HIMAX

Electric Screwdriver
TL Series DC 20/30V

CE

Operating instructions

Note

- This electric screwdriver is designed for indoor use only. Please do not use it in outdoors or wet environment to prevent the danger of electrocution.
- Pay attention to the voltage specification. Make sure the switch is in the OFF position when you plug in the power.
- Unless you are a trained maintenance personnel, do not disassemble the device lest it cause dangers or more damages.
- Please use the original power transformers for the TL model lest it generates dangers or imprecise torque due to wrong output specification.

Operating instructions

- Make sure the power is switched off to install or replace screwdriver bits; press the front-end iron cap will allow the screwdriver bits to be inserted or released.
- It is recommended to suspend the electric screwdriver by a flexible balancer for easy operation and prevent its dropping.
- Adjust the torque dial to the proper position according to the dial/torque table for each model.
- The forward/reverse switch should be set to the forward position when fastening screws. Press the start switch to complete the operation. The automatic control model will shut off the power and stop the rotation of the screwdriver bit as soon as the set torque value is reached.
- Position the forward/reverse switch to reverse to loosen screws.
- Use hands to hold the electric screwdriver during operation. Keep it in a perpendicular position with the screw and apply pressure slightly to prevent slipping.
- Use hands or other means to fix the object operated and operate the electrical power screwdriver safely.
- Do not press the start key abruptly again after the completion of the fastening operation each time.
- Do not switch the forward/reverse position and improper switch operations when the motor is running to prevent the short-circuit of the start switch.
- Use it under the normal operation frequency (8 working hours per day and fasten 800-1000 screws per hour) without exceeding the operation load will extend the life time of the electric screwdriver and reduce the occurrences of malfunction.
- Please do not use this type of electric screwdriver to fasten wooden screws.

Regular simple maintenance

Check to see whether all the parts, shell, and power lines are intact all the time to ensure normal operations. Unplug the power plug and turn off the power before doing any maintenance operation to ensure safety. For every 1000 hours operation or half year, the following cleaning and maintenance operations to the machine body and the inside are required:

Replacement of Carbon brush

When carbon brush wears to 1/2 of the original length, it needs to be replaced and the accumulated carbon powder removed to prevent the short-circuit of the circuitries.

Lubrication of machine parts

The gear transmission machine parts should be greased with special gear grease to keep the operations smooth and reduce wear.

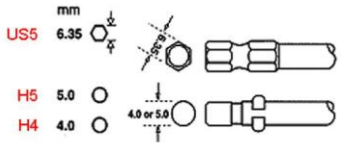
Power Supply

CLT-50

CLT-50s

- TL low voltage direct current model requires the matching CLT-50 / CLT-50S power supply.
- Use the accessories, 5P dual power line to connect the electric screwdriver and the power supply.
- Make sure the right voltage to be used before the connection of power. Turn the switch to Ho/Lo position and the LED red-light will lights up to indicate that the power is on and ready to use.
- The output voltage: HI/30V, LO/20V if switched, the speed of the electric screwdriver will be changed accordingly. Please use the attached clip to fix the CLT-50S to prevent drop and damages.

Bits Shanks

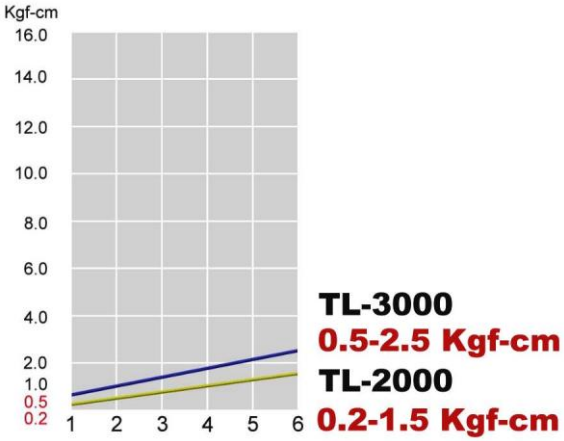


Specification

TYPE		TL-2000	TL-3000
Starting Mode		Trigger Start	Trigger Start
Output Torque Range	Kgf-cm	0.2-1.5	0.5-2.5
	N-m	0.02-0.15	0.05-0.25
	lbf-in	0.17-1.28	0.43-2.15
Torque Adjusting Mode		Stepless Adjustment	
No Load RPM (r.p.m)±5%	HI	1000	1000
	LOW	700	700
Applicable Screw Range (mm)	Machine	1.0-2.0	1.0-2.3
	Tapping	1.0-1.7	1.0-2.0
Applicable Bits (Optional)		H4	H4
Deadweight (g)		310	310

Adjusting torque

- The dials on the electric screwdriver do not represent the torque value.
- Please use the torque/dial table to set the proper dial for each different machine type and set to the desired torque for operations.
- To ensure the precision of the torque value, we recommend the use of the HIMAX torque tester to measure and calibrae



Parts List TL-2000/TL-3000

No.	Description
1.	Coupling
2.	*
3.	Torque Adjusting Nut
4.	Roller Pin
5.	Torque Adj. Bolt
6.	Torque Adj. Spring
7.	Spring Lower Holder
8.	Ground Connection
9.	Collar Stopper Ring
10.	Bit Holder Collar
11.	Collar Spring
12.	Bit Lock Ball
13.	Joint Shaft
14.	Joint Shaft Lock Pin
15.	Screw
16.	Spring Upper Holder
17.	Thrust Bearing
18.	Clutch Ball Rod
19.	Clutch Ball
20.	Switch Supporter
21.	Gear Case
22.	Screw
23.	Micro Switch
24.	Internal Gear
25.	Cam Roller
26.	Driving Shaft
27.	Planet Gear
28.	Bearing
29.	Washer
30.	Gear Pin
31.	Gear Base
32.	Rotor Gear
33.	Oil Seal Plate
34.	Assembling Spring
35.	Motor End Cover

No.	Description
36.	Motor Assembly
37.	Magnet Supporter
38.	Magnet
39.	Washer
40.	Motor Front Cover
41.	*
42.	Carbon Brush
43.	Carbon Brush Cap
44.	Capacitance
45.	Motor Bearing
46.	Rotor
47.	Frame A
48.	Frame B
49.	Screw
50.	Switch Lever
51.	Switch Lever Spring
52.	Switch Lever plunger
53.	Roller Bearing
54.	Name Plate
55.	*
56.	For/Rev Switch
57.	Starting Switch
58.	5P Connector
59.	Hanger
60.	
61.	Driver Cord