

● Range of screws that can be supplied

Main unit	Model	Nominal screw diameter	(D)Head diameter(φ)	(H)Head thickness(mm)	(L)Thread length(mm)	Replacement rail model number
HS-450	HS-35	M3.5	4.8-10.7	0.5-8.0	4.1-18	HS-R35
	HS-40	M4.0	5.4-10.7	0.5-8.0	4.6-18	HS-R40
	HS-50	M5.0	6.2-10.7	0.5-8.0	5.6-18	HS-R50
HS-450RB	HS-35RB	M3.5	4.8-10.7	0.5-8.0	4.1-18	HS-R35RB
	HS-40RB	M4.0	5.4-10.7	0.5-8.0	4.6-18	HS-R40RB
	HS-50RB	M5.0	6.2-10.7	0.5-8.0	5.6-18	HS-R50RB

- A single unit can handle different screw diameters by changing rails.
 - 8 screw sizes for the manual operation type, 6 screw sizes for the automatic assembly machines
- 120 pcs per minute at average / M3 x 8 (for automatic assembly machines)
- Can be used with the vacuum pick up driver (for automatic assembly machines)

For manual operation

HS III Series



Models:

HS III-10 (M1.0) HS III-20 (M2.0)
HS III-12 (M1.2) HS III-23 (M2.3)
HS III-14 (M1.4) HS III-26 (M2.6)
HS III-17 (M1.7) HS III-30 (M3.0)

For automatic assembly machines

HS III-RB Series



Models:

HS III-14RB (M1.4) HS III-23RB (M2.3)
HS III-17RB (M1.7) HS III-26RB (M2.6)
HS III-20RB (M2.0) HS III-30RB (M3.0)

● Specifications

Classification	HS III Series	HS III-RB Series
DC out put	DC12V 500mA	
Dimensions (mm)	123(W)×181(D)×145(H)	123(W)×181(D)×144(H)
Weight (kg)	About 3kg (including the rail)	
Screw capacity	80cc	
Overload protection circuit	Reverse rotation when overloaded, Forward rotation when restored	
Included Accessories:	1 installed standard rail, 1 guide plate, 1 hexagonal wrench (width across flats 2mm), 1 screwdriver (for timer adjustment), 1 gauge plate 0.35mm (HS III only)	

*AC adapter is excluded for overseas use. It should be selected and purchased locally according to the voltage.

● Range of screws that can be supplied

Main unit	Model	Nominal screw diameter	(D)Head diameter(φ)	(H)Head thickness(mm)	(L)Thread length(mm)	Replacement rail model number
HS III-300	HS III-10	M1.0	1.2-4.5	0.35-1.0	1.6-10	HS-SR10
	HS III-12	M1.2	1.4-4.5	0.35-1.0	1.8-10	HS-SR12
	HS III-14	M1.4	1.7-4.5	0.35-1.0	2.0-10	HS-SR14
	HS III-17	M1.7	2.0-4.5	0.35-1.0	2.3-10	HS-SR17
	HS III-20	M2.0	2.4-6	0.35-4.5	2.6-20	HS-SR20
	HS III-23	M2.3	2.7-6	0.35-4.5	2.9-20	HS-SR23
	HS III-26	M2.6	3.0-6	0.35-4.5	3.2-20	HS-SR26
	HS III-30	M3.0	3.5-6	0.35-4.5	3.6-20	HS-SR30
HS III-300 RB	HS III-14RB	M1.4	1.7-4.5	0.35-1.0	2.0-10	HS-SR14RB
	HS III-17RB	M1.7	2.0-4.5	0.35-1.0	2.3-10	HS-SR17RB
	HS III-20RB	M2.0	2.4-6	0.35-4.5	2.6-20	HS-SR20RB
	HS III-23RB	M2.3	2.7-6	0.35-4.5	2.9-20	HS-SR23RB
	HS III-26RB	M2.6	3.0-6	0.35-4.5	3.2-20	HS-SR26RB
	HS III-30RB	M3.0	3.5-6	0.35-4.5	3.6-20	HS-SR30RB

HSF Series

Multiple input type
AC100V-240V

- A single unit can handle different screw diameters by changing rails.
 - HSF-01 handles 5 screw sizes, and HSF-02 handles 3 screw sizes.
- Low-profile design most suitable for cell production with the width of 55mm
- It can handle screws with thin heads by adjusting the sensor.

For manual operation

HSF Series



Models:

HSF-10 (M1.0) HSF-20 (M2.0)
HSF-12 (M1.2) HSF-23 (M2.3)
HSF-14 (M1.4) HSF-26 (M2.6)
HSF-17 (M1.7) HSF-30 (M3.0)

● Specifications

Classification	HSF Series
Power supply Input	AC100-240V (50/60Hz)
Power supply Output	DC15V 1A
Dimensions (mm)	55(W)×205(D)×142.5(H)
Weight (kg)	About 2.4kg (including the rail)
Screw capacity	40cc
Overload protection circuit	Reverse rotation when overloaded, Forward rotation when restored
Included Accessories:	1 installed standard rail, 1 hexagonal wrench (width across flats 2mm), 1 screwdriver (for timer adjustment)

* AC adapter is included for overseas use.

● Range of screws that can be supplied

Main unit	Model	Nominal screw diameter	(D)Head diameter(φ)	(H)Head thickness(mm)	(L)Thread length(mm)	Replacement rail model number
HSF-01	HSF-10	M1.0	0.9-0.95	0.35-1.0	1.6-01	HS-WR10
	HSF-12	M1.2	1.1-1.15	0.35-1.0	1.8-10	HS-WR12
	HSF-14	M1.4	1.3-1.4	0.35-1.0	2.0-10	HS-WR14
	HSF-17	M1.7	1.6-1.7	0.35-1.0	2.3-10	HS-WR17
	HSF-20	M2.0	1.9-2.1	0.35-1.3	2.6-16	HS-WR20
HSF-02	HSF-23	M2.3	2.2-2.4	0.35-1.5	2.9-16	HS-WR23
	HSF-26	M2.6	2.5-2.7	0.35-1.7	3.2-16	HS-WR26
	HSF-30	M3.0	2.9-3.2	0.35-2.0	3.6-16	HS-WR30

Battery powered / Brushed Screwdriver

CD Serusute 12
CD Series

Portable model: CDS-12
Bench-mount model: CDB-12

Supports cell production to cut down on equipment investment and waste

- No need for an AC power supply or pneumatic equipment. Can be used in any kind of assembly or for disassembly of components for recycling.
- Easily adapt to any operational environment and flexibly movable. Reduces operating time and improve productivity.
- Serusute drivers are light in weight and reduce operator fatigue.
- Can tighten up to 4,000 screws (M3.0) with a single charge. Screw fastening operation can be well controlled to the very last screw.



Image of wearing (portable model CDS-12)

Screwdriver cord

Curled cord (6P) is used for all the CD screwdrivers.



Lever Start Type

Lever Start Type

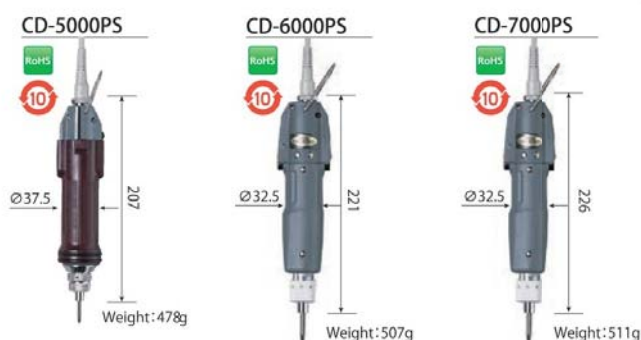
Unit:mm



Push-to-Start Type

Push to start type

Unit:mm



Specifications

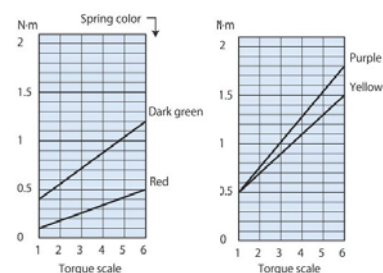
Lever Start Model		CD-4000	CD-5000	CD-6000	CD-7000
Push-to-Start Model			CD-5000PS	CD-6000PS	CD-7000PS
Rated input Voltage		12VDC			
Output	N·m	0.1 - 0.5	0.4 - 1.2	0.5 - 1.5	0.5 - 1.8
	lbf·in	0.9 - 4.3	3.5 - 10	4.3 - 13	4.3 - 16
Torque Range		(1 - 5)	(4 - 12)	(5 - 15)	(5 - 18)
Torque Switching		Stepless adjustment	Stepless adjustment	Stepless adjustment	Stepless adjustment
Unloaded Rotation Speed (r.p.m)±10%		1,000	1,000	1,300	900
Screw Size (mm)	Machine Screw	1.4 - 2.6	2.0 - 3.0	2.6 - 4.0	2.6 - 4.0
	Tapping Screw	1.4 - 2.3	2.0 - 3.0	2.6 - 4.0	2.6 - 4.0
Bit	HIOS Shank	H4	H4	H5	H5
Drive	HEX Shank	1/4HEX or 5HEX	1/4HEX or 5HEX	1/4HEX or 5HEX	1/4HEX or 5HEX
Accessories	Cord length (m)	2m (6P)	2m (6P)	2m (6P)	2m (6P)
	HIOS shank bit (one each)	H4 + #0 (Ø2.5×40 mm) H4 + #1 (Ø4.0×40 mm)	H4 + #1 (Ø4.0×40 mm) H4 + #2 (Ø4.0×40 mm)	H5 + #1 (Ø5×60 mm) H5 + #2 (Ø5×60 mm)	H5 + #1 (Ø5×60 mm) H5 + #2 (Ø5×60 mm)
	Carbon brush	1pair			
	(Order code)	(AB45-0420)			

Output torque guide (during 12V output)

(Including PS type)

CD-4000 (Red)
CD-5000 (Dark green)

CD-6000 (Yellow)
CD-7000 (Purple)



Portable model CDS-12

This tool has high maneuverability and supports cell production, conveyor cart production, etc.



(A) CDS-12 (B) Battery charger CDC-12SW (for one screwdriver)

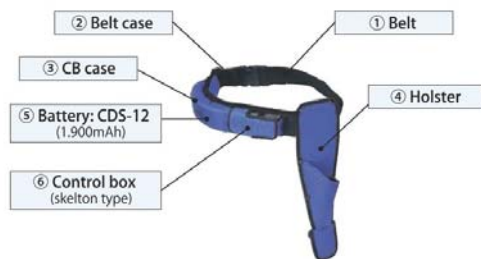
Bench mount model CDB-12

For attaching to a cart or automatic conveyor used in an assembly line.



(A) CDB-12 (B) Battery charger CDC-12SW (for one screwdriver)

CDS-12 Components



● Component names and part numbers

Component name	Part number
CDS-12 (set of ① to ⑥)	CDS-12
Holder case (set of ① to ④)	CDS12-HD
① Belt	CDS12-HD 01
② Belt case	CDS12-HD 02
③ CB case (controller & battery case)	CDS12-HD 03
④ Holster	CDS12-HD 04
⑤ Battery CDS12 (1,900mAh)	CDS12-BT-19
⑥ Control box (skelton type)	CDS-12-CB

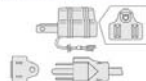
● Specifications

Model	CDS-12
Rated Input Voltage	12VDC
Battery Capacity	1,900mAh
Belt Length (cm)	70 ~ 110
Weight(g)	1,010*
Continuous operating time on a full charge	CD-5000: able to tighten about 4,000 screws with torque of 1N·m (10kgf·cm)
Connector	6P
Functions	Power ON/OFF SW, Breaker restoration

* The weight includes the holster case, the battery (1,900mAh) and the control box.

● Plug type

Type A / 100V



CDB-12 Battery & Controller



● Specifications

Model	Portable CDB-12
Rated Input Voltage	12VDC
Battery Capacity	1,900mAh
External Dimensions (mm)	152×100×50 (H)
Weight (g)	930
Continuous operating time on a full charge	CD-5000: able to tighten about 4,000 screws with torque of 1N·m (10kgf·cm)
Connector	6P
Functions	Power ON/OFF SW, Breaker restoration

CDC-12SW battery charger (for one battery)

Charger for the batteries for both portable and bench mount models.



● Specifications

Model	CDC-12SW (for one battery)
Primary input power voltage	AC100V±5% (50/60Hz)
Secondary output	DC15V 1,900mAh
Charging time	About 100 minutes
Dimensions (mm)	66×124×46(H)
Weight (g)	340g
Connector	6P
Plug type	A



With an automatic reversal mechanism, this tool detects overloading and prevents tap breakage

- Tapping tools for components with pilot holes.
- Automatically detects excessive load on the tap and the pilot hole, and returns the tap to prevent hole damage. For through or blind holes, operational efficiency increases because the tap automatically stops and returns when the specified depth is achieved.
- With this tool tap cleaning can be done easily to prevent screw tightening errors caused by paint or adhesive remaining in the hole.

Lever Start Type

Two-way Start System

Unit: mm

BL-5000SB



Electric tapper: BL-5000SB / Power supply: T-70BL

BL-5000SB



● Specifications

Model	BL-5000SB
Tapping capacity (mm)	0.9 - 2.6
Chuck diameter (mm)	Max. 4mm
Safe load torque adjustable range	N·m lbf·in (kgf·cm)
Unloaded rotation speed (r.p.m) ± 10%	HI LOW
HI	900
LOW	590
Accessories	
Stopper (one each)	Ø2.0mm Ø2.3mm Ø2.6mm
Chuck key	
Cord length (m)	1.5m (5P)
L-shaped HEX wrench	Width across flat: 5mm (1pc)

BL-7000SB



Electric tapper: BL-7000SB / Power supply: T-70BL

BL-7000SB



● Specifications

Model	BL-7000SB
Tapping capacity (mm)	2.0 - 4.0
Chuck diameter (mm)	Max. 6.5mm
Safe load torque adjustable range	N·m lbf·in (kgf·cm)
Unloaded rotation speed (r.p.m) ± 10%	HI LOW
HI	1,500
LOW	1,000
Accessories	
Stopper (one each)	Ø2.6mm Ø3.0mm Ø4.0mm
Chuck key	
Cord length (m)	2m (5P)
L-shaped HEX wrench	Width across flat: 5mm (1pc)

Power supply for BL-SB series

Model: T-70BL (for one tapper)	RoHS 10 CE UL
Primary input power source	AC100-240V (47-63Hz)
Secondary output voltage	HI(2): DC30V, LOW(1): DC20V (2-step switchable)
External dimensions (mm)	88(W) × 210(D) × 52 (H) mm
Weight (g)	685 g
Accessories	Power supply cord 1.8m (1pc), Flat 2P conversion plug (1pc) (only for 100V), Mounting hardware (2pcs), Mounting screws (4pcs)
Plug type	A A-2 A-3 / C / BF / S

● Plug type

Type A 100V		Type C 220V-240V	
Type A-1 100V		Type BF 220V-240V	
Type A-2 120V		Type S 220V-240V	
Type A-3 220V-240V			



Lever Start Type

Lever Start Type

SB-400C



Weight: 450g

The tap penetrates to the depthset by the stopper.



SB-650C



Weight: 750g

Unit: mm

Specifications

Model	SB-400C	SB-650
Tapping capacity (mm)	0.9 - 2.6	2.0 - 4.0
Chuck diameter (mm)	Max.4mm	Max.6.5mm
Safe load torque	N·m	0.1 - 0.55
adjustable range	lbf·in	7.3 - 23
	(kgf·cm)	(1 - 5.5)
Unloaded rotation speed (r.p.m) ± 10%	HI	1000
	LOW	570
Accessories	Stopper (one each)	Ø2.0mm
		Ø2.3mm
		Ø2.6mm
	Chuck key	
Cord length (m)	1.5m (5P)	2m (5P)
Carbon brush(order code)	1pair (CL4-0420)	1pair (CL4-0420)

Power supply for SB series

Model: T-45BL (for one tapper)		RoHS 10	CE	UL	CCC
Primary input power source	AC100-240V (47-63Hz)				
Secondary output voltage	HI(2): DC10V, LOW(1): DC20V (2-step switchable)				
External dimensions (mm)	115(W) × 146(D) × 42.6 (H) mm				
Weight (g)	320 g				
Accessories	Power supply cord 1.8m (1pc), Flat 2P conversion plug (1pc) (only for 100V), Mounting hardware (2pcs), Mounting screws (4pcs)				
Plug type	A	A-2	A-3/C/BF/S		

Variations

SB Applicable Drivers

Noiseless Screwdriver

SB-NL

Models:
SB-400NL
SB-650NL

Electrical noise is more subdued than standard screwdrivers.

