

# AC250WBS 250/40 Wetstone Bench Sharpener



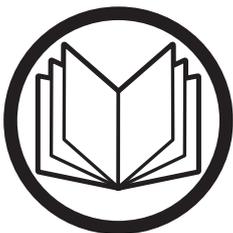
# Index of Contents

EU Declaration of Conformity	02
What's Included	03
General Instructions for 230V Machines	04
Specific Safety Precautions for Grinding/Sharpening Machines	04
Assembly/Setup	05-06-07
Specification	07
Illustration and Parts Description	08-09-10
Operating Instructions	11-12-13-14-15-16-17
Changing the Grinding Stone & Removing the Honing Wheel	18
Ultimate Edge Accessories	19
Exploded Diagrams/Lists	20-21
Wiring Diagram	22
Notes	23

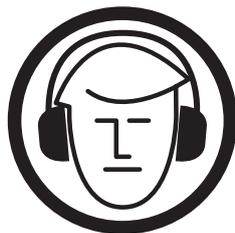
## EU Declaration of Conformity

<p><b>Cert No: SCM8080, SCM8101</b></p> <p>Axminster Tool Centre Ltd Axminster Devon EX13 5PH UK <a href="http://axminstertools.com">axminstertools.com</a></p> <p>declares that the machinery described:-</p> <table border="1"> <tr> <td>Type</td> <td><b>Wetstone Bench Sharpener</b></td> </tr> <tr> <td>Model</td> <td><b>AC250WBS</b></td> </tr> </table> <p>Signed </p> <p><b>Andrew Parkhouse</b> Operations Director</p> <p>Date: <b>05/01/2018</b></p>	Type	<b>Wetstone Bench Sharpener</b>	Model	<b>AC250WBS</b>	<p><b>EU Declaration of Conformity</b></p> <p><b>This machine complies with the following directives:</b></p> <table border="0"> <tr> <td>2006/42/EC</td> <td>EN 61000-3-3:2013</td> </tr> <tr> <td>EN 55014-1:2017</td> <td>EN 55014-1:2006+A1+A2</td> </tr> <tr> <td>EN 55014-2:2015</td> <td>EN 55014-2:1997+A1+A2</td> </tr> <tr> <td>EN 61000-3-2:2014</td> <td></td> </tr> </table> <p>and conforms to the machinery example for which the EC Type-Examination Certificate No AE 50396939 has been issued by <b>Wendeng Allwin Motors Manufacturing Co., Ltd.</b> at: No. 15 Sichan Road Wendeng, Shandong 264400 China (Mainland)</p> <p>and complies with the relevant essential health and safety requirements.</p>	2006/42/EC	EN 61000-3-3:2013	EN 55014-1:2017	EN 55014-1:2006+A1+A2	EN 55014-2:2015	EN 55014-2:1997+A1+A2	EN 61000-3-2:2014	
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EN 55014-2:2015	EN 55014-2:1997+A1+A2												
EN 61000-3-2:2014													

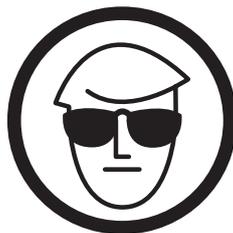
The symbols below advise the correct safety procedures when using this machine.



Fully read manual and safety instructions before use



Ear protection should be worn



Eye protection should be worn



Dust mask should be worn



HAZARD

# What's Included

Quantity	Item	Part	Model Number
			AC250WBS
1	Wetstone Bench Sharpener	<b>A</b>	
1	250mm Vertical Wetstone	<b>B</b>	
1	Honing Compound	<b>C</b>	
1	Water Trough	<b>D</b>	
1	Long Knife Jig	<b>E</b>	Code 105855
1	Knife Jig	<b>F</b>	Code 105864
1	Scissor Jig	<b>G</b>	Code 105860
1	Square Edge Jig	<b>H</b>	
1	Axe Jig	<b>I</b>	Code 105865
1	Angle Gauge	<b>J</b>	
1	Universal Support Bar	<b>K</b>	
1	Scissor Jig Support Plate	<b>L</b>	
4	Support Bar Locking Knobs	<b>M</b>	
1	Instruction Manual		



# General Instructions for 230V Machines

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The following will enable you to observe good working practices, keep yourself and fellow workers safe and maintain your tools and equipment in good working order.



**WARNING!! KEEP TOOLS AND EQUIPMENT OUT OF REACH OF YOUNG CHILDREN.**



**KEEP WORK AREA AS UNCLUTTERED AS IS PRACTICAL. UNDER NO CIRCUMSTANCES SHOULD CHILDREN BE ALLOWED IN WORK AREAS.**

## Mains Powered Tools

- Tools are supplied with an attached 13 Amp UK 3 pin plug, fitted with 5 amp fuse
- Inspect the cable and plug to ensure that neither are damaged. Repair if necessary by a suitably qualified person.
- Do not use when or where it is liable to get wet.

### Workplace

- Do not use 230V a.c. powered tools anywhere within a site area that is flooded.
- Keep machine clean.
- Leave machine unplugged until work is about to commence.
- Always disconnect by pulling on the plug body and not the cable.

- Carry out a final check e.g. check the cutting tool is securely tightened in the machine and the correct speed and function set.
- Ensure you are comfortable before you start work, balanced, not reaching etc.
- Wear appropriate safety clothing, goggles, gloves, masks etc. Wear ear defenders at all times.
- If you have long hair wear a hair net or helmet to prevent it being caught up in the rotating parts of the machine.
- Consideration should be given to the removal of rings and wristwatches.
- Consideration should also be given to non-slip footwear etc.
- If another person is to use the machine, ensure they are suitably qualified to use it.
- Do not use the machine if you are tired or distracted
- Do not use this machine within the designated safety areas of flammable liquid stores or in areas where there may be volatile gases.
- Check cutters are correct type and size, are undamaged and are kept clean and sharp, this will maintain their operating performance and lessen the loading on the machine.
- **OBSERVE....** make sure you know what is happening around you and **USE YOUR COMMON SENSE.**

# Specific Safety Precautions for Grinding/Sharpening Machines

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**1.** Do not operate your machine until it is completely assembled and installed according to the instructions.

**2.** If you are not familiar with the operation of grinding machines obtain advice from your supervisor or instructor or another qualified person.

**3.** Only use a grinding wheel rated at 150rpm with a 1/2"(12.7mm) arbor on this machine.

**4.** Never use a chipped or cracked wheel. Always inspect the grinding stone before mounting it on the sharpener. If during inspection you discover it damaged, replace it immediately.

**5.** Do not over tighten wheel nuts.

**6.** Ensure the universal tool bar is tightened so it cannot move while in use.

**7.** Never grind on a cold wheel. The grinder should always be run for at least one minute before applying work to it.

**8.** Never apply coolant directly to a dry running grinding wheel, it may cause the bonding to fail. If the work piece becomes hot, dip it into a water pot to cool it down.

