

TPK[®]

TPK Low voltage DC full-auto Shut off electric Screwdriver

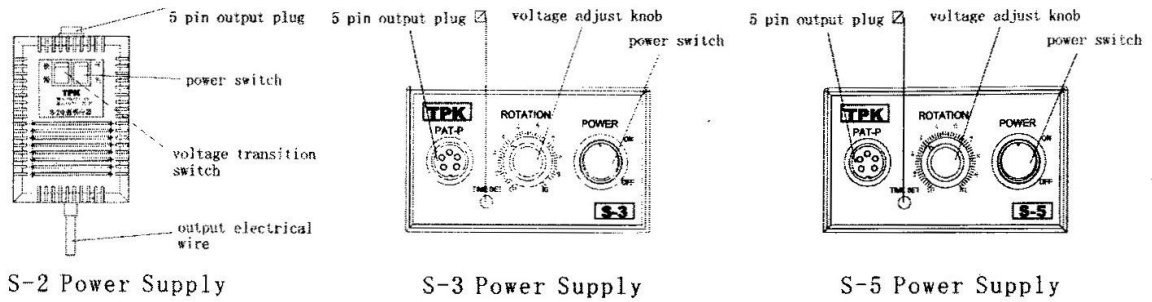
Operating Manual

Series Structure

Swiss DC motor Series
Taiwan Standard motor series

Working Voltage low than 35VDC

IS-4500, IS-6500, IS-7000



Power Supply

Model No.	Input Voltage		Output Voltage		Dimension (mm)			weight g	Feature	Available Screwdriver
	AC	DC	length	wide	high					
S-2	110V/220V	30V	135	90	70	1130	Low/high speed adjustment, table type	W hole Series		
S-3	110V/220V	30V	160	100	65	1600	Can put on table or hanging isobarically, stepless adjust.	W hole Series		
S-5	110V/220V	30V	144	100	58	1800	Can put on table or hanging isobarically, stepless adjust, soft start	W hole Series		

Safety operation explain

1. For Safety operation , please read the regard and the warning before operation.

Do not use the electric screwdriver or power supply for other purposes which don't mentioned in operation manual, this will be reason for some faults and accidents.



Regard

- (1) Must set the creepage protector and safety protector before use the power supply.
- (2) Please connect the power supply and TPK screwdriver ground line for safety.
- (3) when process the following operation, make sure the product is out of power:
Change the carbon brush, load and unload bits, adjust torque spring, load and unload balancer and the accessories etc.
- (4) Please do not oiling at will, this may raising the repair charge.
- (5) When Change the carbon brush, the carbon power will reduce the effect of insulation. So please give the product to factory for maintenance. Normally every 1 million times use or every one year need one maintenance.
- (6) Break will be caused by beat or strike, so please avoid this.
- (7) Please do not use the product near flammability and dangerous things (gasoline, easy-burn gas or bond)
- (8) Please do not use the chemic medicament when maintenance the DOS shell.
- (9) Please do not handle the electrical wire to pull out the power supply pin.
- (10) Please do not use the electrical wire to hang the electric screwdriver.

Feature:

1. Design for which needs precision torque working condition, suitable assemblage range as: mobile phone, camera, glass, computer, furniture etc.
2. Low vibration, low noise, accord with environment protection.
3. Using low voltage electron brake loop, excellent torque control, low fault rate, long using life.
4. Low voltage DC motor driving, no risk the danger of get an electric shock.
5. Design in one hand operation, no need switch to reversal, operation easily.
6. Design in ergonomics handle to reduce working fatigue, increase the working efficiency.