Related Products

Related Products

SB Series Controller

Reverse operation is performed when tapping is complete or when overloading is detected, thereby preventing tap breakage.

SBC-1



Specifications

Model	SBC-1
External dimensions (mm)	70 × 100 × 42 (H)
Weight (g)	1535g
Compatible tappers	SB-400C, SB-650C
Power Supply	T-45BL, T-70BL
Accessories	Brackets × 2, Double-sided tape × 2

Screwdriver Bits for Exchange

HIOS Shank Type : H4(φ4) / H5(φ5)

There are three drive types: HIOS shank, two-way shank and Hex shank. Check which bit is compatible with your screwdriver before purchasing replacement bits.

《Screwdriver Bit》

HIOS Shank type (H4 / H5) Please use HIOS standard bit.		Two-way Shank type (H5 / SHEX) Either of HIOS bit or hex bit can be used.		Hex Shank type (1/4HEX / SHEX) Please purchase hex bit with the specified size from commercial stores.	
H4		H5		1/4HEX WAF: 6.35mm	
H5		SHEX WAF: 5mm		SHEX WAF: 5mm	

WAF: width across flats

WAF: width across flats

《List of compatible bit per model》

DC Type		Bit Drive				
Classification	Model	HIOS Shank	2-way Shank	Hex Shank		
		H4	H5	H5 & SHEX	1/4 HEX	5 HEX
Brushless	PG Series	PG-3000	●	—	—	—
		PG-5000	●	—	—	—
		PG-7000	—	—	●	—
	BLG-BC2 Series BLG-BC1 Series BLG-ZERO1 Series BLG Series	BLG-4000系	●	—	—	●
		BLG-5000系	●	—	●	—
		BLG-5000-15系	●	—	●	—
		BLG-5000-18系	—	—	●	—
		BLG-5000-HT系	—	—	●	—
	BL Series	BL-2000	●	—	—	—
		BL-3000	●	—	—	●
		BL-5000	●	—	●	—
		BL-5000-15	●	—	●	—
		BL-5020	●	—	●	—
		BL-7000	—	—	●	—
Brushed	CL Series	CL-2000	●	—	—	—
		CL-3000	●	—	—	—
		CL-4000	●	—	—	●
		CL-6000	—	●	—	●
		CL-6500	—	●	—	●
		CL-7000	—	●	—	●
		CL-9000	—	—	●	—

(Models include PS type.)

DC Type		Bit Drive				
Classification	Model	HIOS Shank	2-way Shank	Hex Shank		
		H4	H5	H5 & SHEX	1/4 HEX	5 HEX
Brushed	SS Series	SS-2000	●	—	—	—
		SS-3000	●	—	—	—
		SS-4000	●	—	—	●
		SS-6500	—	●	—	●
		SS-7000	—	●	—	●
	α Series	α-4500	●	—	—	●
		α-5000	—	—	—	●
		α-6500	—	●	—	●
	CD Series (Serusute 12)	CD-4000	●	—	—	●
		CD-5000	●	—	—	●
		CD-6000	—	●	—	●
		CD-7000	—	●	—	●

(Models include PS type.)

AC Type			Bit Drive					
Classification	Input type	Model	HIOS Shank		2-way Shank	Hex Shank		
			H4	H5	H5 & SHEX	1/4 HEX	5 HEX	
Brushless	VB Series	AC100V,120V, 220-240V	VB-1510	●	—	●	●	—
		VB-1510-18	●	—	●	●	—	
		VB-1820	—	—	—	●	—	
		VB-3012	—	—	●	●	—	
		VB-4504	—	—	—	●	—	
		AC100V	VB-2008	—	—	●	●	—
	VB+ Series	AC100V, 120V, 220-240V	VB-3020	—	—	●	●	—
			VBH-1820	—	—	—	●	—
			VBH-3012	—	—	—	●	—
Brushed	VZ Series	AC100V	VZ-1510	●	—	—	●	●
		AC220-240V	VZ-1812	—	—	●	●	—
		AC100V, 120V	VZ-1820	—	—	●	●	—
			VZ-3012	—	—	●	●	—
		AC100V, 220-240V	VZ-3007	—	—	●	●	—
			AC220-240V	VZ-4504	—	—	—	●
	VZ+ Series	AC100V, AC120V	VZ-4506	—	—	—	●	—
			VZH-1820	—	—	—	●	—
			VZH-3012	—	—	—	●	—

(Models include PS type.)

《Order guide》

Bit types	Details of bit specifications
BP: bit for ⊕ screw	BP - (Bit type: H4 or H5) - (Tip size No.) - (Shaft dia.) - (Total length in mm)
BS: bit for ⊖ screw	BS - (Bit type: H4 or H5) - (Blade width) - (Blade thickness) - (Total length in mm)
BH: bit for Hex socket head	BH - (Bit type: H4 or H5) - (Hex. WAF) - (Total length in mm)
BN: Nut box (for Hex nut)	BN - (Bit type: H4 or H5) - (Nut WAF) - (Total length in mm)
BC: Nut catcher (for catching nuts)	BC - (Bit type: H4 or H5) - (Nut WAF) - (Total length in mm)

*MOQ is 10 pieces.

WAF: width across flats

— Order examples —

Example 1: To order BP bits for + screw, the details should be




(Bit type H4), (tip size No. #1), (shaft diameter 3mm), (total length 40mm)

→ BP-H4-#1-3.0-40mm

Example 2: To order BP bits for slotted screw, the details should be






(Bit type H5), (blade width 3.0mm), (blade thickness), (total length 80mm)

→ BS-H5-3.0-0.4-8-80mm

BP	Bit for \oplus screws	Bit Drive	Specifications			Total length (mm) standard type														
			\oplus size No.	Tip dia. (\varnothing)	Shaft shape															
<div>\oplus</div> <div>(Shaft shape)</div> <div>Straight (A) </div> <div>Stepped (B) </div> <div>Stepped (C) </div> <div><div>Dimensions of the stepped bit (B)</div><table><tr><th>Bit Drive</th><th>H4</th><th colspan="3">H5</th></tr><tr><td>(a) Tip diameter \varnothing</td><td>Refer to the list on the right.</td><td>2.0</td><td>2.5</td><td>3.0</td></tr><tr><td>(b) Length mm</td><td>20</td><td>20</td><td>25</td><td>30*</td></tr></table><div>* Only the stepped part of "H5 + #1 [3.0 : 4.0mm]" is 15mm in length.</div></div>	Bit Drive	H4	H5			(a) Tip diameter \varnothing	Refer to the list on the right.	2.0	2.5	3.0	(b) Length mm	20	20	25	30*	H4($\varnothing 4$)	#00 (HIOS standard)	1.5	B	40, 60, 80
	Bit Drive	H4	H5																	
	(a) Tip diameter \varnothing	Refer to the list on the right.	2.0	2.5	3.0															
	(b) Length mm	20	20	25	30*															
	#0 (M1.4-N2.6)	1.2	B	40																
		1.5, 1.7	B	40, 60, 80																
		1.8	B	60																
		2.0, 2.5	B	40, 60, 80, 100, 120																
		3.0	B	40, 60, 80, 100, 120																
	#1 (M2.0-N2.6)	4.0	A	40, 60, 80, 100, 120, 150, 180, 200																
		#2 (M3.0-N5.0)	4.0	A	40, 60, 80, 100, 120, 150															
		H5($\varnothing 5$)	#0 (M1.4-N2.6)	2.0	B	60														
			#0 (M1.4-N2.6)	2.5	B	60, 80, 100, 120														
				3.0	B	40, 60, 80, 100, 120														
	#1 (M2.0-N2.6)			5.0	A	40, 60, 80, 100, 120, 150, 180, 200, 250, 300														
#2 (M3.0-N5.0)	5.0		A	40, 60, 80, 100, 120, 150, 180, 200, 250, 300, 400																
#3 (M6.0-N8.0)	7.0		C	60, 80, 100, 120																



 * For different specifications, please contact HIOS distributors. | | |

* For different specifications, please contact HIOS distributors.

BS	Bit for 	Bit Drive	Specifications			Total length (mm) standard type														
			Blade width(mm)	Blade thickness	Shaft shape															
 (Shaft shape) Straight (A)  Stepped (B)  Stepped (C)  <table border="1"><caption>Dimensions of the stepped bit (B)</caption><thead><tr><th>Bit Drive</th><th>H4</th><th colspan="3">H5</th></tr></thead><tbody><tr><td>(a) Blade width (mm)</td><td>Refer to the list on the right.</td><td>2.0</td><td>2.5</td><td>4.0</td></tr><tr><td>(b) Blade length (mm)</td><td>20</td><td>20</td><td>25</td><td>30</td></tr></tbody></table>	Bit Drive	H4	H5			(a) Blade width (mm)	Refer to the list on the right.	2.0	2.5	4.0	(b) Blade length (mm)	20	20	25	30	H4($\varnothing 4$)	1.1	0.28	B	60, 80
	Bit Drive	H4	H5																	
	(a) Blade width (mm)	Refer to the list on the right.	2.0	2.5	4.0															
	(b) Blade length (mm)	20	20	25	30															
	1.3	0.28	B	60, 80																
	1.5	0.3	B	40, 60, 80																
	1.7	0.3	B	40, 60, 80																
	1.8	0.4	B	60, 80																
	2.0	0.4	B	40, 60, 80																
	2.3	0.4	B	60, 80																
	2.5	0.4	B	40, 60, 80																
	2.8	0.4	B	60, 80																
	3.0	0.4	B	40, 60, 80																
	H5($\varnothing 5$)	4.0	0.6	A	40, 60, 80, 100															
		2.0	0.4	B	60															
2.5		0.4	B	60																
3.0		0.4	B	60, 80																
4.0		0.6	B	60																
5.0		0.7	A	60, 80, 100, 120, 150, 180																
7.0		1.0	C	60																



* For different specifications, please contact HIOS distributors.

* For different specifications, please contact HIOS distributors.



BH	Bit for Hex socket head screws	Bit Drive	Specifications	Total length (mm) standard type
			Nu: width across flat (mm)	
 (A)  Hexagonal wrench press fitted	H4($\phi 4$)		0.89, 1.5, 2.0, 3.0	60
			1.27	60, 100
			2.5	60, 100, 120
	H5($\phi 5$)		1.27	70
			1.5, 3.0, 4.0, 6.0	70, 100
			2.0, 2.5, 5.0	70, 100, 120

HEX 0.89mm and 1.27mm are A-type only. / HEX1.5mm is applicable to both types. (How to order) Example : BH-H4 or H5-1.5(A) \times 60mm.

* For different specifications, please contact HIOS distributors.

BN	Nut box (bit for Hex nut)	Bit Drive	Specifications	Total length (mm) standard type
			Hex width across flat (mm)	
 	H4($\phi 4$)		2.3, 2.5, 3.0	40
			4.0, 4.5, 5.0, 5.5, 6.0, 7.0, 8.0, 9.0	60
			10.0	60
	H5($\phi 5$)		4.0, 4.5, 5.0, 5.5, 6.0, 6.35	60
			7.0, 8.0	80
			9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 17.0	80

* For different specifications, please contact HIOS distributors.

BC	Nut catcher (bit for catching Hex nut)	Bit Drive	Specifications	Total length (mm) standard type
			Nu: width across flat (mm)	
 	H4($\phi 4$)		4.0, 4.5, 5.0, 5.5, 6.0, 7.0	60
			8.0	65
	H5($\phi 5$)		4.0, 4.5, 5.0, 5.5, 6.0, 7.0	60
			8.0	65

* For different specifications, please contact HIOS distributors.

Hexalobular Screwdriver Bits

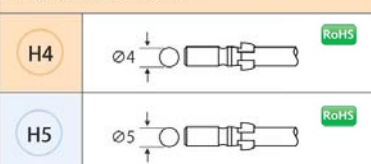
HIOS Shank Type : H4(Ø4) / H5(Ø5)

There are three drive types: HIOS Shank, two-way Shank and Hex Shank. Check which bit is compatible with your screwdriver before purchasing.



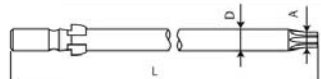
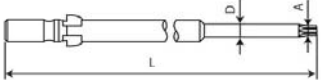
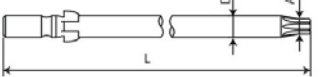
《Screwdriver Bit》


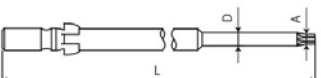
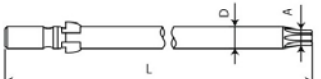
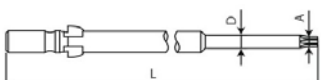
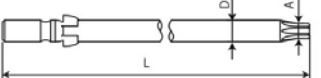
HIOS Shank type (H4 / H5)

Please use HIOS standard bit.



- Hexalobular bits will be discontinued as soon as the present stock has run out.
- For different specifications, please contact HIOS distributors.

HEXALOBULAR BIT		For Hexalobular Screw		Type	Name	Part No.	Dimensions (mm)		
		H4	H4-HW-T3×1.7×60	TX403060	1.1	1.7	60		
			H4-HW-T4×1.8×60	TX404060	1.3	1.8	60		
			H4-HW-T5×2.0×60	TX405060	1.4	2.0	60		
			H4-HW-T6×2.5×60	TX406060	1.7	2.5	60		
			H4-HW-T8×3.0×60	TX408060	2.3	3.0	60		
		Type	Name	Part No.	Dimensions (mm)				
		A	D	L					
		H4	H4-HW-T10×4.0×60	TX410060	2.7	4.0	60		
			Type	Name	Part No.	Dimensions (mm)			
			A	D	L				
H5	H5-HW-T8×3.0×80		TX508080	2.3	3.0	80			
	Type		Name	Part No.	Dimensions (mm)				
	A		D	L					
	H5	H5-HW-T10×5.0×80	TX510080	2.7	5.0	80			
	H5-HW-T20×5.0×80	TX520080	3.8	5.0	80				

TAMPER PROOF		W/Hole		Type	Name	Part No.	Dimensions (mm)		
		H4	H4-HW-T8H×3.0×60	TX408060H	2.3	3.0	60		
				Type	Name	Part No.	Dimensions (mm)		
				A	D	L			
				H4	H4-HW-T10H×4.0×60	TX410060H	2.7	4.0	60
					Type	Name	Part No.	Dimensions (mm)	
	A	D			L				
	H5	H5-HW-T8H×3.0×80	TX508080H		2.3	3.0	80		
		Type	Name		Part No.	Dimensions (mm)			
		A	D		L				
		H5	H5-HW-T10H×5.0×80	TX510080H	2.7	5.0	80		
H5-HW-T20H×5.0×80		TX520080H	3.8	5.0	80				

TORX® & TORX PLUS® Screwdriver Bits

HIOS Shank Type : H4(Ø4) / H5(Ø5)

There are three drive types: HIOS Shank, two-way Shank and Hex Shank. Check which bit is compatible with your screwdriver before purchasing.

《Screwdriver Bit》

HIOS shank type (H4 / H5)

Please use HIOS standard bit.

H4



RoHS


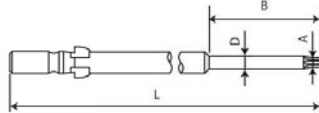

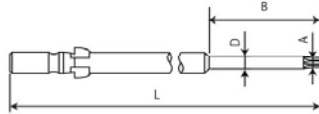

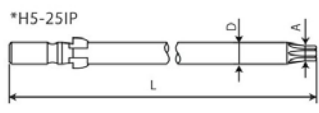
H5



RoHS

TORX®, TORX PLUS® are registered trademarks of Acument Intellectual Properties, LLC

- TORX®, TORX PLUS® Screwdriver bits are available on request.
- For different specifications, please contact HIOS distributors.

