

Original Instructions

Ultimate Edge (P-50) Sharpening Systems





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EU Declaration of Conformity

Cert No: P-50		EU Declaration of Conformity			
Axminster Tools & Machinery Ltd Axminster Devon EX13 5PH UK		This machine complies with the following directives:			
axminster.co.uk declares that the machinery described:-		2006/42/EC 2014/35/EU EN ISO 12100:2010			
Type Belt Sander		EN ISO 60204-1:2006+AC:2010			
Model Ultimate Edge		conforms to the machinery example for which the EC Type-Examination Certificate No M.2016.201.N1187, 14091705IDA 15001 has been issued by UDEM International Certification Auditing			
Signed Andrew Parkhouse Operations Director Date: 08/05/2022		Training Centre Industry and Trade Co.Ltd at: Mullukent Mahallesi 2073 Sokak (Eski 93 Sokak) No: 10 Cankaya-Ankara-TURKEY and complies with the relevant essential health and safety requirements.			

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

Model Number	Ultimate Edge	(P-50)	Model Number	Ultimate Edge	(P-50)
Quantity	Item	Part	Quantity	ltem	Part
1	Ultimate Edge (Fixed Speed)	Α	1	Ultimate Edge (Deluxe Variable Speed)	Α
1	Abrasive Belt (Fitted)				В
4	Adjustable Rubber Feet				С
1	Work Table with two Caphead Screws				D
1	Graphite Pad (Self Adhisive)				E
1	Long Hex Key 4mm				F
2	Butterfly Threaded Knobs with Washers				G
1	Sanding Belt Access Plate				н
1	Euro Plug Adaptor 13A				1
1	Instruction Manual				



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 plug.
- 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 checks to the machine.
- 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.**

Specification

Code No	103473	Code No	103474
Model	Ultimate Edge Fixed Speed (P-50)	Model Ult	imate Edge Deluxe Variable (P-50)
Rating	Trade	Rating	Trade
Power	AC 230V 50Hz 375W	Power	DC 230V 50Hz 560W
Motor Speed	2,800 rpm	Motor Speed	3,000 rpm
Motor Pulley Diameter	56mm	Motor Pulley Diameter	56mm
Belt Speed	498 mpm	Belt Speed (Metres Per Minu	te) 200-600 mpm
Belt Size	50mm x 785mm	Belt Size	50mm x 785mm
Dust Extraction Outlet	25mm	Dust Extraction Outlet	25mm
Overall L x W x H	330 x 280 x 480mm	Overall L x W x H	420 x 280 x 480mm
Weight	17.5kg	<u>Weight</u>	17.5kg

Assembly

Fig A





103474 Control box assembly



Euro plug adaptor 13A



Loosen the two screws on the Euro plug, open up and insert the pinned plug into the adapter as shown. Close the cover and tighten the screws.

Threaded Rubber Feet

Locate the four 'Rubber Feet' (C), remove one nut from each of the threaded feet and place aside. Slot each threaded foot through the four pre-drilled holes to each corner of the units base. Replace the nuts, stand the unit upright and adjust each foot in turn until the machine is level, see fig 01-02.

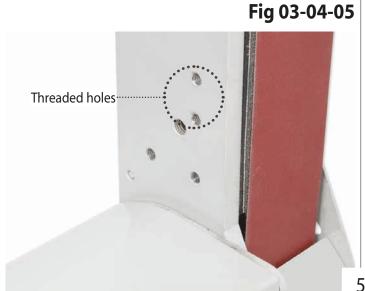
Fig 01-02





Work Table

Locate the work table and the two caphead screws (D). Line up the elongated slots on the work table bracket with the two threaded holes to the side of the linisher and secure the table in position with the caphead screws, see fig 03-04-05.

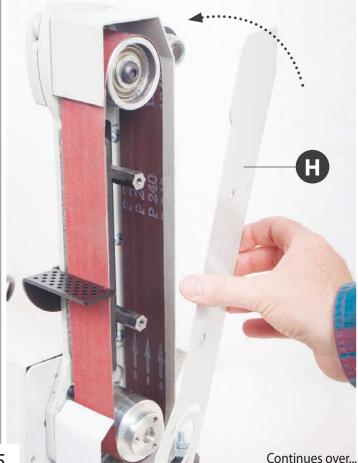




Access Plate

Find the the linishers side 'Access Plate' (H) and the two threaded butterfly knobs and washers (G). Position the plate against the linisher main assembly and line up the two holes with the wo threaded studs on the linisher. Secure the plate in position with the threaded knobs and washers, see fig 06-07-08.

