



Multi Function Sharpener TTMFS02



User Manual — Please read and retain for future reference.

IMPORTANT: Read all instructions before use.

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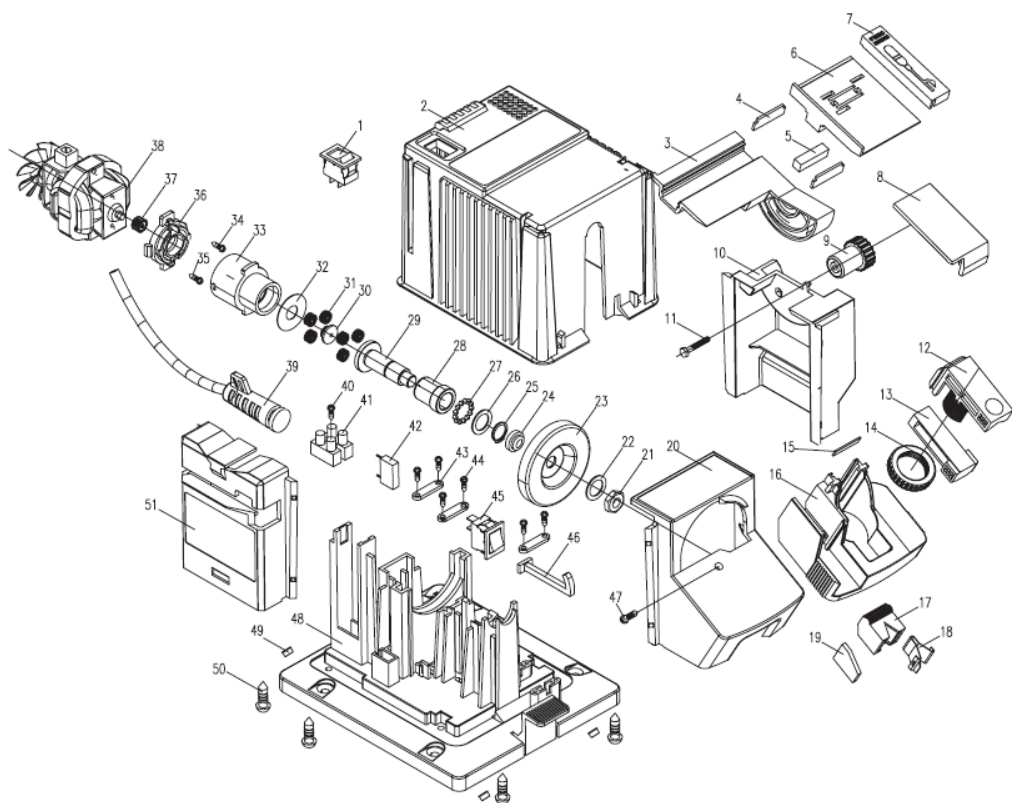
Maintenance

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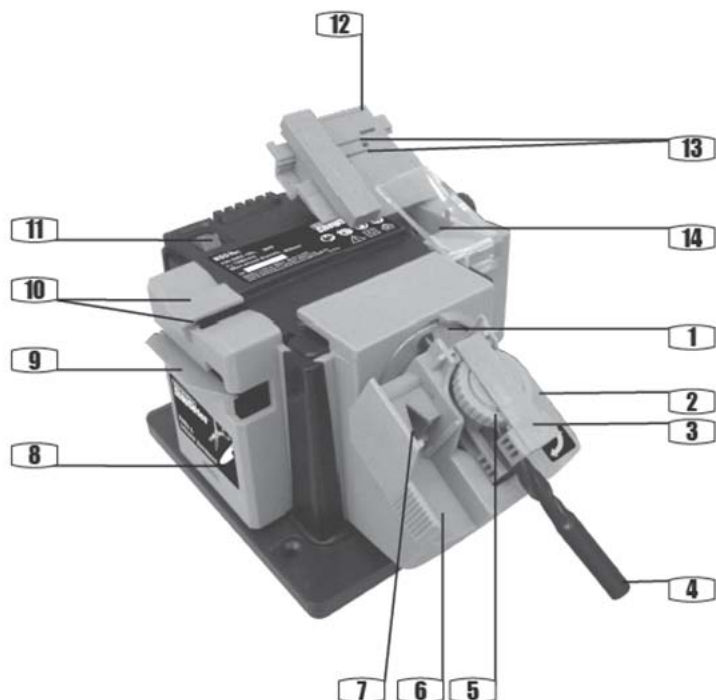
Parts List