TORX®		For TORX® Screw		Type	Drive	Name	Part No.	Dimensions (mm)			
				H4				A	D (Φ)	B	L
					T3	TORX-H4-T3-X-()	TORX403()	1.12	1.7	20	40,60,80, 100,120
					T4	TORX-H4-T4-X-()	TORX404()	1.30	1.8	20	
					T5	TORX-H4-T5-X-()	TORX405()	1.37	2.0	20	
					T6	TORX-H4-T6-X-()	TORX406()	1.65	2.5	20	
					T8	TORX-H4-T8-X-()	TORX408()	2.30	3.0	20	
					T10	TORX-H4-T10-X-()	TORX410()	2.72	3.0	20	
								→ *The () in the Part No. will be 3 digits. FX. TORX-H4-T3X60 → TORX403060 TORX-H4-T3X100→TORX403100			
								→ *The () in the Name means total length (L) of bit.			
TORX PLUS®		For TORXPLUS® Screw		Type	Drive	Name	Part No.	Dimensions (mm)			
				H4				A	D (Φ)	B	L
					4IP	TORX PLUS H4-4IP-X-()	TORX404IP()	1.28	1.8	20	40,60,80, 100,120
					5IP	TORX PLUS H4-5IP-X-()	TORX405IP()	1.40	2.0	20	
					6IP	TORX PLUS H4-6IP-X-()	TORX406IP()	1.68	2.5	20	
					8IP	TORX PLUS H4-8IP-X-()	TORX408IP()	2.29	3.0	20	
					10IP	TORX PLUS H4-10IP-X-()	TORX4010IP()	2.71	3.0	20	
				Type	Drive	Name	Part No.	Dimensions (mm)			
				H5				A	D (Φ)	B	L
					8IP	TORX PLUS H5-8IP-X-()	TORX508IP()	2.29	3.0	20	40,60,80, 100,120
					10IP	TORX PLUS H5-10IP-X-()	TORX510IP()	2.71	3.0	20	
					15IP	TORX PLUS H5-15IP-X-()	TORX515IP()	3.25	3.5	20	
					20IP	TORX PLUS H5-20IP-X-()	TORX520IP()	3.83	4.0	20	
					25IP*	TORX PLUS H5-25IP-X-()	TORX525IP()	4.39	5.0	—	

Accessories for Suction(Vacuum) screwdrivers

(Suction attachment/mouthpiece/bit)

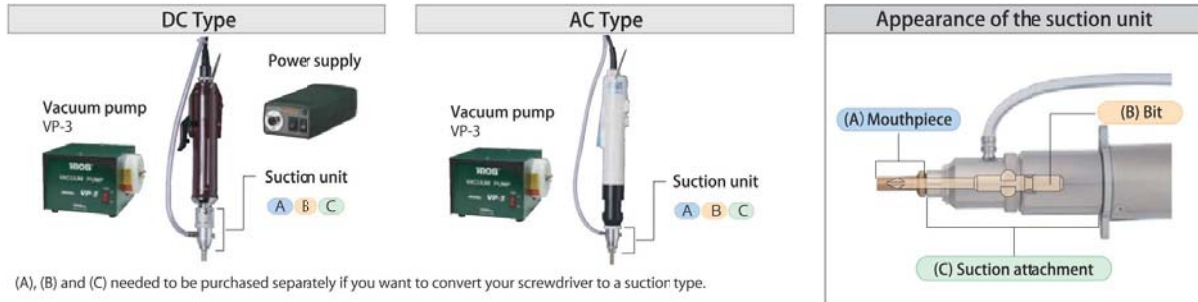
Standard accessories

DC Type: BLG-BC2, BLG-BC1, BLG-ZERO1, BLG, BL, CL, SS, α Series BLF, CLF, αF Series





















AC Type: VB, VZ Series

Various sizes of accessories for Suction screwdrivers (Suction attachment, bit and mouthpiece) are available. Please refer to the compatible accessory chart to find out appropriate parts for your screwdrivers.

《Construction of Suction (Vacuum pick up) screwdrivers》



《Compatible accessory chart》

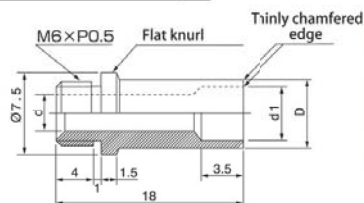
Classification			Model name	(A)	(B)	(C)						
				Mouthpiece	Applicable bit	Suction attachment		Appearance				
DC Type	Brushless	BLG-BC2 Series	BLG-4000 Series	F3 Standard 18mm	H4 60mm	BLGQ4-SET	—					
		BLG-BC1 Series	BLG-5000 Series	F3 Standard 18mm	H4 40mm	BLQ5-SET	BLQ5-SET-ESD					
		BLG-ZERO1 Series	BLG-5000-15 Series	H4 60mm	BLQ5N-SET	BLQ5N-SET-ESD						
		BLG Series	BLG-5000-18 Series	Please contact HIOS distributors.								
		BL Series	BL-2000	F3 Standard 18mm	H4 60mm	CLQ2-SET	CLQ2-SET-ESD					
			BL-3000			BLQ3N-SET	BLQ3N-SET-ESD					
			BL-5000	F3 Standard 18mm	H4 60mm	BLQ5-SET	BLQ5-SET-ESD					
			BL-7000			F6 Standard 31mm	H5 80mm			BLQ7-SET	BLQ7-SET-ESD	
		PGF Series	PGFQ	PGFQ-3000	F3 Standard 18mm	H4 80mm	PGFQ3-SET	—				
			PGFR (special order item)	PGFQ-5000	F3 Standard 18mm	H4 80mm	PGFQ5-SET	—				
				PGFQ-7000	F6 Standard 31mm	H5 100mm	PGFQ7-SET	—				
	PGFR-5000			Refer to P.64	Refer to P.65-66	Refer to P.65-66	Refer to P.65-66					
	BLF Series	BLFQ	BLFQ-2000	F3 Standard 18mm	H4 60mm	BLFQ2-SET	—					
			BLFQ-5000	F6 Standard 31mm	H5 100mm	BLFQ5-SET	—					
			BLFQ-7000	Refer to P.65-66	Refer to P.65-66	Refer to P.65-66	Refer to P.65-66					
		BLFR (special order item)	BLFR-5000 / 7000X 7025X	Refer to P.65-66	Refer to P.65-66	Refer to P.65-66	Refer to P.65-66					
	Brushed	CL Series	CLQ-2000	F3 Standard 18mm	H4 60mm	CLQ2-SET	CLQ2-SET-ESD					
			CLQ-3000 / 4000			CLQ4-SET	CLQ4-SET-ESD					
			CLQ-6000 / CLQ-6500 / 7000	F6 Standard 31mm	H5 80mm	CLQ65-SET	CLQ65-SET-ESD					
		SS Series	SSQ-2000	F3 Standard 18mm	H4 60mm	CLQ2-SET	CLQ2-SET-ESD					
			SSQ-3000 / 4000			CLQ4-SET	CLQ4-SET-ESD					
			SSQ-6500 / 7000	F6 Standard 31mm	H5 80mm	CLQ65-SET	CLQ65-SET-ESD					
		α Series	αQ-4500 / 5000	F3 Standard 18mm	H4 60mm	CLQ4-SET	CLQ4-SET-ESD					
			αQ-6500	F6 Standard 31mm	H5 80mm	CLQ65-SET	CLQ65-SET-ESD					
		CLF Series	CLFQ-3000 / 4000	F3 Standard 18mm	H4 60mm	CLFQ4-SET	—					
			αFQ-4500 / 5000	F6 Standard 36mm	H5 100mm	CLFQ65-SET	—					
		αFQ Series	CLFQ-6000 / α500 / 7000 / αFQ-6500	F6 Standard 36mm	H5 100mm	CLFQ65-SET	—					
AC Type		Brushless	VB Series	AC100V	VB-3020	VZQ18-SET	—					
				AC100V AC120V, AC220-240V	VB-1820 / 30'2					F6 Standard 31mm	H5 100mm	
		Brushed	VZ Series	AC100V	VZQ-1510			F3 Standard 18mm	H4 60mm	VZQ10-SET		
				AC100V AC120V, AC220-240V	VZQ-1812 / 1320 3007 / 3012			F6 Standard 31mm	H5 100mm	VZQ18-SET		

* If you use 1/4HEX bits for BL-5000X, BL-5020, VZ and VB Series, please contact HIOS distributors.

(A) Mouthpiece

F3 Standard 18mm (total length)

Cross-sectional view of a mouthpiece



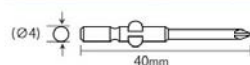
The material of the mouthpiece is BS (brass) only.
For different materials, please contact HIOS distributors.

Order code	Mouthpiece dimensions (mm)			Screw head shape and screw size		
	D	d	d1	JIS⊕screw (machine screw)	JIS⊖screw (machine screw)	JIS⊖screw (machine screw)
F3-00	7.5	Blank		User-finished part	User-finished part	User-finished part
F3-01	3.3	2.1	2.1		Class 1 M1.4	
F3-02	3.6	2.6	2.6		Class 1 M1.7 / Class 3 M1.4	
F3-03	4.1	3.1	3.1		Class 1 M2.0 / Class 3 M1.7	
F3-04	4.6	3.6	3.6	Pan, round M2.0	Class 1 M2.3 / Class 3 M2.0	Pan, round, flat M2.0 / countersunk, round countersunk M1.7
F3-05	5.1	4.1	4.1	Pan, round M2.3 / countersunk, round countersunk M2.0	Class 1 M2.6 / Class 3 M2.3	Countersunk, round countersunk M2.0
F3-06	5.8	4.3	4.5	Pan, round M2.6	Class 3 M2.6	Binding M2.0
F3-07	7.0	4.3	5.5	Pan, round M3.0 / binding M2.6		Pan, round, flat M3.0 / binding M2.6
F3-10	5.5	4.3	4.3	Binding M2.0		Pan, round, flat M2.3
F3-11	6.0	4.0	4.9	Binding M2.3		Binding M2.3
F3-15	3.8	2.8	2.8			Pan, round, flat M1.4
F3-16	3.5	2.5	2.5			Countersunk, round countersunk, M1.2
F3-17	4.3	3.3	3.3			Pan, round, flat M1.7

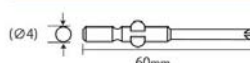
- For different specifications, please contact HIOS distributors.
- Mouthpieces is 3-pack.

(B) Compatible bits

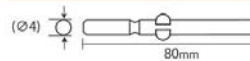
H4(Ø4) Total length : 40mm



H4(Ø4) Total length : 60mm



H4(Ø4) Total length : 80mm



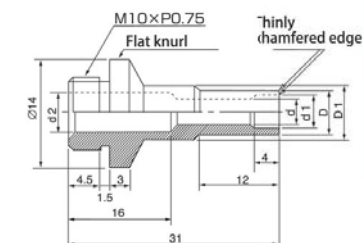
Screw recess	Screw size	Bit	Order code
JIS⊕screw	M2.0-M2.6	BP-H4- # 1-3.0-40(60)(80)	BP4130040(60)(80)
	M3.0	BP-H4- # 2-4.0-40(60)(80)	BP4240040(60)(80)
	M1.4 Class, Class 1	BP-H4- # 0-1.8-40(5)(60)(80)	BP4018040(5)(60)(80)
JIS⊖screw	M1.4-M1.7	BP-H4- # 0-2.0-40(60)(80)	BP4020040(60)(80)
	M2.0-M2.6	BP-H4- # 0-2.5-40(60)(80)	BP4025040(60)(80)
	M1.2	BS-H4-2.0-40(60)(80)	BS420040(60)(80)
JIS⊖screw	M1.4	BS-H4-2.5-40(60)(80)	BS425040(60)(80)
	M1.7-M2.0	BS-H4-3.0-40(60)(80)	BS430040(60)(80)
	M2.3-M3.0	BS-H4-4.0-40(60)(80)	BS440040(60)(80)

- The () in the list means total length of bit.
- For special order item 1.8 x 40, please contact HIOS distributors.

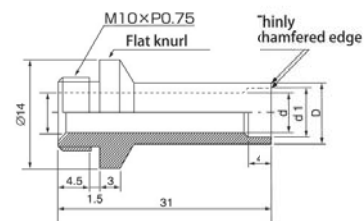
(A) Mouthpiece

F6 Standard 31mm (total length)

Cross-sectional view of mouthpiece A



Cross-sectional view of mouthpiece B



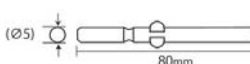
The material of the mouthpiece is BS (brass) only.
For different materials, please contact HIOS distributors.

Drawing	Order code	Reference mouthpiece dimensions (mm)					Screw head shape and screw size	
		D	D1	d	d1	d2	JIS⊕screw (machine screw)	JIS⊖screw (machine screw)
B	F6-00	8.0		Blank			User-finished part	User-finished part
	F6-01	4.6	7.0	3.5	3.6	5.5	Pan, round M2.0	Pan, round M2.0
A	F6-02	5.1	7.0	3.5	4.1	5.5	Pan, round M2.3 / Countersunk, round countersunk M2.0	Pan, round M2.3
	F6-03	5.8	7.0	3.5	4.5	5.5	Pan, round M2.6 / binding, truss M2.0	Binding, truss M2.0
B	F6-04	7.0		5.5	5.5		Pan, round M3.0 / binding M2.6	Pan, round M3.0 / binding M2.6
	F6-05	7.5		5.5	6.0		Countersunk, round countersunk M3.0	Truss M2.6
A	F6-06	8.5		5.5	7.0		Pan, round M4.0 / truss M3.0	Pan, round M4.0 / truss M3.0
	F6-09	6.5	7.0	3.5	5.2	5.5	Countersunk, round countersunk M2.6	Truss M2.3
B	F6-10	14.0		Blank			User-finished part	User-finished part
	F6-11	7.7		5.5	6.3		Binding M3.0	Binding M3.0
A	F6-13	9.7		5.5	8.3		Binding M4.0	
	F6-16*	9.4		5.5	8.0		Countersunk, round countersunk M4.0	
B	F6-22*	9.7		7.5	8.3			Binding M4.0

- * Special order item
- For different specifications, please contact HIOS distributors.
- Mouthpieces is 3-pack.

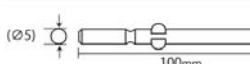
(B) Compatible bits

H5(Ø5) Total length : 80mm



Screw recess	Screw size	Bit	Order code
JIS⊕screw	M2.0-M2.6	BP-H5- # 1-3.0 x 80	BP5130080
	M3.0-M5.0	BP-H5- # 2-5.0 x 80	BP5250080
JIS⊖screw	M2.0-M2.3	BS-H5-3.0 x 80	BS530080
	M3.0-M4.0	BS-H5-5.0 x 80	BS550080

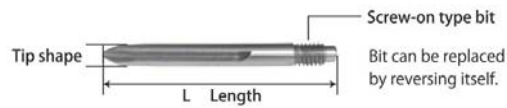
H5(Ø5) Total length : 100mm



Screw recess	Screw size	Bit	Order code
JIS⊕screw	M2.0-M2.6	BP-H5- # 1-3.0-100	BP5130100
	M3.0-M5.0	BP-H5- # 2-5.0-100	BP5250100
JIS⊖screw	M3.0-M4.0	BS-H5-5.0-100	BS550100

- Truss: Use *+ #1" for M3.0.

(B) Screw-on type bit

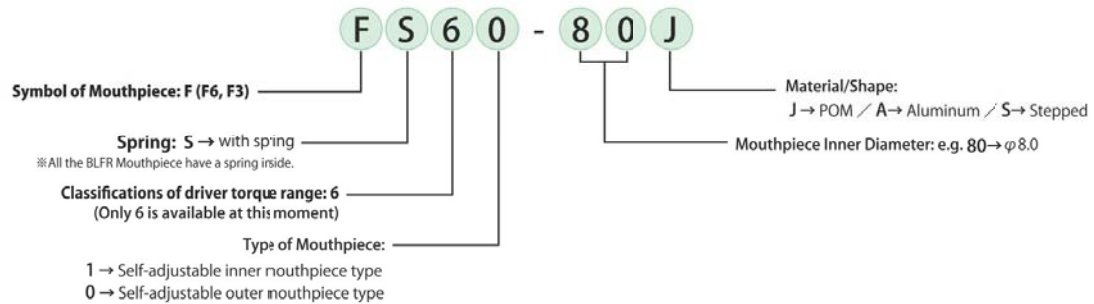


● Specifications

Model	Tip shape	Order Code	Length	Diameter
PGFR-5000 PGFR-7000 BLFR-5000 BLFR-7000X BLFR-7025X	+ #1	RBP4140S	40mm	φ 4
	+ #2	RBP4240S	40mm	φ 4

(C) Mouthpiece with spring

● Identification of the BLFR Mouthpiece Order Code



● Specifications

Self-adjustable inner mouthpiece type			Self-adjustable outer mouthpiece type		
Order Code			Order Code		
FS61-68		as vacuuming a screw	FS60-68J / FS60-68A		POM: FS60-68 Stepped: FS60-68A
FS61-68S		as vacuuming a screw			
FS61-74		as vacuuming a screw	FS60-80J		

● Adaptive screw size indications

Screw Size		M2.6			M3.0			M4.0		
Screw Type		Pan	Binding	Truss	Pan	Binding	Truss	Pan	Binding	Truss
Model	BLFR-5000	FS61-68 FS61-68S			FS61-68 FS61-68S		FS61-68S FS61-74	FS61-74		
	BLFR-7000X				FS60-68J / FS60-68A				FS60-80J M4.0 or larger	
	BLFR-7025X				FS60-68J / FS60-68A				FS60-80J M4.0 or larger	

Order Codes

● Guidance about the notation of the code table

- 「H5 & 5HEX」 in the order codes table below means that the models can be used with screwdriver bits either with H5 or 5HEX bit end.
- The suction (Vacuum) attachment for H5 can be used with the driver models with drive H5 & 5HEX.