**9.** Hot sparks are a hazard! Never carry out grinding operations near flammable gas or liquid.

**10.** Ensure the flanges furnished with the grinder are used to the grinding wheel onto the shaft.

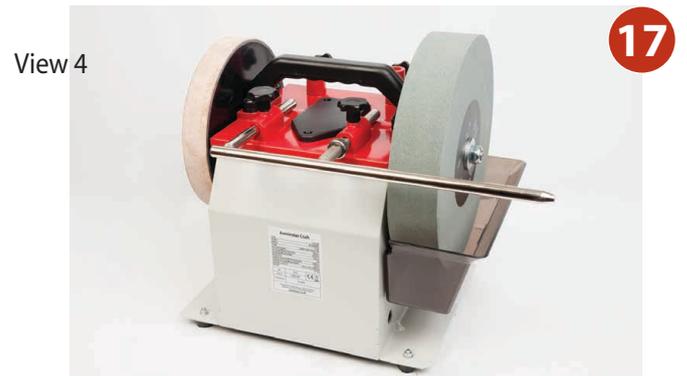
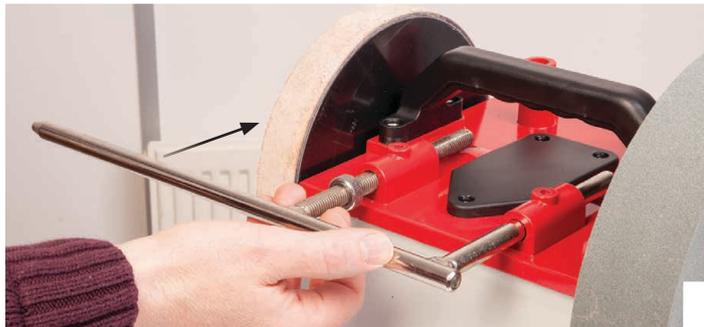
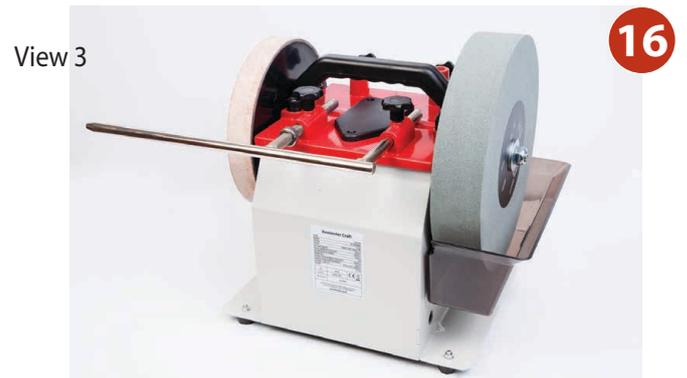
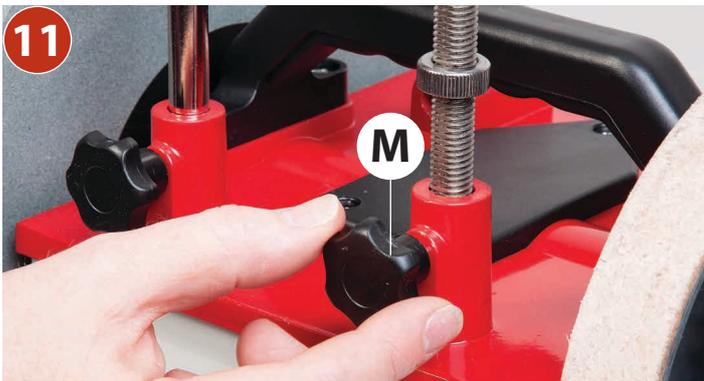
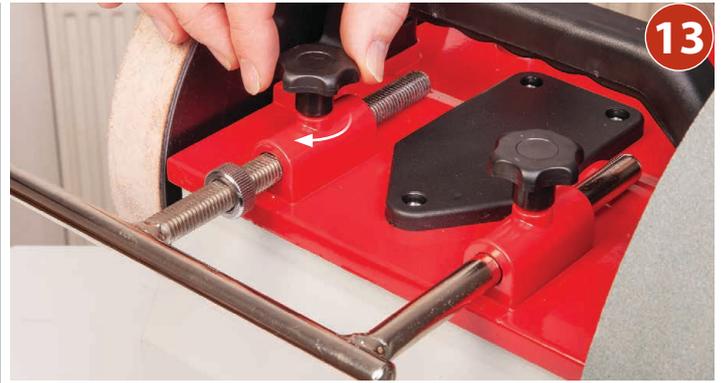
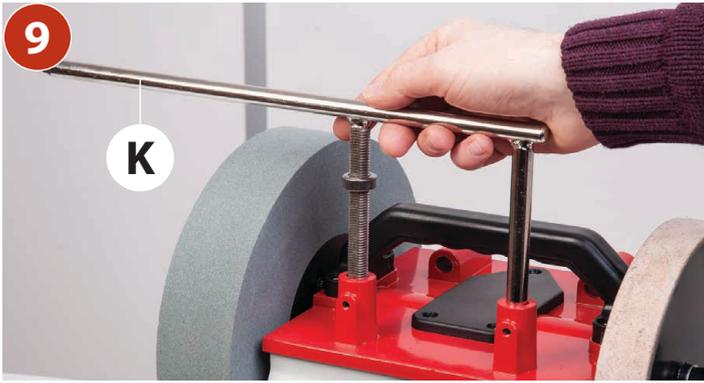
**11.** Avoid awkward hand positions where a sudden slip could cause the hands to come into contact with a grinding wheel, wire brush etc.

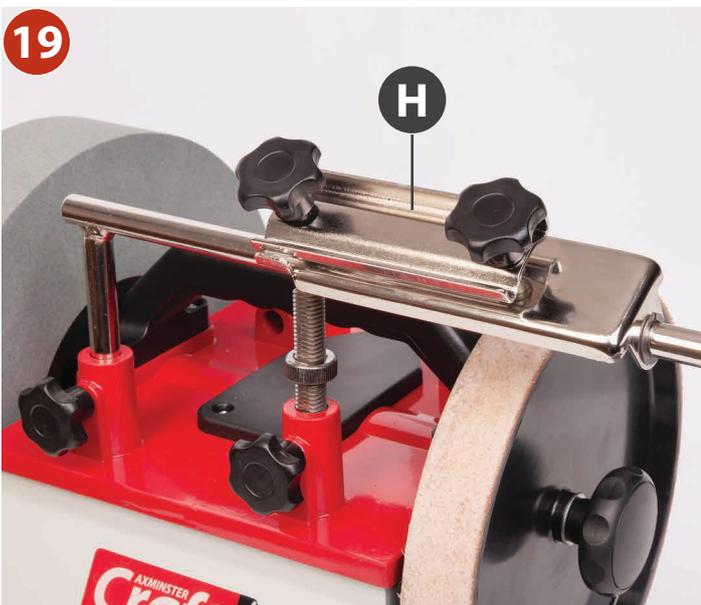
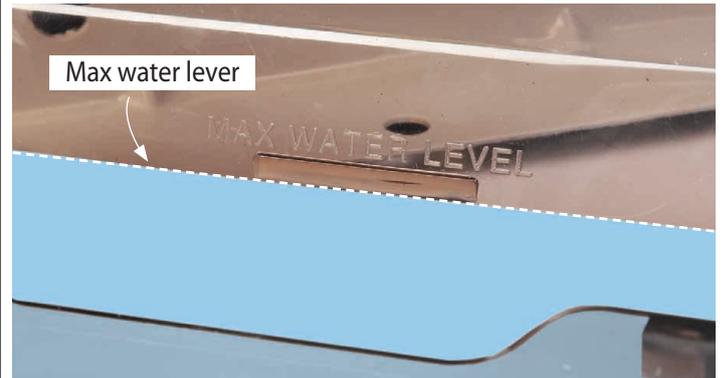
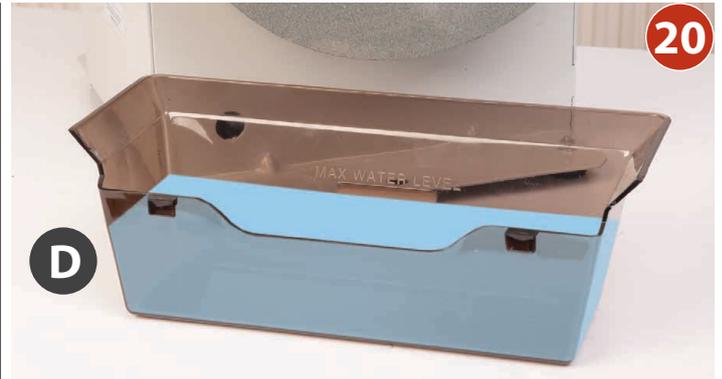
**12.** If the wheel requires dressing, dress only the front of the wheel, do not dress the sides.