No.	Description	No.	Description
1	Switch	27	Steel ball
2	Upper housing	28	Oil bearing
3	Knife revolving support	29	Gear shaft
4	Separation blade	30	Gear cage
5	Magnet	31	Planet gear
6	Shifting board	32	Gear plate
7	Baffle	33	Gear case
8	Protection board	34	Screw
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10	Knife fixed support	36	Gear case cover
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12	Slot base	38	Motor
13	Clamping block	39	Cable and cover
14	Clamping ring	40	Screw
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22	Washer	48	Lower housing
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24	Wheel base	50	Screw
25	Check ring	51	Sharpening trestle
26	Ball washer		

Exploded Assembly Diagram

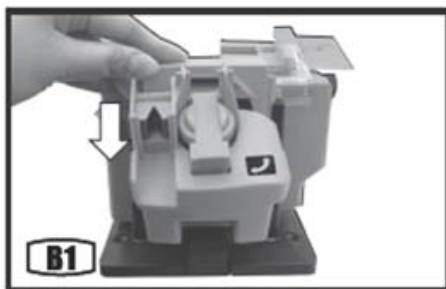


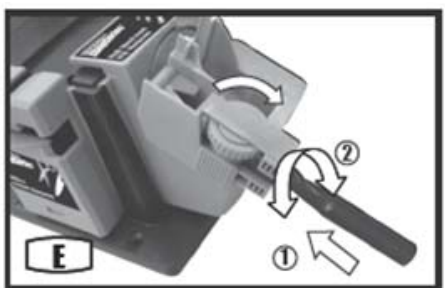
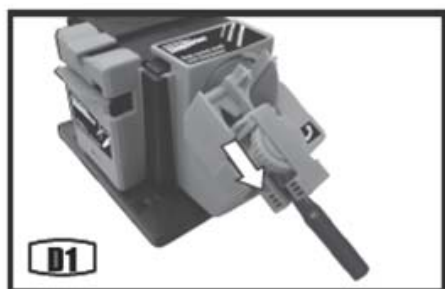
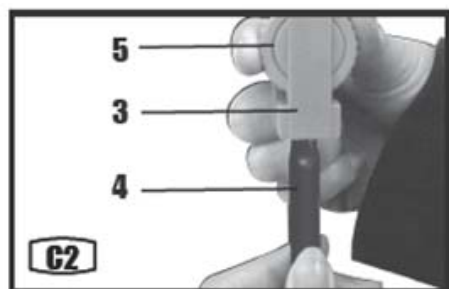
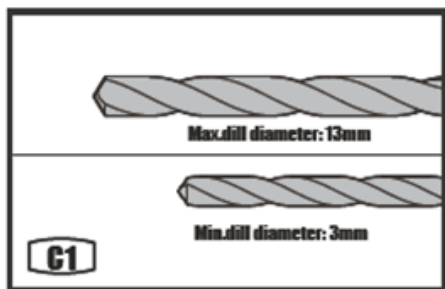
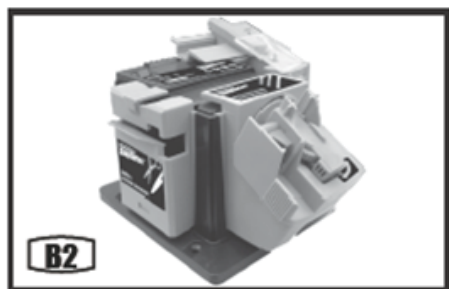
NOTICE: Actual product may vary from pictures shown.

