Instruction Sheet

(Original Instructions)

Electric Screwdriver

270-BS2000E

270-BS3000E

270-BS4000E

270-BS4000FE

270-BS6000E

270-BS6500E

270-BS6800E

CE

Declaration of Conformity CE

We (Kaisertech Limited) declare under our sole responsibility that the products Electric Screwdrivers described under this manual are in conformity with the following Directives or Standardisation documents: Machinery Directive 2006/42/EC

Serial No.: _____

Kaisertech Industrial Electric Screwdriver User Manual
(For full-automatic models-brushless motor with controller)

Declaration of Conformity CE

We (Kaisertech Ltd) declare under our sole responsibility that the products Electric Screwdrivers described under this manual are in conformity with the following Directives or Standardisation documents: Machinery Directive 2006/42/EC and EMC Directive 2004/108/EC

A Word of Thanks to Our Customers

Thank you for choosing this lightweight and powerful electric screwdriver. In order to ensure maximum performance and product life, please read through this manual before using your screwdriver.

Feature

- High precision, low inertia and low impact driving brushless motor giving long life and high quality.
- Our screwdrivers are designed for use with precision torque locking screws. They can be used for assembly of small items such as mobile phones, cameras and eyeglasses and large items such as home appliances, computers and furniture.
- ESD Safe can be used in electronic assembly areas.
- Low vibration, low noise, meets environmental protection demands.
- Brushless motor does not generate any carbon particles and no carbon brushes to change.
- Connecting to soft start and speed adjustable function power supply so you can adjust the driver to different fastening conditions, but keeping fastening quality.
- Gold plated micro switch (The service life of the contact point withstands 10 million on and off contacts.) reducing the cost of maintenance.
- Separate control/power supply and screwdriver for low repair cost and higher serviceability rate.
- Switching power supply plugs directly into screwdriver and supplies stable voltage provides more accurate torque and longer motor life.
- Optional right-angel (90°) head adaptor attaches easily to screwdriver for use in small spaces (>60mm).
- Ergonomically designed exterior reduces work fatigue and increases productivity.

Specifications

Model		270-BS-2000E	270-BS-3000E	270-BS-4000E/4000FE	270-BS-6000E	270-BS-6500E	270-BS-6800E
Power source		30VDC					
Torque range Nm/Kgf/lbf		0.03-0.2/ 0.3~2.0/ 0.26~1.7	0.05-0.5/ 0.5~5.0/ 0.43~4.3	0.15~1.12 1.5~12 1.3~10.4	0.2-1.6/ 2.0~16.0/ 1.7~13.9	0.4-2.0/ 4.0~20.0/ 3.5~17.4	0.5-2.5/ 5.0-25/ 4.3-21.7
No load speed rpm		700-1000	700-1000	700-1000 1400-2000	700-1000	700-1000	700-1000
Torque setting		Step less					
Available Screw	Machine Screw mm / in	1.0~2.2/ 0.04~0.09	1.0~2.6/ 0.04~0.1	2.6~3.0/ 0.1~0.12	2.2~4.2/ 0.08~~0.14	2.6~4.0/ 0.1~0.16	3.0-5.0/ 0.12-0.20
	Tapping Screw mm / in	1.0~2.0/ 0.04~0.08	1.0~2.3/ 0.04~0.09	2.0~2.6/ 0.08~0.10	2.0~3.2 0.08~0.12	2.3~3.5/ 0.09~0.14	2.6-4.0/ 2.6-4.0
Weight g / 1b		412g/0.91b					
Length mm / in		227mm/8.9in					
Available bit shank		1/4"(6.35) Hex shank					
Power consumption W		60					
Available power supply		APS-301A APM-301A (270-BS-6800E ONLY)					
Clutch impact		Just one time when torque is reached					

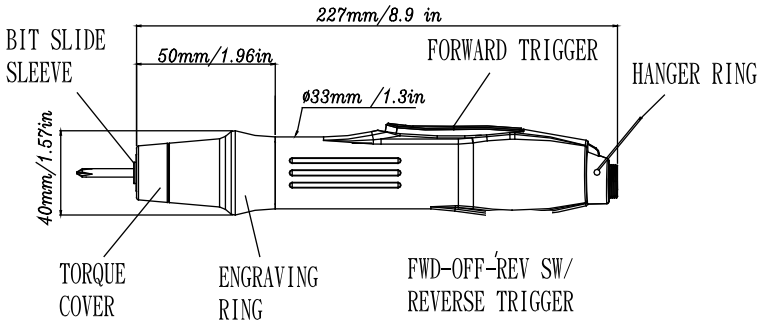
Noise level:

The A weighted sound pressure level of no-load: 67 dB (A) according to EN 60745
Uncertainty K = 1.5 dB (A) acc. to EN ISO 4871.