Fig 06-07-08



Continues over...

Assembly



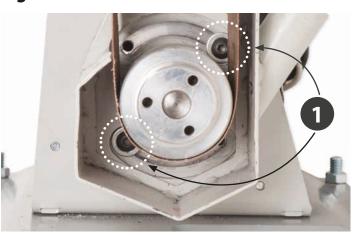
Graphite Pad



The 'Graphite Pad' is used to reduce the friction and heat building between the abrasive belt and Linisher plate. This will help to prolong the llife of the abrasive belt.

1. Remove the side access plate (H) and raise the linisher to the upright position by loosening the two Hex screws (1), see fig 09. Tighten the Hex screws to secure the linisher.

Fig 09



2. Rotate the lever (2) to the side of the linisher, see fig 10-11. Press down the lever to release the belt tension, see fig12.



Fig 12



Assembly

3. Remove the belt and place safely aside, see fig 13.

Fig 13



4. Locate the 'Graphite Pad', (E) and peel off the adhesive backing. Position the pad down onto the linishers platen and press firmly down, see fig 14-15-16.





Note: After a period of time the 'Graphite Pad' will become worn and we recommend fitting the optional 'Slip Plate', code 105676, see picture below.



5. Slide the belt back on the drive rollers and centre the belt on the linisher. Press the lever (2) down and hold in place, pull the locking 'PIN' (3) out and raise the linisher's head to re-tension the belt, see fig 17.

Fig 17



6. Replace the side access plate (H)

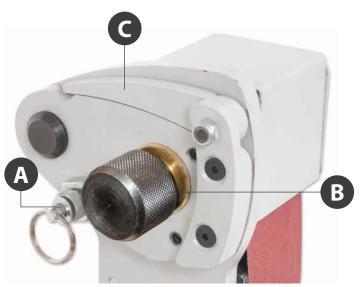


Illustration & Parts Description

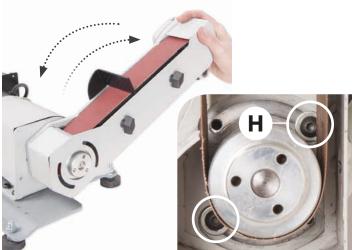


NVR ON/OFF switch (Green ON) & (Red OFF)

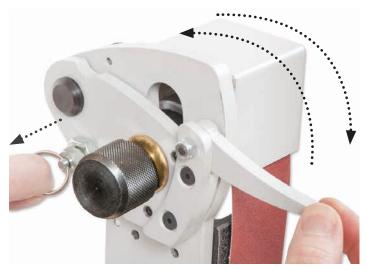
Work Table



Locking pin for tension mechanism (A), Tracking control knob (B), Operating lever (C) too release the tenstion to the belt



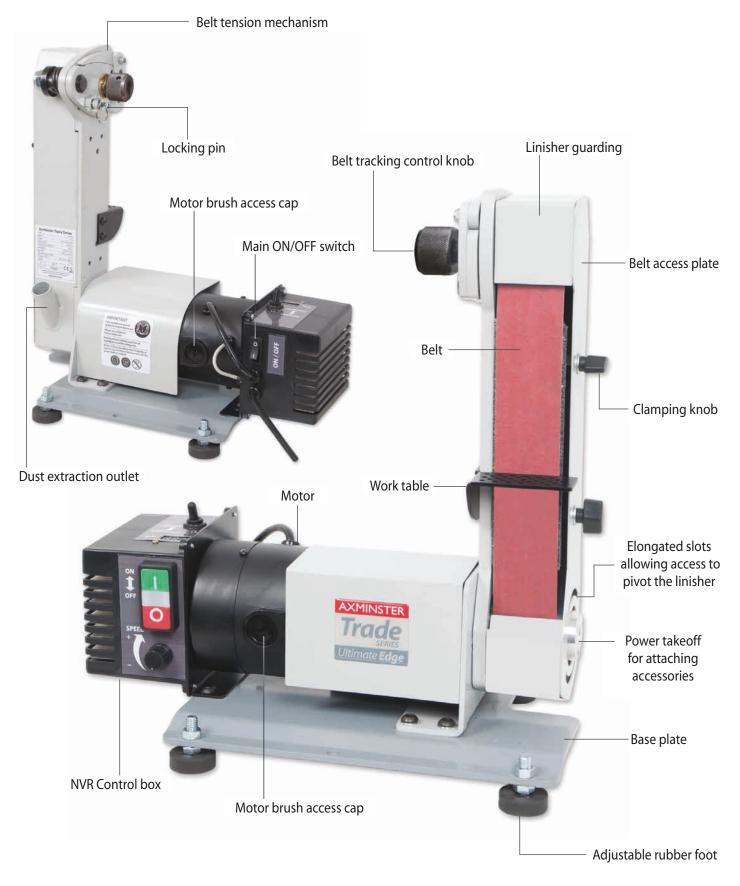
The linisher can be pivoted to the required angleby adjusting the two Hex screws (H)



