

Original instruction

GENERAL SAFETY INSTRUCTIONS

⚠ WARNING! Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains operated power tool.

SAVE THESE INSTRUCTIONS.

1) WORK AREA

- a) **Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
- b) **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.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) ELECTRICAL SAFETY

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

3) PERSONAL SAFETY

- a) **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.
- b) **Use personal protective equipment. Always wear eye protection, protective equipment such as dust mask, no-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.**
- c) **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.**
- d) **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.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of these devices can reduce dust related hazards.

4) POWER TOOL USE AND CARE

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⚠ WARNING

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure. The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period. An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period. Identify additional safety measures to protect the operator from the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

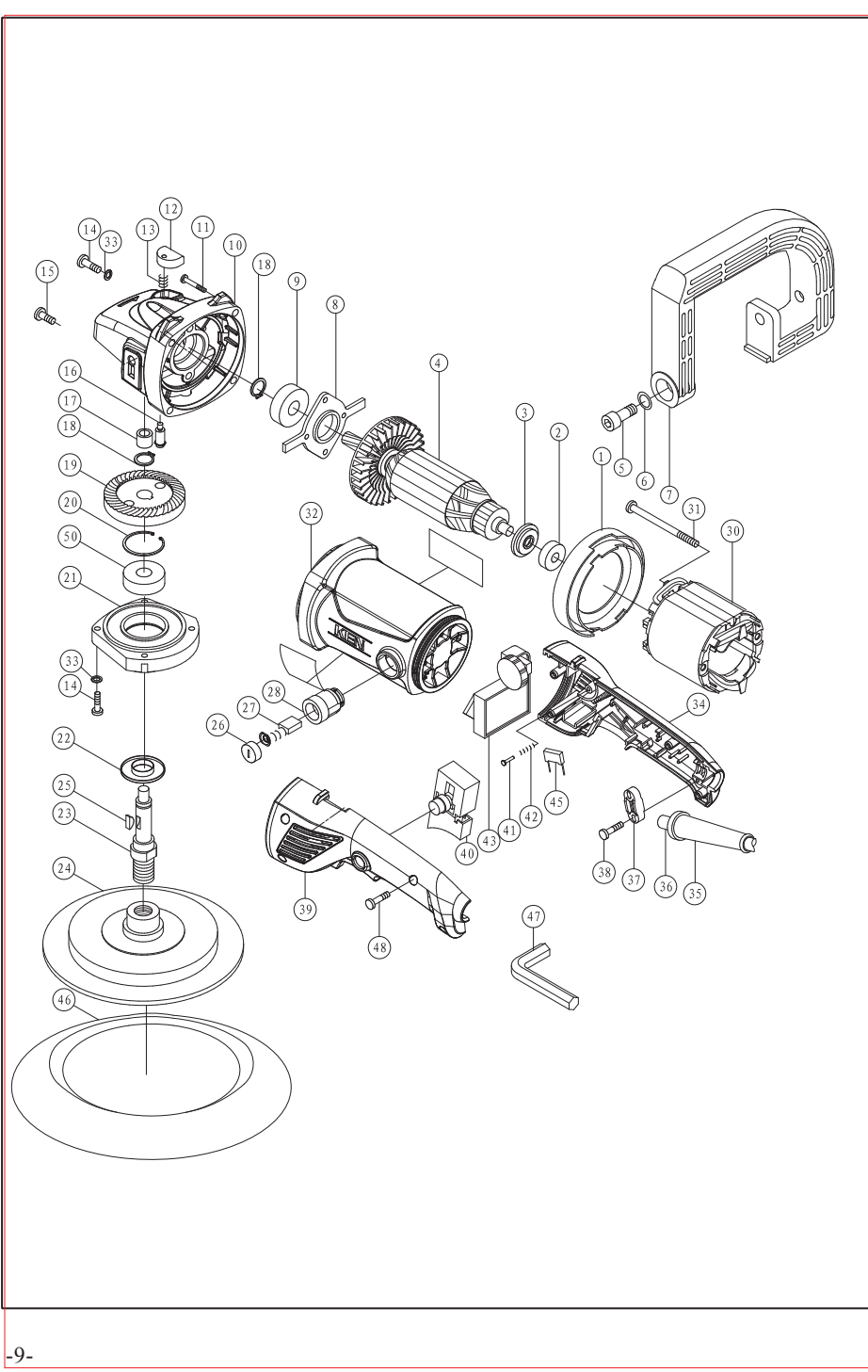
Additional safety instructions for polishing operations:
Safety Warnings Specific for Polishing Operations:

- a) Do not allow any loose portion of the polishing bonnet or its attachment strings to spin freely. Tuck away or firm any loose attachment strings. Loose and spinning attachment strings can entangle your fingers or snag on the workpiece.

