



Assembly · Industrial · Precision Fastening · Automation

HIOS BL Series Operational Manual

Important: Please read and save the operating instructions.

Warning: When using electric tools, the following basic safety precautions should always be adhered to in order to reduce the risk of fire, electric shock, or personal injury.

Precautions

1. **Keep Work Area Clean:** Cluttered areas and benches can result in injuries.
2. **Consider Work Area Environment:** Do not expose tools to rain. Do not use tools in damp or wet locations. Keep work area well lit. Never use the tool in an area with dangerous objects present. (gasoline, benzene, thinner, gas glue, metallic objects, etc.)
3. **Secure Work:** Use clamps or a vice to hold work piece.
4. **Guard Against Electric Shock:** Prevent body contact with grounded surfaces.
5. **Keep Away From Children and Unauthorized Personnel:** Do not allow children or unauthorized personnel to use the tool.
6. **Store Idle Tools:** When not in use, tools should be stored in a dry and high or locked-up place.
7. **Remove Adjusting Keys And Wrenches:** Make a habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
8. **Use The Correct Tool:** Use the tool for the correct work for its rated power and design.
9. **Dress Properly:** Do not wear loose clothing or jewelry as they can be caught in moving parts. Wear protective head wear to contain long hair.
10. **Use Safety Glasses:** Also use a face or dust mask if the operation involves dust.
11. **Do Not Abuse The Cord:** Never carry the tool by its cord or pull it to disconnect from the power outlet. Keep the cord away from heat, oil, and sharp edges.
12. **Do Not Overreach:** Maintain proper footing and balance at all times.
13. **Maintain Tools With Care:** Keep tools clean for better and safer performance. Follow instructions for lubricating and changing accessories. To use the tool for an extended period of time safely, perform periodical inspections on the tool and if damaged, contact ASG. Keep hands dry, clean, and free from oil and grease. Inspect extension cords periodically and replace if damaged.
14. **Disconnect Tools:** When the tool is not in use, such as attaching and removing the bit, changing the Carbon Brush, inspection or cleaning, disconnect the tool from the power outlet.
15. **Avoid Unintentional Starting:** Ensure that the switch is off when plugging in. Do not carry the tool with finger on the switch.
16. **Stay Alert:** Always remain vigilant, use common sense, and do not operate the tool when you are tired.
17. **Check Damaged Parts:** Before using the tool, a damaged protective cover or other parts should be carefully checked to determine whether the tool will operate correctly and perform as designed.
18. **Ground the tool.**
19. **It only takes a slight amount of pressure for a push-to-start tool**

to go into operation.

Cautions in Operation

1. If there are any problems, do not disassemble the tool. Stop operations and contact ASG immediately.
2. Never lubricate the tool with aerosol oil or similar lubricants.
3. Do not drop, hit, or abuse the tool.
4. Never use chemicals to wipe the body cover
5. Use only the correct voltage.
6. Do not pull the AC cord when unplugging from the power outlet. Grasp the plug.
7. For safety use, do not set the torque adjusting nut higher than 10 on the torque adjusting scale
8. Use the tool intermittently: (Example: 0.5 seconds ON, 4.5 seconds OFF)
9. Do not tighten more than 720 tapping screws in an hour.
10. This tool is not for tightening wood screws
11. Set the power switch to OFF before putting the tool in reverse.
12. If the tool is not being used, turn the tool off and unplug the AC cord plug.
13. In push-to-start mode the driver automatically goes on when pressure is applied to the bit end.
14. In push-to-start mode do not raise the driver from the screw head until rotation has stopped

Grounding Instructions

The tool should be grounded while in use to protect the operator from electric shock.

Operating Procedure

1. Use the torque adjustment nut to select the desired output setting.
2. Attach the bit to the screwdriver
3. Turn the FOR/REV switch to OFF and connect the driver plug to an AC power outlet.
4. Turn the switch to either FOR or REV to start the screwdriver.
5. Operate the clutch until the screw is tightened to the set torque value.
6. Always turn the power off before reversing the rotation direction setting.
7. When loosening a tightened screw, turn the FOR/REV switch to REV and loosen in the reverse direction.