Belt tension mechanism



25mm Dust extraction outlet (F) Power takeoff for attaching future accessories (G)



103473 P-50 (Deluxe Variable Speed)

Illustration & Parts Description



Setup/Adjustment

Tracking the Belt

(Variable Speed Model Only)



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



CONNECT THE MACHINE TO THE MAINS SUPPLY!

1. Press the main ON/OFF on switch to the 'ON' postion, see fig 18.

2. Move the selector switch to the 'Forward' position, see fig 19.

3. Makesure the speed control dial is turned right down then press the 'GREEN' button to start the machine, see fig 20. The digital diaplay will read 'For' (Forward) then '202' (MPM) will light up, see fig 21-22.

Fig 18-19-20-21-22











4. Turn the speed control knob until the display reads around '400' (MPM), see fig 23

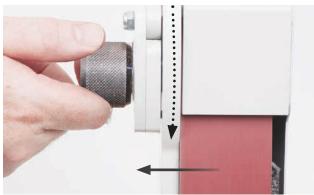
Fig 23



5. Turn the 'Tracking Control Knob' until the belt is centred on the platen, see fig 24-25-26.

NOTE: Don't make sudden adjustments otherwise you may over correct. Make small adjustments.

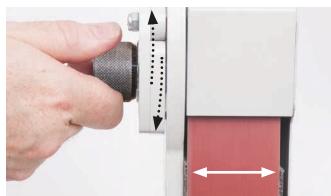
Fig 24-25-26



Turning the tracking knob clockwise moves the belt to the left



Turning the tracking knob anti-clockwise moves the belt to the right



Making small adjustments to centre the belt on the linisher

6. Once complete, turn down the speed until it reads '202' (MPM) on the display the press the 'RED' button to stop the machine.

7. Switch off the main ON/OFF switch to isolate the power the machine.

(Fixed Speed Model)

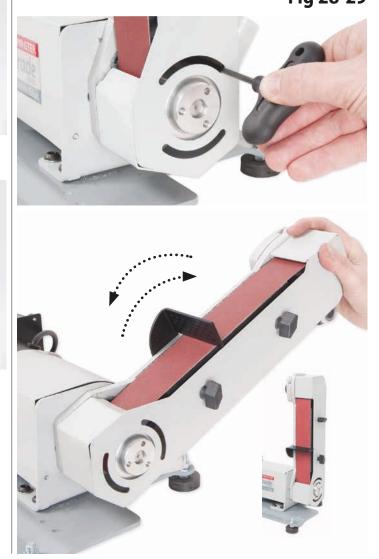
To power on the 'Ultimate Edge' fixed speed model press the 'Green'"ON" button, see fig 27 then proceed to step 5 as described on the opposite page.

Fig 27



Setting the Linisher Angle

The linisher can be pivoted to the required angle by loosening the two button Hex screws, see fig 09 on page 06 then lower the linisher to the required angle, see fig 28-29. Re-tighten the Hex screws to secure the setting. Fig 28-29



NVR Control Box (Variable Speed Model)

The control box comprises of a main ON/OFF switch to the rear that isolates the power to the machine, a Forward/Reverse switch to change the belts direction, 'Variable Speed Control Dial' to increase or decrease the belt speed and 'ON/OFF buttons' to start and stop the machine.

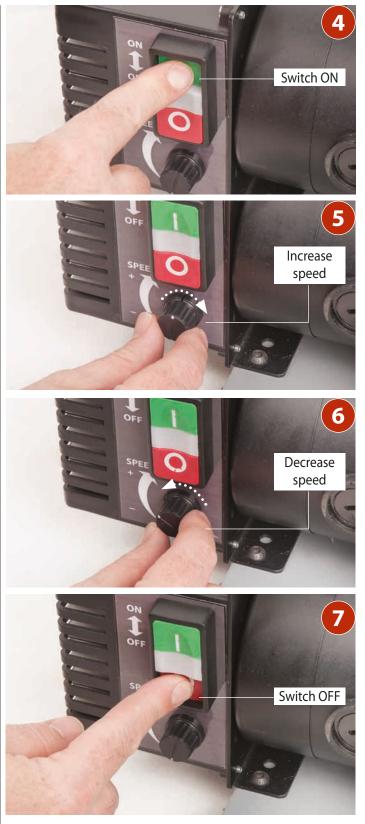


DO NOT CHARGE THE DIRECTION OF THE BELT WHILE THE MACHINE IS IN MOTION!





