BLG-4000, BLG-5000, BLG-BC1 (With Built in Screw Counter),
BLG-BC2/ZERO1 (With Built in Screw Counter and Pulse System),
BLG-OPC (For Use with Screw Counter)

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, 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. The tool should be grounded while in use to protect the operator from electric shock.
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.
15. When a tool with an internal counter is used in combination with an external counter, the external counter supersedes the internal counter of the tool. Turn off the screwdriver's counting function before use.
16. When the output setting for Power HI/LOW is changed, the screwdriver speed changes. In such cases, pay attention to the counter timer set value and reverse counter timer set value.

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Operating Procedure

1. Connect the power cord plug to AC outlet.
2. Turn power switch on and check if the LED is illuminated. If it is not lit, contact ASG. After confirming it is lit, turn the power switch off.
3. Connect the driver cord to the power source.
4. Use the torque adjustment nut to select the desired output setting.
5. Attach the bit to the screwdriver
6. Turn the FOR/REV switch to OFF and connect the driver plug to an AC power outlet.
7. Turn on power supply and set the power output setting to 1(20V) or 2(30V).
8. Turn the switch to either FOR or REV to start the screwdriver.
9. Operate the clutch until the screw is tightened to the set torque value.
10. Always turn the power off before reversing the rotation direction setting.
11. When loosening a tightened screw, turn the FOR/REV switch to REV and loosen in the reverse direction.

Push-to-Start Mode

Unscrew the switch lever shaft screw to detach the switch lever. Using a tweezer, slide the selection switch to P (Push). Pushing the selection switch may cause damage. Do not use the screwdriver with the switch lever shaft screw removed.

Switch Lever Shaft Screw

L->< -P Select switch is at the side of this section

Switch Lever
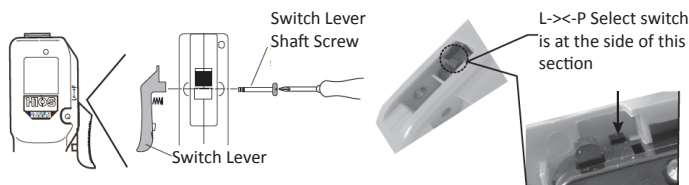
Attaching a Bit

- 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.

Torque Adjustment Procedure

- BLG-4000 has two torque adjustment springs – Red spring is for high torque measurement, white spring is for low torque measurement.
- 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 determined the appropriate tightness. Use a torque tester to verify.
- BLG-5000: Use an allen wrench to adjust the scale.

Torque adjustment scale

Torque adjustment nut can be turned and moved manually with this ring
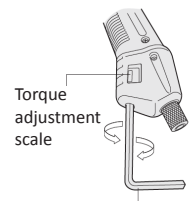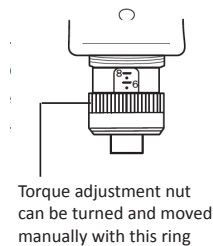
Screw Counter

- The BLOP-STC3 is a power supply with a screw counter. The BLOP-SC1 is a screw counter. Please see the operation manual for these products for more information.
- BLOP-STC3 Compatible Screwdrivers: BLG-4000-OPC, BLG-5000-OPCS, BLG-ZERO1, BLG-BC1, BLG-BC2
- BLOP-SC1: Must be used with an external power supply. Compatible Screwdrivers: BLG-4000-OPC, BLG-5000-OPCS, BLG-ZERO1, BLG-BC1, BLG-BC2
- Note: When a tool with an internal counter is used in combination with an external counter, the external counter supersedes the internal counter of the tool. Turn off the screwdriver's counting function before use.

Repairs

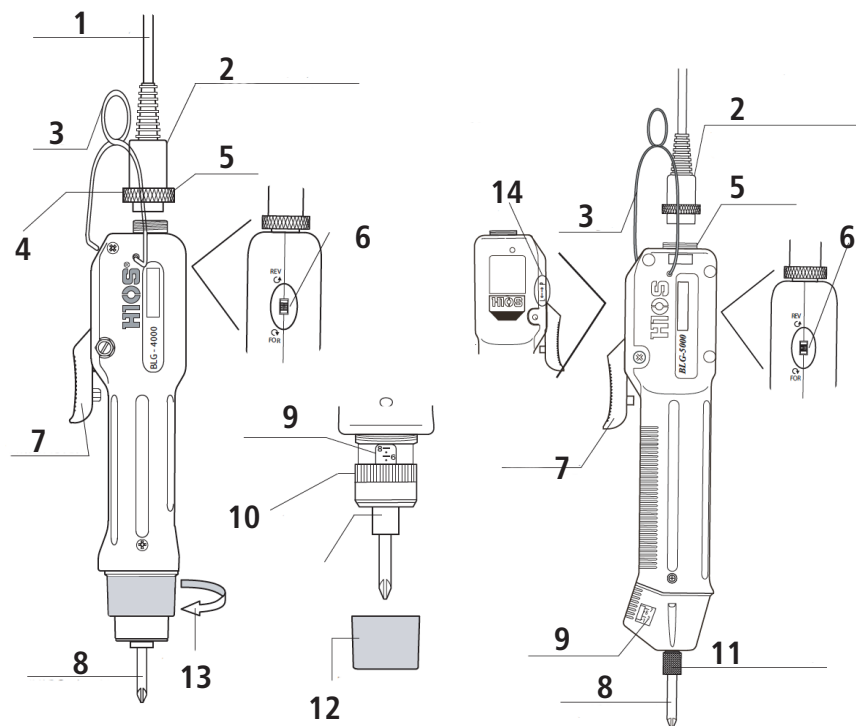Contact ASG with any questions or concerns at +1-888-486-6163 or asginfo@asg-jergens.com