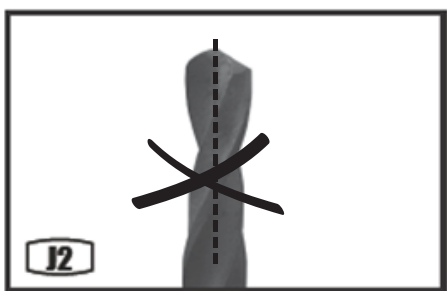
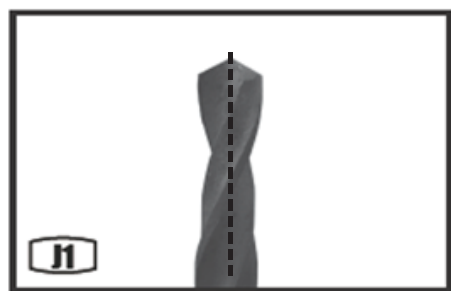
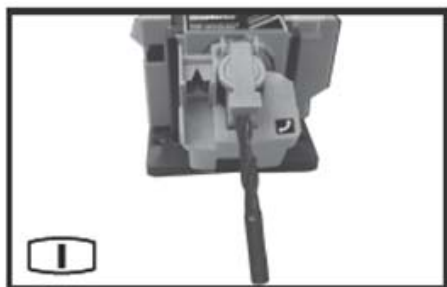


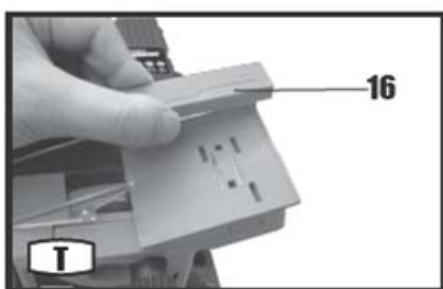
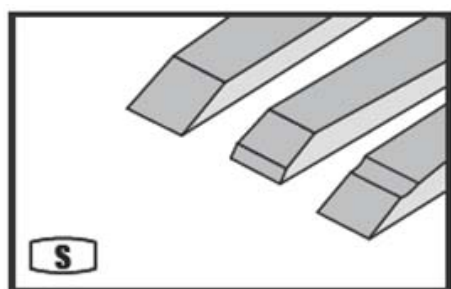
- | | |
|------------------------------|--|
| 1. Grinding wheel | 9. Scissor sharpening slot |
| 2. HSS drill sharpener | 10. Knife sharpening slot |
| 3. Clamp | 11. On/off switch |
| 4. HSS drill bit | 12. Chisel & plane sharpener |
| 5. Clamping ring | 13. Integral magnet |
| 6. Setting slot | 14. Protective shield |
| 7. "V" guide | 15. Angle adjustable knob (See Fig. P) |
| 8. Knife & scissor sharpener | 16. Chisel guide (See Fig. T) |

*Not all the accessories illustrated or described are included in standard.










Technical Information

Model:	TTMFS02
Voltage:	230 - 240V~ 50Hz
Rated Power:	96W
No-load Speed:	1350/min
Max. wheel diameter:	56mm
Drill Diameter:	3mm-13mm
Chisel and plane blade width:	6mm-51mm
Protection class:	 /II
Machine weight:	1.20/1.40 kg
Rated operation time:	intermittent operation S3(30%)
L_{PA} :	77.6dB (no load); 75.1dB (grinding the bits) (K=3dB(A))
L_{WA} :	90.6dB (no load); 88.1dB (grinding the bits) (K=3dB(A))



**Read this entire manual before using this product.
Failure to do so can result in serious injury. Save this manual
for future reference.**

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Read and Keep This Manual

Please read carefully all instructions within this manual. Failure to follow all safety warnings can result in serious personal injury. The term "Power Tool" in all of the following warnings refers to your mains operated (corded) or battery operated (cordless) power tool.



This symbol is to warn you of potential personal injury hazards. Please read carefully the notes along side this warning to avoid possible injury or death.

Important SAFETY Information

General Safety Rules



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 refers to corded or cordless power tools.

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

Before use, ensure that the power outlet you are using matches the plug on your power tool and that the voltage of the outlet matches that of your power tool.