P.7 Pass-guard PG series				
PG	HIOS	Model	Order Code	Bit Drive
		PG-3000	PG-3000	H4
		PG-5000	PG-5000	
	PG-7000	PG-7000	H5 & 5HEX	
	HEX	PG-5000		PG-5000X5
			PG-5000X	1/4HEX
		PG-7000	PG-7000	
Product name		Order Code	Model	
Control Unit		PG-01	PG-01	

P.11 BLG-BC1 Standard type			
BLG-BC1	HEX	Model	Order Code Bit Drive
		BLG-4000BC1	BLG-4000XEC1 1/4HEX
		BLG-5000BC1	BLG-5000X5BC1 H5 & 5HEX
		BLG-5000BC1	BLG-5000XEC1 1/4HEX
		BLG-5000BC1-15	BLG-5000X53C1-15 H5 & 5HEX
		BLG-5000BC1-15	BLG-5000XEC1-15 1/4HEX
		BLG-5000BC1-18	BLG-5000BC1-18 H5 & 5HEX
		BLG-5000BC1-18	BLG-5000XEC1-18 1/4HEX
		BLG-5000BC1-18	BLG-5000X53C1-HT H5 & 5HEX
		BLG-5000BC1-HT	BLG-5000XEC1-HT 1/4HEX
		BLG-5000BC1-HT	
		BLG-5000BC1-HT	

P.16 BLG Variations			
OPC	HEX	Model	Order Code Bit Drive
		BLG-4000-OPC	BLG-4000X-OPC 1/4HEX
		BLG-5000-OPC	BLG-5000X5-OPC H5 & 5HEX
		BLG-5000-OPC	BLG-5000X-OPC 1/4HEX
		BLG-5000-OPC-15	BLG-5000X5OPC-15 H5 & 5HEX
		BLG-5000-OPC-15	BLG-5000XOPC-15 1/4HEX
		BLG-5000-OPC-18	BLG-5000X5OPC18 H5 & 5HEX
		BLG-5000-OPC-18	BLG-5000XOPC-18 1/4HEX
		BLG-5000-OPC-HT	BLG-5000X5OPCHT H5 & 5HEX
		BLG-5000-OPC-HT	BLG-5000X-OPCHT 1/4HEX
		BLG-5000-OPC-HT	
		BLG-5000-OPC-HT	

P.9 BLG-BC2 Standard type			
BLG-BC2	HIOS	Model	Order Code Bit Drive
		BLG-4000BC2	BLG-4000BC2 H4
		BLG-5000BC2	BLG-5000BC2 H5 & 5HEX
		BLG-5000BC2-15	BLG-5000H5BC2 H5 & 5HEX
		BLG-5000BC2-15	BLG-5000H5BC215 H5 & 5HEX
		BLG-5000BC2-18	BLG-5000BC2-18 H5 & 5HEX
		BLG-5000BC2-18	BLG-5000BC2-18 H5 & 5HEX
		BLG-5000BC2-HT	BLG-5000BC2-HT H5 & 5HEX
		BLG-5000BC2-HT	BLG-5000BC2-HT H5 & 5HEX
		BLG-5000BC2-HT	BLG-5000BC2-HT H5 & 5HEX
		BLG-5000BC2-HT	BLG-5000BC2-HT H5 & 5HEX
		BLG-5000BC2-HT	BLG-5000BC2-HT H5 & 5HEX
	HEX	BLG-4000BC2	BLG-4000XBC2 1/4HEX
		BLG-5000BC2	BLG-5000X5BC2 H5 & 5HEX
		BLG-5000BC2	BLG-5000XBC2 1/4HEX
		BLG-5000BC2-15	BLG-5000X5BC2-15 H5 & 5HEX
		BLG-5000BC2-18	BLG-5000X5BC2-18 H5 & 5HEX
		BLG-5000BC2-18	BLG-5000X5BC2-18 H5 & 5HEX
		BLG-5000BC2-HT	BLG-5000X5BC2-HT H5 & 5HEX
		BLG-5000BC2-HT	BLG-5000X5BC2-HT H5 & 5HEX

Product name	Order Code	Model
External Input / output cable	BLG-BC2-3010	BLG-BC2-3010

Product name	Order Code	Model
External I/O Box	BLG-IO-Pro1	BLG-IO-Pro1

Product name	Order Code	Model
Serial-to-parallel Conversion Box	BLG-IF2	BLG-IF2

P.13 BLG-ZERO1 Series			
BLG-ZERO1	HIOS	Model	Order Code Bit Drive
		BLG-4000ZERO1	BLG-4000XZERO1 H4
		BLG-5000ZERO1	BLG-5000X5ZERO1 H5 & 5HEX
		BLG-5000ZERO1-15	BLG-5000XZERO1-15 H4
		BLG-5000ZERO1-15	BLG-5000H5ZERO1-15 H5 & 5HEX
		BLG-5000ZERO1-18	BLG-5000ZERO1-18 H5 & 5HEX
		BLG-5000ZERO1-18	BLG-5000ZERO1-18 H5 & 5HEX
		BLG-5000ZERO1-HT	BLG-5000ZERO1-HT H5 & 5HEX
		BLG-5000ZERO1-HT	BLG-5000XZERO1-HT 1/4HEX
		BLG-5000ZERO1-HT	BLG-5000X5ZERO1 H5 & 5HEX
		BLG-5000ZERO1-HT	BLG-5000XZERO1 1/4HEX
		BLG-5000ZERO1-HT	BLG-5000X5ZERO1-15 H5 & 5HEX
		BLG-5000ZERO1-HT	BLG-5000XZERO1-15 1/4HEX
		BLG-5000ZERO1-HT	BLG-5000XZERO1-18 H5 & 5HEX
		BLG-5000ZERO1-HT	BLG-5000XZERO1-18 1/4HEX
		BLG-5000ZERO1-HT	BLG-5000XZERO1-HT H5 & 5HEX
		BLG-5000ZERO1-HT	BLG-5000XZERO1-HT 1/4HEX
	HEX	BLG-4000ZERO1	BLG-4000XZERO1 1/4HEX
		BLG-5000ZERO1	BLG-5000X5ZERO1 H5 & 5HEX
		BLG-5000ZERO1	BLG-5000XZERO1 1/4HEX
		BLG-5000ZERO1-15	BLG-5000X5ZERO1-15 H5 & 5HEX
		BLG-5000ZERO1-15	BLG-5000XZERO1-15 1/4HEX
		BLG-5000ZERO1-18	BLG-5000XZERO1-18 H5 & 5HEX

P.15 BLG Standard type			
BLG	HIOS	Model	Order Code Bit Drive
		BLG-4000	BLG-4000 H4
		BLG-5000	BLG-5000 H5 & 5HEX
		BLG-5000-15	BLG-5000-15 H4
		BLG-5000-15	BLG-5000-15 H5 & 5HEX
		BLG-5000-18	BLG-5000-18 H5 & 5HEX
		BLG-5000-HT	BLG-5000-HT H5 & 5HEX
		BLG-5000-HT	BLG-5000-HT H5 & 5HEX
		BLG-5000-HT	BLG-5000-HT H5 & 5HEX
		BLG-5000-HT	BLG-5000-HT H5 & 5HEX
		BLG-5000-HT	BLG-5000-HT H5 & 5HEX
		BLG-5000-HT	BLG-5000-HT H5 & 5HEX
	HEX	BLG-4000	BLG-4000X 1/4HEX
		BLG-5000	BLG-5000X5 H5 & 5HEX
		BLG-5000	BLG-5000X 1/4HEX
		BLG-5000-15	BLG-5000X5-15 H5 & 5HEX
		BLG-5000-15	BLG-5000X-15 1/4HEX
		BLG-5000-18	BLG-5000X5-18 H5 & 5HEX
		BLG-5000-18	BLG-5000X-18 1/4HEX
		BLG-5000-HT	BLG-5000X5-HT H5 & 5HEX
		BLG-5000-HT	BLG-5000X-HT 1/4HEX

P.17 BL Standard type			
BL	HIOS	Model	Order Code Bit Drive
		BL-2000	BL-2000 H4
		BL-3000	BL-3000 H5 & 5HEX
		BL-5000	BL-5000 H4
		BL-5000-15	BL-5000H5-15 H5 & 5HEX
		BL-5000-15	BL-5000H5-15 H5 & 5HEX
		BL-5020	BL-5020 H5 & 5HEX
		BL-7000	BL-7000 H5 & 5HEX
		BL-7000HT	BL-7000HT H5 & 5HEX
		BL-2000SS	BL-2000SS H4
		BL-3000SS	BL-3000SS H5 & 5HEX
		BL-5000SS	BL-5000SS H5 & 5HEX
		BL-5000SS	BL-5000SS H5 & 5HEX
		BL-5000SS	BL-5000SS H5 & 5HEX
		BL-5000SS	BL-5000SS H5 & 5HEX
		BL-5000SS	BL-5000SS H5 & 5HEX
	HEX	BL-3000	BL-3000X 1/4HEX
		BL-5000	BL-5000X5 5HEX
		BL-5000	BL-5000X 1/4HEX
		BL-5000-15	BL-5000X5-15 5HEX
		BL-5020	BL-5020X 1/4HEX
		BL-7000	BL-7000X 1/4HEX
		BL-7000HT	BL-7000X-HT 1/4HEX
		BL-3000SS	BL-3000SSX 5HEX
		BL-5000SS	BL-5000SSX 1/4HEX

P.18 BL Variations			
Anti-electrostatic	HIOS	Model	Order Code Bit Drive
		BL-3000ESD	BL-3000ESD H4
		BL-5000ESD	BL-5000ESD H5 & 5HEX
		BL-5000ESD	BL-5000H5-ESD H5 & 5HEX
		BL-5000ESD-15	BL-5000ESD-15 H4
		BL-5000ESD-15	BL-5000H5ESD-15 H5 & 5HEX
		BL-5020ESD	BL-5020-ESD H5 & 5HEX
		BL-7000ESD	BL-7000ESD H5 & 5HEX
		BL-7000ESD-HT	BL-7000ESD-HT H5 & 5HEX
		BL-3000ESD	BL-3000X-ESD 1/4HEX
		BL-5000ESD	BL-5000X5-ESD 5HEX
		BL-5000ESD	BL-5000XESD 1/4HEX
	HEX	BL-5000ESD-15	BL-5000X5-ESD-15 5HEX
		BL-5000ESD-15	BL-5000X-ESD-15 1/4HEX
		BL-5020ESD	BL-5020X-ESD 1/4HEX
		BL-7000ESD	BL-7000X-ESD 1/4HEX
		BL-7000ESD-HT	BL-7000X-ESD-HT 1/4HEX
		BL-7000ESD-HT	BL-7000X-ESD-HT 1/4HEX

P.11 BLG-BC1 Standard type			
BLG-BC1	HIOS	Model	Order Code Bit Drive
		BLG-4000BC1	BLG-4000BC1 H4
		BLG-5000BC1	BLG-5000BC1 H5 & 5HEX
		BLG-5000BC1	BLG-5000H5BC1 H5 & 5HEX
		BLG-5000BC1-15	BLG-5000BC1-15 H4
		BLG-5000BC1-15	BLG-5000H5BC115 H5 & 5HEX
		BLG-5000BC1-18	BLG-5000BC1-18 H5 & 5HEX
		BLG-5000BC1-18	BLG-5000BC1-18 H5 & 5HEX
		BLG-5000BC1-HT	BLG-5000BC1-HT H5 & 5HEX
		BLG-5000BC1-HT	BLG-5000BC1-HT H5 & 5HEX
		BLG-5000BC1-HT	BLG-5000BC1-HT H5 & 5HEX
		BLG-5000BC1-HT	BLG-5000BC1-HT H5 & 5HEX

P.16 BLG Variations			
OPC	HIOS	Model	Order Code Bit Drive
		BLG-4000-OPC	BLG-4000-OPC H4
		BLG-5000-OPC	BLG-5000-OPC H4
		BLG-5000-OPC	BLG-5000H5-OPC H5 & 5HEX
		BLG-5000-OPC-15	BLG-5000-OPC-15 H4
		BLG-5000-OPC-15	BLG-5000H5OPC-15 H5 & 5HEX
		BLG-5000-OPC-18	BLG-5000-OPC-18 H5 & 5HEX
		BLG-5000-OPC-18	BLG-5000-OPC-18 H5 & 5HEX
		BLG-5000-OPC-HT	BLG-5000-OPC-HT H5 & 5HEX
		BLG-5000-OPC-HT	BLG-5000-OPC-HT H5 & 5HEX
		BLG-5000-OPC-HT	BLG-5000-OPC-HT H5 & 5HEX
		BLG-5000-OPC-HT	BLG-5000-OPC-HT H5 & 5HEX

P.18 BL Variations

	Model	Order Code	Bit Drive
Clean room, Anti-static	BLQ-2000CR	BLQ-2000CR	H4
	BLQ-3000CR-ESD	BLQ-3000CR-ESD	
	BLQ-5000CR-ESD	BLQ-5000CR-ESD	
	BLQ-5000CR-ESD-15	BLQ-5000H5-CR-ESD-15	H5 & 5HEX
	BLQ-5000CR-ESD-15	BLQ-5000CR-ESD-15	H4
	BLQ-7000CR-ESD	BLQ-7000CR-ESD	H5 & 5HEX
	BLQ-3000ESD	BLQ-3000ESD	H4
	BLQ-5000ESD	BLQ-5000H5-ESD	H5 & 5HEX
	BLQ-5000ESD-15	BLQ-5000ESD-15	H4
	BLQ-7000ESD	BLQ-7000ESD	H5 & 5HEX
Suction, Anti-static	BLQ-2000CR	BLQ-2000CR	H4
	BLQ-3000CR	BLQ-3000CR	
	BLQ-5000CR	BLQ-5000H5-CR	
	BLQ-5000CR-15	BLQ-5000H5-CR-15	H5 & 5HEX
Clean room	BLQ-2000CR	BLQ-2000CR	H4
	BLQ-3000CR	BLQ-3000CR	H4
	BLQ-5000CR	BLQ-5000H5-CR	H5 & 5HEX
	BLQ-5000CR-15	BLQ-5000H5-CR-15	H5 & 5HEX
OPC	BLQ-7000CR	BLQ-7000CR	H5 & 5HEX
	BL-2000-OPC	BL-2000-OPC	H4
	BL-3000-OPC	BL-3000-OPC	
	BL-5000-OPC	BL-5000H5-OPC	
	BL-5020-OPC	BL-5020-OPC	H5 & 5HEX
	BL-7000-OPC	BL-7000-OPC	
	BL-7000HT-OPC	BL-7000HT-OPC	
	BL-3000-OPC	BL-3000X-OPC	1/4HEX
	BL-5000-OPC	BL-5000X5-OPC	5HEX
	BL-5020-OPC	BL-5020X-OPC	1/4HEX
HEX	BL-7000-OPC	BL-7000X-OPC	
	BL-7000HT-OPC	BL-7000X-HT-OPC	

