TLB-D Brushless Electric Screwdrivers

- Read these instructions for the proper use of the tool.
- After having read these instructions, keep them in a convenient place so you or the operator can refer to them whenever necessary.

PLEASE NOTE: When repairing or replacing tools or components on any TLB Series purchased in 2016 or prior, please contact ASG representative

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Overview

Thank you very much for selecting the TLB-D Brushless Electric Screwdriver.

⚠ WARNING Read this manual before placing tool in service or operation. Save these instructions for future reference. It is the responsibility of the employer to place the information in this manual into the hands of the operator. Failure to observe the following warnings could result in injury. When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.

Note: ASG is not responsible for customer modification of tools for applications on which ASG was not consulted.

General Safety Rules

Electrical Safety

- Keep work area clean and well lit.
- Electric screwdriver plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) electric screwdrivers. These precautions will reduce the risk of electric shock.
- Don't expose an electric screwdriver to rain or wet conditions as this will increase the risk of electric shock.
- Never use the cord to carry, pull, or unplug the electric screwdriver. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

Personal Safety

- Stay alert and pay attention to your surroundings when operating an electric screwdriver. Do not use an electric screwdriver while you are tired or under the influence of drugs, alcohol, or medication, as this could result in serious personal injury.
- Ensure the switch is in the off position before plugging in to avoid accidental starting.
- Keep proper footing and balance at all times.

Electrical Screwdriver Use and Care

- Use the correct electric screwdriver and power supply for your application.
- Do not use an electric screwdriver if the switch is broken. Any electric screwdriver that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the electric screwdriver. Such preventive safety measures reduce the risk of starting the electric screwdriver accidentally.
- Keep out of reach of children and untrained personnel. Electric screwdrivers are dangerous in the hands of untrained users.

General Safety Rules (Continued)

Service

- Have your electric screwdriver serviced by ASG. This will ensure that the safety and quality of the electric screwdriver is maintained.

Safety Instructions

- Make sure the switch is in the OFF position and tool is unplugged when changing a bit
- Do not allow chemicals such as acetone, benzene, thinner, trichloroethylene ketone, or other similar chemicals to come in contact with the screwdriver housing as damage will result.
- Do not drop or misuse the screwdriver.
- Do not adjust the torque setting higher than 8 on the torque scale.
- There should be a tool rest interval for cycles of three seconds or longer. This tool is intended for a duty cycle of 0.8 seconds on, 3.2 seconds off.
- Do not tighten more than 800 tapping screws (size: 3mm. Length: 5mm) per hour.
- Do not use this screwdriver for tightening wood screws.
- Do not operate the Forward/Reverse Switch while the motor is running.
- Turn the switch to the OFF position and unplug the screwdriver when the tool is not in use
- Always grasp the plug of the power cord when plugging in/unplugging.
- Always secure the power supply to avoid movement.
- If the power supply overheats or is overloaded with maximum current rating, the high-speed fuse will cut off the power. If this situation continues, stop operation immediately and contact ASG for repair.
- Do not disassemble the electric screwdriver or try to repair it yourself.
- When power supply is not in use, please turn the main power switch OFF and unplug the power supply.

Description of Operation

Inserting/Removing Bit and Bit Type

- Push up the holder clamp to unlock it. Thus, the bit can be freely attached and detached.
- Insert the power plug into a receptacle and set the switch to "F" (forward position)
- Apply the bit to the screw head and either press the lever or push to start the tool. The switch will be turned ON to start the motor running.
- When the screw is tightened and reaches the torque that you had set, the tool will stop automatically.
- To reverse the screw, set the changeover switch to "R" (reverse position).