Only use grounded extension cords with power tools fitted with 3 pin plugs and if using outdoors ensure any extension cord is suitable for outdoor use.

Always try to avoid body contact with grounded surfaces, such as radiators, cooking ranges and any other fixed appliance with metal surfaces.

Do not expose your power tool to wet or damp conditions and NEVER use in rain.

Check regularly the power cord of your machine and any extension cord that you are using for damage.

Do not carry or pull the machine with the power cord.

Ensure the cord is clear from hot surfaces, oil or sharp objects.

Personal safety

Never use your power tool whilst under the influence of alcohol, drugs or medication.

Tiredness can often cause accidents, stay alert.

Never use your power tool without the correct guards in place.

Always use approved eye protection and dust mask. Non slip safety shoes and hearing protectors should be worn at all times when using your power tool.

Ensure any dust collecting device supplied with your machine is connected correctly before use.

Ensure all loose clothing, long hair or jewelry is kept clear of the machine.

Before plugging your power tool into the power outlet ensure the power tool is in the OFF position.

Check that wrenches or adjusting keys have been removed. Any wrench or key left attached to a moving part can result in injury.

Power tool use and care.

Keep your power tool clean and well serviced at all times.

Never adjust or service any power tool before disconnecting from the mains electricity supply.

Always use the correct tool for the job.

Never force the tool to work harder than it is designed to do.

Never use your power tool with broken parts such as switches, guide fences or leg stands.

ALWAYS keep your power tools away from children.

Keep cutting tools sharp to ensure less stress on the motor.

Only have your power tool serviced by a qualified repair agent using manufacturers recommended parts.

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. **Develop a periodic maintenance schedule for your tool. When cleaning a tool be careful not to disassemble any portion of the tool since internal wires may be misplaced or pinched or safety guard return springs may be improperly mounted.**

Certain cleaning agents such as gasoline, carbon tetrachloride, ammonia, etc. may damage plastic parts.

When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

WARNING: For your own safety read Instruction Manual before operating your power tool.

- A) Wear eye protection.
- B) Keep hands out of the path of cutting tools.
- C) Do not operate tool without guards in place.
- D) Do not perform any operation freehand.
- E) Never reach around cutting tools.
- F) Turn off tool and wait for cutting tools to stop before moving work piece or changing settings.
- G) Disconnect power (or unplug tool) before changing cutting tools or servicing.

GENERAL SAFETY INSTRUCTIONS

Read this owner's manual completely and make sure you understand all of its safety guidelines.

- 1. KEEP GUARDS IN PLACE** and in working order.
- 2. REMOVE ADJUSTING KEYS & WRENCHES.** Before turning on the power tool, make sure the keys and adjusting wrenches have been removed.
- 3. KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- 4. ALWAYS REMAIN ALERT WHEN THE TOOL IS IN USE.** Inattention on the part of the operator may lead to serious injury.
- 5. DON'T USE IN A DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lit.
- 6. KEEP CHILDREN AWAY.** All visitors should remain at a safe distance from work area.
- 7. MAKE WORKSHOP CHILD-PROOF** with padlocks, master switches or by removing starter keys.
- 8. USE THE RIGHT TOOL.** Don't force a tool or attachment to do a job for which it was not designed.

9. **USE THE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
10. **DON'T FORCE THE TOOL.** It has been designed to operate at maximum safety and performance levels.
11. **DO NOT FORCE THE MATERIAL BEING CUT.** Always let the tool cut at its own speed.
12. **WEAR PROPER APPAREL.** Do not wear loose clothing, neckties, rings, bracelets or other jewelry which may get caught in moving parts. Non-slip foot wear is recommended. Wear protective hair covering if you have long hair.
13. **ALWAYS USE SAFETY GLASSES.** Also use face or dust mask for commercial cutting operations. Everyday eyeglasses only have impact-resistant lenses, they are NOT safety glasses.
14. **SECURE WORK.** Use clamps or a vise instead of your hand to hold work when practical. This safety precaution allows for proper tool operation using both hands.
15. **DON'T OVERREACH.** Keep proper footing and balance at all times.
16. **MAINTAIN TOOLS WITH CARE.** Keep tools clean and in good working condition for maximum safety performance. Follow instructions for lubricating and changing accessories.
17. **DISCONNECT TOOLS BEFORE SERVICING** – when changing accessories, such as blades, bits, cutters, etc.
18. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in OFF position before plugging in.
19. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may increase risk of injury.
20. **MAKE SURE YOU USE THE CORRECT TOOL** for the job you are doing.
21. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
22. **CHECK DAMAGED PARTS.** Before further use of the tool, damaged part(s), (i.e., guard) should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other condition that may affect the tools operation. A guard or other part that is damaged should be properly repaired or replaced.
23. Replace damaged blades/cutters immediately. **DO NOT USE DAMAGED BLADES/CUTTERS.** They may cause bodily injury.
24. **DIRECTION OF FEED.** Feed work into the blade/cutter against the direction of rotation of the blade/cutter only.
25. **DO NOT ALTER THE PLUG.**