P.18 BL Accessories

Product name	Order Code	Driver Model
Pistol Attachment	PAB-70	BL-7000 Series

P.19-21 CL Standard type

	Model	Order Code	Bit Drive
CL	CL-2000	CL-2000E	H4
	CL-3000	CL-3000E	
	CL-4000	CL-4000E	
	CL-4000	CL-4000X5	5HEX
	CL-4000	CL-4000X	1/4HEX
	CL-6000	CL-6000E	H5
	CL-6000	CL-6000X5	5HEX
	CL-6000	CL-6000X	1/4HEX
	CL-6500	CL-6500E	H5
	CL-6500	CL-6500X5	5HEX
	CL-6500	CL-6500X	1/4HEX
	CL-7000	CL-7000E	H5
	CL-7000	CL-7000X5	5HEX
	CL-7000	CL-7000X	1/4HEX

P.19-21 CL Standard type

	Model	Order Code	Bit Drive
CL	CL-4000PS	CL-4000PS	H4
		CL-4000PSX5	5HEX
		CL-4000PSX	1/4HEX
	CL-6000PS	CL-6000PS	H5
		CL-6000PSX5	5HEX
		CL-6000PSX	1/4HEX
	CL-6500PS	CL-6500PS	H5
		CL-6500PSX5	5HEX
		CL-6500PSX	1/4HEX
	CL-7000PS	CL-7000PS	H5
		CL-7000PSX5	5HEX
		CL-7000PSX	1/4HEX
	CL-9000	CL-9000	1/4HEX

P.22 CL Variations

	Model	Order Code	Bit Drive
Suction	Lever type	CLQ-2000	H4
		CLQ-3000	
		CLQ-4000	
		CLQ-6000	
	Push type	CLQ-6500	H5
		CLQ-7000	
		CLQ-4000PS	
		CLQ-6000PS	
Anti-electrostatic	Lever type	CL-2000ESD	H4
		CL-3000ESD	
		CL-4000ESD	
		CL-4000X5-ESD	
	Push type	CL-6000ESD	H5
		CL-6000X5-ESD	
		CL-6500ESD	
		CL-6500X5-ESD	
	Lever type	CL-4000X-ESD	1/4HEX
		CL-6000X-ESD	
		CL-6500X-ESD	
		CL-7000X-ESD	
Push type	Lever type	CL-4000PS-ESD	H4
		CL-4000PSX5-ESD	
		CL-4000PSX-ESD	
		CL-6000PS-ESD	H5
	Push type	CL-6000PSX5-ESD	
		CL-6000PSX-ESD	
		CL-6500PS-ESD	
		CL-6500PSX5-ESD	
	Lever type	CL-7000PS-ESD	H5
		CL-7000PSX5-ESD	
		CL-7000PSX-ESD	
		CL-7000PSX5-ESD	

P.22 CL Variations

	Model	Order Code	Bit Drive
Clean room, Anti-static	Lever type	CLQ-3000CR-ESD	H4
		CLQ-4000CR-ESD	
		CLQ-6000CR-ESD	
		CLQ-6500CR-ESD	
	Push type	CLQ-7000CR-ESD	H5
		CLQ-6000PSCR-ESD	
		CLQ-6500PSCR-ESD	
		CLQ-7000PSCR-ESD	
Noiseless	Lever type	CL-3000NL	H4
		CL-4000NL	
		CL-6000NL	
		CL-6500NL	
	Push type	CL-7000NL	H5
		CL-4000PSNL	
		CL-6000PSNL	
		CL-6500PSNL	
	Lever type	CL-7000PSNL	H5
		CL-9000NL	
		CL-3000NL	
		CL-4000NL	

P.22 CL Accessories

Product name	Order Code	Driver Model
Pistol Attachment	PA-65	CL-6000, CL-6500 CL-7000 (Including PS type)
Angle Attachment	ANGL-Z	For HIOS Shank*1 CL-6000, CL-6500 CL-7000
	ANGLX-Z	For HEX Shank*2 CL-6000X, CL-6500X CL-7000X
Push-to grip attachment	PS-1 PS-1-ESD*3	For CL-4000

*1 For HIOS Shank H5, Lever type.

*2 For 1/4HEX Shank, Lever type.

*3 Anti-electrostatic

P.23 SS Standard type

	Model	Order Code	Bit Drive
SS	Lever type	SS-2000	H4
		SS-3000	
		SS-4000	
		SS-4000X5	
	Push type	SS-4000X	H5
		SS-6500	
		SS-6500X5	
		SS-6500X	
Push type	Lever type	SS-7000	H5
		SS-7000X5	
		SS-7000X	
		SS-4000PS	H4
	Push type	SS-4000PSX5	
		SS-4000PSX	
		SS-4000PSX	
	Lever type	SS-4000PS	H5
		SS-4000PSX5	
		SS-4000PSX	
		SS-4000PSX	

P.24 SS Variations

		Model	Order Code	Bit Drive
		SSQ-2000	SSQ-2000	
Suction	Lever type	SSQ-3000	SSQ-3000	H4
		SSQ-4000	SSQ-4000	
		SSQ-6500	SSQ-6500	
		SSQ-7000	SSQ-7000	H5
		SSQ-4000PS	SSQ-4000PS	H4
Push type		SSQ-4000PSX	SSQ-4000PSX	1/4HEX
		SSQ-6500PS	SSQ-6500PS	
		SSQ-7000PS	SSQ-7000PS	H5
		SS-2000ESD	SS-2000ESD	
		SS-3000ESD	SS-3000ESD	H4
Anti-electrostatic	Lever type	SS-4000ESD	SS-4000ESD	
		SS-4000X5-ESD	SS-4000X5-ESD	5HEX
		SS-4000X-ESD	SS-4000X-ESD	1/4HEX
		SS-6500ESD	SS-6500ESD	H5
		SS-6500X5-ESD	SS-6500X5-ESD	5HEX
		SS-6500X-ESD	SS-6500X-ESD	1/4HEX
		SS-7000ESD	SS-7000ESD	H5
		SS-7000X5-ESD	SS-7000X5-ESD	5HEX
		SS-7000X-ESD	SS-7000X-ESD	1/4HEX
		SS-4000PS-ESD	SS-4000PS-ESD	H4
Push type		SS-4000PSX5-ESD	SS-4000PSX5-ESD	5HEX
		SS-4000PSX-ESD	SS-4000PSX-ESD	1/4HEX
		SSQ-2000CR-ESD	SSQ-2000CR-ESD	
Clean room, Anti-static	Lever type	SSQ-3000CR-ESD	SSQ-3000CR-ESD	H4
		SSQ-4000CR-ESD	SSQ-4000CR-ESD	
		SSQ-6500CR-ESD	SSQ-6500CR-ESD	H5
		SSQ-7000CR-ESD	SSQ-7000CR-ESD	
		SSQ-4000PSX-ESD	SSQ-4000PSX-ESD	1/4HEX

P.24 SS Accessories

Product name	Order Code	Driver Model
Pistol Attachment	PA-65	SS-6500, SS-7000 (Including PS type)
Push-to grip attachment	PS-1	SS-4000
	PS-1-ESD*	

* Anti-electrostatic

P.25 α Standard type

		Model	Order Code	Bit Drive
		α-4500E	A-4500E	H4
α-4500	Lever type	α-4500X5	A-4500X5	5HEX
		α-4500X	A-4500X	1/4HEX
		α-5000E	A-5000E	H4
		α-5000X5	A-5000X5	5HEX
		α-5000X	A-5000X	1/4HEX
α-6500	Lever type	α-6500E	A-6500E	H5
		α-6500X5	A-6500X5	5HEX
		α-6500X	A-6500X	1/4HEX
α-4500PS	Push type	α-4500PS	A-4500PS	H4
		α-4500PSX5	A-4500PSX5	5HEX
		α-4500PSX	A-4500PSX	1/4HEX
		α-5000PS	A-5000PS	H4
		α-5000PSX5	A-5000PSX5	5HEX
		α-5000PSX	A-5000PSX	1/4HEX
α-6500PS	Push type	α-6500PS	A-6500PS	H5
		α-6500PSX5	A-6500PSX5	5HEX
		α-6500PSX	A-6500PSX	1/4HEX

P.26 α Variations

		Model	Order Code	Bit Drive
		α Q-4500	AQ-4500	H4
Suction	Lever type	α Q-5000	AQ-5000	H4
		α Q-6500	AQ-6500	H5
		α Q-4500PS	AQ-4500PS	H4
		α Q-5000PS	AQ-5000PS	H4
		α Q-6500PS	AQ-6500PS	H5
Anti-electrostatic	Lever type	α-4500ESD	A-4500ESD	H4
		α-4500X5-ESD	A-4500X5-ESD	5HEX
		α-4500X-ESD	A-4500X-ESD	1/4HEX
		α-5000ESD	A-5000ESD	H4
		α-5000X5-ESD	A-5000X5-ESD	5HEX
		α-5000X-ESD	A-5000X-ESD	1/4HEX
		α-6500ESD	A-6500ESD	H5
		α-6500X5-ESD	A-6500X5-ESD	5HEX
		α-6500X-ESD	A-6500X-ESD	1/4HEX
		α-4500PSESD	A-4500PSESD	5HEX
Push type		α-4500PSX5-ESD	A-4500PSX5-ESD	5HEX
		α-4500PSX-ESD	A-4500PSX-ESD	1/4HEX
		α-5000PSESD	A-5000PSESD	H4
		α-5000PSX5-ESD	A-5000PSX5-ESD	5HEX
		α-5000PSX-ESD	A-5000PSX-ESD	1/4HEX
Anti-electrostatic	Push type	α-6500PSESD	A-6500PSESD	H5
		α-6500PSX5-ESD	A-6500PSX5-ESD	5HEX
		α-6500PSX-ESD	A-6500PSX-ESD	1/4HEX
		α Q-4500CR-ESD	AQ-4500CR-ESD	H4
		α Q-5000CR-ESD	AQ-5000CR-ESD	
Clean room, Anti-static	Lever type	α Q-6500CR-ESD	AQ-6500CR-ESD	H5
		α Q-6500PSX-ESD	AQ-6500PSX-ESD	
		α Q-6500PSX-ESD	AQ-6500PSX-ESD	

P.26 α Accessories

Product name	Order Code	Driver Model
Pistol Attachment	PA-65	α-5500, α-6500PS
Angle Attachment	ANGL-Z	For HIOS Shank*1 α-5500
	ANGLX-Z	For HEX Shank*2 α-5500X
Push-to grip attachment	PS-1	α-4500, α-5000
	PS-1-ESD*3	

*1 For HIOS Shank H5, Lever type.

*2 For 1/4HEX Shank, Lever type.

*3 Anti-electrostatic

P.27-30 Power Supply for DC drivers

Power Supply	Model	Order Code	Plug Type
	T-45BL*	T-45BL	A
		T-45BL-UL	A-2
		T-45BL-TH	A-3
		T-45BL-EU-HK	C
		T-45BL-UK-SP	BF
		T-45BL-CN	S

The product with * is CE mark complaint.

P.27-30 Power Supply for DC drivers

Power Supply	Model	Order Code	Plug Type
	T-70BL*	T-70BL	A
		T-70BL-UL	A-2
		T-70BL-TH	A-3
		T-70BL-EU-HK	C
		T-70BL-UK-SP	BF
		T-70BL-CN	S
	CLT-45*	CLT-45	A
		CLT-45-UL	A-2
		CLT-45 TH	A-3
		CLT-45-EU-HK	C
		CLT-45-UK-SP	BF
		CLT-45-CN	S
	CLT-60*	CLT-60	A
		CLT-60-UL	A-2
		CLT-60-TH	A-3
		CLT-60-EU-HK	C
		CLT-60-UK-SP	BF
		CLT-60-CN	S
	CLT-80*	CLT-80-UL	A-2
		CLT-80-TH	TH
		CLT-80-EU-HK	C
		CLT-80-UK-SP	BF
		CLT-80-CN	S
	CLT-100	CLT-100	A-1
		CLT-100-120USA	A-2
		CLT-100-220VDE	C
		CLT-100-220VDER	C
CLT-100-230SP		BF	
CLT-100-240UK		BF	
CLT-100-220RCH		S	
MC-70L	MC-70L	A-1	
	MC-70L-120USA	A-2	
	MC-70L-220VDE	C	
	MC-70L-220VDER	C	
	MC-70L-230SP	BF	
	MC-70L-240UK	BF	
	MC-70L-220RCH	S	
CB-105	CB-105S		
For brushless screwdrivers	BLOP-AF	BLCP-AF	Relay box
	BLOP-OST2	BLCP-OST2	Relay box

The product with * is CE mark complaint.

P.31 VB Standard type

● Plug: A Type (AC100V)

VB	Lever type	Model	Order Code	Bit Drive
	VB-1510	VB-1510	VB-1510	H4
		VB-1510H5	VB-1510H5	H5 & 5HEX
		VB-1510X5	VB-1510X5	5HEX
		VB-1510X	VB-1510X	1/4HEX
	VB-1510-18	VB-1510-18	VB-1510-18	H4
		VB-1510H5-18	VB-1510H5-18	H5 & 5HEX
		VB-1510X5-18	VB-1510X5-18	5HEX
		VB-1510X-18	VB-1510X-18	1/4HEX
	VB-1820	VB-1820	VB-1820	H5 & 5HEX
		VB-1820X	VB-1820X	1/4HEX
	VB-3012	VB-3012	VB-3012	H5 & 5HEX
		VB-3012X	VB-3012X	1/4HEX
	VB-3020	VB-3020	VB-3020	H5 & 5HEX
		VB-3020X	VB-3020X	1/4HEX
	VB-1510PS	VB-1510PS	VB-1510PS	H4
		VB-1510PSH5	VB-1510PSH5	H5 & 5HEX
		VB-1510PSX5	VB-1510PSX5	5HEX
		VB-1510PSX	VB-1510PSX	1/4HEX
	VB-1510PS-18	VB-1510PS-18	VB-1510PS-18	H4
		VB-1510PSH5-18	VB-1510PSH5-18	H5 & 5HEX
		VB-1510PSX5-18	VB-1510PSX5-18	5HEX
		VB-1510PSX-18	VB-1510PSX-18	1/4HEX
	VB-1820PS	VB-1820PS	VB-1820PS	H5 & 5HEX
		VB-1820PSX	VB-1820PSX	1/4HEX
	VB-3012PS	VB-3012PS	VB-3012PS	H5 & 5HEX
		VB-3012PSX	VB-3012PSX	1/4HEX
	VB-3020PS	VB-3020PS	VB-3020PS	H5 & 5HEX
		VB-3020PSX	VB-3020PSX	1/4HEX
	VB-4504PS	VB-4504PS	VB-4504PS	1/4HEX
		VB-4504PSX-S	VB-4504PSX-S	1/4HEX

● Plug: A-2 Type (AC120V)

VB	Lever type	Model	Order Code	Bit Drive
	VB-1510	VB-1510-120	VB-1510-120	H4
		VB-1510X5-120	VB-1510X5-120	H5 & 5HEX
		VB-1510X-120	VB-1510X-120	1/4HEX
		VB-1510-18-120	VB-1510-18-120	H4
	VB-1510-18	VB-1510X5-18-120	VB-1510X5-18-120	H5 & 5HEX
		VB-1510X-18-120	VB-1510X-18-120	1/4HEX
	VB-1820	VB-1820-120	VB-1820-120	H5 & 5HEX
		VB-1820X-120	VB-1820X-120	1/4HEX
	VB-3012	VB-3012-120	VB-3012-120	H5 & 5HEX
		VB-3012X-120	VB-3012X-120	1/4HEX
	VB-4504	VB-4504X-120	VB-4504X-120	1/4HEX
		VB-4504PS-120	VB-4504PS-120	H4
	VB-1510PS	VB-1510PS-120	VB-1510PS-120	H4
		VB-1510PSX5-120	VB-1510PSX5-120	H5 & 5HEX
		VB-1510PSX-120	VB-1510PSX-120	1/4HEX
		VB-1510PS-18-120	VB-1510PS-18-120	H4
	VB-1510PS-18	VB-1510PSH5-18-120	VB-1510PSH5-18-120	H5 & 5HEX
		VB-1510PSX5-18-120	VB-1510PSX5-18-120	5HEX
		VB-1510PSX-18-120	VB-1510PSX-18-120	1/4HEX
		VB-1820PS-120	VB-1820PS-120	H5 & 5HEX
	VB-1820PS	VB-1820PSX-120	VB-1820PSX-120	1/4HEX
		VB-3012PS-120	VB-3012PS-120	H5 & 5HEX
	VB-3012PS	VB-3012PSX-120	VB-3012PSX-120	1/4HEX
		VB-4504PSX-120	VB-4504PSX-120	1/4HEX