**13.** Do not use any attachments that causes the machine to vibrate. If, after changing grinding wheels or adding attachments, the machine does vibrate, remove the recently replaced item and change again.



# Assembly/Setup





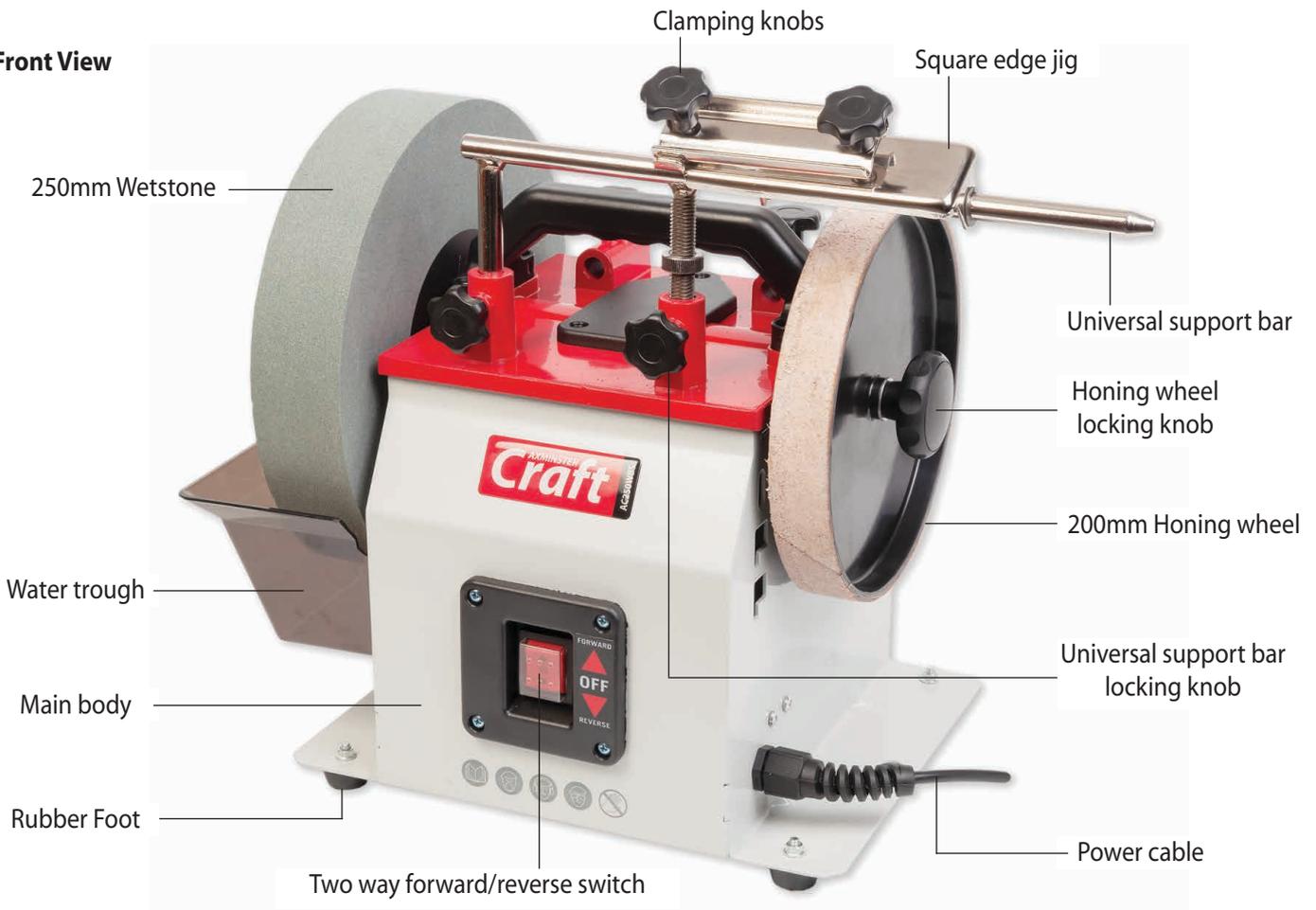
**NOTE:** The Wetstone will shed the grinding waste and dust into the water; the heavy waste will sink to the bottom of the trough, the dust and 'light material' will form a film on the surface of the water and can be dragged up and lay on the stone. A sufficiently heavy layer can be 'glazed' onto the stone by the grinding action, which reduces its cutting efficiency. The 'heavy' waste which sinks to the bottom of the trough, can also start to rust, due to the oxygenated nature of the water, (**air trapped in the surface water on the stone, being passed through the trough as it rotates**). Clean the trough and refill with clean water frequently.