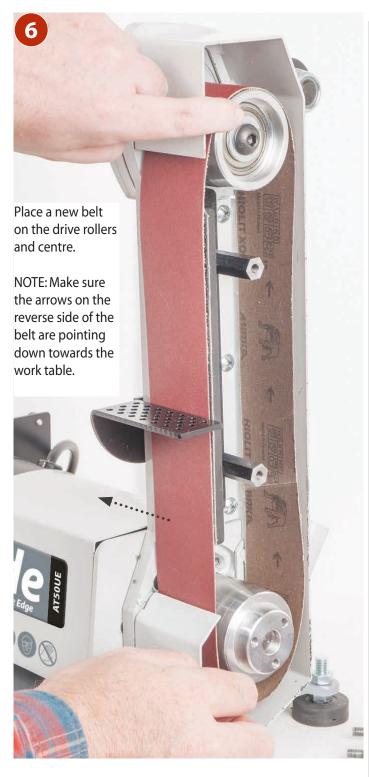




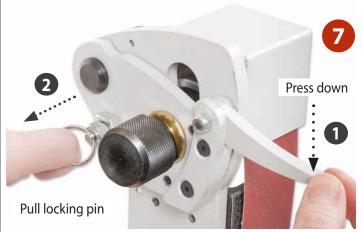
Changing the Belt



Changing the Belt



Press down the lever and hold in place, pull the locking pin out and raise the roller assembly to re-tension the linisher belt.





Replace the belt 'Access Plate' (H) and secure in place with the two butterfly threaded knobs

Changing Motor Brushes

Variable Speed Model Only

1. Check the condition of the motor brushes every 5-6 months. Unscrewing each brush cap screw in turn, see fi g 30.

NOTE: Take careful note of the orientation, remember that they have bedded themselves to the profile of the commutator in that position. If you reverse them, it can cause excessive sparking and heat until they have re-bedded themselves.

- 2. Remove the motor brushes and check the condition of the brush head, see fig 31-32.
- **3.** If they are in good condition, re-fit. If they were worn to the 'Line' replace with new brushes. For after sales enquires, call 03332 406406. Email: cs@axminster.co.uk

Website: axminster.co.uk

4. Replace the new brushes and brush caps, re-connect to mains supply and run the machine off load for approx. 20 minutes to allow the brushes to bed in.

Fig 30



<image>

Maintenance

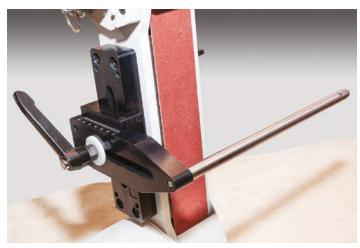
There is very little mechanical maintenance that can be carried out on the machine, keep the machine clean.

- 1. Remove the belt access plate and check there is no dust or resin build up on the pulleys or at the edges of the platen.
- **2.** Remove all dust deposits and clean the motor using an Vaccum Cleaner.
- **3.** Remove the dust extraction hose and check any build up of deposites inside the hose and extraction outlet.
- 4. Check the motor brushes every 5-6 months.



Ultimate Edge Accessories

Axminster Compound Jig (code 103738)



This is machined from specially anodised alloy and bolts easily onto 4 pre tapped threaded holes on the belt arm. This jig has the familiar round bar in ground silver steel to allow Tormek jigs to be mounted. One length of round bar are provided. A clever system of sliding the bar in two directions in one operation is employed, locked with just a twist of a handle. The jig has graduations laser marked into the body so that consistent repeat settings can be made. There are 4 adjusting grub screws to allow the jig to be set correctly to the belt platter both horizontally and vertically.

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 which is part of the Compound Jig. 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 thetools 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.





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.

Tormek[®] Jigs for Gouges (code 102132)



Many of the Tormek[®] jigs work amazingly well on the 12mm bar of the Ultimate Edge and provide the user with extremely sharp and accurately ground tools. The Tormek fingernail grinding jig is shown using an aluminium oxide belt with a 65mm protrusion. See the Tormek[®] pages for full details.