Accessories

- Bits
- Torque adjusting spring – BLG-4000 has two torque adjustment springs – Red spring is for high torque measurement, white spring is for low torque measurement.
- Allen wrench

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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	Bit
9	Torque adjustment Scale
10	Torque adjustment nut
11	Joint shaft collar
12	Torque adjustment nut protect cover
13	Rotate the protect cover counter clockwise to remove.
14	Start Selection Switch - Marking between Lever and Push.

Specifications

Model Number		BLG-4000, BLG-4000ZERO1, BLG-4000BC1, BLG-4000BC2, BLG-4000-OPC	BLG-5000, BLG-5000ZERO1, BLG-5000BC1, BLG-5000BC2, BLG-5000-OPC	BLG-5000-15, BLG-5000ZERO1-15, BLG-5000BC1-15, BLG-5000BC2-15, BLG-5000-OPC-15	BLG-5000-18, BLG-5000ZERO1-18, BLG-5000BC1-18, BLG-5000BC2-18, BLG-5000-OPC-18	BLG-5000-HT, BLG-5000ZERO1-HT, BLG-5000BC1-HT, BLG-5000BC2-HT, BLG-5000-OPC-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	0.9-4.8	1.7-10.0	2.6-10	4.3-13	4.3-17
	kgf.cm	1-5.5	2.0-12	3.0-10	5.0-15	5.0-20
Torque Switching		Stepless Adjustment				
Unloaded Rotation Speed (rpm) ±10%	HI	1000	1000	1500	1800	730
	LO	690	690	1000	1200	
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
Weight (g)		370	425	425	425	425
Bit Type	HIOS Shank	H4		H4	H5 and 5Hex	
	Hex Shank	1/4" Hex	H5 and 5Hex or 1/4" Hex	H5 and 5Hex or 1/4" Hex	1/4" Hex	1/4" Hex
Power Supply	T-45BL	X	X	X*	–	X*
	T-70BL	X	X	X*	X*	X*

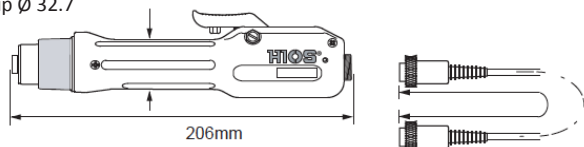* Use only 2(HI) power. May not perform properly on 1(LO) power.

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External Dimensions
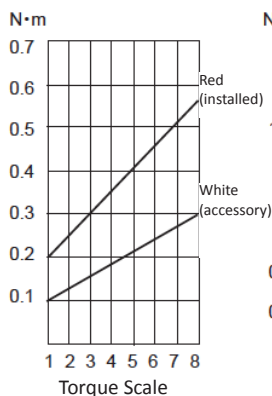
BLG-4000
Grip Ø 32.7

206mm

BLG-5000
Grip Ø 38

235mm

Driver Cord Length
BLG-4000,
BLG-5000:1.5m(5P)

BLG-4000BC1,BC2,ZERO1,OPC
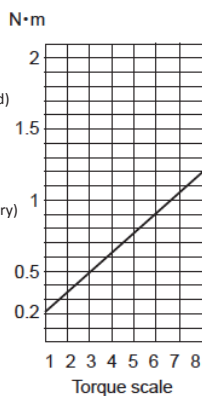BLG-5000BC1,BC2,ZERO1,OPC
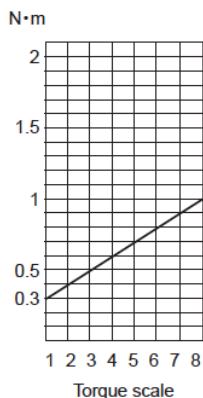:2m(6P)

