

MEFE
MITCHELL ENGINEERING
FOOD EQUIPMENT PTY LTD

Operating Manual



Utility Sharpener

CAT 139 4500

Revision 2

General Safety Instructions

Operating a Utility Sharpener can be dangerous if safety and common sense are ignored. The operator must be familiar with the operation of the tool. Read this manual to understand this Utility Sharpener. **DO NOT** operate this Utility Sharpener if you do not fully understand the limitations of this tool. **DO NOT** modify this Utility Sharpener in any way.

Before Using the Utility Sharpener

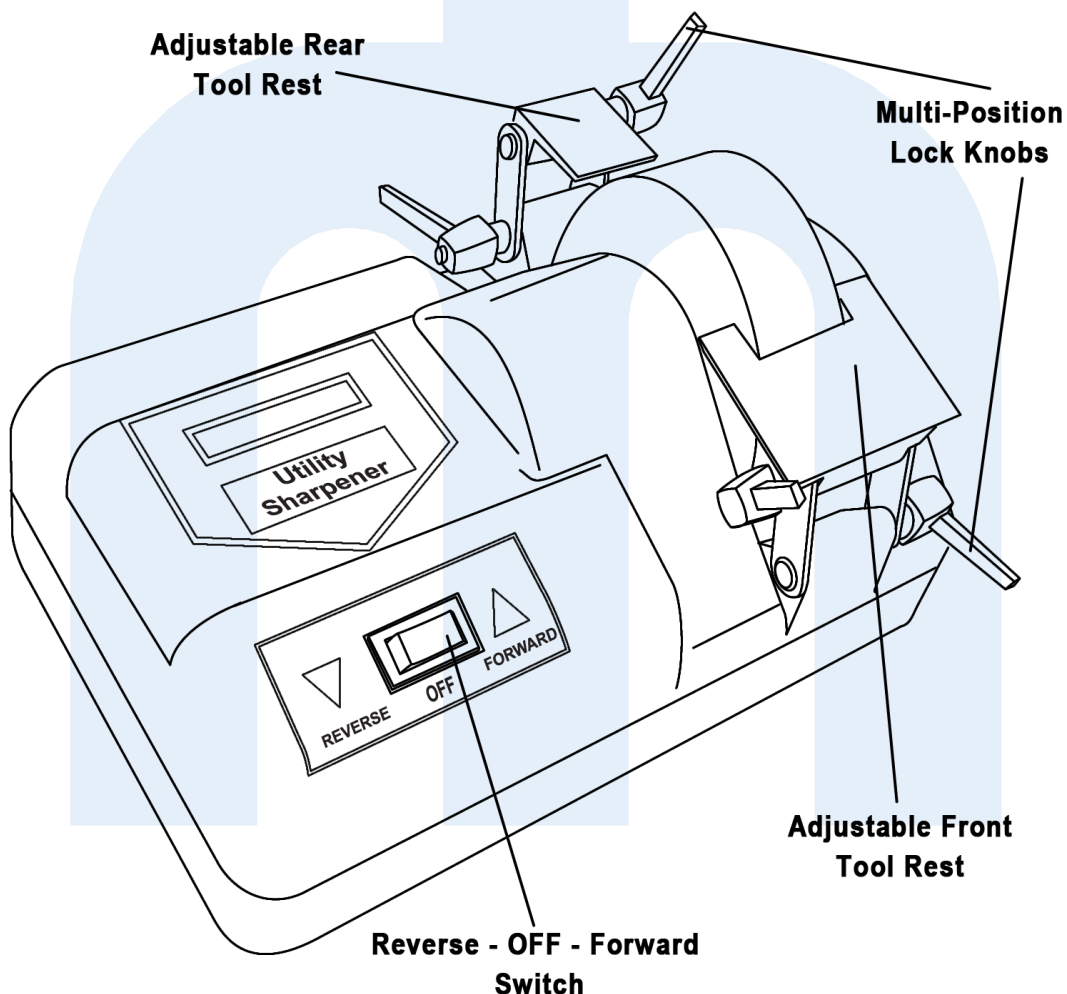


WARNING

To avoid serious injury and damage to the tool, read and follow all of the Safety and Operating Instructions before operating the Utility Sharpener.