Maintenance and servicing:
Storage and handling of recommended accessories.

Operating instructions:
proper support for the workpiece.

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- a) **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.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **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.
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the power tool, accessories and tool 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.

- 5) **Service(a) 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.

Safety Warnings Common for Grinding Operations:

- a) **This power tool is intended to function as a grinder tool. Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
- b) **Operations such as sanding, wire brushing, polishing or cutting-off are not recommended to be performed with this power tool.** Operations for which the power tool was not designed may create a hazard and cause personal injury.
- c) **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.
- d) **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.
- e) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.
- f) **The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool.** Accessories with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- g) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute.** Damaged accessories will normally break apart during this test time.
- h) **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

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- i) **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
- j) **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.
- k) **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
- l) **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.
- m) **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
- n) **Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- o) **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.
- p) **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

Kickback and Related Warnings

- Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding. For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb over or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions. Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.
- a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can control torque reactions or kickback forces, if proper precautions are taken.
- b) **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.
- c) **Do not position your body in the area where power tool will move if kickback occurs.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
- d) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- e) **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

IMPORTANT: Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

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PARTS LIST of the Mod.9718EI POLISHER

No.	Code	Name	Remark	No.	Code	Name	Remark
1	321011	Air deflector		26	433002A	Brush cap	
2	211020	Bearing	608-2Z	27	431007B	Carbon brush	
3	319032	Retainer		28	432001A	Brush holder	
4	442027	Rotor		30	441028	Stator	
5	232012	Screw	M8X20	31	221044	Screw	ST5X70
6	242007	Washer	8	32	313028	Motor housing	
7	627027	Subsidiary handle		33	241002	Washer	5
8	116008	Bearing clamp		34	314084	Right handle	
9	211043	Bearing	6201-2Z	35	332006	Cord sleeve	
10	162033A	Gear box		36	412045B	Power cord	
11	221026	Screw	ST5X35	37	318001	Cord clamp	
12	317005	Locking cap		38	222002	Screw	ST4X16
13	151001	Locking spring		39	314083	Left handle	
14	231027	Screw	M5X16	40	445007	Switch	
15	231152	Screw	M5X12	41	272001	Rivet	2X12
16	145006	Locking pin		42	151023	Switch spring	
17	212009	Bearing	HK0810	43	447026	Speed switch	
18	252004	Retainer	12	45	443007	Capacitance	
19	137005	Big gear		46	341006	Wool wheel	
20	251005	Retainer	32	47	622002	Spanner	
21	161018A	Front cover		48	221010	Screw	ST4X18
22	115003	Dust protector			712044	Handle assembled	
23	133080	Spindle		50	211067	Bearing	6201-2Z
24	310134	Polishing wheel					
25	276002	Key	4XΦ13				

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■ PRACTICAL TIPS

Before connecting the tool with the electric source, please confirm the button of the switch is under released condition, the trigger of the switch can reset freely. Do switch off the tool and wait the polishing wheel stops rotation completely before putting it on the working floor.

■ MAINTENANCE AND CARE

- Unplug the tool from the socket before performing any works on the tool!
- Tool requires no special maintenance, but after some time you must control the parts that are submitted to wear-and-tear under normal operating conditions. This includes the cord and replacement of carbon brushes and grease in reducing gear housing. Take the tool to an authorized service centre.
- Keep the tool and supply cord clean. Keep ventilation slots clean and open. Wipe the surface of the tool with a soft cloth!
- It is not allowed to use household cleaning agents that contain petrol, trichloroethylene, ammonia and chlorides. These substances corrode and damage plastic parts of the tool.
- Excessive sparking generally indicates the presence of dirt in the motor or abnormal wear on the carbons.
- In case of electric or mechanical failure, send the tool to a KEN authorized service centre for repair.

■ SERVICING AND REPAIRS

- If servicing is required, contact one of our listed service centers. It is not allowed and dangerous to perform any individual work on the tool.
- Have the tool repaired by authorized persons.
- Any repairs of the tool in unauthorized service centers is performed at own responsibility.
- The owner of the tool is responsible for all works on the tool that were not performed in authorized service center, and therefore he loses the claim for guarantee.