Vibration value:

Vibration total values (triax vector sum) of no-load is determined according to EN 60745:
Vibration emission value ah =1.0 m/s2, Uncertainty K =1.0 m/s2.
-That the vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used; and
- Of the need to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

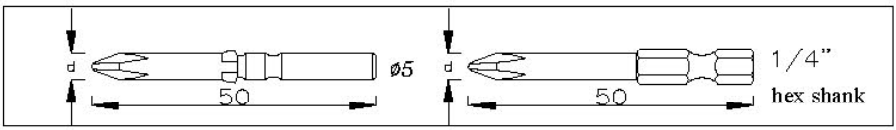
Outline (This drawing applies only to 1/4" bit shank screwdrivers)



Accessories

This product comes supplied with a 5P power cord and two ¼" Hex bits.

• Bits 1/4" Hex (one set per screwdriver) please see chart.



Bit specifications						Available Screwdriver Model
ø5.0			1/4"			
Tip No.	Tip diameter D	P#	Tip No.	Tip diameter D	P#	
#00	Ø1.7	7W3204	#00	Ø1.7	7W6204	270-BS2000E
#00	Ø2.0	7W3404	#00	Ø2.0	7W6404	
#1	Ø3.0	7W3644	#1	Ø4.5	7W6744	270-BS3000E
#0	Ø2.5	7W3524	#0	Ø2.5	7W6524	
#1	Ø3.0	7W3644	#1	Ø3.0	7W6644	270-BS4000E 270-BS4000EF
#2	Ø5.0	7W3864	#2	Ø4.5	7W6764	
#1	Ø3.0	7W3644	#1	Ø3.0	7W6644	270-BS6000E 270-BS6500E
#2	Ø5.0	7W3864	#2	Ø6.0	7W6964	
#1	Ø4.5	7W3844	#1	Ø4.5	7W6744	270-BS6800E
#2	Ø5.0	7W3864	#2	Ø6.0	7W6964	

Power supply

Model	Volume (mm)			Load Voltage (AC)	Output Voltage (DC)	Weight (g)	Safety Approved	Feature
	Length	Width	Height					
APS-301A	164	64	42	100-240V	20-30V	300	CB,CE,UL (CUL), ROHS, REACH	• Adjustable stepless output voltage • Available Input Voltage 110-240VAC
APM-301A	172	84	46			380		

Read the instructions before use

- Use the correct voltage: Carefully check the voltage shown on the power supply and this manual and determine the correct voltage. Only plug the unit into a power source of the correct voltage.
- Determine the appropriate torque range: Choose the correct screwdriver for the torque you require. To lengthen product life avoid long-term high torque use.
- Make sure the screwdriver is undamaged: If the power cord is damaged it should be immediately unplugged and replaced to avoid electric shocks or a short circuit that could result in fire.
- Use in an appropriate work environment: To ensure safety do not use in high temperature, high humidity environments or near flammable materials. Keep the power cord away from tools or equipment that might damage or melt it.
- When plugging in or unplugging the power cord hold the plug firmly, never pull on the cord.
- Hold power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring or its own cord.

  If the fastened object contacts a live wire it may conduct electricity of exposed metal parts of the power tool and could give the operator an electric shock.

Method of operation and important points

General Safety Warnings:

⚠ WARNING: Read all safety warnings and all instructions.

⚠ Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

⚠ Save all warnings and instructions for future reference.

Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, cookers and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool or its adaptor will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply for its adaptor. Use of an RCD reduces the risk of electric shock.

Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.
- Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

Power tool use and care

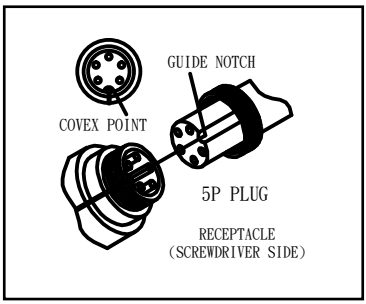
- Do not force the power tool. Use the correct power tool for your application.
  The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled by the switch is dangerous and needs to be repaired.
- Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may effect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep screw bit clean. Properly maintained screw bit with sharp edges are easier to control.
- Use the power tool, accessories and screw bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

Service

- Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained

Operation methods and notices

The plug is keyed so the connecting cord can only go one way into the driver or power supply. You have to align the key and push into the socket then twist the outer ring to fix to the driver or the controller. This will reduce the breakage of connection cord due to drag. (Please see the picture below)

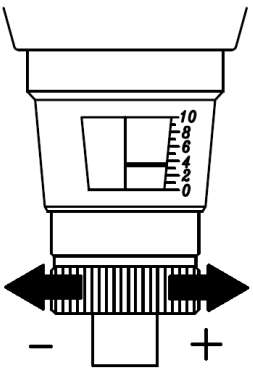


- To insert a fastening: Please check the required torque range before operating. Refer to the "Torque Set" description to set the screwdriver to a suitable torque. Check the bit is firmly fitted before operating the screwdriver. By doing so it will avoid possible injury if the bit came out during operation.