Polishing and Honing "Twist n Fix" Arbor (code 105419)



Ultimate Edge Accessories

The unique "Twist n Fix" multipurpose arbor allows for the virtually instant change of different mops, felt wheels and profiling wheels. Supplied with mounting screws and one "Twist n Fix" arbor additional arbors can be purchased singularly or in a set of 3. This unique 12mm diameter quick change arbor system allows the power source to be run in either forward or reverse direction. Polishing mops, felt wheels etc should always be used in a specific order; the ability to change these almost instantly ensures that the process of starting coarse and ending up fine is always followed.

Polishing and Honing Accessories



A variety of 12mm bore accessories are available for use on the "Twist n Fix" 12mm arbor including a leather profiled wheel for carving tools, a rubberised wheel for polishing and traditional mops both stitched, loose leaf and sisal. N.B. Smaller sizes of abrasive soaps are available online.

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 linishing. 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. The UJK level box is an additional useful accessory for the Ultimate Edge, its ability to record and set angles is perfect for this application.

Belts and Accessories for the Ultimate Edge Machine



There are many different types of abrasive ideally suited to the purpose of metal sharpening or grinding. We have listed below the most popular ones and will add online a number of other types of abrasive

belt. As well as abrasive belts we have added a high quality ultra flexible leather honing belt which can be used with the various polishing pastes. For general use we recommend aluminium oxide at about 180g working finer to 400g for final finishing before any secondary bevel is applied using an ultra fine diamond or waterstone. 3M's Trizact abrasive is ideal for final grinding of all materials resulting in a fine edge ready to use straight off the machine. This is a different abrasive from normal convention but equates to 600G, 1200G and 3000G Note: if dust extraction is to be used a fireproof hose should ALWAYS be used (103717).

Description	Grit	Code
Alu Oxide Cloth Belt 785 x 50mm	120G	105233
Alu Oxide Cloth Belt 785 x 50mm	180G	105234
Alu Oxide Cloth Belt 785 x 50mm	240G	105235
Alu Oxide Cloth Belt 785 x 50mm	320G	105236
Zirconium Cloth Belt 785 x 50mm	60G	105238
Alu Oxide Cloth Belt 785 x 50mm	400G	105237
Zirconium Cloth Belt 785 x 50mm	120G	105239
Trizact Abrasive Belt 50 x 785mm A30	600G	105428
Trizact Abrasive Belt 50 x 785mm A16	1,200G	105429
Trizact Abrasive Belt 50 x 785mm A6	3,000G	105430
Hermes FB637 Blue Film 785 x 50mm Belt		105553
Hermes FB637 Blue Film 785 x 50mm Belt	1500G	105554
Hermes FB637 Blue Film 785 x 50mm Belt	2500G	105555
Slip Plate		105676
Red Medium Grade Paste		103703
Blue Fine Grade Paste		103715
White Super Fine Paste		103716
Flame Retardant Extraction Hose 25mm x	2m	103717

Ultimate Edge Accessories



Medium Polishing & Honing Paste 250g Code 103703



Fine Polishing & Honing Paste 250g Code 103715



Super Fine Polishing & Honing Paste 250g Code 103716



Angle Gauge Set In Wallet 5-90 Deg Code 103730



Axminster Profiled Honing Wheel Code 104737

- A three layer belt with a nylon core and two layers of chrome tanned leather
- Always use the belt in a clockwise direction (belt traveling away from the blade tip)
- Never use the belt in a anti-clockwise direction (belt traveling towards the blade tip)



Numatic NQS350B-B1 Vaccum Extractor Code 000000



Flame Retardant Hose 25 mm x 2 m Code 103717



Axminster Profiled Honing Wheel Code 103717



Axminster Polishing & Honing Accessories

A variety of 12mm bore polishing wheel mops both stitched, loose leaf and sisal.

No	Description	Code
1	4" Sisal Polishing Mop	105421
2	4" Standard Stitched Polishing Mop	105422
3	4" Loose Fold Polishing Mop	105423
4	Rubber Sharpening/Honing	
	Wheel 100 x 13 x 12mm	105202