⚠ WARNING Do not operate this tool without protective earth connected

Grounding Instructions

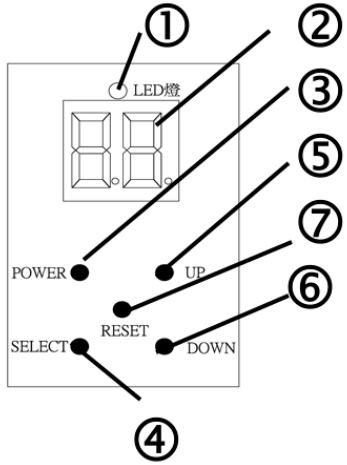
The tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with a three-conductor cord and three-prong grounding-type plug to fit the proper grounding-type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. **Never connect the green (or green and yellow) wire to a live terminal.**

Green and Yellow	Earth
Blue	Neutral
Brown	Live

Installation Instructions

- Use the power supply voltage recommended in the specification of this manual.
- When using a commercial power supply be sure to set up circuit and safety breakers. You must also properly ground the mechanisms.
- The temperature and humidity should be kept at appropriate levels.
- Do not set up the power supply in a room that has poor ventilation and where it may be exposed to dust and metallic particles.
- Do not put anything on top of power supply
- Attach the power supply securely to a flat, stable surface.
- Do not permit unauthorized personnel to operate this power supply.
- Do not set up the power supply near any high voltage machinery
- Avoid setting up or storing the power supply in wet or oily environments or where it might be exposed to corrosive or flammable gases.

Panel Specifications



No.	Name	Function
1	3-Colored Light	To show operation is OK, NG, or the mode condition
2	Panel	To show set value, set screws number and other value
3	Power Switch	Push five seconds: to disable COUNTING FUNCTION CLEAR Push three seconds: CLEAR
4	SELECT key	Push three seconds: Enter the selection
5	Up Key	When entering the selection, this key increases value
6	Down Key	When entering the selection, this key decreases value
7	Reset	Restore to factory settings
	S+P	Automatic learning
	UP+P	Waiting time mode
	UP+DOWN	Buzzer mode
	S+UP	If press together to enable P/R/S button, and then press again to disable P/R/S button

Counting Set-Up Instructions

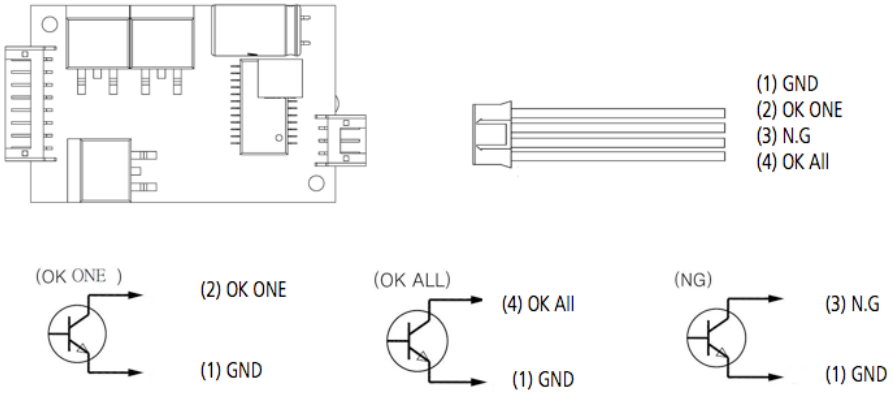
Push three seconds to enter the selection) SL===SC===At===Ht===Lt===LL===Ns===Rn===Rt <Confirm>

Function Name	Set-Up Time and Value	Description	Buzz Time/Light	Factory Default Settings
SL	01-05/UU	Screw List	---	---
SC	1-99	Counting number / count-down only	---	05
At	0.1-9.9	Automatic zero time / Signal output time	---	1.0
Ht	0.1-9.9	Ht time Stop time can be used to check for stripped screws	Five buzz and LED red flash	2.0
Lt	0.01-9.9	Lt time will show early shutoff	Two buzz and LED red flash	0.00
LL	0.01-9.9	Reconfirm time after fastening	---	0.00
Ns	Y or N	Ns: Set the function of stopping the screwdriver when any error message occurs. Y: Stop the screwdriver when any error occurred meanwhile, Reverse is OK; Restore by pressing "S" button N: screwdriver could operate continually when any error occurred.		
Rn	Y or N	Rn: Set the count-up mode for reverse Y: Count for each reverse; N: Only count once when reverse		
Rt	0.01 – 9.99	Rt: Set auto reverse time after the screwdriver shuts off.		
Backward to Count-Up	1 COUNT	When screwdriver is in reverse, the counter will subtract count	---	---
LC	---	Keypad LOCK P/S/R button		
UN	---	UNLOCK		
Ln	---	Automatic learning.	LED keeps flash of light	---