Unit:mm

Approximate Guidance of Torque Output

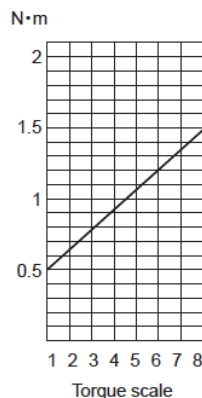BLG-4000
BLG-4000ZERO1
BLG-4000BC1
BLG-4000BC2
BLG-4000-OPC

N·m

Red (installed)

White (accessory)

Torque Scale

BLG-5000
BLG-5000ZERO1
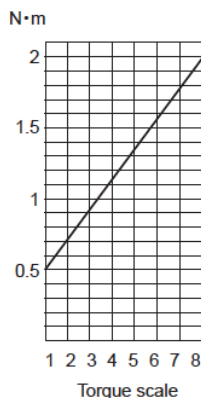BLG-5000BC1
BLG-5000BC2
BLG-5000-OPC

N·m

Torque scale

BLG-5000-15
BLG-5000ZERO1-15
BLG-5000BC1-15
BLG-5000BC2-15
BLG-5000-OPC-15

N·m

Torque scale

BLG-5000-18
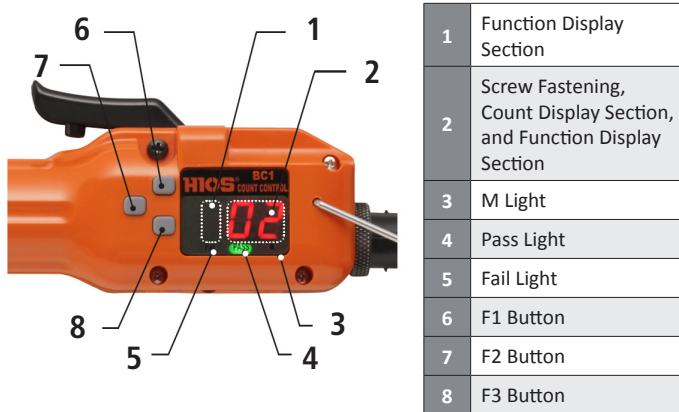BLG-5000ZERO1-18
BLG-5000BC1-18
BLG-5000BC2-18
BLG-5000-OPC-18

N·m

Torque scale

BLG-5000-HT
BLG-5000ZERO1-HT
BLG-5000BC1-HT
BLG-5000BC2-HT
BLG-5000-OPC-HT

N·m

Torque scale

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BLG-BC1 Features
- Brushless screwdriver with built-in screw counter
- OPC (output signals) is available.
- When the screwdriver is connected to the HIOS relay box "BLOP-AF", an external device such as a sequencer, a revolving light or a buzzer can be used to visualize the screw fastening operation with the signals.
- This unit can be used also as a normal screwdriver with the counting function canceled. The display is also OFF.
- The screwdriver, running without fastening the screw, or reverse turning, is not counted.
- Screw fastening errors can be detected with easy operation and setting.

Counter Display Section

1	Function Display Section
2	Screw Fastening, Count Display Section, and Function Display Section
3	M Light
4	Pass Light
5	Fail Light
6	F1 Button
7	F2 Button
8	F3 Button

Screw Fastening Count Display Section/Set Value Display Section
- In the normal mode, the screw fastening count set value is displayed first, and after starting the count, the remaining screw fastening count is displayed. The count decreases with each screw fastening operation and the remaining screw fastening count is displayed.

Function Display Section
- The symbol corresponding to the set item is displayed in the setting mode.

F1 Button
- When this button is pressed for more than 2 second in the normal mode, the mode is changed to the setting mode. This button is used for selecting the function in the setting mode. When this button is pressed for more than 2 seconds in the setting mode, the buzzer sounds twice and the mode is changed to the normal mode.

F2, F3 Button
- Using these buttons, the set value can be changed in the function setting. Some set values are limited depending on the function to be set.

Pass Light*
- When the screw fastening result is "OK", the green LED light turns ON.

Fail Light*
- When the screw fastening result is "NG", the red LED light turns ON.

Other Operations
The count is to be returned to the default value during the screw fastening operation.
- Pressing the F3 Button for 2 seconds or more, resets the screw fastening count value.

How to check the Counter Timer Set Time
- When the screw is fastened for the time period (second) set using the counter timer: For correct operation, the buzzer sounds once. For incorrect operation, the buzzer does not sound. When the buzzer does not sound, increase the set value gradually and adjusts it so that the buzzer sounds once. The confirmation with the buzzer sound is useful for preventing a screw fastening error.

Lock F Buttons
- Slide the FOR/REV switch to FOR. Idle for about 20 seconds. M Light is turned on, and the buttons are locked. They will be unlocked if you redo the steps.