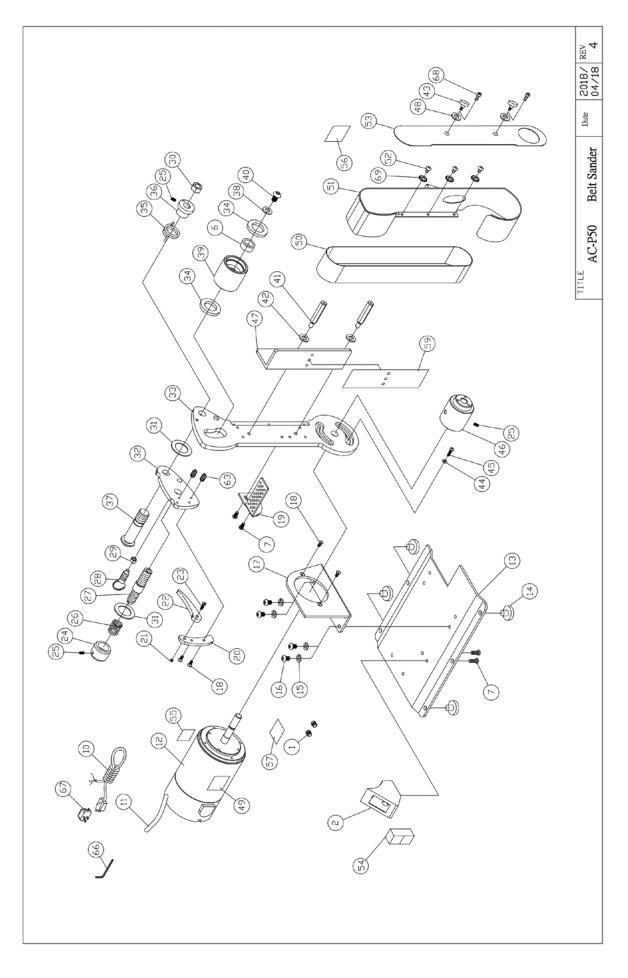
No	Description	Code
1	Nylon Abrasive Wheel for Ultimate Edge - Soft	105581
2	Nylon Abrasive Wheel for Ultimate Edge - Medium	105582
3	Nylon Abrasive Wheel for Ultimate Edge - Hard	105583
	Felt Wheel for Ultimate Edge - Hard	105580
	Felt Wheel for Ultimate Edge - Medium	105579
	Felt Wheel for Ultimate Edge - Soft	105578

Online Product Video

Ultimate Edge Sharpening System



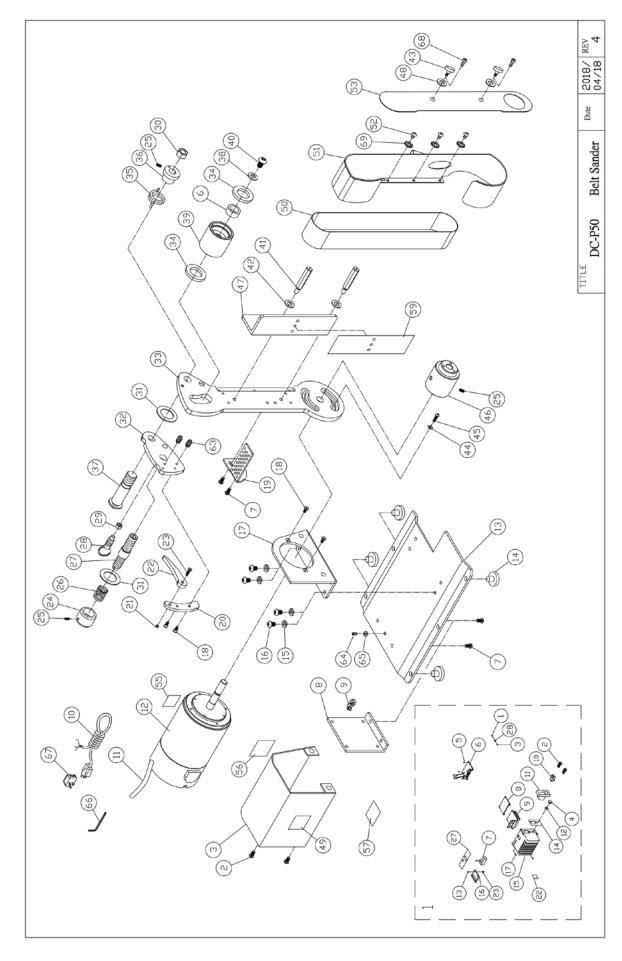
See the full range of accessories on our webside including video guides on how to use