1. Some dust created by using power tools contains chemicals known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead-based paints
 - Crystalline silica from bricks, cement and other masonry products.
 - Arsenic and chromium from chemically treated lumber.Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.
2. **Read** the entire Owner's Manual. **Learn** how to use the tool for its intended applications.
3. **Ground all Tools.** If the tool is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The 3rd prong is used to ground the tool and provide protection against electric shock. **Do Not** remove the 3rd prong.
4. **Avoid a Dangerous Working Environment. Do Not** use electrical tools in a damp environment or expose them to rain.
5. **Do Not** use electrical tools in the presence of flammable liquids or gases.
6. **Always** keep the work area clean, well lit and organised. **Do Not** work in an environment with floor surfaces that are slippery from debris, grease or wax.
7. **Keep Visitors and Children Away. Do Not** permit people to be in the immediate work area, especially when the electrical tool is operating.
8. **Do Not Force the Tool** to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the tool was intended.
9. **Wear Proper Clothing. Do Not** wear loose clothing, gloves, neckties, or jewellery. These items can get caught in the machine during operations and pull the operator in to the moving parts. You must wear protective cover on your hair, if your hair is long, to prevent it from contacting any moving parts.
10.  **Always Wear Eye Protection.** Any power tool can throw debris into eyes during operations, which could cause severe and permanent eye damage. Everyday eyeglasses are **Not** safety glasses.
11. **Always Wear Hearing Protection.** Plain cotton is not an acceptable protective device. Hearing equipment should comply with ANSI S3.19 Standards.
12. **Always Unplug the Tool from the Electrical Receptacle** when making adjustments, changing parts or performing any maintenance.
13. **Keep Protective Guards in place and in Working Order.**

14. **Avoid Accidental Starting.** Make sure that the power switch is in the “OFF” position before plugging in the power cord to the electrical receptacle.
15. **Remove all Maintenance Tools** from the immediate area prior to turning “ON” the Utility Sharpener.
16. **Use Only Recommended Accessories.** Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the tool. If in doubt, check the instruction manual that comes with that particular accessory.
17. **Never Leave a Running Tool Unattended.** Turn the power switch to the “OFF” position. **Do Not** leave the tool until it has come to a complete stop.
18. **Do Not Stand on the Tool.** Serious injury could result if the tool tips over or you accidentally contact the tool.
19. **Do Not** store anything above or near the tool where anyone might try to stand on the tool to reach it.
20. **Maintain your Balance. Do Not** extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease and wax.
21. **Maintain Tools with Care.** Always keep tools clean and in good working order. Keep all blades and tool bits sharp.
22. **Each and Every Time, Check for Damaged Parts Prior to Using the Tool.** Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions. Check for alignment, binding or breaking of moving parts. A guard or other part that is damaged should be immediately repaired or replaced.
23. **Childproof the Workshop Area** by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.
24. **Do Not Operate Tool if under the Influence of Drugs or Alcohol.**
25. **Secure All Work.** Use clamps or jigs to secure the workpiece. This is safer than attempting to hold the workpiece with your hands.



Getting to Know your Utility Sharpener

The Utility Sharpener is designed with numerous features to quickly and safely sharpen various items around the house and shop. A fine grit grinding wheel is used to produce a sharp and precise cutting edge. Two multi-position tool rests provide a firm work surface at a variety of angles. A water trough is used to keep the grinding wheel and the workpiece cool during sharpening operations., The Utility Sharpener additionally has been outfitted with an electrical power switch that permits the grinding wheel to rotate in the Forward and Reverse directions.

The Utility Sharpener will put a sharp edge on knives, scissors, and flat chisels with a minimal amount of effort and skill needed by the user. Sharp tools cut more quickly, safely and efficiently. A dull edge will require the user to apply more pressure to the workpiece, possibly causing injury to the user. Keeping the cutting tools sharp will provide many years of useful service. Periodic sharpening will prevent the tools from losing the bevel that was put on by the manufacturer originally. The factory bevel is what you should use when sharpening any tool.

Sharpening is an easy operation to perform as long as the following items are followed:

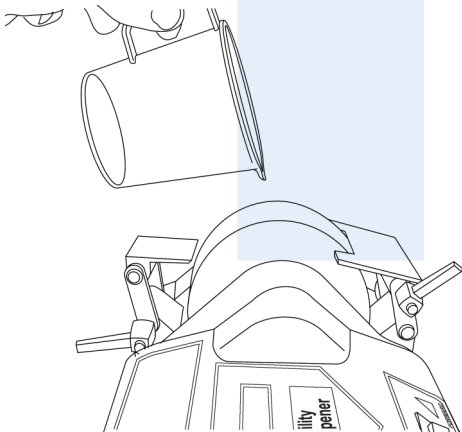
1. **Clean** the item to be sharpened prior to beginning any sharpening operations.
2. **Always** use the factory bevel (cutting edge angle) as a guide to sharpening the tool.
3. **Sharpen** the tools prior to starting any job involving the tools. The user will then be less likely to rush the sharpening procedure, and then will do a safer and better job.
4. **Sharpen** the tools in numerous light pressure passes instead of heavily pressing the tool against the grinding wheel. Light passes will be safer and produce a much sharper edge on the tool. Heavy passes will create a ragged and rough edge on the tool.
5. **Do Not** sharpen tools that are cracked or bent. A damaged tool should be discarded.
6. The Utility Sharpener **is Not** to be used as a Bench Grinder to remove large amounts of material. The grinding wheel rotates much slower than a Bench Grinder. The grinding wheel uses a much finer grit grinding wheel than a Bench Grinder's grinding wheel.