## Specification

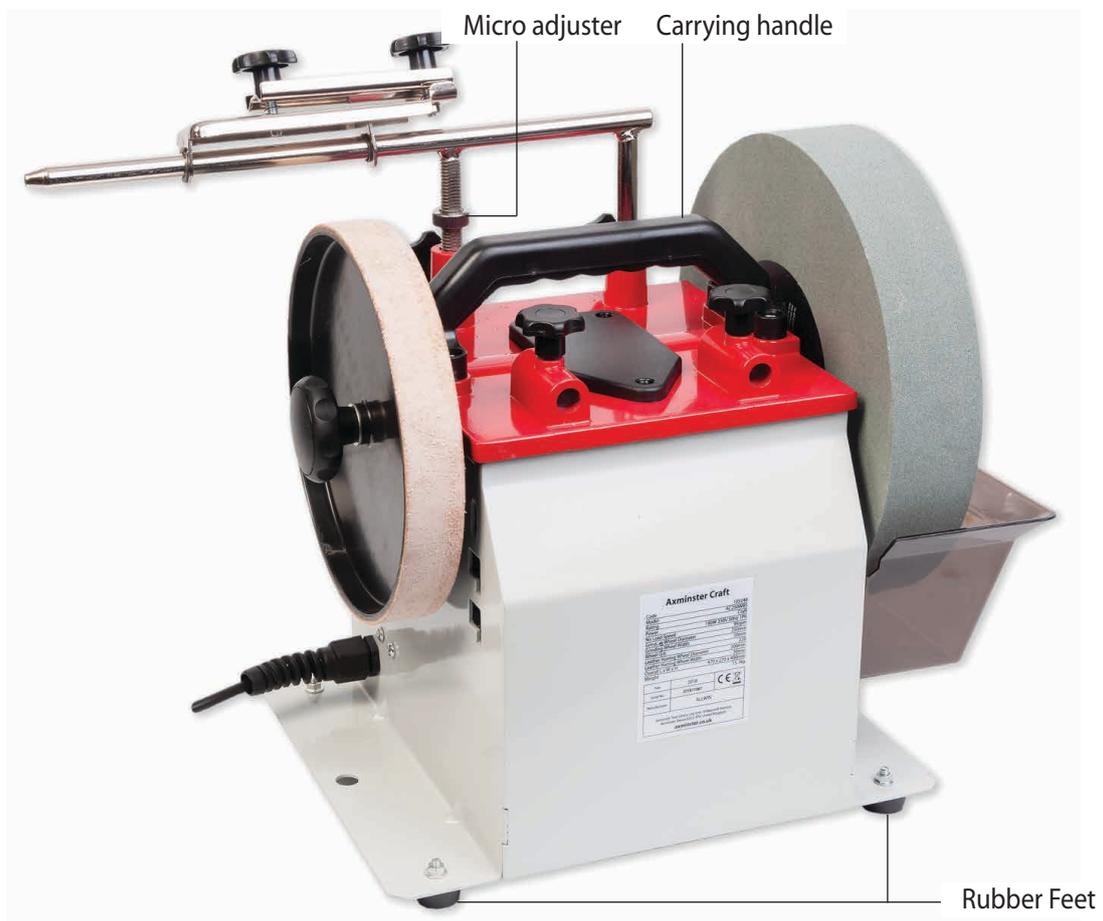
Code	105248
Model	AC250WBS
Rating	Craft
Power	180W 230V 50Hz 1Ph
No Load Speed	95 rpm
Grinding Wheel Diameter	250 mm
Grinding Wheel Width	50 mm
Wheel Grit	220
Leather Honing Wheel Diameter	200 mm
Leather Honing Wheel Width	30 mm
Overall L x W x H	395 x 380 x 370 mm
Weight	17.5 kg

# Illustration and Parts Description

## Front View



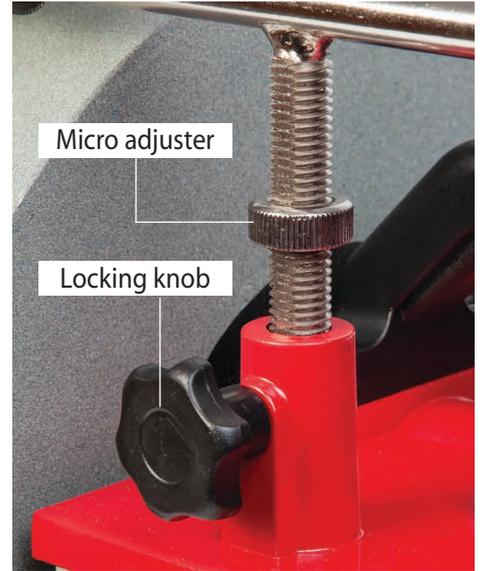
## Rear View



# Illustration and Parts Description



Two way forward/reverse NVR switch



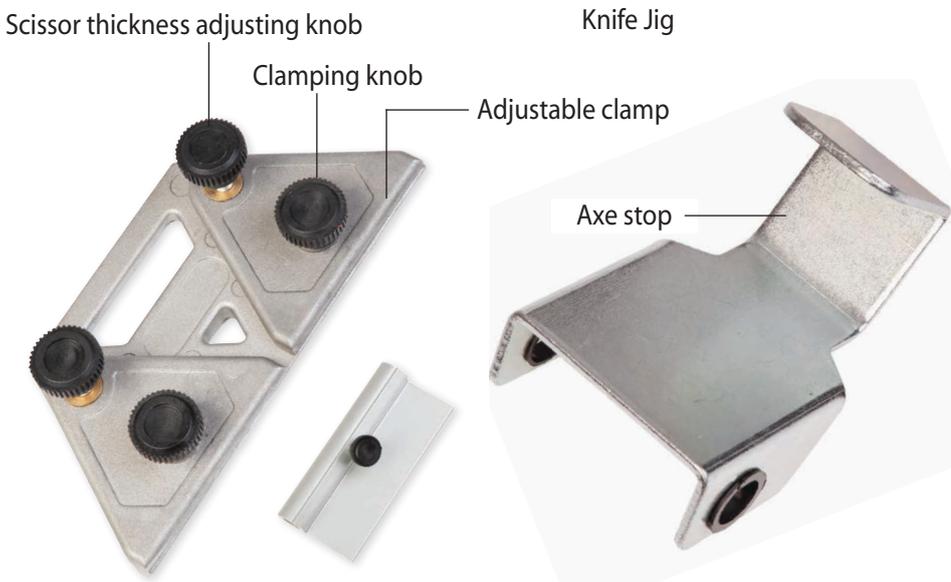
Universal support bar locking knob and micro adjuster