P.31 VB Standard type

● Plug: C Type (AC220-240V)

VB	Lever type	Model	Order Code	Bit Drive
	VB-1510	VB-1510-B	VB-1510-B	H4
		VB-1510X5-B	VB-1510X5-B	H5 & 5HEX
		VB-1510X-B	VB-1510X-B	1/4HEX
		VB-1510XB-CE	VB-1510XB-CE	1/4HEX
	VB-1510-18	VB-1510-18-B	VB-1510-18-B	H4
		VB-1510X5-18-B	VB-1510X5-18-B	5HEX
		VB-1510X-18-B	VB-1510X-18-B	1/4HEX
		VB-1510X-18B-CE	VB-1510X-18B-CE	1/4HEX
	VB-1820	VB-1820-B	VB-1820-B	H5 & 5HEX
		VB-1820X-B	VB-1820X-B	1/4HEX
	VB-3012	VB-3012-B	VB-3012-B	H5 & 5HEX
		VB-3012X-B	VB-3012X-B	1/4HEX
	VB-4504	VB-4504X-B	VB-4504X-B	1/4HEX
		VB-4504XB-CE	VB-4504XB-CE	1/4HEX
	VB-1510PS	VB-1510PS-B	VB-1510PS-B	H4
		VB-1510PSX5-B	VB-1510PSX5-B	5HEX
		VB-1510PSX-B	VB-1510PSX-B	1/4HEX
		VB-1510PSX-B-CE	VB-1510PSX-B-CE	1/4HEX
	VB-1510PS-18	VB-1510PS-18-B	VB-1510PS-18-B	H4
		VB-1510PSX5-18B	VB-1510PSX5-18B	5HEX
		VB-1510PSX-18-B	VB-1510PSX-18-B	1/4HEX
		VB-1510PSX-18BCE	VB-1510PSX-18BCE	1/4HEX
	VB-1820PS	VB-1820PS-B	VB-1820PS-B	H5 & 5HEX
		VB-1820PSX-B	VB-1820PSX-B	1/4HEX
	VB-3012PS	VB-3012PS-B	VB-3012PS-B	H5 & 5HEX
		VB-3012PSX-B	VB-3012PSX-B	1/4HEX
	VB-4504PS	VB-4504PSX-B	VB-4504PSX-B	1/4HEX
		VB-4504PSX-B-CE	VB-4504PSX-B-CE	1/4HEX
		VB-4504PSX-B-S	VB-4504PSX-B-S	1/4HEX*
		VB-4504PSXBCE-S	VB-4504PSXBCE-S	1/4HEX*

* Shockless Stand Attached

NOTE: In case of using other plug type at 220-240V, please contact to HIOS distributors. (Ex. Argentina, Thailand)

P.32 VB Variations

● Plug: A Type (AC100V)

OPC	Lever type	Model	Order Code	Bit Drive
	VB-1510-OPC	VB-1510-OPC	VB-1510-OPC	H4
		VB-1510H5-OPC	VB-1510H5-OPC	H5 & 5HEX
		VB-1510X5-OPC	VB-1510X5-OPC	5HEX
		VB-1510X-OPC	VB-1510X-OPC	1/4HEX
	VB-1510-18-OPC	VB-1510-18-OPC	VB-1510-18-OPC	H4
		VB-1510H5-18-OPC	VB-1510H5-18-OPC	H5 & 5HEX
		VB-1510X5-18-OPC	VB-1510X5-18-OPC	5HEX
		VB-1510X-18-OPC	VB-1510X-18-OPC	1/4HEX
	VB-1820-OPC	VB-1820-OPC	VB-1820-OPC	H5 & 5HEX
		VB-1820X-OPC	VB-1820X-OPC	1/4HEX
	VB-3012-OPC	VB-3012-OPC	VB-3012-OPC	H5 & 5HEX
		VB-3012X-OPC	VB-3012X-OPC	1/4HEX
	VB-3020-OPC	VB-3020-OPC	VB-3020-OPC	H5 & 5HEX
		VB-3020X-OPC	VB-3020X-OPC	1/4HEX

P.32 VB Variations

● Plug: A Type (AC100V)

OPC	Push type	Model	Order Code	Bit Drive
	VB-1510PS-OPC	VB-1510PS-OPC	VB-1510PS-OPC	H4
		VB-1510PSH5-OPC	VB-1510PSH5-OPC	H5 & 5HEX
		VB-1510PSX5-OPC	VB-1510PSX5-OPC	5HEX
		VB-1510PSX-OPC	VB-1510PSX-OPC	1/4HEX
	VB-1820PS-OPC	VB-1820PS-OPC	VB-1820PS-OPC	H5 & 5HEX
		VB-1820PSX-OPC	VB-1820PSX-OPC	1/4HEX
	VB-3012PS-OPC	VB-3012PS-OPC	VB-3012PS-OPC	H5 & 5HEX
		VB-3012PSX-OPC	VB-3012PSX-OPC	1/4HEX
	VB-3020PS-OPC	VB-3020PS-OPC	VB-3020PS-OPC	H5 & 5HEX
		VB-3020PSX-OPC	VB-3020PSX-OPC	1/4HEX
	VB-4504PS-OPC	VB-4504PS-OPC	VB-4504PS-OPC	1/4HEX
		VB-4504PSX-OPC-S	VB-4504PSX-OPC-S	1/4HEX

● Plug: A-2 Type (AC120V)

OPC	Lever type	Model	Order Code	Bit Drive
	VB-1510-OPC	VB-1510-120OPC	VB-1510-120OPC	H4
		VB-1510X5-120OPC	VB-1510X5-120OPC	H5 & 5HEX
		VB-1510X-120OPC	VB-1510X-120OPC	1/4HEX
		VB-1820-120OPC	VB-1820-120OPC	H5 & 5HEX
	VB-1820-OPC	VB-1820-120OPC	VB-1820-120OPC	1/4HEX
		VB-3012-120OPC	VB-3012-120OPC	H5 & 5HEX
		VB-3012X-120OPC	VB-3012X-120OPC	1/4HEX
		VB-4504-120OPC	VB-4504-120OPC	1/4HEX
	VB-1510PS-OPC	VB-1510PS-120OPC	VB-1510PS-120OPC	H4
		VB-1510PSX-120OPC	VB-1510PSX-120OPC	1/4HEX
		VB-1820PS-120OPC	VB-1820PS-120OPC	H5 & 5HEX
		VB-1820PSX-120OPC	VB-1820PSX-120OPC	1/4HEX
	VB-3012PS-OPC	VB-3012PS-120OPC	VB-3012PS-120OPC	H5 & 5HEX
		VB-3012PSX-120OPC	VB-3012PSX-120OPC	1/4HEX
	VB-4504PS-OPC	VB-4504PS-120OPC	VB-4504PS-120OPC	1/4HEX
		VB-4504PSX-120OPC	VB-4504PSX-120OPC	1/4HEX

NOTE: In case of using other plug type at 220-240V, please contact to HIOS distributors. (Ex. Argentina, Thailand)

P.32 VB Accessories

Product name	Order Code	Driver Model
Pistol Attachment	PAB-18	VB-1820, VB-3012, VB-3020
	PAB-18PS	VB-1820PS, VB-3012PS, VB-3020PS
Angle Attachment	ANGLV-Z-CH1	For HIOS Shank*1 VB-1820, VB-3012, VB-3020
	ANGLV-Z-XX1	For HEX Shank*2 VB-1820X, VB-3012X, VB-3020X

*1 For HIOS Shank H5 & 5HEX, Lever type.

*2 For 1/4HEX Shank, Lever type.

P.33 VZ Standard type

● Plug: A Type (AC100V)

VZ	Lever type	Model	Order Code	Bit Drive
		VZ-1510	VZ-1510	H4
			VZ-1510X5	5HEX
			VZ-1510X	4HEX
		VZ-1820	VZ-1820	H5 & 5HEX
			VZ-1820X	4HEX
		VZ-3007	VZ-3007	H5 & 5HEX
			VZ-3007X	4HEX
	Push type	VZ-3012	VZ-3012	H5 & 5HEX
			VZ-3012X	4HEX
			VZ-1510PS	H4
		VZ-1510PS	VZ-1510PSX5	5HEX
			VZ-1510PSX	4HEX
		VZ-1820PS	VZ-1820PS	H5 & 5HEX
			VZ-1820PSX	4HEX
		VZ-3007PS	VZ-3007PS	H5 & 5HEX
			VZ-3007PSX	4HEX
		VZ-3012PS	VZ-3012PS	H5 & 5HEX
			VZ-3012PSX	4HEX
		VZ-4506PS	VZ-4506PSX-S	4HEX

● Plug: A-2 Type (AC120V)

VZ	Lever type	Model	Order Code	Bit Drive
		VZ-1820	VZ-1820-120	H5 & 5HEX
			VZ-1820X-120	4HEX
		VZ-3012	VZ-3012-120	H5 & 5HEX
			VZ-3012X-120	4HEX
		VZ-4506	VZ-4506X-120	4HEX
	Push type	VZ-1820PS	VZ-1820PS-120	H5 & 5HEX
			VZ-1820PSX-120	4HEX
		VZ-3012PS	VZ-3012PS-120	H5 & 5HEX
			VZ-3012PSX-120	4HEX
		VZ-4506PS	VZ-4506PSX-120	4HEX

● Plug: C Type (AC220-240V)

VZ	Lever type	Model	Order Code	Bit Drive
		VZ-1812	VZ-1812-B	H5 & 5HEX
			VZ-1812X-B	4HEX
		VZ-3007	VZ-3007-B	H5 & 5HEX
			VZ-3007X-B	4HEX
		VZ-4504	VZ-4504X-B	4HEX
	Push type	VZ-1812PS	VZ-1812PS-B	H5 & 5HEX
			VZ-1812PSX-B	4HEX
		VZ-3007PS	VZ-3007PS-B	H5 & 5HEX
			VZ-3007PSX-B	4HEX
		VZ-4504PS	VZ-4504PSX-B	4HEX

NOTE: In case of using other plug type at 220-240V, please contact to HIOS distributors. (Ex. Argentina, Thailand)

P.34 VZ Variations

● Plug: A Type (AC100V)

Suction	Lever type	Model	Order Code	Bit Drive
		VZQ-1510	VZQ-1510	H4
		VZQ-1820	VZQ-1820	H5 & 5HEX
		VZQ-3007	VZQ-3007	
		VZQ-3012	VZQ-3012	H5 & 5HEX
		VZQ-1510PS	VZQ-1510PS	
	Push type	VZQ-1820PS	VZQ-1820PS	H5 & 5HEX
		VZQ-3007PS	VZQ-3007PS	
		VZQ-3012PS	VZQ-3012PS	
		VZQ-3012PS	VZQ-3012PS	

P.34 VZ Variations

● Plug: A-2 Type (AC120V)

Suction	Lever type	Model	Order Code	Bit Drive
		VZQ-1820	VZQ-1820-120	H5 & 5HEX
		VZQ-3012	VZQ-3012-120	
	Push type	VZQ-1820PS	VZQ-1820PS-120	
		VZQ-3012PS	VZQ-3012PS-120	
		VZQ-3012PS	VZQ-3012PS-120	

● Plug: C Type (AC220-240V)

Suction	Lever type	Model	Order Code	Bit Drive
		VZQ-1812	VZQ-1812-B	H5 & 5HEX
		VZQ-3007	VZQ-3007-B	
	Push type	VZQ-1812PS	VZQ-1812PS-B	
		VZQ-3007PS	VZQ-3007PS-B	
		VZQ-3007PS	VZQ-3007PS-B	

● Plug: A Type (AC100V)

OPC	Lever type	Model	Order Code	Bit Drive
		VZ-1510-OPC	VZ-1510-OPC	H4
		VZ-1820-OPC	VZ-1820-OPC	H5 & 5HEX
		VZ-3007-OPC	VZ-3007-OPC	
		VZ-3012-OPC	VZ-3012-OPC	
	Push type	VZ-1510PS-OPC	VZ-1510PS-OPC	H4
		VZ-1820PS-OPC	VZ-1820PS-OPC	H5 & 5HEX
		VZ-3007PS-OPC	VZ-3007PS-OPC	
		VZ-3012PS-OPC	VZ-3012PS-OPC	
		VZ-4506PS-OPC	VZ-4506PSXOPC-S	1/4HEX

● Plug: A-2 Type (AC120V)

OPC	Lever type	Model	Order Code	Bit Drive
		VZ-1820-OPC	VZ-1820-120OPC	H5 & 5HEX
			VZ-1820X-120OPC	1/4HEX
		VZ-3012-OPC	VZ-3012-120OPC	H5 & 5HEX
			VZ-3012X-120OPC	1/4HEX
	Push type	VZ-1820PS-OPC	VZ1820PS1200PC	H5 & 5HEX
			VZ1820PSX1200PC	1/4HEX
		VZ-3012PS-OPC	VZ3012PS1200PC	H5 & 5HEX
			VZ3012PSX1200PC	1/4HEX

P.34 VZ Accessories

Product name	Order Code	Driver Model
Pistol Attachment	PA-18	Lever type*1
	PA-18PS	Push type*1
Angle Attachment	ANGLV-Z-CH 1	Lever type*2
	ANGLV-Z-XX1	Lever type*3
PS Front Cover Ring	VZ18-0906	Push type*1
Protective Cover for Torque Adjustment Nut	VZ18-0970	Except VZ-1510
Shockless Stand	VZ18PS-SAS	Push type*1

*1 Except VZ-1510

*2 For HIOS Shank H5 & 5HEX, Lever type.

*3 For 1/4HEX Shank, Lever type.

P.35 VBH Series

● Plug: A Type (AC100V)

VBH	Lever type	Model	Order Code	Bit Drive
		VBH-1820	VBH-1820X	1/4HEX
		VBH-3012	VBH-3012X	
	Push type	VBH-1820PS	VBH-1820PSX	
		VBH-3012PS	VBH-3012PSX	
		VBH-3012PS	VBH-3012PSX	

● Plug: A-2 Type (AC120V)

VBH	Lever type	Model	Order Code	Bit Drive
		VBH-1820	VBH-1820X-120	1/4HEX
		VBH-3012	VBH-3012X-120	
	Push type	VBH-1820PS	VBH-1820PSX-120	
		VBH-3012PS	VBH-3012PSX-120	

● Plug: C Type (AC220-240V)

VBH	Lever type	Model	Order Code	Bit Drive
		VBH-1820	VBH-1820X-B	1/4HEX
		VBH-3012	VBH-3012X-B	
	Push type	VBH-1820PS	VBH-1820PSX-B	
		VBH-3012PS	VBH-3012PSX-B	

P.35 VBH Variations

● Plug: A Type (AC100V)

OPC	Lever type	Model	Order Code	Bit Drive
		VBH-1820-OPC	VBH-1820X-OPC	1/4HEX
		VBH-3012-OPC	VBH-3012X-OPC	
	Push type	VBH-1820PS-OPC	VBH-1820PSX-OPC	
		VBH-3012PS-OPC	VBH-3012PSX-OPC	
		VBH-3012PS-OPC	VBH-3012PSX-OPC	

NOTE: Another voltage for VBH Variations : Please contact HIOS distributors.

P.36 VZH Series

● Plug: A Type (AC100V)

VZH	Lever type	Model	Order Code	Bit Drive
		VZH-1820	VZH-1820X	1/4HEX
		VZH-3012	VZH-3012X	
	Push type	VZH-1820PS	VZH-1820PSX	
		VZH-3012PS	VZH-3012PSX	

● Plug: A-2 Type (AC120V)

VZH	Lever type	Model	Order Code	Bit Drive
		VZH-1820	VZH-1820X-120	1/4HEX
		VZH-3012	VZH-3012X-120	
	Push type	VZH-1820PS	VZH-1820PSX-120	
		VZH-3012PS	VZH-3012PSX-120	

P.36 VZH Variations

● Plug: A Type (AC100V)

OPC	Lever type	Model	Order Code	Bit Drive
		VZH-1820-OPC	VZH-1820X-OPC	1/4HEX
		VZH-3012-OPC	VZH-3012X-OPC	
	Push type	VZH-1820PS-OPC	VZH-1820PSX-OPC	
		VZH-3012PS-OPC	VZH-3012PSX-OPC	

NOTE: Another voltage for VZH Variations : Please contact HIOS distributors.