Operating the Utility Sharpener

The Utility Sharpener is designed for sharpening knives, scissors, flat chisels, and more.

Always Wear Eye Protection! Hot sparks may be produced during sharpening operations.

1. The electrical power switch must be in the **OFF** position.
2. The power cord must be unplugged from the electrical receptacle.
3. Place the Utility Sharpener on flat, firm, and water resistant surface.
4. Loosed the two lock knobs that hold the front tool rest until the tool rest can be moved away from the stone. The lock knobs may be repositioned by pulling the knob out slightly. This permits the knob to be rotated for additional loosening or tightening.
5. Partially fill a measuring cup with tap water. Proceed to slowly pour approximately 80ml - 180ml of water over the stone as shown to the left.

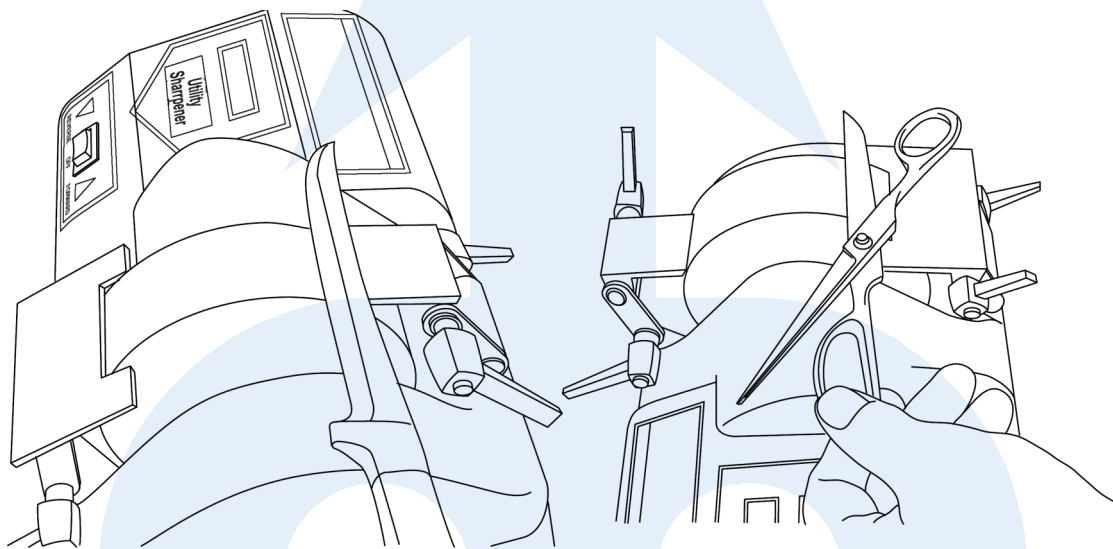


WARNING

Do not have the Utility Sharpener operating while pouring the water. The rotating grinding wheel will cause water to be splashed possibly on to the electrical switch.

6. Plug in the power cord and turn **ON** the Utility Sharpener. Let the tool run for one minute. This will let the grinding wheel absorb some of the water and provide a cool grinding surface.
7. After one minute, turn **OFF** the Utility Sharpener and unplug the power cord from the electrical receptacle. Proceed to fill water trough until water is almost about to spill out of the drainage opening in the rear of the Utility Sharpener.
8. The Water Trough will need to be refilled occasionally during extended sharpening operations.
9. Return the front tool rest back into position.
10. Adjust both the front and rear tool rests until they are approximately 1/8" from the grinding wheel. Firmly tighten all four of the lock knobs.
11. Carefully inspect the item to be sharpened. Look for any cracks or bends. If the item is damaged, then discard it. **Do Not** attempt to sharpen a damaged tool.
12. If the item to be sharpened is in good condition, then proceed to lay the item flat on either of the tool rests as shown in Fig. D. Loosen the lock knobs and adjust the tool rest until the original bevel angle of the item to be sharpened is matched. Maintain a 1/8" distance from the grinding wheel after the tool rest has been adjusted to the proper angle. Firmly tighten the lock knobs.

NOTE: For scissors, hold as shown in next figure. You must sharpen the bevel side of each scissors blade. **Do Not** attempt to sharpen the flat side of the blade. This will ruin the scissors.