Counting Set-Up Instructions (Continued)

Function Name		Set-Up Time and Value	Description	Buzz Time/Light	Factory Default Settings
Buzzer	En Wrong Set-Up	---	Wrong Set-Up, such as Lt>Ht	Three buzz and LED red flash. Automati-cally show En	---
	dt Standby time	Seconds	Buzz if set-number of screws are not completed in the allotted set time for each screw fastening	Lasting buzz s and LED red flash	---
	Tt Working time for a set of screwdriver	Minutes	Buzz if set-number of screws are not completed in the allotted set time for a set screw fastening	Lasting buzz s and LED red flash	

- In the set-up, if Lt and LL show "02."it means 0.02, push P to adjust decimal.
- During operation, LED will show three colors: OK is green light; NG is red light; standby learning is orange light.
- EA-BD PCB has three kinds of signal, OUTPUT OK1, OKALL and NG
- Output users need input voltage to drive the buzzer, the input voltage can't be over DC24V 10mA.
- There is a new function in the screwdriver that will judge a NG if there is a start signal and it is OFF before Lt.



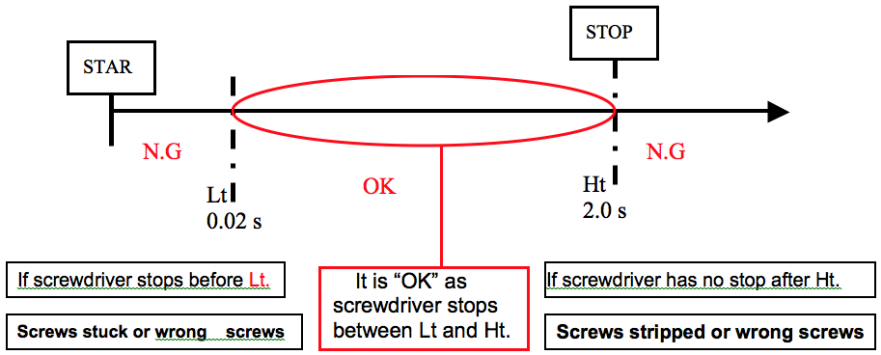
Counting Set-Up Instructions (Continued)

Push both UP+DOWN set up the buzzer:

ON	Fastening a screw, completing work and mistaken operation, buzzer will be on.
OFF	Wrong operation will be buzzed.
FF	Work completed and wrong operation will cause buzz.
EF	As one screw is fastened and work is completed, buzzer will be on; as mistake made has no buzz.

Ht/Lt Description:

- Ht/Lt sets up the period of time. If the tool stops within the set period, it means OK. In contrast, it will be (NG) if it stops before Lt or after Ht. The LT accepts 0.00, but it can be increased or decreased in SELECT.



- To shut down the count: If count needs be shut down, push P key for five seconds until no figures on the panel, meanwhile LED 1 will show green light.
- If set value need be reset during counting, push for three seconds.

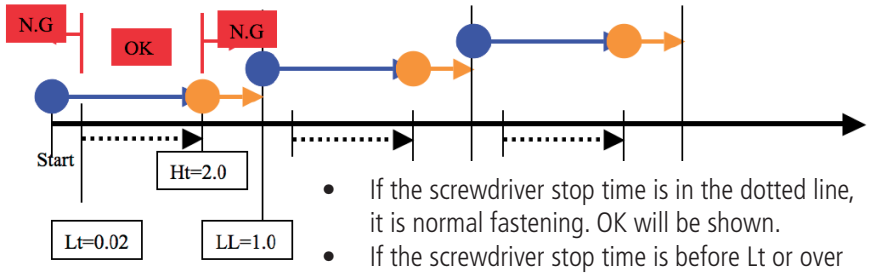
Counting Set-Up Instructions (Continued)

- Simulated-learning: While electric screwdriver is not used, push S key and then push P key to enter simulated-learning procedure; SL(S)===SC(S)===At(S)===Test Data===(P)

1. Show SL (Screw List), select UP/DOWN to change number and then push S (confirm)
2. Show SC (counting number), select UP/DOWN to change number and then push S (confirm)
3. Show At (automatic zero), UP/DOWN to change value; then push P (confirm)
4. Enter simulated-learning (LED 1 will keep flash)

- LED light will flash in simulated-learning. Push P key to record value after simulated –learning.
- UP and P key can set up waiting time.
- Push R key to restore to factory settings.