■ WASTE DISPOSAL AND ENVIRONMENT PROTECTION

The machine, accessories and packing should be sorted for environmental-friendly recycling. Only for EC countries:
• Do not dispose of power tools into household waste!
According to the European Guideline 2002/96/EC for Waste Electrical and Electronic Equipment and its implementation into national right, power tools that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

■ TECHNICAL DATA

Type	S1P-SH01-180	
Current Source	AC	220-240V~ 50Hz
Rated Input Power	1200W	
Rated Current	5.7A	
Rated speed	600-3000/min	
Diameter of Polishing Wheel	180mm	
Weight	3.2kg	
Noise	L_{pA} :82.1dB(A) K_{pA} :3.0dB(A) L_{WA} :93.1dB(A) K_{WA} :3.0dB(A)	
Vibration	a_{h1} :12.3m/s ² (max handle) a_{h2} :27.2m/s ² (aux handle) K: 1.5m/s ²	
Standard Spare Parts	Woolen Wheel 1PC	Carbon Brush 2PCS
	Allen Wrench 1PC	Operating Handbook 1PC

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Dear Customer,
Thank you for buying a KEN power tool. Should you have any questions, vagueness or second thoughts about our products, we recommend you to contact our experts in Sales and Service Departments, who will advise you and help you find the right answers to the set questions. Please contact our local distributors or dealers directly.

We declare under our sole responsibility that the product described under "Technical Data" fulfills all the relevant provisions of the directives 2006/42/EC and the following harmonized standards documents have been used: EN 60745-1; EN 60745-2-3.

Winnenden, 2012-06-06

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SYMBOL

- V :Volts
- Hz :Hertz
- W :Watts
- ⚠ :Safety alert
- ~ :Alternating Current
- CE :CE conformity.
- ⚡ :Double insulation
- 👁 :Wear eye protection
- 👂 :Wear ear protection
- 👤 :Wear a dust mask
- ⚡ :No load Speed
- min⁻¹ :Revolutions or reciprocations per minute
- 📖 :Please read the instructions carefully before starting the machine.
- 🗑 :Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

SAFETY

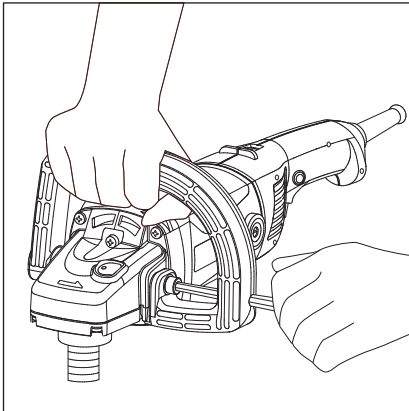
- a) Only use our recommended sanding wheels and the specially-designed safety guard for the wheels. It will be dangerous and could not protect your safety if using other sanding wheels which aren't designed for power tools.
- b) The safety guard must be stably fixed onto the tool and adjusted into the best position, only expose the minimum part of the wheel in front of the operator. The safety guard will protect the operator from being hurt by the exploded sanding wheels or incidentally touching the wheels.
- c) Only use the wheels limited to our recommended usages. For example, never grind or cut by the side part of the cutting wheel. The pressures applied on the side part of the wheel may make it damage.
- d) Always choose the undamaged flanges with correct specifications and shapes for your wheels. The proper flanges can reduce the risk of wheel breakage. The flanges for cutting wheel might be different from the flanges for grinding wheels.
- e) Do not use the left worn wheel from the big size power tools. The wheel for big size power tools is not suitable for the small size power tools and may be broken during high-speed operation.
- f) Ensure the wheel you use is complete without any damage. There should be no breakage by hammering the wheel lightly with a wooden hammer. The valid date for the wheel should not exceed one year unless it passes the running test and approves OK.

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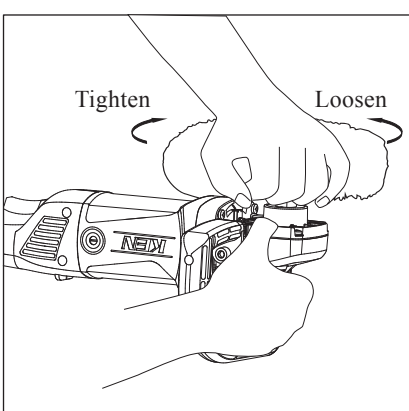
■ OPERATION