13. Practice a few times while the Utility Sharpener is **OFF**, slowly pulling the tool across the grinding wheel while keeping the tool flat on the tool rest. **Always** pull the item to be sharpened across the wheel from the angle to the tip of the blade. **Do Not** ever push the item across the grinding wheel.
14. Plug the power cord in to the electrical receptacle and turn **ON** the Utility Sharpener. Ordinarily, cutting edges are sharpened with the grinding wheel turning toward the blade. However, if you find it more comfortable, you may sharpen with the wheel turning away from the blade.
15. Proceed to lay the item to be sharpened flat onto the tool rest and hold onto it firmly with both hands. Slowly and lightly pull the item across the rotating grinding wheel. Inspect the item after a few passes to check the progress. The cutting edge should have a shiny appearance the entire length of the cutting surface. If the surface has dark and shiny spots, the angle of the tool rest is not properly adjusted or the user is not keeping the item flat on the tool rest. Make adjustments as necessary.
16. Alternate sharpening on both sides of the tool.
17. Upon completing the sharpening operations, a small burr might form on the cutting edge. Remove the burr by turning the Utility Sharpener **OFF** and unplugging it from the electrical receptacle. Lightly pull the blade across the stationary grinding wheel until the small burr is removed.
18. Dump out the water that was poured into the water trough earlier by tilting the Utility Sharpener backward.
19. Wipe the Utility Sharpener off with a clean dry rag and inspect for any damage to the grinding wheel.

Maintenance

Turn the power switch “OFF” and unplug the power cord from its power source prior to any maintenance.

Cleaning

With the Utility Sharpener unplugged, rotate the abrasive wheel slowly and inspect for any damage.

Caution: Replace the abrasive wheel if there is any damage at all. **Failure** to replace a damaged wheel can cause serious injury to the operator.

Caution: Do Not use Flammable Materials to clean the Utility Sharpener. A clean dry rag or brush is all that is needed to remove dust and debris build-up.



WARNING

Repairs to the Utility Sharpener should be performed by trained personnel only. Contact your retailer for authorized service. Unauthorized repairs or replacement with non-factory parts could cause serious injury to the operator and damage to the Utility Sharpener.

To Prevent injury to yourself or damage to the Utility Sharpener, turn the switch to “OFF” position and unplug the power cord from the electrical receptacle before making any adjustments.

Trouble Shooting Guide

Problem	Likely Cause	Solution
Motor does not run	Machine not plugged in Power switch in “OFF” position Power cord is faulty Fuse or circuit breaker are open Damaged motor	Plug power cord into electrical receptacle Push switch to Forward or Reverse Return to retailer Overloaded electrical circuit Return to retailer
Motor does not have full power	Incorrect line voltage Damaged motor	Have a qualified electrician check line for proper voltage Return to retailer
Motor runs hot	Motor is overloaded Poor air circulation around motor	Reduce pressure on workpiece Remove any blockage around openings in the base
Motor stalls or runs slow	Motor is overloaded Incorrect line voltage Capacitor has failed	Reduce pressure on workpiece Have a qualified electrician check line for proper voltage Return to retailer
Fuse blows or circuit breaker trips	Motor overloaded Overloaded electrical circuit Wrong fuse or circuit breaker Undersized or excessive length of extension cord, see manual	Reduce pressure on workpiece Reduce the amount of items on circuit Replace with correct fuse or circuit breaker Use correct size Unplug machine and remove obstruction

Parts List

Key No.	Description	Qty.	Key No.	Description	Qty.
1	Motor	1	23	Bottom housing	1
2	5mm flat washer *	5	24	Strain relief	1
3	4-0.7 x 12mm hex head bolt	4	25	Plate	1
4	3 x 22mm dowel pin	1	26	Cord clamp	1
5	11T pulley	1	27	14-1.0mm hex nut	1
6	Drive belt	2	28	Capacitor	1
7	35/11T pulley	1	29	5-0.8 x 55mm carriage bolt	2
8	Top housing	1	30	Locking handle	4
9	4-0.7 x 8mm set screw *	1	31	Link	4
10	35T pulley	1	32	Front tool rest bushing	1
11	Clamp	2	33	Front tool rest	1
12	4.2 x 12.7mm tap screw *	8	34	5mm flat washer	4
13	Drive shaft	1	35	5-0.8 x 51mm carriage bolt	2
14	Flange	2	36	Rear tool rest bushing	1
15	Sharpening wheel #120	1	37	Rear tool rest	1
16	4.2 x 16mm tap screw *	6	38	Switch	1
17	6-1.0 x 50mm pan head screw	1	39	Line cord	1
18	Sleeve	1	40	4mm serrated washer	1
19	6-1.0mm fiber hex nut *	1	41	4mm flat washer *	1
20	Bearing	2	42	4mm lock washer *	1
21	Foot	4	43	4.0-7 x 8mm pan head screw *	1
22	Cord clamp	1	^	Operator's manual	

* Standard hardware item available locally.

^ Not shown

Parts