Model & Specification

Swiss DC motor series

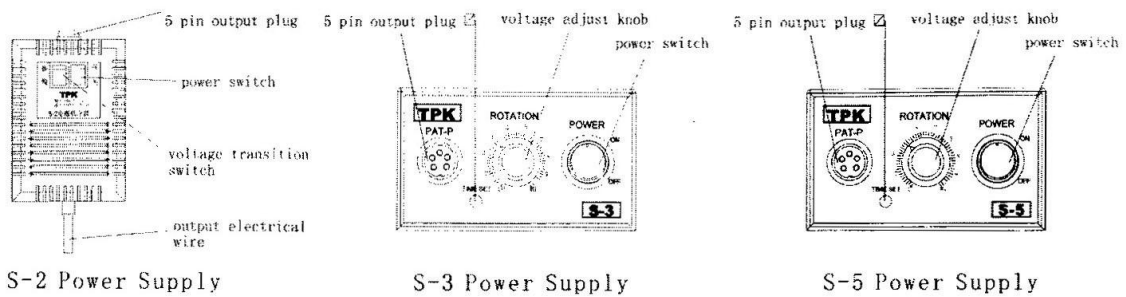
Model No.	No Load Speed	Torque Range	Length	Weight	Accuracy	Available Screw (ϕ)		Working Voltage	Bit Size
	r.p.m	kgf-cm	mm	g	%	Machine Screw	Tapping Screw	DC	
S-2000M	850	0.2 – 2	223	260	± 3	0.8-2.0	0.8-1.7	30V	$\phi 4$
S-2000MS	1200	0.2 – 2	210	260	± 3	0.8-2.0	0.8-1.7	30V	$\phi 4$
S-3000M	850	0.5-4	223	260	± 3	1.0-2.3	1.0-2.0	30V	$\phi 4$
S-3000MS	1000	0.5-4	210	320	± 3	1.0-2.3	1.0-2.0	30V	$\phi 4$
S-4000M	800	1-6	223	320	± 3	1.4-2.6	1.4-2.3	30V	$\phi 4$
S-4000MS	1000	1-6	210	320	± 3	1.4-2.6	1.4-2.3	30V	$\phi 4$
S-4500M	800	1-10	223	320	± 3	2.0-3.0	2.0-2.6	30V	$\phi 4$
S-6000M	750	2-12	262	420	± 3	2.3-3.5	2.2-3.2	30V	$\phi 5$
S-6000MS	1000	2-12	262	420	± 3	2.3-3.5	2.2-3.2	30V	$\phi 5$
S-6500M	750	2-16	262	420	± 3	2.3-4.0	2.3-3.5	30V	$\phi 5$

* ESD type is available for ordering, available bit size (optional): 1/4" hex shank.

Taiwan standard motor series

Model No	No Load Speed	Torque Range	Length	Weight	Accuracy	Available Screw (ϕ)		Working Voltage	Bit Size
	r.p.m	kgf-cm	mm	g	%	Machine Screw	Tapping Screw	DC	
S-2000	1000	0.2 – 2	223	320	± 3	0.8-2.0	0.8-1.7	30V	$\phi 4$
S-2000S	1300	0.2 – 2	223	320	± 3	0.8-2.0	0.8-1.7	30V	$\phi 4$
S-3000	1000	0.5-4	223	320	± 3	1.0-2.3	1.0-2.0	30V	$\phi 4$
S-3000S	1300	0.5-4	223	320	± 3	1.0-2.3	1.0-2.0	30V	$\phi 4$
S-4000	1000	1-6	223	320	± 3	1.4-2.6	1.4-2.3	30V	$\phi 4$
S-4000S	1300	1-6	223	320	± 3	1.4-2.6	1.4-2.3	30V	$\phi 4$
S-4500	1000	1-10	223	320	± 3	2.0-3.0	2.0-2.6	30V	$\phi 4$
S-6000	1000	2-12	262	480	± 3	2.3-3.5	2.2-3.2	30V	$\phi 5$
S-6000S	1500	2-12	262	480	± 3	2.3-3.5	2.2-3.2	30V	$\phi 5$
S-6500	1000	2-18	262	480	± 3	2.3-4.0	2.3-3.5	30V	$\phi 5$

* ESD type is available for ordering, available bit size (optional): 1/4" hex shank.