**Code 105864**  
Knife Jig



**Code 105855**  
Long Knife Jig



**Code 105860**  
Scissor Jig and Support Plate

**Code 105865**  
Axe Jig



Square Edge Jig

# Illustration and Parts Description

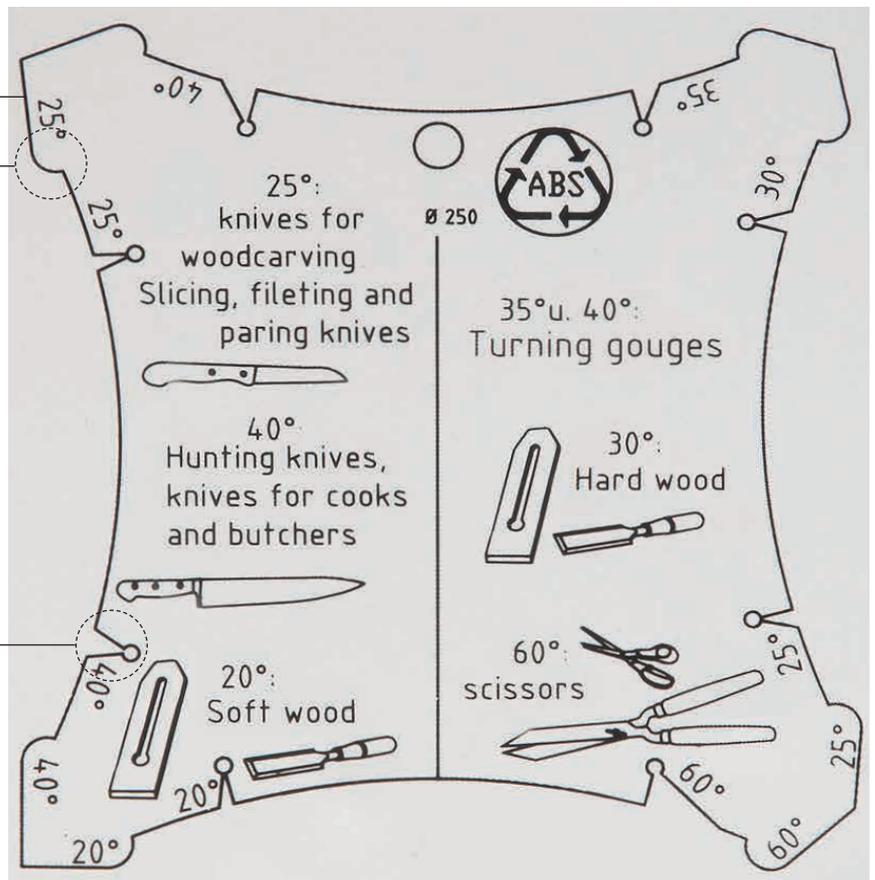
## Angle Gauge



Preset angle diagram

Preset angle edge  
 Angle edge foot, make sure the foot is in contact with the sharpening stone.

The grooves in the angle gauge enables you to check the tool's angle edge.





**WARNING!! KEEP TOOLS AND EQUIPMENT OUT OF REACH OF YOUNG CHILDREN.**



**CONNECT THE WHEEL SHARPENER TO THE MAINS SUPPLY.**



**ALWAYS WEAR EAR DEFENDERS AND SAFETY GOGGLES.**

Carry out final checks e.g. check the stones are not badly deformed (rounded edges, grooved face, etc. Fill the trough with water to the maximum water level, see page 07. Start the machine, wait until it reaches full speed. Check it runs smoothly, no knocking or scraping noises for example. If all ok, apply a work piece. When work has been completed switch off the wheel sharpener, see fig A and wait until it comes to a complete stop. Disconnect the machine from the mains supply. Clean the water trough.

**NOTE: DO NOT leave the stone submerged in water if the grinder is not in use. This will prevent the stone from swelling and cracking.**

**NOTE: Store and use at room temperature.**

**A**

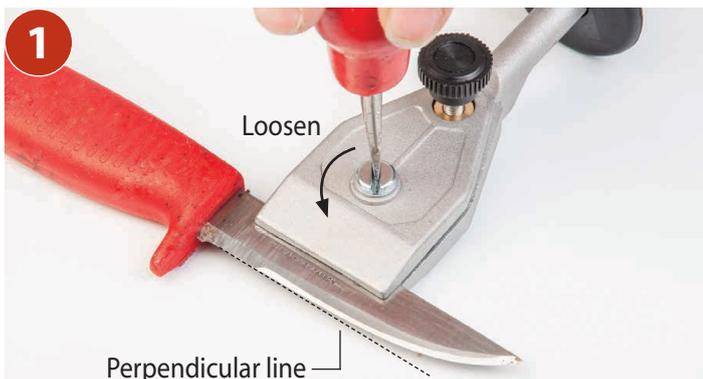
Press the forward /reverse switch to power on the unit.

**Note:**

When sharpening the stone should rotate towards you and away from you when honing.



## The Knife Jig



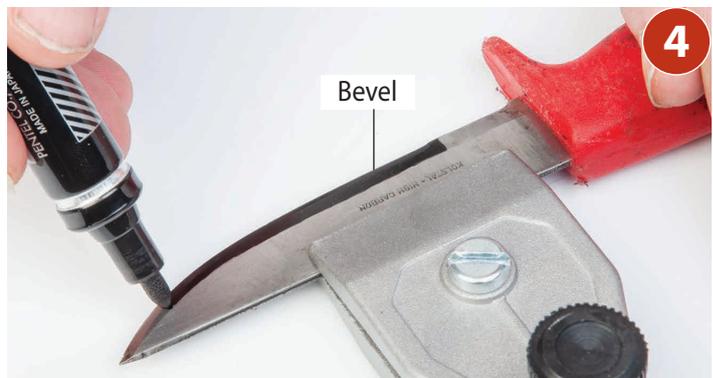
Slide the knife between the clamp making sure the knife cutting edge is perpendicular with the clamp.



Adjust the knife thicknessing knob to fit the thickness of the knife.



Tighten the clamping screw to secure the knife.



Mark the bevel with a marker to allow you to see were the grinding will occur.

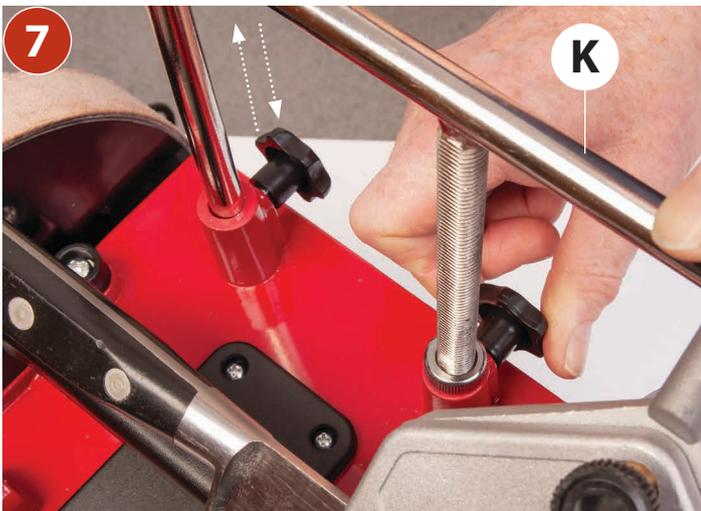


Loosen the adjustable stop clamping knob and twist the stop to set it to zero.

# Operating Instructions



Using the angle gauge (J) adjust the universal support bar with the micro adjuster (K) to set the knife at 25° degrees. Make sure the heel of the bevel touches the grinding stone.



If further adjustment is required, adjust the stop.



**CONNECT THE MACHINE TO THE MAINS AND SWITCH ON.**



**Observe how the water flows over the edge to make sure the blade is in contact with the width of the stone. This is very Important to create an even bevel.**



When the first side is done turn the knife over and sharpen the second side. When both sides are completed switch off the sharpener and disconnect it from the mains supply.



**Note:** Burrs will show up as a silver line along the length of the blade.



**SWITCH OFF THE MACHINE!**

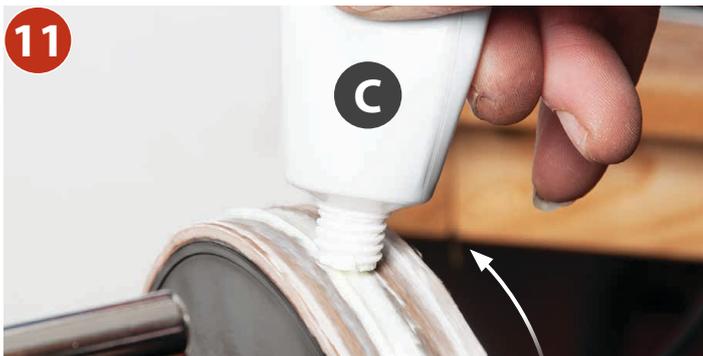
## Honing

Turn the sharpener around and remove the knife from the jig.