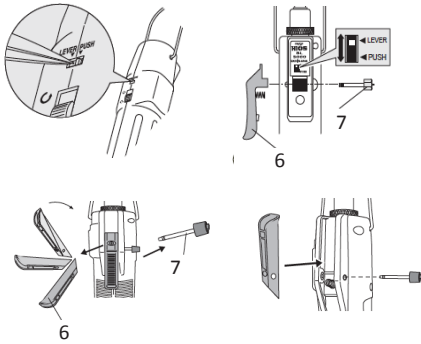


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Push-to-Start Mode:

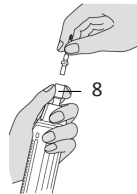
- BL-3000: Use tweezers to switch lever start to push-to-start
- BL-5000: Rotate the hex head screw to detach the switch lever and set the start switch to the push position. Use it without attaching the hex head screw and the switch lever.
- BL-7000: Rotate the hex head screw to detach the switch lever and reattach the switch lever upside down.



6	Switch Lever
7	Hex Head Screw

Attaching a Bit

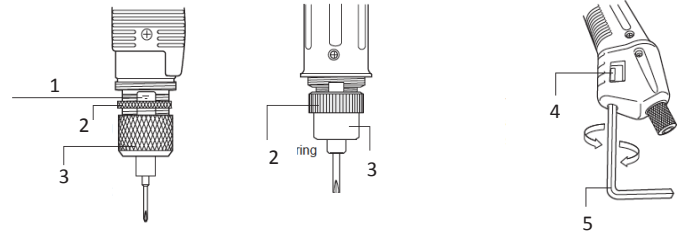
- Caution: When attaching the bit, always ensure that the driver FOR/OFF/REV switch is set to OFF or that the driver power plug has been removed from the AC power outlet.
- Use the correct bit size. To install the bit, push or pull the joint shaft collar at the end of the driver upwards and insert the bit. Check that the bit does not come loose after you have inserted it.



8	Joint Shaft Collar
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Torque Adjustment Procedure

- Use the torque adjustment nut to select the desired output setting. Note that this setting should be taken as an approximate value. Adjust the setting by loosening the adjustment nut stopper and adjusting the torque adjustment nut. When the setting has been made, re-tighten the torque adjustment nut stopper securely. Repeat this process to determine the appropriate tightness. Use a torque tester to verify.
- The BL-2000 has a double nut system (nut fixing ring and torque adjusting nut) to avoid loosening from shock or vibration to the screwdriver.
- BL-3000: Make the setting by pushing the nut collar upwards, remove the torque adjustment nut, and turn it so the point over the nut aligns with the groove.
- BL-5000, BL-7000: Set the torque adjustment nut using the hex wrench that is provided.