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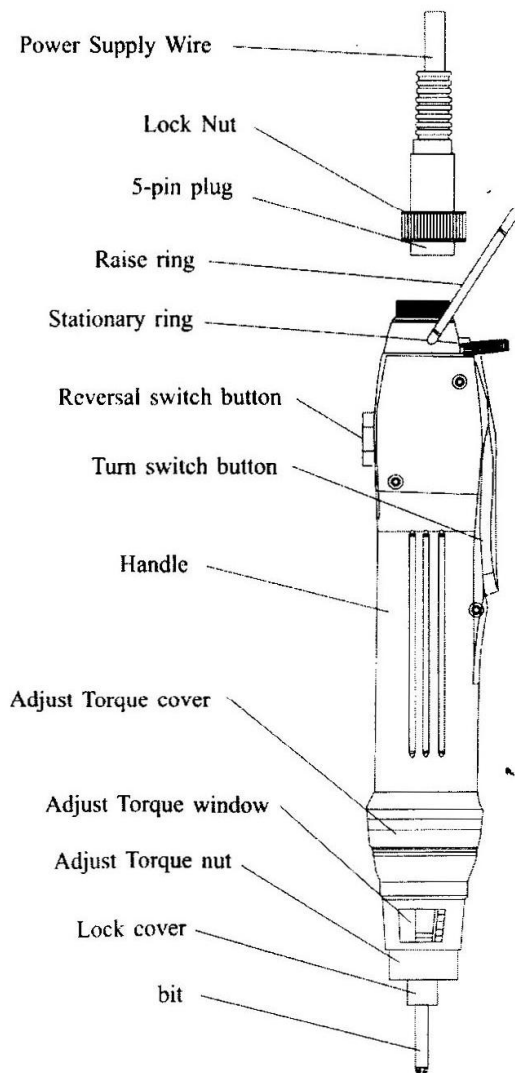
- (11) Change the carbon brush, load and unload bits, do the maintenance, please pull out the power supply pin.
- (12) The burden of long time operation will cause the pain of muscle. Please regard rest.
- (13) Please put on safety clothes when operation, the loose cuff may entangle in the electric screwdriver when it circumsolve.
- (14) For long time and safety use, please time to maintenance the product.
- (15) For safety use, please use the TPK accessory.



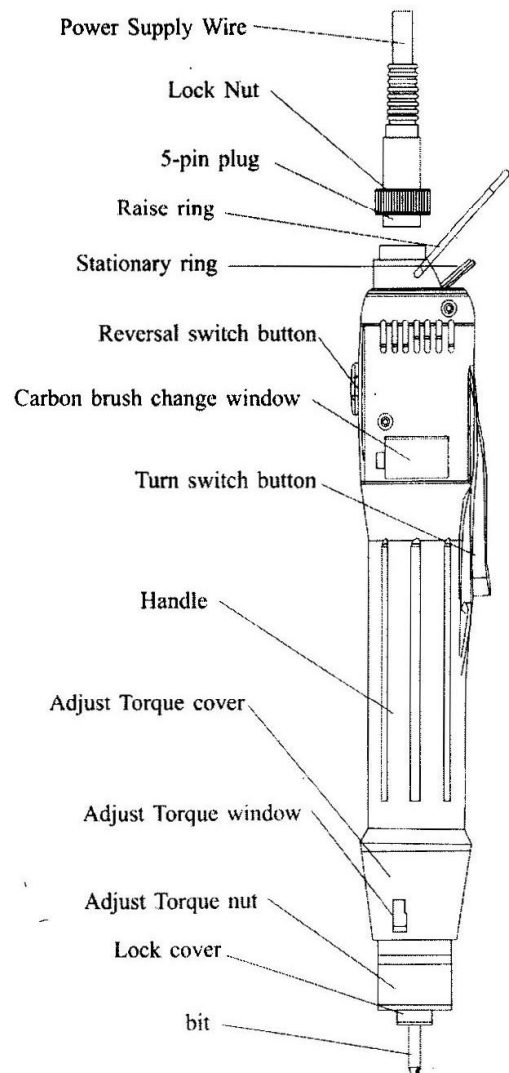
Warning

- (1) Please do not connect other power supply which voltage is not matching. If so we have on response for any electric shock accident
- (2) Wet hand or oily hand to teach the electric screwdriver will cause the hurt of electrification accident. And please do not teach the pin or AC jack.

Part Name:
Suitable for model S-2000 to S-4500.



Part Name:
Suitable for model S-6000 to S-6500.



Operation manual

Make sure before using:

1. Please affirm the power supply is suit for the screwdriver or not.
2. Please connect the power supply and screwdriver with the electrical wire, than lock the nut.