◆ Annular Handle

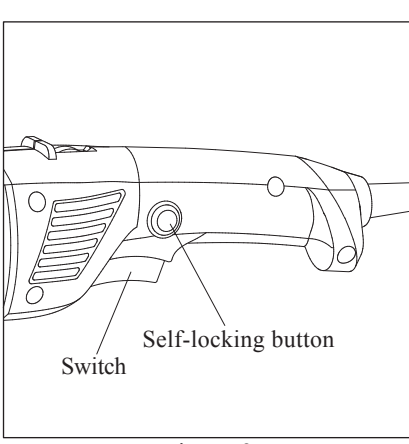
Please use subsidiary annular handle for safe and convenient work. Screw two inner hexagonal screws in two screw holes with aiming the bulge of the subsidiary annular handle at the hollow of head capsule, and use the allen wrench to tighten it, fix the subsidiary annular handle (Picture One). The subsidiary annular handle can be equipped in both directions.



picture 1



picture 2



picture 3

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◆ Equip the Polishing Wheel

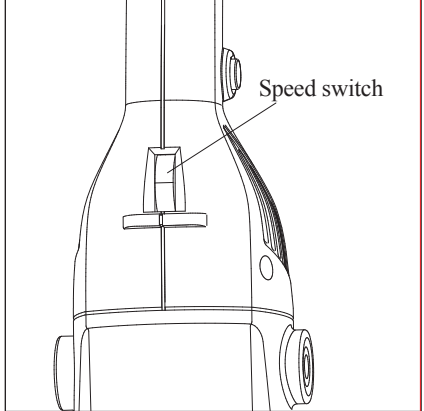
Aim the thread of polishing wheel at the output axes, rotate the polishing wheel clockwise after pressing self-locking peg until screw it tightly; press the self-locking peg and rotate the polishing wheel counter clockwise to disassemble it. When the woolen wheel is worn and need to be replaced, it must be aimed at the polishing wheel in concentricity (Picture Two).

◆ Switch Operation

To confirm the self-locking switch is loosened and the trigger can reset freely before inserting electric outlet. Switch ON and OFF: Press the trigger, the tool switches on; release the trigger completely, the tool will be under switching off condition. If the users need to lock the switch, please press the self-locked button at the time of pressing the trigger, the tool will run continuously; press the trigger again and release it completely will make the tool under switch off condition (Picture Three).

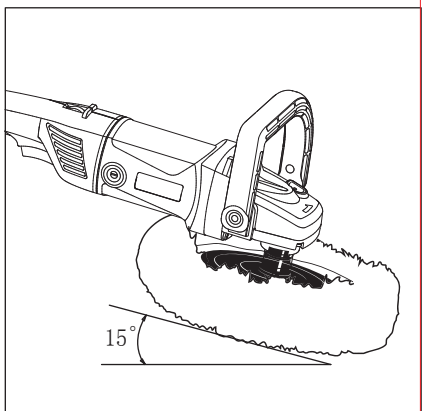
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Adjust the Speed: The users can get different rotational speed from low to high through adjusting the adjusting switch from 1 to 6 according to different work demands asking change the speed of the tool (Picture Four).



picture 4

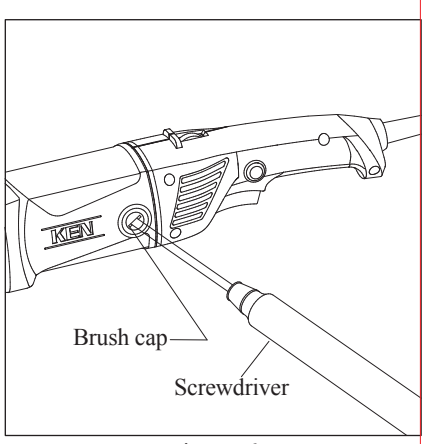
◆ Effective and Safe Operating Methods
Grip the tool, switch on it, and then apply the polishing wheel to the working plan. Keep 15 degree angle between the polishing wheel and the processing project commonly, just apply strength slightly, overmuch strength will influence working quality, and cause the polishing wheel worn untimely (Picture Five).



picture 5

◆ Replace the Electric Brush

⌘ To unplug the machine before replacing carbon brush. The tool has set the electric brush limited position equipment especially, please replace the electric brush if there's big sparks or the rotation stops during the running. Please use screwdriver to screw the lid of the electric brush and take out the wearing electric brush and install the new ones, and please use hands to try and confirm it can slide freely in the slot, and then install and screw the lid of the electric brush. Please replace two brushes at the same time, and use the specified "KEN" brand electric brush (Picture Six).



picture 6

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<http://www.kenpowertools.com>

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SHANGHAI 550002

Polisher



9718EI S1P-SH01-180



original instructions