P.37 PGF Series

PGF	Model	Order Code	Bit Drive
	PGF-3000	PGF-3000	H4
	PGF-5000	PGF-5000	
	PGF-7000	PGF-7000	
	PGF-7000	PGF-7000X	1/4HEX
	PGF-SUBBOX	PGF-SUBBOX	

Model		Order Code
Screwdriver cord		3m(10P)
		BLF7-0612-VI

P.38 PGF Series

Suction	Model	Order Code	Bit Drive
PGFQ	PGFQ-3000	PGFQ-3000	H4
	PGFQ-5000	PGFQ-5000	H5
PGFR	PGFR-5000	PGFR-5000	
	PGFR-7000	PGFR-7000X	

NOTE: Please contact to HIOS distributors before purchasing PGFR type.

P.39 BLF Series

Model	Order Code	Bit Drive
BLF-2000	BLF-2000	H4
BLF-5000	BLF-5000	H5 & 5HEX
BLF-7000	BLF-7000	H5
BLF-7000X	BLF-7000X	
BLF-7025X	BLF-7025X	1/4HEX

P.39 BLF Variations

Suction	Model	Order Code	Bit Drive
BLFQ	BLFQ-2000	BLFQ-2000	H4
	BLFQ-5000	BLFQ-5000	5HEX
	BLFQ-7000	BLFQ-7000	
BLFR	BLFR-5000	BLFR-5000	5HEX
	BLFR-7000X	BLFR-7000X	
	BLFR-7025X	BLFR-7025X	1/4HEX

NOTE: Please contact to HIOS distributors before purchasing BLFR type.

P.40 Power Supply for BLF

Model	Order Code	Plug Type
BLT-AY-61	BLT-AY61E	A-1
	BLT-AY61E-USA	A-2
	BLT-AY61E-TH	A-3
	BLT-AY61E-EUHK	C
	BLT-AY61E-UKSP	BF
	BLT-AY61E-CN	S

Model	Order Code	Plug Type
BLT-AY-71	BLT-AY71E	A-1
	BLT-AY71E-USA	A-2
	BLT-AY71E-TH	A-3
	BLT-AY71E-EUHK	C
	BLT-AY71E-UKSP	BF
	BLT-AY71E-CN	S

NOTE: In case of using other plug type at 220-240V, please contact to HIOS distributors. (Ex. Argentina)

P.37 CLF, α F, CL-A series

* The meaning of the codes in Alphabet
HH: HIOS driver, HIOS power supply
XH: HEX driver, HIOS power supply

Model	Order Code	Bit Drive
Automatic Assembly Machines Driver Series	CLF-3000	CLF-3000HH
	CLF-4000	CLF-4000HH
	CLF-4000	CLF-4000XH
	CLF-6000	CLF-6000HH
	CLF-6000	CLF-6000XH
	CLF-6500	CLF-6500HH
	CLF-6500	CLF-6500XH
	CLF-7000	CLF-7000HH
	CLF-7000	CLF-7000XH
	CLF-7000	CLF-7000XH

P.41 CLF, α F, CL-A series

* The meaning of the codes in Alphabet
HH: HIOS driver, HIOS power supply XH: HEX driver, HIOS power supply

Model	Order Code	Bit Drive
Automatic Assembly Machines Driver Series	α F-4500	α F-4500HH
	α F-4500	α F-4500XH
	α F-5000	α F-5000HH
	α F-5000	α F-5000XH
	α F-6500	α F-6500HH
	α F-6500	α F-6500XH
CL-816A	CL-816AXH	
	CL-816AXN	
	CL-825AXH	
	CL-825AXN	
CL-850A	CL-85CAXH	
	CL-85CAXN	

* Please contact HIOS distributors to place an order HN (Combination of HIOS drive and NITTO power supply) or XN (Combination of HEX drive and NITTO power supply).

P.41 CLF, α F Variations

Model	Order Code	Bit Drive
Suction	CLFQ-3000	CLFQ-3000HH
	CLFQ-4000	CLFQ-4000HH
	CLFQ-6000	CLFQ-6000HH
	CLFQ-6500	CLFQ-6500HH
	CLFQ-7000	CLFQ-7000HH
	α FQ-4500	α FQ-4500HH
	α FQ-5000	α FQ-5000HH
	α FQ-6500	α FQ-6500HH
	α FQ-4500	α FQ-4500HH
	α FQ-5000	α FQ-5000HH

P.42 Power Supply for CLF, α F, CL-A series

Model	Order Code	Plug Type
CLT-AY-61	CLT-AY61	A-1*
	CLT-AY61-120	A-2
	CLT-AY61-230VDE	C
	CLT-AY61-230SP	BF
	CLT-AY61-220RCH	S
	CLT-AY61-220RCH	S
Options	2WV type	CLT-AY61-2WV
	REV	CLT-AY61REV
	2WV+REV type	CLT-AY61-2WVREV
CLT-AY-81	CLT-AY81	
	CLT-AY81-2WV	
	CLT-AY81REV	
Options	2WV type	CLT-AY81-2WV
	REV	CLT-AY81REV
	2WV+REV type	CLT-AY81-2WVREV

* In case of using voltage other than 100V, please contact to HIOS distributors for options.

P.42 CLF, α F, CL-A Accessories

Product name	Model	Order Code	Bit Drive
Carbon brush	CLF-3000	A45-0420	
	CLF-4000	CL4-0420	
	α F-4500	A45-0420	
	α F-5000		
	CLF-6000		
	CLF-6500	CL65-0430	
	CLF-7000		
	α F-6500		
	CL-816A	CL9-0410	*
	CL-825A		*
	CL-850A	CL850-0381	

* Carbon brush for the previous model of CL-816A and CL-825A cannot be replaced due to the design of the motor.

P.43 Recipro Series

Model	Order Code	Driver model	Plug type
RN53-200	RN53-200	RD-4000	A
RN53-260	RN53-260	RD-4500	
RN53-300	RN53-300*	RD-10 or RD-15	
RN53-400	RN53-400*	RD-20 or RD-30	

* Select the screwdriver model first to place an order on the RN53-300 or RN53-400.

P.44 Power Supply for Recipro

Model	Order Code	Remarks
RDT-30	RDT-30	DC type
RAC-100	RAC-100	AC100V

P.44 Recipro Accessories

Product name	Model	Order Code
Carbon brush	DC type	RD-4000
		RD-4500
	AC type	RD-10
		RD-15
		RD-20
		RD-30

P.45 Peripherals and Accessories

Product name	Model	Order Code	Plug Type
Vacuum pump	VP-3	VP-3	A-1
		VP-3-120USA	A-2
		VP-3-220RCH	S
		VP-3-TH	A-3
		VP-3-230HK	C
		VP-3-230SP	BF

Product name	Order Code	Driver Model
Screwdriver Cord	1.5m(5P)	CL4-0611
	2m(5P)	CL65-0660
	2m(6P)	RP53-CL
	3m(5P)	CLF55-0620
Flexible Screwdriver Cord	2m(5P)	CL4-0611H-5P-2
	3m(6P)	CL4-0610H-6P-3

Product name	Order Code	Driver Model
Curl Cord	7.5m(5P)	CL65-0660-7.5
Extension Cord	3m(5P)	EXTCD-5P3M
	5m(5P)	EXTCD-5P5M

*1 Compatible screwdriver: BLG-4000, BLG-5000, BL-3000, BL-5000 series, CL-2000, CL-3000, CL-4000, SS-2000, SS-3000, SS-4000, α-4500, α-5000

*2 Compatible screwdriver: BL-7000 series, CL-6000, CL-6500, CL-7000, CL-6500, SS-7000, α-6500

*3 Compatible screwdriver: PG series, BLG-BC2 series, BLG-BC1 series, BLG-ZERO1 series, BL-OPC series, BL-OPC series

*4 can be used with HH and XH of the CLF & α F series (except CL-A series).

P.45 Peripherals and Accessories

Product name	Model	Order Code	Bit Drive
Aluminum Handle Screwdriver	WOOD-4AL	WOOD-4AL	HIOS H4
Wooden Handle Screwdriver	WOOD-5	WOOD-5	HIOS H5

Product name	Model	Order Code	Remarks
Grip Ring Red	GRIP-R10	GRIP-R10	Each color (10 pcs in 1 pack)
Grip Ring Green	GRIP-G10	GRIP-G10	
Grip Ring White	GRIP-W10	GRIP-W10	
Grip Ring Blue	GRIP-BL10	GRIP-BL10	
Grip Ring Yellow	GRIP-Y10	GRIP-Y10	

Product name	Model	Order Code	Screw size
HIOS SPIKE Bit 3pcs set (Yellow, Blue, Red)	SPK-SET01	SPK-SET01	N1.2 ~ 2.0 (3 #0)
HIOS SPIKE Bit Yellow	SPK-1214	SPK-1214	⊕ N1.2 ~ M1.4
HIOS SPIKE Bit Blue	SPK-1417	SPK-1417	⊕ N1.4 ~ M1.7
HIOS SPIKE Bit Red	SPK-1720	SPK-1720	⊕ N1.7 ~ M2.0

Product name	Model	Order Code	Driver Model
VMS Stand	VMS-40	VMS-40	For PG/BLG-5000BC2 BLG-3C1/BLG/BL CL/S/a/VZ-1510
	VMS-50	VMS-50	
	VMS-50VZ	VMS-50VZ	For PG/VZ (except VZ-1510)

* Screwdriver holder for PG, BLG-5000BC2, BLG-BC1, BLG, BL-7000 and VB-1510 is optional.

P.46 Peripherals and Accessories

● VMS Screwdriver holders(Optional)

Product name	Holders order code
PG Series	PG-3000 VMS-0900-PG3
	PG-5000 VMS-0910-PG5*1
	PG-7000 VMS-0900-PG7
BLG-BC2 Series	BLG-4000BC2 VMS-0900-BLG #2(A)
	BLG-5000BC2 VMS-0900-BLG5BC2 #2(B)
	BLG-5000BC2 VMS-0900-BLG #2(A)
BLG-BC1 Series	BLG-4000BC1 VMS-0900-BLG
	BLG-5000BC1 VMS-0900-BLG
BLG Series	BLG-4000 VMS-0900-BLG
	BLG-5000 VMS-0900-BLG
BL Series	BL-7000 VMS0900-BL7
VB Series	VB-1510 VMS-0910-PG5
	VB-1820 VMS-0900-PG7
	VB-3012 VMS-0900-PG7
	VB-1820PS VMS-0900-VB18PS
VZ Series	VB-3012PS VMS-0900-VB18PS
	VZ-1510 VMS50-C190
	VZ-1510PS VMS50-C190
VMS-40/VMS-50 Standard holder	VMS40-C180*3
VMS-50VZ Standard holder	VMS-0900-VZ18*3

*1 with a spacer

*2 (A) Without BC2 I/O Cabel

*2 (B) With BC2 I/O Cabel

*3 Mountable screwdriver models are available on P.46

P.44 Power Supply with Screw Counter (DC) STC3

	Model	Order Code	Plug Type
Screw Counter (DC)	BLOP-STC3	BLOP-STC3	A-1
		BLOP-STC3-USA	A-2
		BLOP-STC3-3TH	A-3
		BLOP-STC3-3EUHK	C
		BLOP-STC3-3UKSP	BF
		BLOP-STC3-3CN	S
	CLT-70STC3	CLT-70STC3	A-1
		CLT-70STC3 - USA	A-2
		CLT-70STC3-TH	A-3
		CLT-70STC3-EUHK	C
		CLT-70STC3-UKSP	BF
		CLT-70STC3-CN	S
Screw Counter (AC)	VZOP-STC	VZOP-STC	A-1
		VZOP-STC-120	A-2

P.50 Separate Screw Counter SC1

	Model	Order Code	Driver Model
Separate Screw Counter SC1	BLOP-SC1	BLOP-SC1	For BLG-BC2/BLG-BC1/BLG-OPC/BL-OPC
	CLOP-SC1	CLOP-SC1	For CL/SS/ a

P.51 Torque Meter Series

● HP-1*

* Available on request. Please contact to HIOS distributors.

● HP-10 Series

Voltage	Order Code	Measuring	Bit Drive
AC100V	HPN-10-A1	N · m / N · cm	HIOS
	HPN-10X-A1		HEX
AC120V	HPN-10-A2	N · m / lbf · in	HIOS
	HPN-10X-A2		HEX
	HPN-10-A3	N · m / kgf · cm	HIOS
	HPN-10X-A3		HEX
	HPN-10-C1	N · m / N · cm	HIOS
	HPN-10X-C1		HEX
AC220-240V	HPN-10-C2	N · m / lbf · in	HIOS
	HPN-10X-C2		HEX
	HPN-10-C3	N · m / kgf · cm	HIOS
	HPN-10X-C3		HEX
	HPN-10-D	kgf · cm / lbf · in	HIOS
	HPN-10X-D		HEX

● HP-100 Series

Voltage	Order Code	Measuring	Bit Drive
AC100V	HPN-100-A1	N · m / N · cm	HIOS
	HPN-100X-A1		HEX
AC120V	HPN-100-A2	N · m / lbf · in	HIOS
	HPN-100X-A2		HEX
	HPN-100-A3	N · m / kgf · cm	HIOS
	HPN-100X-A3		HEX

P.51 Torque Meter Series

● HP-100 Series

Voltage	Order Code	Measuring	Bit Drive
AC220-240V	HPN-100-C1	N · m / N · cm	HIOS
	HPN-100X-C1		HEX
	HPN-100-C2	N · m / lbf · in	HIOS
	HPN-100X-C2		HEX
	HPN-100-C3	N · m / kgf · cm	HIOS
	HPN-100X-C3		HEX
	HPN-100-D	kgf · cm / lbf · in	HIOS
	HPN-100X-D		HEX

● HDP-5 Series

Voltage	Order Code	Measuring	Bit Drive
AC100V	HDPN-5-A1	N · m / N · cm	HIOS
	HDPN-5X-A1		HEX
AC120V	HDPN-5-A2	N · m / lbf · in	HIOS
	HDPN-5X-A2		HEX
	HDPN-5-A3	N · m / kgf · cm	HIOS
	HDPN-5X-A3		HEX
AC220-240V	HDPN-5-C1	N · m / N · cm	HIOS
	HDPN-5X-C1		HEX
	HDPN-5-C2	N · m / lbf · in	HIOS
	HDPN-5X-C2		HEX
	HDPN-5-C3	N · m / kgf · cm	HIOS
	HDPN-5X-C3		HEX
	HDPN-5-D	kgf · cm / lbf · in	HIOS
	HDPN-5X-D		HEX

● HDP-50 Series

Voltage	Order Code	Measuring	Bit Drive
AC100V	HDPN-50-A1	N · m / N · cm	HIOS
	HDPN-50X-A1		HEX
AC120V	HDPN-50-A2	N · m / lbf · in	HIOS
	HDPN-50X-A2		HEX
	HDPN-50-A3	N · m / kgf · cm	HIOS
	HDPN-50X-A3		HEX
AC220-240V	HDPN-50-C1	N · m / N · cm	HIOS
	HDPN-50X-C1		HEX
	HDPN-50-C2	N · m / lbf · in	HIOS
	HDPN-50X-C2		HEX
	HDPN-50-C3	N · m / kgf · cm	HIOS
	HDPN-50X-C3		HEX
	HDPN-50-D	kgf · cm / lbf · in	HIOS
	HDPN-50X-D		HEX

● HDP-100 Series

Voltage	Order Code	Measuring	Bit Drive
AC100V	HDPN-100X	N · m / N · cm	HEX
AC120V	HDPN-100X-A2	N · m / lbf · in	
	HDPN-100X-A3	N · m / kgf · cm	
AC220-240V	HDPN-100X-C1	N · m / N · cm	
	HDPN-100X-C2	N · m / lbf · in	
	HDPN-100X-C3	N · m / kgf · cm	
	HDPN-100X-D	kgf · cm / lbf · in	

P.51 Torque Meter Series

● HM-10 Series

Model	Order Code	Voltage
HM-10	HM-10	AC100V
	HM-10-120	AC110-120V
	HM-10-230B	AC220-240V (Plug:BF)
	HM-10-230G	AC220-240V (Plug:C)
HM-100	HM-100	AC100V
	HM-100-120	AC110-120V
	HM-100-230B	AC220-240V (Plug:BF)
	HM-100-230G	AC220-240V (Plug:C)