Operation process:

1. Fixation the product which needs drive: please set the torque before using, reference to “torque setting”. Set the torque, make sure the product has been fixated, and then you can have operation.
2. Operation of Drive/exit screw: first gently put the bit into the flute of screw, than push the Turn switch button to drive screws; push the Reversal switch button to exit screws.
Notice: Do not change the direction when the screwdriver is working, if you need to change the direction please wait until the screwdriver stop.
3. Torque setting: Turn the Adjust Torque nut to set the screwdriver’s torque; turn deasil the torque will be bigger, anticlockwise turn the torque will be smaller.
Notice: the graduation on graduation ting is not the exactly torque, if you need the exactly torque, please use the TPK torque meter or torque wrench to test.
To protect the torque not to be changed, please use the torque cover (largess) to cover the adjust Torque nut.
4. Load the bit: push the lock cover, than put the bit in; when you loose the lock cover, the bit will be locked automatically. Notice: do not knock or pull the bit forcedly to load the bit.
5. Screwdriver fixation: please hang up the screwdriver when operations (use the balancer), which can avoid the screwdriver don’t be hit, to protect the DOS shell not to be broken.
6. Reach the set torque: there is an automatic stop device inside the screwdriver. When you drive the screw, once the torque is reached, the screwdriver will be stop automatically even you don’t loose the button.
Notice: please clutch the screwdriver in the process of drive screws to avoid destroy the screw flute by sudden rebound.
7. Exit screw: if you can’t use the same torque to exit a screw, please increase the torque, after exit the screw please don’t forget to revert the torque.
8. Over loading operation: if the temperatures of the handle increase fast or the rotate speed drop fast in operation, this meaning the screwdriver is under over loading operation. Please change a bigger torque screwdriver or drop the drive frequency to extend the using life of the electric screwdriver.
9. Change the carbon brush (only for Taiwan standard motor series, Swiss DC motor series is no need to change the carbon brush)
Use the slotted screwdriver to open the carbon brush caver.
Please make sure the power has been cut off when change the new carbon brush.
Notice: please pull out the power plug then change the carbon brush, please use the same specification carbon brush.
· The flute side of carbon brush must insert in the same direction as the rotor frictional circumvolve direction.

Facility fault solution

When the screwdriver can not work normally, please check as the below; if you can't find the problem, please do not disassembly the screwdriver and contact the agent immediately.

1. Screwdriver can not turn:

① Power supply has no out put voltage

- Check the plug of power supply wire is connected or not, and check the output voltage is 30VDC or not. If there is no output voltage, please change the power supply.
- Check the 5P-5P connect line has an open circuit or not near screwdriver side, if there is an open circuit please changes a new line or just changes a new 5-P plug.
- The fuse is open circuit or not. Notice: please cut off the power before change a new fuse.

② Check carbon brush disrepair or not, if the press between carbon brush and rotor is not enough, the screwdriver will not turn or turn unsmooth.

Way of checking: Open the carbon brush caver, use one insulated bar to teach the carbon brush gently. If the screw resume turn meaning the carbon brush is broken, please clean the carbon brush channels and change new carbon brush.

③ Check the Turn switch is broken or not, if broken, please change a new one.

2. Screwdriver turns unsmooth:

① If turn on the screwdriver at once after the power supply electrify, the screwdriver will turns unsmooth. Please wait 3-5 seconds, then start the screwdriver, it's will be normal.

② Long time use will induce the rotor abrasion, please change the new rotor immediately.

3. Bit is easy fall off or to be shaking:

① Is bit the same specification as the accessory, if not, please change the same specification.

② Is the bit put in with the guide channel in the principal axis or not, if not, please take out and reinsert.

③ Bit easy to be shaking, please take out the bit and turn 180 then reinsert.

④ Please change a new bit.

4. The screwdriver can't stop when it reaches the preset torque:

① The torque is setting to high, please low down the torque to a fit position.