**SWITCH ON THE MACHINE AND MAKE SURE THE HONING WHEEL IS RUNNING AWAY FROM YOU!**

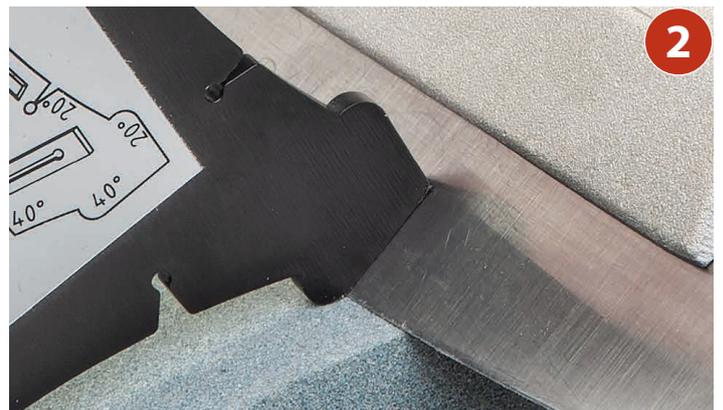
Place a small amount of honing compound (C) evenly over the honing wheel. Hone and polish the knife making sure the entire bevel touches the leather wheel. Move the knife back and forth a few times on both sides until the burrs disappear.



**SWITCH OFF THE MACHINE!**

## The Long Knife Jig

The long knife jig is sharpened in the same way as the short knife jig. Following illustrations for setting up and sharpening.



Hunting knives, knives for cooking and butcher's knives need to be sharpened at 40° degrees see the diagram on the angle gauge (J).



# Operating Instructions

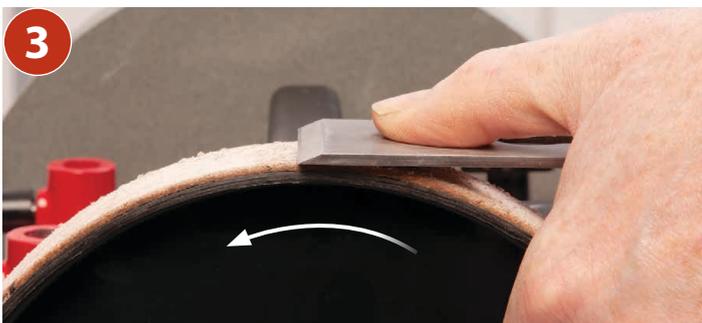
## The Square Edge Jig

To achieve a sharp edge both surfaces of planing or chisel blades must be smooth.



**SWITCH ON THE MACHINE WITH WHEEL RUNNING AWAY FROM YOU!**

Position the tool against the stone, note the edge must not touch the stone before the heel. Flatten the back of the tool, hold the tool flat against the stone while moving it slightly. Let the tool rest on the universal support bar (K), which should be placed close to the stone. Switch off and disconnect the machine from the mains when completed.



Polish the surface on the leather honing wheel.



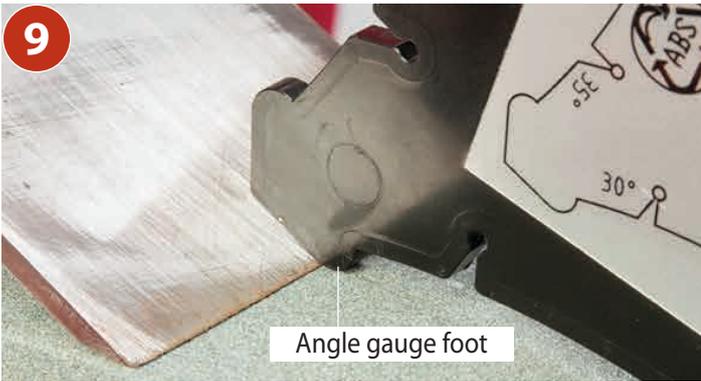
Mark the bevel with a marker to allow you to see where the grinding will occur.



Place the tool into the jig around halfway along the blade and position it against the jig's stops. Tighten the clamping knobs. Slide the assembly onto the universal bar (K).



Set the tool to an angle of 30° degrees, making sure the angle gauge foot and the heel of the bevel is in contact with the sharpening stone.

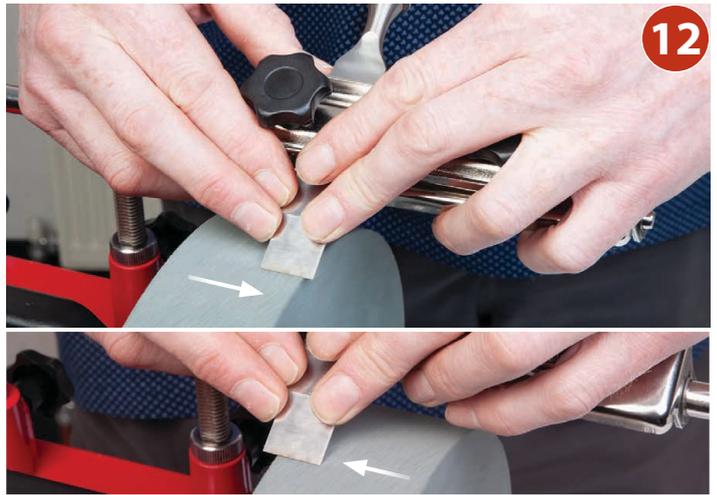


Angle gauge foot



**SWITCH ON THE MACHINE AND MAKE SURE THE STONE WHEEL IS RUNNING TOWARDS YOU!**

With the machine revolving towards you keep light finger pressure on the tool sliding from left to right using the full wheel width.



**SWITCH OFF THE MACHINE!**

### Honing

Turn the sharpener around and remove the tool from the jig.

**SWITCH ON THE MACHINE AND MAKE SURE THE HONING WHEEL IS RUNNING AWAY FROM YOU!**

Hone and polish the knife making sure the entire bevel touches the leather wheel. Move the knife back and forth a few times on both sides until the burrs disappear.



**SWITCH OFF THE MACHINE!**

# Operating Instructions



**DISCONNECT THE MACHINE FROM THE MAINS!**

## The Scissor Jig

The correct angle for sharpening scissors is 60° degrees. The edge is set by adjusting the support plate (L).