26. **NEVER LEAVE TOOL RUNNING UNATTENDED.** Turn power off. Don't leave tool until it comes to a complete stop.
27. Double Insulation eliminates the need for the three wire grounded power cord and grounded power supply system.

This power tool is supplied with all the relevant safety guards and features, it should be checked before every operation, this manual should be read and kept in a safe place. Whilst we warn of all the possible risks attached to using power tools any operator must have read and understood the manual and apply their own caution and common sense when using this power tool.

Following this guide will greatly reduce your risk of electric shock or injury.

Only use qualified repair agents to service this power tool.

Only use qualified electrician to repair any damaged wiring.

NEVER remove the grounding prong from the power tool or extension cord.

Additional safety Instructions

This tool may only be used for sharpening operations.

Wear hearing protection. Exposure to noise can cause hearing loss.

Always wear eye protection.

Keep your workplace clean.

Always wait until the machine has come to a complete stop before changing tools or making adjustments.

Before any work on the machine (e. g., maintenance, tool change, etc.) as well as during transport and storage. Make sure switch is off. Unintentional actuation of the On/Off switch can lead to injuries.

Check any parts concerned. Clean such parts or replace them, if required.

Symbols

IMPORTANT: Some of the following symbols may be used on your tool.


V.....volts

A.....amperes

Hz.....hertz


~.....alternating current

.../m.....revolutions per minute

class II construction (double insulated)

Kg.....kilograms

n_0No load speed

Conforms to European Harmonised New Approach Directives.

DCDirect Current

Specific Safety Rules

Always wear eye protection

Wear ear and eye protection to avoid serious injuries.

Do not touch the rotating parts to avoid injury.

Do not use the tool continuously for a long period of time. Stop using the tool from time to time to avoid overheating of the motor.

Do not drop the tool.

Unpacking

Carefully remove the product and any accessories from the box. Make sure that all items listed in the packing list are included.

Package contents

A) Sharpener

B) User manual

Functional Description

WARNING: Make sure tool is switched off and unplugged before making any adjustments or changing accessories. Such preventive safety measures reduce the risk of starting the tool accidentally.

Operation

CAUTION! Always be sure that the tool is switched off before assembly.

NOTE: Before using the tool, read the instruction book carefully. This multi sharpener tool includes three working modules:

HSS drill sharpener — Sharpens all high speed steel drill bits from 3 mm to 10mm.

Knife & Scissor Sharpener — Sharpens all straight edged knives & scissors.

Chisel & plane sharpener — Regrinds chisel & plane blades up to 51mm wide.

Switching on and off

WARNING! This electric multi-sharpener shall be fixed on the stable position before using.

To switch on, move the on/off switch (11) to the "I" position.

To switch off, move the on/off switch to the "O" position.

Sharpening HSS bits

WARNING! Before assembling the HSS drill sharpener (2), be sure the tool is unplugged and the on/off switch (11) is in "O" position.