103473 P-50 (Fixed Speed Model)

Exploded Diagrams/List

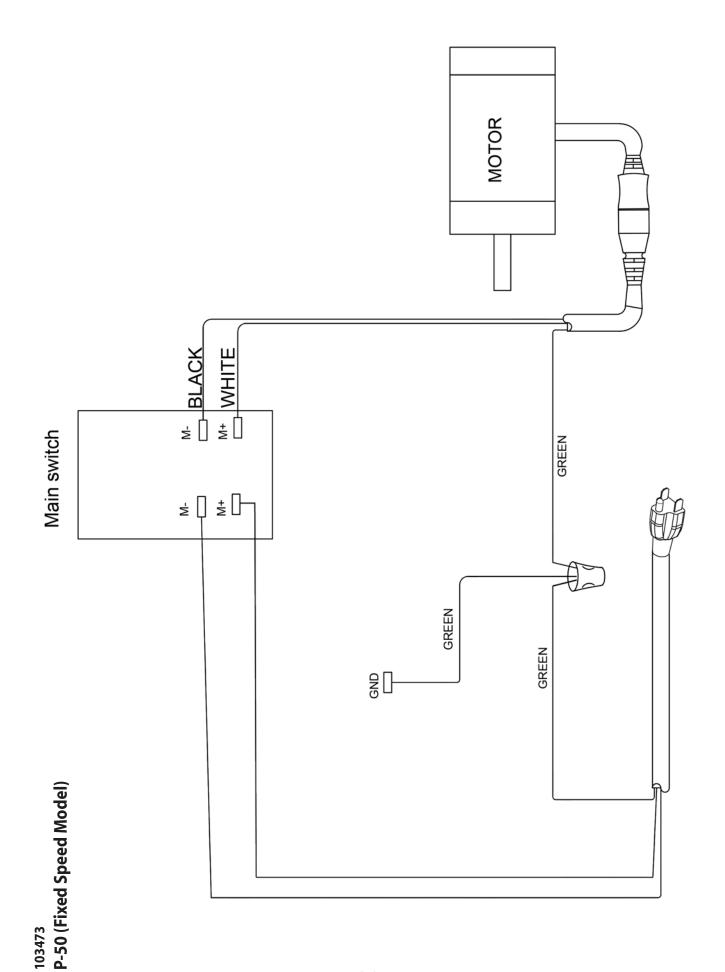
Part No	Description	Specification	Q'ty	36	Bush		1
1	Cable Gland	PG9	2	37	Shaft		1
2	Switch Box		1	38	Washer	M10	1
6	Bush		1	39	Live Wheel		1
7	Buttom Head Screw	M6x12	4	40	Buttom Head Screw	M10x15	1
10	Power Cord		1	41	Stop Rod		2
11	Motor Cord		1	42	Washer	M8	2
12	Motor		1	43	Lock Nut	M6x15	2
13	Base Plate		1	44	Washer	1/4″	2
14	Rubber Foot		4	45	Buttom Head Screw	l/4"x1"	2
15	Spring Washer		4	46	Motor Wheel		1
16	Buttom Head Screw	M8x12	4	47	LInisher Platen		1
17	Motor Plate		1	48	Washer	M6	2
18	Flat Head Screw	M5x12	4	49	Label		1
19	Work Table		1	50	Belt		1
20	Fix Plate		1	51	Body Cover		1
21	Nylon Nut	M6	1	52	Big Round Head	M5x6	3
22	Handle		1		Screw		
23	Flat Head Screw	M6x18	1	53	Side Access Plate		1
24	Knob		1	54	Switch		1
25	Set Screw	M5x12	4	55	Motor Label		1
26	Spring		1	56	I.D Label		1
27	Shaft		1	57	Warning Label		1
28	Lock Pin Pet		1	59	Graphite Pad		1
29	Nut	l/2"-13UNCx8t	1	63	POM Set Screw		2
30	Nylon Nut	M16x2.OP	1	66	Long Reach Ball End	4mm	1
31	Brass Washer	16xl.2t	2		Нех Кеу		
32	Live Plate		1	67	Plug Adapter		1
33	Main Body		1	68	Cap Screw		2
34	Bearing	6203ZZ	2	69	External Tooth Washer		3
35	Twist Spring		1				