● HIT Series

Model	Order Code	Voltage
HIT-200	HIT-200	AC100V
	HIT-200-120	AC110-120V
	HIT-200-220	AC220-240V
HIT-500	HIT-500	AC100V
	HIT-500-120	AC110-120V
	HIT-500-220	AC220-240V
HIT-2000	HIT-2000	AC100V
	HIT-2000-120	AC110-120V
	HIT-2000-220	AC220-240V

● Detector cord for HDP/HM/HIT Series

Model	Order Code
Detector cord	DPC-0506

P.52 Torque Meters Accessories

● HP Series

Product name	Order Code	Measuring range N · m	Bit Drive
Fidaptor for HP-10	TF4G-Z	0.15 - 0.6	H4
	TF6SG-Z ^{*2}	0.15 - 0.6	
	TF4SG-Z	0.25 or less	H4
	TF4S-Z ^{*1}	0.25 or less	
Fidaptor for HP-100	TF5G-Z	0.5 - 3	H5
	TF6XG-Z ^{*2}	0.5 - 3	
	TF6UP-Z ^{*1}	3 - 9	1/4HEX
	TF6U-Z ^{*1}	3 - 9	
Driver Shaft HP-100	TF6XG-0010 ^{*2}		H4
	TF5G-0010-4		
Fidaptor Buffer Spring	CL65-0040	0.15 - 0.6	
Grease	TF-G3		

*1 Without Safety Guard

*2 HEX shank (Convertible Shaft) 5mm (Upper) and 6.35mm (Low)

● HDP Series

Product name	Order Code	Measuring range N · m	Bit Drive
Detector cord	DPC-0506		

● HM Series

Product name	Order Code	Measuring range N · m	Bit Drive
Fidaptor for HM-10	TFM26-Z	0.15 - 0.6	-Bit #1
	TFM20-Z	0.25 or less	-Bit #0

P.52 Torque Meters Accessories















Product name	Order Code	Measuring range N · m	Bit Drive
Fidaptor for HM-100	TFM40-Z	0.5 - 3	+Bit #2
Fidaptor Buffer Spring	CL65-0040	0.15 - 0.6	

● HIT Series

Product name	Order Code	Measuring range N · m	Bit Drive
Detector cord	DPC-0506		

● Battery Charger for HP & HDP









Order Code	Voltage	Plug Type
TCH-MULTI	100-240V	A
TCH-MULTI-CN	100-240V	A (CCC)
TCH-MULTI-CE	100-240V	C
TCH-EU	220-240V	C

A Plug	 <p>P/N: TCH-MULTI Certificated:     Japan, US, Canada, Taiwan, Southeast Asia^① (Thailand, Philippines)</p>
A Plug	 <p>P/N: TCH-MULTI-CN Certificated:   China</p>
C Plug	 <p>P/N: TCH-MULTI-CE Certificated:   Southeast Asia^② (Vietnam, Indonesia, India Singapore, Malaysia Korea)</p>
C Plug	 <p>P/N: TCH-EU Certificated:   Europe (UK, Ireland)</p>

*1) Please ask your distributor if you want to know the plug type for the country not described in above list.

P.52 Torque Meters Accessories

● Battery Charger for HM & HIT

A Plug	 <p>P/N : TCH-100N Certificated:  Japan</p>
A Plug	 <p>P/N : TCH-120N Certificated:  Korea, Taiwan, US, Canada</p>
C Plug	 <p>P/N : TCH-230G Certificated:   Europe, China, Korea</p>
BF Plug	 <p>P/N : TCH-230B Certificated:  Singapore, UK, Ireland</p>

P.53-54 Automatic Screw Feeder

● For manual operation

Product name	Model	Order Code	Screw Size
HSV Series	HSV-10	HSV-10	M1.0
	HSV-12	HSV-12	M1.2
	HSV-14	HSV-14	M1.4
	HSV-17	HSV-17	M1.7
	HSV-20	HSV-20	M2.0
	HSV-23	HSV-23	M2.3
	HSV-26	HSV-26	M2.6
	HSV-30	HSV-30	M3.0
	HS-35	HS-35-EC	M3.5
	HS-40	HS-40-EC	M4.0
HS Series	HS-50	HS-50-EC	M5.0
	HS III -10	HS-10-3-EC	M1.0
	HS III -12	HS-12-3-EC	M1.2
	HS III -14	HS-14-3-EC	M1.4
	HS III -17	HS-17-3-EC	M1.7
	HS III -20	HS-20-3-EC	M2.0
	HS III -23	HS-23-3-EC	M2.3
	HS III -26	HS-26-3-EC	M2.6
	HS III -30	HS-30-3-EC	M3.0
	HSF-10	HSF-10	M1.0
HSF Series	HSF-12	HSF-12	M1.2
	HSF-14	HSF-14	M1.4
	HSF-17	HSF-17	M1.7
	HSF-20	HSF-20	M2.0
	HSF-23	HSF-23	M2.3
	HSF-26	HSF-26	M2.6
	HSF-30	HSF-30	M3.0

P.53-54 Automatic Screw Feeder

● For Automatic Assembly machines

Product name	Model	Order Code	Screw Size
HSV-RB Series	HSV-10RB	HSV-10RB	M1.0
	HSV-12RB	HSV-12RB	M1.2
	HSV-14RB	HSV-14RB	M1.4
	HSV-17RB	HSV-17RB	M1.7
	HSV-20RB	HSV-20RB	M2.0
	HSV-23RB	HSV-23RB	M2.3
	HSV-26RB	HSV-26RB	M2.6
	HSV-30RB	HSV-30RB	M3.0
HS-RB Series	HS-35RB	HS-35RB-EC	M3.5
	HS-40RB	HS-40RB-EC	M4.0
	HS-50RB	HS-50RB-EC	M5.0
HS III -RB Series	HS III -14RB	HS-14-3RB-EC	M1.4
	HS III -17RB	HS-17-3RB-EC	M1.7
	HS III -20RB	HS-20-3RB-EC	M2.0
	HS III -23RB	HS-23-3RB-EC	M2.3
	HS III -26RB	HS-26-3RB-EC	M2.6
	HS III -30RB	HS-30-3RB-EC	M3.0

P.53-54 Automatic Screw Feeder Accessories

● Rail for hand-manual type

Product name	Order Code	Screw Size
HS Series	HS-R35	M3.5
	HS-R40	M4.0
	HS-R50	M5.0
HS III Series	HS-SR10	M1.0
	HS-SR12	M1.2
	HS-SR14	M1.4
	HS-SR17	M1.7
	HS-SR20	M2.0
	HS-SR23	M2.3
	HS-SR26	M2.6
	HS-SR30	M3.0
	HS-WR10	M1.0
	HS-WR12	M1.2
HSF Series	HS-WR14	M1.4
	HS-WR17	M1.7
	HS-WR20	M2.0
	HS-WR23	M2.3
	HS-WR26	M2.6
	HS-WR30	M3.0
HSV Series	HSV-BI-10	M1.0
	HSV-BI-12	M1.2
	HSV-BI-14	M1.4
	HSV-BI-17	M1.7
	HSV-BI-20	M2.0
	HSV-BI-23	M2.3
	HSV-BI-26	M2.6
	HSV-BI-30	M3.0

P.53-54 Automatic Screw Feeder Accessories




● Rail for RB type

Product name	Order Code	Screw Size
HSV-RB Series	HSV-RI-10	M1.0
	HSV-RI-12	M1.2
	HSV-RI-14	M1.4
	HSV-RI-17	M1.7
	HSV-RI-20	M2.0
	HSV-RI-23	M2.3
	HSV-RI-26	M2.6
	HSV-RI-30	M3.0
	HS-R35RB	M3.5
	HS-R40RB	M4.0
HS-RB Series	HS-R50RB	M5.0
	HS-SSR14	M1.4
HS III -RB Series	HS-SSR17	M1.7
	HS-SSR20	M2.0
	HS-SSR23	M2.3
	HS-SSR26	M2.6
	HS-SSR30	M3.0

● AC Adaptor

Product name	Order Code	Voltage	Plug Type
HS II · HS III · HS-RB · HS III -RB	HS-AD	AC100V	A
HSF Series	HS-AD220	AC220-240V	C
HSV Series	HSV-AD-PSE	AC100-240V	A
	HSV-AD-CN	AC100-240V	A (CCC)
	HSV-AD-EUHK	AC220-240V	C

Plug Type

Plug : A	Plug : A(CCC)	Plug : C
AC100-120V	AC220V	AC220-240V
		
PSE	CN	EUHK

P.55 CD Series

Product name	Model	Order Code	Bit Drive
Lever type	CD-4000	CD-4000	H4
		CD-4000X5	5HEX
		CD-4000X	1/4HEX
	CD-5000	CD-5000	H4
		CD-5000X5	5HEX
		CD-5000X	1/4HEX
	CD-6000	CD-6000	H5
		CD-6000X5	5HEX
		CD-6000X	1/4HEX
	CD-7000	CD-7000	H5
		CD-7000X5	5HEX
		CD-7000X	1/4HEX

P.55 CD Series

Push type	CD-5000PS	CD-5000PS	H4
		CD-5000X5	5HEX
		CD-5000PSX	1/4HEX
	CD-6000PS	CD-6000PS	H5
		CD-6000X5	5HEX
		CD-6000PSX	1/4HEX
	CD-7000PS	CD-7000PS	H5
		CD-7000X5	5HEX
		CD-7000PSX	1/4HEX

P.56 CD Accessories

Product name	Model	Order Code	Remarks
Battery	CDB-12	CDB-12	
	CDS-12	CDS-12	*
Charger	CDC-12SW	CDC-12SW	Battery & Charger for CDB-12 and CDS-12

* CDS-12 includes all the 6 components available on P.56.

Product name	Model	Order Code	Remarks
Carbon brush	CD-4000	AB45-0420	Including PS type
	CD-5000		
	CD-6000	AB65-0490	Including PS type
	CD-7000		

P.58 Electric Tapper, BL-SB Series (for Brushless)

Product name	Model	Order Code	Plug Type
BL-SB Series	BL-5000SB	BL-5000SB	
	BL-7000SB	BL-7000SB	

Product name	Model	Order Code	Plug Type
Power Supply	T-7BL	T-70BL	A
		T-70BL-UL	A-2
		T-70BL-TH	A-3
		T-70BL-EU-HK	C
		T-70BL-UK-SP	BF
		T-70BL-CN	S

P.58 Electric Tapper, SB Series (For Brushed)

Product name	Model	Order Code	Plug Type
SB Series	SB-400C	SB-400C	
		SB-400CNL	Noiseless Type
	SB-650C	SB-650C	
		SB-650CNL	Noiseless Type
Power Supply	T-45BL	T-45BL	A
		T-45BL-UL	A-2
		T-45BL-TH	A-3
		T-45BL-EU-HK	C
		T-45BL-UK-SP	BF
		T-45BL-CN	S

P.58 SB Accessories

Product name	Model	Order Code	Plug Type
Carbon brush	SB-400C	CL4-0420	
	SB-650C	CL65-0490	
SB Series controller	SBC-1	SBC-1	

P.63 Accessories for Suction (Vacuum pick up) Screwdrivers

Manual screwdrivers

Product name	Model	Order Code	Bit Drive
Brushless Screwdrivers (DC)	BLG-4000BC2 BLG-4000BC1 BLG-4000ZERO1 BLG-4000	BLGQ4-SET	H4
	BLG-5000BC2 BLG-5000BC1 BLG-5000ZERO1 BLG-5000	BLQ5-SET	H4 40mm
		BLQ5-SET-ESD*	H4 40mm
		BLQ5N-SET	H4 60mm
		BLQ5N-SET-ESD*	H4 60mm
	BLG-5000BC2-15 BLG-5000BC1-15 BLG-5000ZERO1-15 BLG-5000-15	BLQ5-SET	H4 40mm
		BLQ5-SET-ESD*	H4 40mm
		BLQ5N-SET	H4 60mm
		BLQ5N-SET-ESD*	H4 60mm
	BL-2000	CLQ2-SET	H4 60mm
		CLQ2-SET-ESD*	H4 60mm
	BL-3000	BLQ3N-SET	H4 60mm
		BLQ3N-SET-ESD*	H4 60mm
	BL-5000	BLQ5-SET	H4 40mm
		BLQ5-SET-ESD*	H4 40mm
		BLQ5N-SET	H4 60mm
		BLQ5N-SET-ESD*	H4 60mm
	BL-5000-20	BLQ5-SET	H4
		BLQ5-SET-ESD*	H4
	BL-7000	BLQ7-SET	H5
		BLQ7-SET-ESD*	H5

* Anti-electrostatic

P.63 Accessories for Suction (Vacuum pick up) Screwdrivers

Manual screwdrivers

Brushed Screwdrivers (DC)	CLQ-2000	CLQ2-SET	H4
		CLQ2-SET-ESD*	
	CLQ-3000	CLQ4-SET	
		CLQ4-SET-ESD*	
	CLQ-4000	CLQ4-SET	H5
		CLQ4-SET-ESD*	
	CLQ-6000	CLQ65-SET	
		CLQ65-SET-ESD*	
	CLQ-6500	CLQ65-SET	H5
		CLQ65-SET-ESD*	
	CLQ-7000	CLQ65-SET	
		CLQ65-SET-ESD*	
	SSQ-2000	CLQ2-SET	H4
		CLQ2-SET-ESD*	
	SSQ-3000	CLQ4-SET	
		CLQ4-SET-ESD*	
	SSQ-4000	CLQ4-SET	H5
		CLQ4-SET-ESD*	
	SSQ-6500	CLQ65-SET	
		CLQ65-SET-ESD*	
	SSQ-7000	CLQ65-SET	H5
		CLQ65-SET-ESD*	
	α Q-4500	CLQ4-SET	
		CLQ4-SET-ESD*	
	α Q-5000	CLQ4-SET	H5
		CLQ4-SET-ESD*	
	α Q-6500	CLQ65-SET	
		CLQ65-SET-ESD*	
Brushless Screwdrivers (AC)	VB-1820	VZQ18-SET	H5
	VB-3012		
	VB-3020		
Brushed Screwdrivers (AC)	VZQ-1510	VZQ10-SET	H4
	VZQ-1820	VZQ18-SET	H5
	VZQ-3007	VZQ18-SET	
	VZQ-3012	VZQ18-SET	

* Anti-electrostatic

Automatic Assembly Machines Screwdrivers

Product name	Model	Order Code	Bit Drive
Brushless Screwdrivers (DC)	PGFQ-3000	PGFQ3-SET	H4
	PGFQ-5000	PGFQ5-SET	
	PGFQ-7000	PGFQ7-SET	H5
	BLF-2000	BLFQ2-SET	H4
	BLF-5000	BLFQ5-SET	H5
	BLF-7000	BLFQ7-SET	

* Anti-electrostatic

P.65-66 Accessories for PGF, BLFR Series

PGF Suction (Vacuum) Attachment

Model	Order Code	Bit Drive
PGFR-5000	PGFR5-SA	5HEX
PGFR-7000X	PGFR7-SA	1/4HEX

BLF Suction (Vacuum) Attachment

Model	Order Code	Bit Drive
BLFR-5000	BLFR5-SA	5HEX
BLFR-7000X	BLFR7-SA	1/4HEX
BLFR-7025X		

Vacuuming Vinyl Tube

Model	Order Code
PGFR-5000 PGFR-7000X PGFR-7025X BLFR-5000 BLFR-7000X BLFR-7025X	RM-0850 (order by the 1m)

Screw-on type bit

Model	Tip shape	Order Code	shape
PGFR-5000 PGFR-7000 BLFR-5000 BLFR-7000X BLFR-7025X	+#1 or +#2	RBP4140S	+#1
		RBP4240S	+#2

Automatic Assembly Machines Screwdrivers

Product name	Model	Order Code	Bit Drive
Brushed Screwdrivers (DC)	CLFQ-3000	CLFQ4-SET	H4
	CLFQ-4000		
	CLFQ-6000		
	CLFQ-6500	CLFQ65-SET	H5
	CLFQ-7000		
	α FQ-4500	CLFQ4-SET	H4
	α FQ-5000		
	α FQ-6500	CLFQ65-SET	H5

* Anti-electrostatic

Mouthpiece with spring

Model	Tip shape	Type
Self-adjustable inner mouthpiece type	FS61-68	
	FS61-68S	Stepped
	FS61-74	
Self-adjustable outer mouthpiece type	FS60-68J	POM
	FS60-68A	Aluminum
	FS60-80J	POM

Memo

Handwriting practice lines consisting of 20 horizontal dashed lines.