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Setting Function List

Display	Setting Function (Default Value)	Symbol	Setting Description
(1)	Counter ON/OFF Setting `<On>`	P	ON: When selected, the counter function is available. OFF: When selected, it is used as a normal screwdriver. The display is also OFF.
(2)	Count `<n05>`	n	The screw fastening count value is set. Setting Range: 1 to 99
(3)	Count Timer `<c.30>`	C	This function is used to prevent the count for double tightening operations such as check fastening or retightening. Set the operation time while the check fastening is performed for the tightened screw. Setting Range : 0.00 to 0.99 seconds. Note: When the screw tightening operation is performed during setting and the judgment result is normal, the buzzer sounds once.
(4)	Work Reset Timer `<ト1.0>`	├	The buzzer sound time period after the work is completed is set. Setting Range: 0.0 to 3.9 seconds. Note: Set it based on the reverse count timer set value.
(5)	Reverse Count Timer `<r0.4>`	r	The time period until the reverse count is performed is set. Set the work reset timer operation time based on the time period up to when the reverse count is performed. Setting Range: 0.1 to 1.0 seconds. Note: It is available when the "Reverse Count Enable" has been set in the system setting.

(6)	System Setting `<d03>`	d	Each Buzzer or Reverse Count Enable/Disable is set up. The setting is performed with a combination of the tens digit and single unit digit.
			Tens Digit
			   0 : Buzzer Enable/Reverse Count Enable
			   1 : Buzzer Enable/Reverse Count Disable
			   2 : Buzzer Disable/Reverse Count Enable
			   3 : Buzzer Disable/Reverse Count Disable
			Units Digit
			   2 : Torque Up Buzzer Disable
			   3 : Torque Up Buzzer Enable

(7)	Over Time/Short Time `<U 3>`	U	This sets whether or not the Over Time/Short Time error is detected. "0 : When selected, neither Over Time or Short Time Error is detected." 1 : When selected, only the Short Time Error is detected. 2 : When selected, only the Over Time Error is detected. 3 : When selected, both Over Time and Short Time Error are detected.

(8)	Accumulated Counter `<L00>`	L	The Total count of the screw fastening operations is displayed. For the total count, all the fastening operations are counted regardless of whether the counter is ON/OFF.
			Display:
			
			`L00`
			              Units Digit:
			       Tens Digit:
			Units Digit: Numbered in multiples of 100,000 shots
			Tens Digit: Numbered in millions of shots

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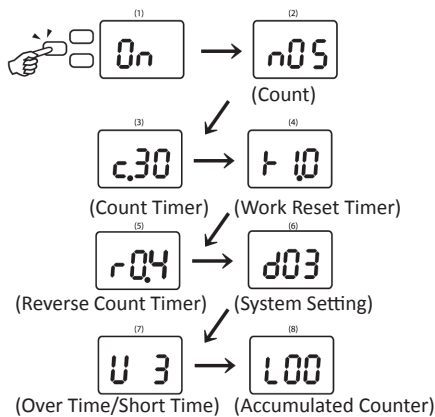Assembly · Industrial · Precision Fastening · Automation

Operation
Changing the Setting Mode
Press the F1 Button for more than 2 seconds in the normal mode. "P" will be displayed in the function display section and the mode will be changed to the setting mode.
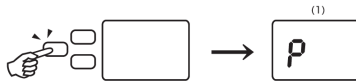
Setting Mode
Pressing the F1 button allows you to scroll through each setup function. Refer to "Setting Function List" for the setting function details.

(1) On → (2) n05 (Count)

(3) c.30 (Count Timer) → (4) ⊢ 10 (Work Reset Timer)

(5) r0.4 (Reverse Count Timer) → (6) d03 (System Setting)

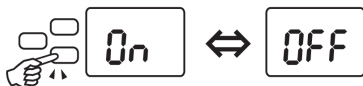(7) U 3 (Over Time/Short Time) → (8) L00 (Accumulated Counter)

Operation

Changing to Normal Mode
Press the F1 Button for more than 2 seconds in the setting mode. The mode will be changed to the normal mode and the value set for the count will be displayed.

On → 1

Counter ON/OFF Setting
Each press of the F3 Button toggles ON and OFF. (Note: F2 Button is not to be used.)
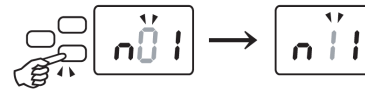

On ⇔ OFF

Value Setting for Each Function
Each press of the F2 Button in the setting mode changes the figure position for setting.

n01 ⇔ n01

Each press of the F3 Button increases the value one by one.

n01 → n11

Note: The setting procedure is the same for all the settings except for the "Counter ON/OFF Setting". Refer to "Setting Function List" for the setting range.