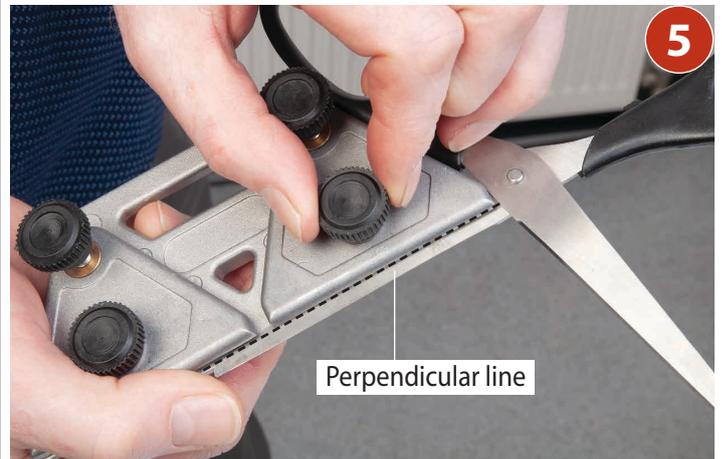
Set the support plate (L) to an angle of 60° degrees, making sure the angle gauge foot is in contact with the sharpening stone.



After the angle is set, tighten the clamping knob to prevent it from moving.



Mark the bevel with a marker to allow you to see where the grinding will occur.



Slide the scissor between the clamp making sure the blade is perpendicular with the clamp.



**SWITCH ON THE MACHINE AND MAKE SURE THE STONE WHEEL IS RUNNING TOWARDS YOU!**



**Observe how the water flows over the edge to make sure the blade is in contact with the width of the stone. This is very important to create an even bevel.**



**SWITCH OFF THE MACHINE!**

### The Axe Jig

The edge of a axe or hatchet should be 25-30° degrees, this depends on the hardness of the wood. A hunting axe must have a larger edge of 30-40° degrees so the bevel edge is more durable.



Set the axe to an angle of 25° degrees, making sure the angle gauge foot is in contact with the sharpening stone.



Switch on the machine, press with your palm on the axe. The axe will be pressed up against the stop in the jig. Follow the shape of the edge. During grinding let the jig slide sideways on the universal support bar so the stone wears evenly.

# Changing the Grinding Stone & Removing the Honing Wheel



**DISCONNECT THE MACHINE FROM THE MAINS!**

## 250mm Grinding Stone



Grasp the stone using a cloth, use a 19mm spanner to loosen the nut.



Remove the stone and place to one side. Inspect the new stone for cracks and damage to the front face or the edges before fitting. Carefully slide the stone onto the shaft, replace the washer/nut and tighten. **DO NOT OVERTIGHTEN.**

## 200mm Honing Wheel

Removing the honing wheel enables you to sharpen larger tools, e.g. long knives, axes or scythes.



Clean the drive shaft and roll pin

## Axminster Honing Guide Assembly code 105281



The Ultimate Edge Honing Guide is perfect for plane blades, joinery chisels etc. this fits onto the round bar. Clamping the blade tightly, both primary and secondary bevels can be achieved if required. The whole jig is manufactured from stainless steel and has a simple setting screw to control the width. The LH jaw is reversible and has twin jaws, one curved so that chisels that do not have perfectly parallel sides (such as Japanese and old hand forged chisels) can be clamped, the other jaw being parallel. The jaws are dovetailed, so securely clamp the tools against the body. The jaws accommodate blades from 3-66mm in width. A setting gauge is provided to enable the correct sharpening angle to be set based upon a standard projection of the cutting tool at 25mm from the guide.

## Ultimate Edge Micro Bevel Gauge code 105427



Having ground the primary bevel on any tool, the secondary bevel or micro bevel actually does the majority of the work. It is exactly what it says it is; a micro bevel which can be increased with ease each time the tool becomes dull. The micro bevel guide is made of stainless steel and aluminium and has the ability to accept the tool still mounted in the honing guide, the precise angle of the micro bevel can be easily set and with a few positive passes over a fine diamond or waterstone a superb edge can be achieved.

## Universal Sharpening Table code 105426

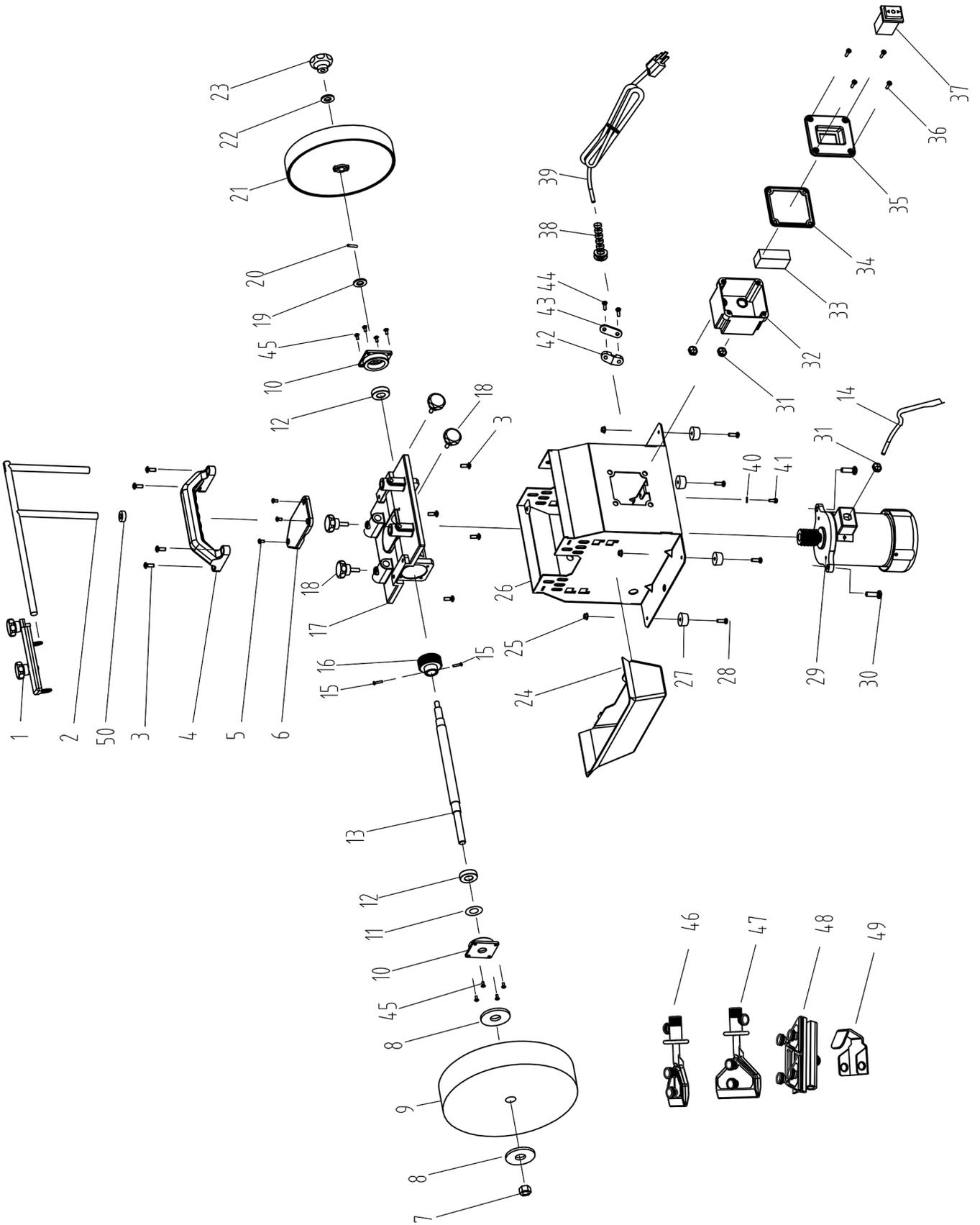


This table is an accessory for the Ultimate Edge Compound Jig. This is machined from anodised alloy and is supplied with a mitre setting guide. The table is locked by a handle locking securely onto the round bar. Anodised in black, there is a quadrant of angles laser marked into the surface for easy reference. Ideal for freehand lathe tool sharpening and general finishing. Size 130 x 75mm.