1	Torque Scale
2	Nut Securing Ring
3	Torque Adjustment Nut
4	Torque Adjustment Scale
5	5mm hex nut L Wrench

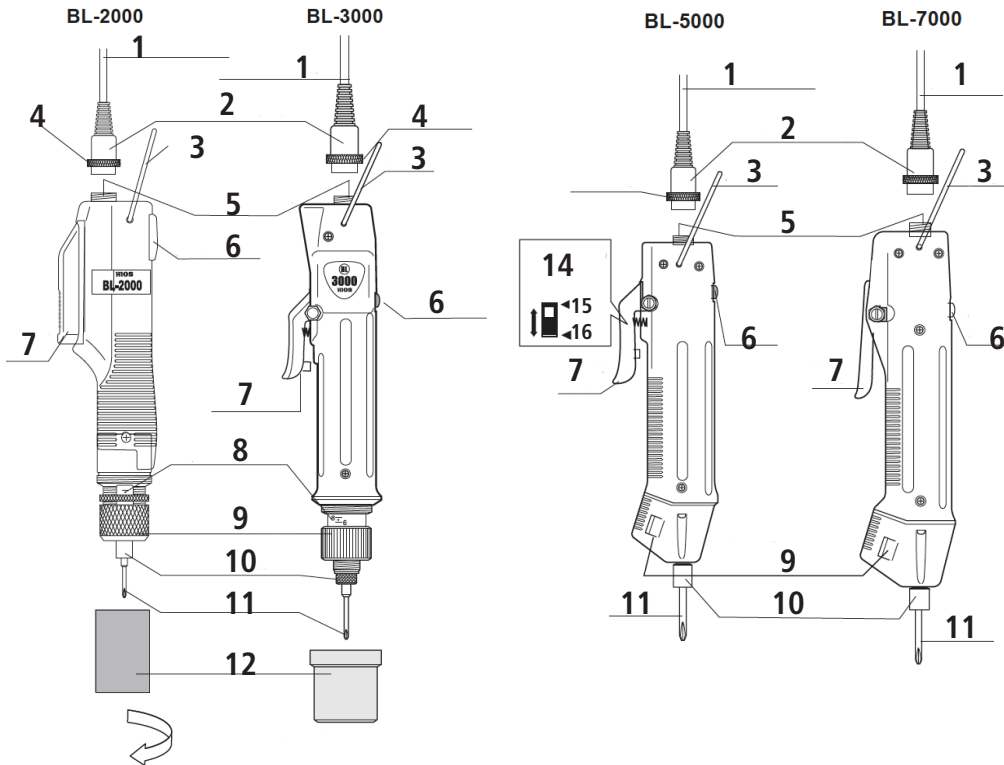
Repairs

Contact ASG with any questions or concerns at +1-888-486-6163 or asginfo@asg-jergens.com



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Parts



1	Screwdriver Cord
2	Screwdriver cord plug
3	Hanger
4	Joint Ring
5	Screwdriver Connector
6	Forward/Reverse Switch
7	Switch Lever
8	Adjusting Bolt (torque adjusting scale)
9	Torque adjustment nut
10	Joint shaft collar
11	Bit
12	Torque adjustment nut protect cover
13	Rotate the protect cover counter clockwise to take it off and adjust the torque.
14	Lever/Push-to-Start Switch
15	Lever
16	Push

Accessories

- Bits
- Torque Adjusting Spring
- There are two torque adjusting springs for the BL-2000
- Hex nut L wrenches (BL-5000, BL-7000)



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Specifications

Lever		BL-2000, BL-200SS	BL-3000, BL- 3000SS*	BL-5000, BL-5000SS	BL-5000-15	BL-5020	BL-7000	BL-7000HT
Push-to-Start								
Output Torque Range	N.m	0.02-0.2	0.2-0.55 0.2-0.35*	0.2-1.2	0.3-1	0.5-2	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	(.02-2)	(2-5.5) (2-3.5)*	(2-12)	(3-10)	(5-20)	(7-28)	(7-35)
Torque Switching		Stepless Adjustment						
Unloaded Rotation Speed (rpm) ±10%	HI	990	980	900	1500	750	960	700
	LO	650	680	590	1000	500	630	500
Screw Size	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	2.0-3.0	2.0-3.0	2.6-4.0	2.6-4.0
Weight (g)		254	320	360	360	360	640	640
Bit Type	HIOS Shank	H4				H5, 5HEX		
	Hex Shank	—	1/4"Hex	H5 and 5Hex or 1/4"Hex		1/4" Hex		
Power Supply	T-45BL	X	X	X	X*	X*	—	—
	T-70BL	X	X	X	X*	X*	X	X
Cord Length	Standard	A	B	B	B	B	C	C
	BL-OPC	D	E	E	E	E	E	E
	BL-ESD	A	A	A	A	A	A	A
	BLQ-CR	F	H	H	H	H	I	I
	BLQ-ESD	F	F	F	F	F	F	F
	BLQ-CR-ESD	F	F	F	F	F	F	F
	BL-SS	A	B	B	—	—	—	—

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

Output torque range and rotational speed in the above specifications is for BL-2000, BL-3000, using the T-45BL power pack or BL-5000 and BL-7000 using the T-70BL power pack.

* The applicable cord especially for OPC is 6PIN type. (*Regular cord is 5PIN type) Combination type screw driver (ex. ESD+OPC) is attached applicable type cord (2m).

Reference Chart for Screwdriver Cord

Type	Attached Cord
A	2m cord ESD (5P)
B	1.5m Cord (5P)
C	2m Cord (5P)
D	2m Cord ESD (6P)
E	2m Cord (6P)
F	2m ESD (5P) and include ESD vinyl tube
G	2m ESD (5P) and include vinyl tube
H	1.5m Cord (5P) and include vinyl tube
I	2m Cord (5P) and include vinyl tube

Compatible Power Supplies

Power Supply Model	Maximum Number of Screwdrivers			
	BL-2000	BL-3000	BL-5000	BL-7000
T-45BL	1	1	1	—
T-70BL	1	1	1	1



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Approximate Guidance of Output Torque (During HI input)