- 1) Slide the module labeled "High Speed Steel Drill Sharpener" onto the power unit.
(SEE B1, B2)
- 2) Remove the clamp (3) from the clamp holder and insert the HSS drill bit (4) to be sharpened. Rotate the clamping ring (5) in clockwise direction to tighten the clamp lightly to leave the drill bit still free to move. (SEE C1, C2)
- 3) Place the clamp containing your drill bit into the setting slot (6), using the grooves in the side to lower it in correctly. (SEE D1, D2)
- 4) Move the drill bit forward up so that it lays in the "V" guide and touches the metal end stop. (SEE E)
- 5) Turn the drill bit until the V guide fully drops over it. All four drill bit corners should now be touching the V guide sides. (SEE E)
- 6) Ensure that the drill and holder are fully down in the setting slot. With the drill bit in this position, tighten the clamping ring in clockwise direction. (SEE E)
- 7) Lift up the "V" guide and remove the clamp and drill bit. (SEE F)
- 8) Transfer the clamp and drill bit into the clamp holder. (SEE G)
- 9) Switch the power unit on. (SEE A)

- 10) Move the clamp holder from side to side as indicated by the arrow on the sharpener, securing with light finger pressure. (SEE H)
- 11) Remove drill bit and clamp and turn over (SEE I). Repeat Step 10.
- 12) Check the leading edge of both flutes are equally sharp. They should meet exactly in the middle as in J1, not J2.
- 13) Switch the power unit off. Before removing the module, ensure the grinding wheel has stopped.

Important note!

- 1) When sharpening HSS drill bits Ø3.5mm to Ø10mm (not including Ø3.5mm) (SEE J3), make the stepped surface (a) upward, and make the plane face the HSS drill bits.
- 2) When sharpening HSS drill bits of Ø3mm to Ø3.5mm (including Ø3.5mm) (SEE J4), loosen the clamping ring, then turn around the clamping ring and the clamp with 180° which shows the stepped surface (a) downward. In other words, make the stepped face the drill bits.
- 3) Make sure the length of the HSS drill bit being sharpened is more than 70mm.

Sharpening knives

WARNING! Before assembling the knife & scissor sharpener (8), be sure the tool is unplugged and the on/off switch (11) is in "O" position.

NOTE: This module is suitable for all straight edged, household knives and scissors only.

Do not use serrated edged blades.

- 1) Slide module labeled "Knife & Scissor Sharpener" (8) on to the power unit.
- 2) Switch the power unit on.
- 3) Hold the knife handle towards you and insert the handle end of the blade into knife sharpening slot (10). (SEE K)
- 4) As soon as the blade touches the grinding wheel, draw it with light steady pressure across the wheel to the tip, then remove. Do not press hard.
- 5) Insert the second side of the blade into the other top guide slot and repeat step 4. (SEE L)
- 6) Repeat sharpening each side in turn until a clean sharp edge is attained.
- 7) Switch the power unit off. Before removing the module, ensure that the grinding wheel has stopped.

Sharpening scissors

WARNING! Before assembling the knife & scissor sharpener (8), be sure the tool is unplugged and the on/off switch (11) is in "O" position.

NOTE: This module is suitable for all straight edged, household knives and scissors only.

Do not use serrated edged blades.

- 1) Slide module labeled "Knife & Scissor Sharpener" (8) onto the power unit.
- 2) Switch the power unit on.
- 3) Open the scissors fully.
- 4) Slide the first scissor blade through the scissor sharpening slot. Keep the pivot of the scissors and other blade to right hand side. (SEE M)
- 5) Draw the blade across the grinding wheel from pivot to tip. Use a light steady pressure, do not press too hard.
- 6) Remove and turn scissors over to sharpen the second blade. Keep the pivot to the right and sharpen from pivot to tip. (SEE N)
- 7) Repeat if necessary, until clean sharp edges are achieved.
- 8) Switch the power unit off. Before removing the module, ensure that the grinding wheel has stop.

Sharpening chisel & plane blades

WARNING! Before assembling the chisel & plane sharpener (12), be sure the tool is unplugged and the on/off switch (11) is in "O" position.