- Driving and removing screws: Insert the tip of the screwdriver bit accurately into the screw slot and press down lightly. To drive a screw depress the 'Forward' trigger. To remove a screw depress the 'Reverse' lever. Either of these actions will automatically engage the motor. If both the 'Forward' and 'Reverse' levers are depressed at the same time the screwdriver will not rotate. Note: During operation do not switch quickly between rotation directions. Release one lever and wait for the motor to stop fully before depressing the other lever.

- Torque settings: Use the regulating handle to set the torque. Turning it in a clockwise direction into the screwdriver will increase the torque. Turning it counterclockwise out of the screwdriver will decrease the torque.

- Note: The engraved markings on the engraving ring are for reference only and do not indicate torque output. Torque output can only be determined by repeated testing with a torque meter or hand-held spanner torque meter. To prevent your torque setting from being changed, we can provide a torque cover which covers and secures the regulating handle

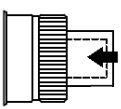


The illustration of torque set

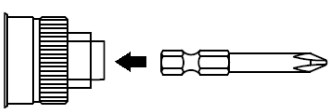
- Bit insertion: Use your finger to depress the slide sleeve into the screwdriver and insert an appropriate bit. When the slide sleeve is released, the bit will be automatically engaged.

Note: Do not hammer the bit in or pull it out forcibly.

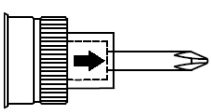
The illustration of insertion of bits



Picture 1



Picture 2



Picture 3

- Secure screwdriver during operation: During operation hang the screwdriver up securely (as from the Kaisertech Tool Balancer) in order to prevent it from being knocked down and suffering external cracking, internal damage, or a snapped power cord.

- When the selected torque is reached: This product features an internal clutch assembly. When a screw is driven and the selected torque is reached the clutch assembly will automatically disengage and a 'click' will be heard. At this point even if the 'forward' trigger is not released the power to the motor will be automatically cut off.

Note: When driving screws grasp the screwdriver firmly in order to prevent upwards recoil generated by the clutch release from forcing the screwdriver bit edge from the screw slot and damaging slot.

- When removing screws: When a previously driven screw cannot be removed using the same torque that it was driven with, raise the torque setting. After the screw is removed return the regulating handle to its original setting. To simplify this operation note the number 'click' sounds generated as the regulating handle is turned.

- Operational frequency: Duty cycle 0.5s/3.5s (ON/OFF). Total screws 7000pcs/8hours. If every day work is more than 8hours please use two screwdrivers in turns to protect the life of screwdrivers.

- Overloading Operation: If the operator discovers overheating or the revolutions plunging rapidly while screwing it means that the screwdriver is overloaded. Please change the torque screwdriver in higher horsepower or reduce the frequency of screwing to prolong the lifespan of the screwdriver.

After use

Storage and maintenance: When the unit is to be stored for a long period remove the power supply and bit. Store the screwdriver carefully in a dry, dust-free place away from direct sunlight. Store the bit in grease. To ensure continued serviceability periodically check and maintain the screwdriver.

Troubleshooting

If the screwdriver does not work properly, check the list below. If you cannot solve the problem do not open the unit. Contact one of our authorised agents as soon as possible.

If the screwdriver does not run

- Check that the power supply is outputting power.

- Check whether there is designated DC voltage between 5P-5P terminal block pins NO:1"-" potential, NO.4"+" potential.

- Check the connection wires to plugs 5P-5P and if broken, please replace with new cable.

- Check that the rotation direction switch is working properly. If no 'click' is heard when a trigger is depressed, it is not working and must be replaced (make sure to perform this check in a quiet place).

If the screwdriver is not rotating normally

- There is a protective circuit within the power supply. Power is only supplied normally from 3 to 5 seconds after current flow begins.

- If the motor only runs intermittently during 'Forward' operation, try 'Reverse' operation, or rotate the anvil 90 degrees until a 'click' is heard, then re-attempt 'Forward' operation.

If the bit falls out or wobbles

- Check that the bit matches our specifications if not, change the bit to one that does.

- Check that the bit is inserted tightly into two guide channels within the anvil. If not remove the bit and re-insert it tightly.

- If the bit tends to wobble, remove the bit rotate 90 or 180 degrees and re-insert it.

If the screwdriver does not stop when the selected torque is reached

- An excessive torque setting can cause the screw to strip the threads with the result causing the clutch not to activate. Lower the torque to a level that does not cause stripping.

- Differences in size between the bit tip and screw slot lengths can cause slopping. Change to a suitable bit tip.

- The brake circuit may be damaged or the sensor switch may have shifted (this repair must be performed by one of our authorised agents).

Warranty

We provide a one-year free repair service warranty with this product. The warranty is valid for one year from the date of purchase. However, for following circumstances we will charge the user for any parts and labour cost associated with repairs.

- For repairs involving normal wear to parts including bits, power cord and also to the exterior surface.
- For screwdrivers connected to a power source of the incorrect voltage.
- For inappropriate use or an attempt to repair the unit by the user.

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