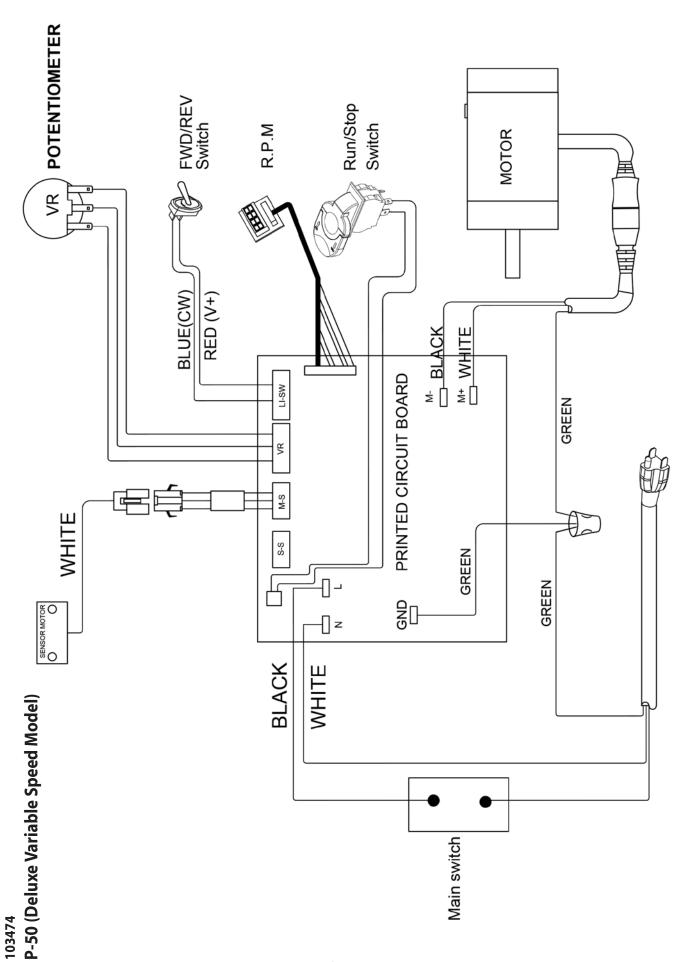


103474 P-50 (Deluxe Variable Speed Model)

Exploded Diagrams/List

Part No	Description	Specification	Q'ty	23	Flat Head Screw	M6x18	1
1	Control Box		I	24	Knob		1
1-1	Round Head Screw	#10-24*5/16"	2	25	Set Screw	M5x12	4
1-2	Strain Relief Bushing	6P-4	2	26	Spring		1
1-3	Nut	#10-24	3	27	Shaft		1
1-4	VR Knob		1	28	Lock Pin Set		1
1-5	Round Head Sheet Metal Screw	M3X20MM	4	29	Nut	1/2″-13UN- Cx8t	1
1-6	PC Board		1	30	Nylon Nut	M16x2.OP	1
1-7	For/Rev Switch		1	31	Brass Washer	16x1.2t	2
1-8	Partition Plate		1	32	Live Plate		1
1-9	Heat Sink		1	33	Main Body		1
1-10	Power Switch		1	34	Bearing	6203ZZ	2
1-11	Switch		1	35	Twist Spring		1
1-12	VR Control		1	36	Bush		1
1-13	Round Head Sheet Metal	M3X15MM	2	37	Shaft		1
	Screw			38	Washer	M10	1
1-14	Label		1	39	Live Wheel		1
1-15	Control Box		1	40	Button head screw	M10x15	1
1-16	Speed Display		1	41	Stop Rod		2
1-17	Round Head Screw	#8-32*3/8	4	42	Washer	M8	2
1-22	Label		1	43	Lock Nut	M6x15	2
1-23	Nut	M3	2	44	Washer	1/4″	2
1-27	Label		1	45	ButtoN Head Screw	1/4"x1"	2
1-28	Tooth Washer	#10-24	2	46	Motor Wheel		1
2	Button Screw	M5x6	2	47	Linisher Platen		1
3	Cover		1	48	Washer	M6	2
6	Bush		1	49	Label		1
7	Button Head Screw	M6x12	4	50	Belt		1
8	Control Box Plate		1	51	Body Cover		1
9	Strain Relief Bushing	SR-F51	1	52	Big Round Head Screw	M5x6	3
10	Power Cord		1	53	Side Cover		1
11	Motor Cord		1	55	Motor Label		1
12	Motor		1	56	I.D Label		1
13	Base Plate		1	50	Warning Label		1
14	Rubber Foot		4	59	Graphite Pad		1
15	Spring Washer		4	63	POM Set Screw		2
16	Button Head Screw	M8x12	4	64	Set Screw	M6x15	1
17	Motor Plate		1	65	Nut	M6	1
18	Flat Head Screw	M5x12	4	66	Long Reach Ball End Hex	4mm	1
19	Work Table		1	00	Key		
20	Fix Plate		1	67	Plug Adapter		1
21	Nylon Nut	M6	1	68	Cap Screw		2
22	Handle		1	69	External Tooth Washer		3





The **Axminster guarantee** is available on Craft, Trade, Engineer, Air Tools & CNC Technology Series machines

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 **axminster.co.uk/3years**



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 & Machinery Ltd Axminster Devon EX13 5PH