- 1) Slide the module labeled "Chisel & Plane Sharpener" (12) onto the power unit.
- 2) Place the blade against the back lip of the plate. The magnet (13) helps to hold it in place. (See O)
- 3) The sharpening angle must match the existing beveled angle on the blade tip. Adjust, if necessary.
- 4) To alter the angle:
 - ① Loosen the angle adjusting knob (15) in counter clockwise direction.
 - ② Adjust the plate. The sharpening angle is indicated by the small arrow. The adjustable grinding angle is from 20° to 40°. Make sure the blade edge touches the grinding wheel.
 - ③ Tighten the angle adjusting knob. (See P)
- 5) Switch the power unit on.
- 6) Slide the blade and plate with light steady pressure back and forth across the grinding wheel in a continuous motion. Do not hold the blade stationary. This causes irregular sharpening. (See Q)
- 7) Gradually adjust the blade down the plate while sharpening (See R). Do not press hard. Grind gradually, repeating the step.

- 8) Remove the blade and make sure the beveled edge and tip are evenly sharp. If not, adjust the grinding angle. It is important that the sharpening angle matches the existing beveled angle of the blade. This avoids removing too much metal unnecessarily and keeps plane blades at their optimum shaving angle. (See S)
- 9) When sharpening thin chisel blades, place the small chisel guide onto the plate to act as a spacer and sharpen as before. (See T)
- 10) Switch the power unit off. Before removing the module, ensure the grinding wheel has stopped.
- 11) Recommend that after grinding, the blade tip is honed on an oil stone.

Disposal

Power tools, accessories and packaging should be sorted for environmentally-friendly recycling.

Only for EC countries:



Do not dispose of power tools into household waste!

According to the European Directive 2002/96/EC on waste electrical and electronic equipment and its incorporation into national right, products that are no longer suitable for use must be separately collected and sent for recovery in an environmentally-friendly manner.

Maintenance

Your power tool requires no additional lubrication or maintenance.

Use only a dry, soft cloth for wiping the unit. Do not use a damp cloth, thinner, or other volatile solvents for cleaning.

Accessories

CAUTION: Use only accessories or attachments recommended for use with your Terratek tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

General Maintenance

1. Keep the air vents free from obstruction and clean regularly.
2. Check regularly for any dust particles entering the grills around the motor and the switch. Use a soft brush to remove any dust particles. Wear safety glasses to protect your eyes whilst cleaning.
3. Lubricate all moving parts at regular intervals.
4. To clean the body of the power tool, only use a dry soft cloth. Do NOT immerse in water. Do not use any petrol or any alcohol based product.

Declaration of Conformity

We ACL Group (Intl.) Ltd, England DN6 8LZ declare that the Multi Function Sharpener has been manufactured according to our full quality assurance procedures.

The declaration is to certify that it conforms to CE, EMC, LVD, MD and RoHS directives:

EN55014-1: 2006 + A1

EN55014-2: 1997 + A1 + A2

EN61000-3-2: 2006 + A1 + A2

EN61000-3-3: 2008

All provisions of Annex 1 of Council Directive 2004/108/EC – EMC directive

EN61029-1: 2009 + A11

06/42/EC – Annex I/ 05.06

All provisions of Annex 1 of Council Directive 2006/42/EC – Machinery Directive

2006/95/EC – Low Voltage Directive

RoHS 2011/65/EU



A handwritten signature in black ink, appearing to be 'Alan Garnett', written over a faint, illegible stamp.

Mr. Alan Garnett, UK QA Manager

Environmental Protection

RECYCLING: 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.



Please read the following carefully

ACL Group (Intl) Ltd. and/or it's distributor has provided the parts list and assembly diagram as a reference tool only. Neither ACL Group (Intl). Ltd. or its distributor makes any representation or warranty of any kind to the buyer that he or she is qualified to do any repairs or replace any parts of this product. ACL Group (Intl) Ltd. and its distributor expressly state that all repairs or parts replacement should be done by certified or licensed technicians. The buyer assumes all risk and liability arising out of his or her repairs or parts replacement to the original product.

12 Months Limited Warranty

If within 12 months from the date of purchase you experience any problems with your product, please return the product to its distributor/dealer for repair or replacement. This warranty **DOES NOT COVER** normal wear, or any damage as a result of accidents, misuse, abuse or negligence.

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