## Universal Edge Gauge Setting code 103730



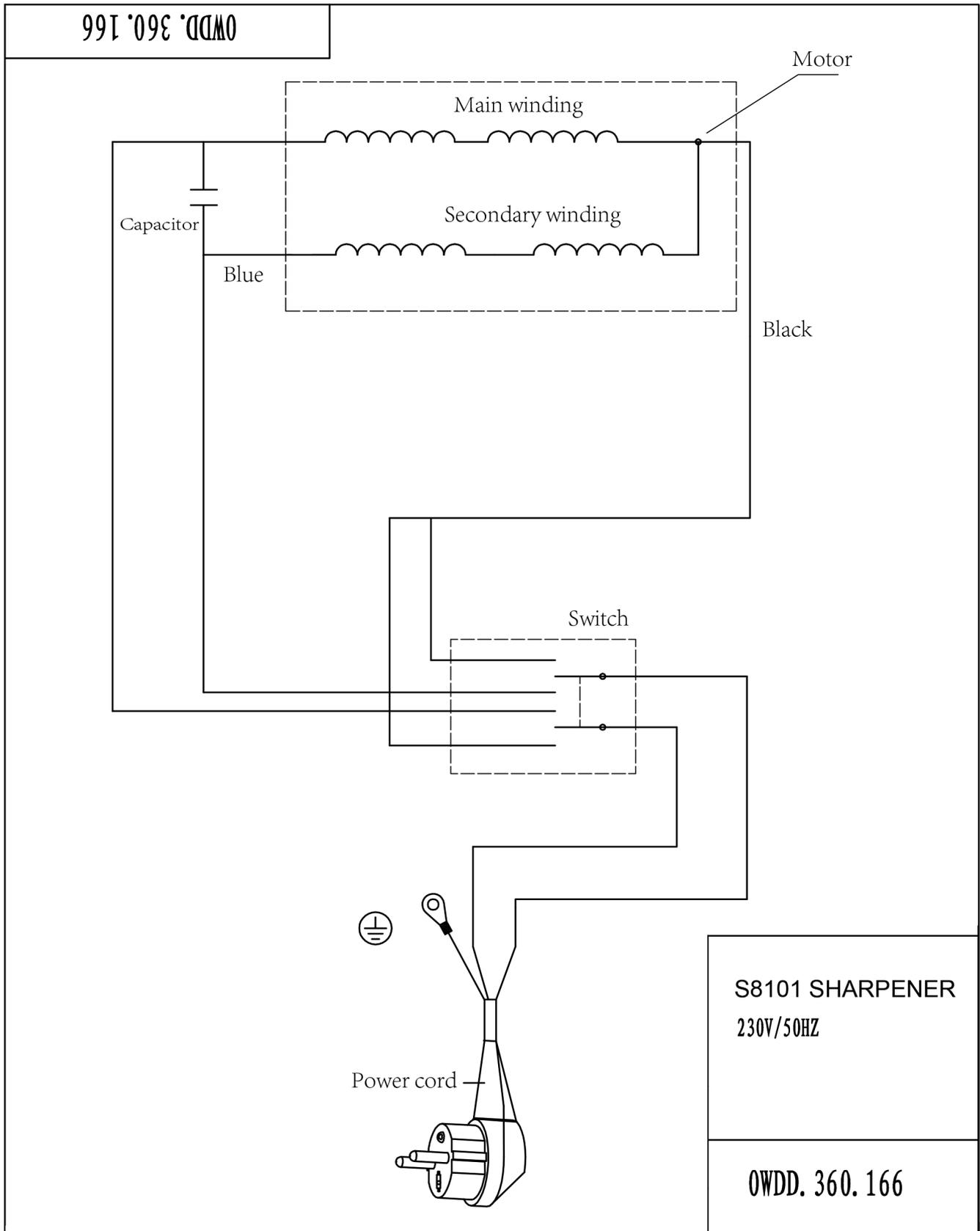
As with all accurate sharpening, it's all about the angles and our 18 piece set gives all angles from 90° through to 5°. The set is perfect for setting up sharpening guides as well as checking ground angles.



## Exploded Diagrams/Lists

No.	Description	Specification	Qty
1	Blade holder assembly		1
2	F-support		1
3	Philips screw+flat washer+spring washer	M6 × 16	8
4	Handle		1
5	Philips screw	M4 × 8	3
6	Worm gear case cover		1
7	Nut	M12	1
8	Flange		2
9	Grinding wheel	250 × 50 × 12mm	1
10	Bearing block		2
11	Wave washer	D32	1
12	Bearing	6002RZ	2
13	Main shaft		1
14	Cable		1
15	Philips screw+flat washer+spring washer	M5 × 12	2
16	Worm gear		1
17	Worm gear case		1
18	Knob	M6 × 10	4
19	Washer	D12	1
20	Round pin	5 × 22	1
21	Polishing wheel	200 x 30 x 12.5mm	1
22	Big flat washer	8	1
23	Lock knob	M8	1
24	Water tank		1
25	Hex nut	M5	4
26	Base assembly		1
27	Rubber foot		4
28	Philips screw+big flat washer	M5 × 16	4
29	Motor assy		1
30	Philips screw+flat washer+spring washer	M8 × 35	2
31	Rubber grommet	6P4	3
32	Wire connection box		1
33	capacitor		1
34	Rubber mat		1
35	Switch plate		1
36	Phillips screw	ST4.2 × 16	4
37	Bilateral switch		1
38	Cable sleeve		1
39	Cord & plug		1
40	Tooth locking washer	D4	1
41	Philips screw+flat washer+spring washer	M4 × 8	1
42	Cord clip		1
43	Cord clip plate		1
44	Philips Screw	M4 × 16	2
45	9 Screw	M4 × 10	8
46	Short Knife jig assembly		1
47	Long Knife jig assembly		1
48	Scissor jig assembly		1
49	Axe jig assembly		1
50	Adjusting nut		1

# Wiring Diagram





## The Axminster guarantee

Buy with confidence from Axminster!

So sure are we of the quality, we cover all parts and labour free of charge for three years!



For more information visit [axminstertools.com/3years](https://axminstertools.com/3years)

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The packaging is suitable for recycling.  
Please dispose of it in a responsible manner.



### EU Countries Only

Do not dispose of electric tools together with household waste material.  
By law they must be collected and recycled separately.

Axminster Tools, Axminster Devon EX13 5PH

**axminstertools.com**