General Execution of Pre-Set Program



- If the screwdriver stop time is in the dotted line, it is normal fastening. OK will be shown.
- If the screwdriver stop time is before Lt or over Ht stop is before Ht or over Lt, it is NG.

Torque Adjustment Operation

- Determine the torque output of the tool with a torque tester such as the ASG DTT or DTT-L.
- Increase or decrease the torque by rotating the Spring Adjusting Ring. Rotating the ring clockwise to a higher number on the torque scale increases torque output while rotating the ring counterclockwise to a lower number decreases the torque output.
- Continue to check the adjustment with a torque tester until you are satisfied with the torque output. If you are making final torque adjustments on line, always start below the desired torque and work upward.
- The torque scale on the tool goes from 0 to 8. Only the even numbers appear: 2,4,6, and 8. This is not the actual torque the tool is going to produce. The numbers on the scale are only a point of reference.

Servicing

Maintenance and Inspection

- Do not use the tool more than 8 hours a day.
- Check for carbon brush wear. We recommend replacing the brushes based on use.
- Do not let the motor and power supply get over heated. Do not run more than 10-15 screws/minute.
- If you use the tool more than 8 hours a day, have the tool evaluated for preventative maintenance.
- Inspect tool cords periodically. If damaged, contact ASG.
- Do not remove any labels.

⚠ WARNING Using non-ASG replacement parts may result in decreased tool performance and increased maintenance and may void all warranties.

All repairs and maintenance of this tool must be performed by ASG

ASG is not responsible for customer modification of tools for applications on which ASG was not consulted.

It is the responsibility of the employer to place the information in this manual into the hands of the operator.

DO NOT ATTEMPT TO REPAIR THIS ELECTRIC SCREWDRIVER

SAVE THESE INSTRUCTIONS - DO NOT DESTROY

Product Specifications

Model Number	ASG Number	Input Voltage	Power Consumption	Torque		Torque Adjustment		Weight		Length		Power Supply
				lbf.in	N.m	HI	LO	lb	g	in.	mm	
TLB-D412LH	68602	DC 24V or 32V	55W	1.3 - 10.4	0.15 - 1.18	1000	700	1.3	600	10.7	273	TLB-PS61 (ASG #68634)
TLB-D419L	68623	DC 24V or 32V	55W	2.6 - 16.5	0.29 - 1.86	1000	700	1.3	600	10.7	273	TLB-PS61 (ASG #68634)
TLB-D412PH	68605	DC 24V or 32V	55W	1.8 - 10.4	0.2 - 1.18	2000	1400	1.3	600	10.8	275	TLB-PS61 (ASG #68634)
TLB-D630LH	68603	DC 40V	90W	8.7 - 26.0	0.98 - 2.94	2000	1500	1.9	840	11.9	303	TLB-PS801 (ASG #68638)
TLB-D630PH	68606	DC 40V	90W	8.7 - 26.0	0.98 - 2.94	2000	1500	1.9	840	12.0	306	TLB-PS801 (ASG #68638)
TLB-D650L	68604	DC 40V	120W	17.3 - 43.4	1.96 - 4.9	1000	750	1.9	840	11.9	303	TLB-PS801 (ASG #68638)
TLB-D650P	68607	DC 40V	120W	17.3 - 43.4	1.96 - 4.9	1000	750	1.9	840	12.0	306	TLB-PS801 (ASG #68638)
ESD Safe Models												
TLB-D419L-ESD	68624	DC 24V or 32V	55W	2.6 - 16.5	0.29 - 1.86	1000	700	1.3	600	10.7	273	TLB-PS61 (ASG #68634)

Warranty

The warranty is 1 year after delivery. If any troubles should occur, please contact ASG. In the following cases, the purchaser shall pay for parts and labor regardless of the terms of warranty:

- Failure due to improper handling.
- Failure due to product modification or improper processing.
- Failure due to causes beyond control (for example earthquake or fire).
- Consumables, replaceable parts, and replacement work expenses.

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