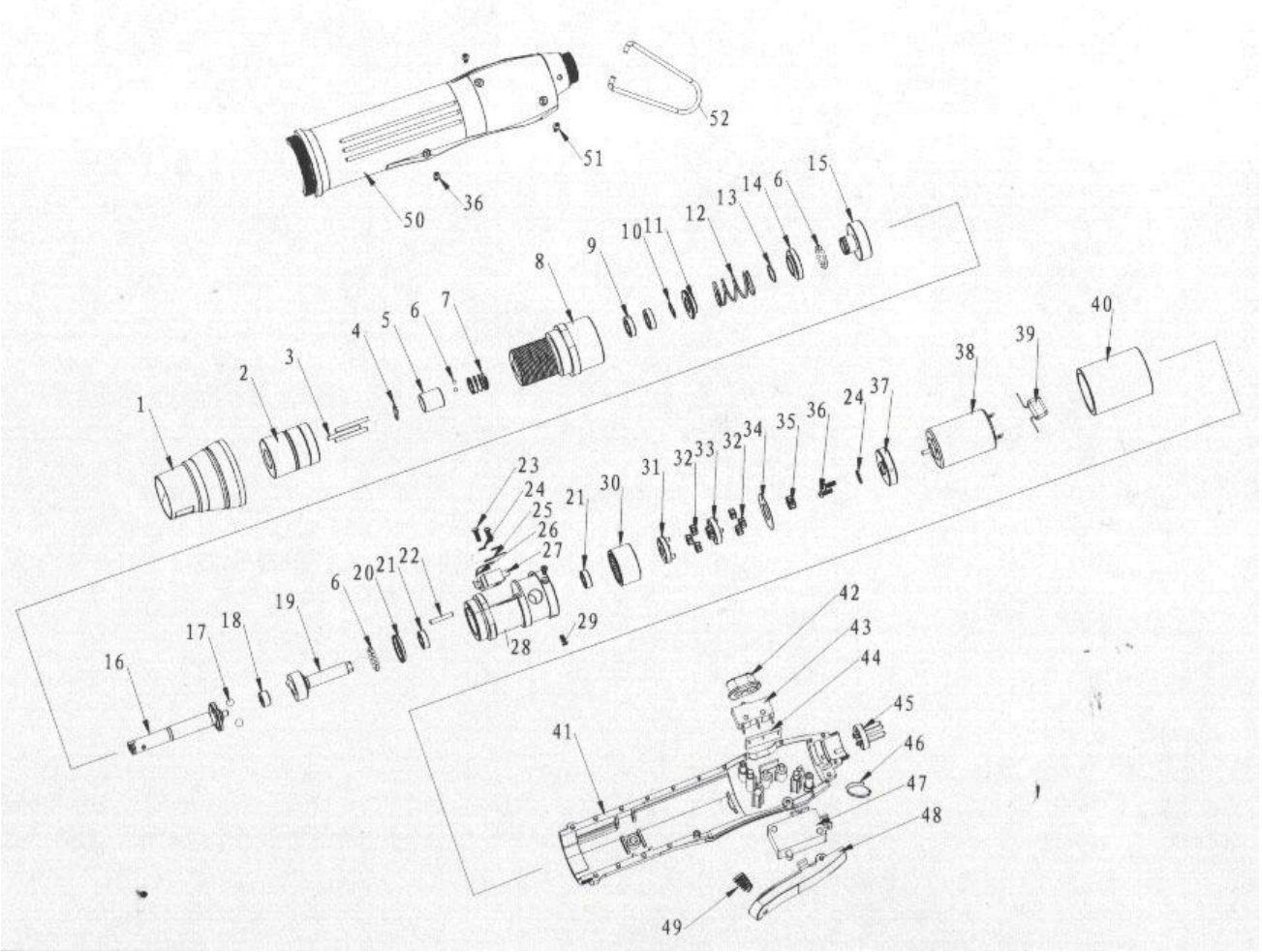
② The motor of screwdriver not have enough torque, the clutch can't stop. Please change a bigger torque screwdriver to protect finesse.

③ The tip of bit is not suit with the screw flute will cause the skid, please change a suitable bit.

④ Brake loop fault or brake switch shift, in this condition, the clutch

will give out a voice as "ka, ka". Please send the screwdriver to the repair man to deal with it.

Part list(Suitable for:S-2000MS,S-2000M,S-3000MS,S-3000M,S-4000MS,S-4000M,
S-4500M,S-2000S、 S-2000、 S-3000S,S-3000,S-4000S,S-4000,S-4500)



Part list suitable for: S-6000MS,S-6000M,S-6500M,S-6000S,S-6000,S-6500

