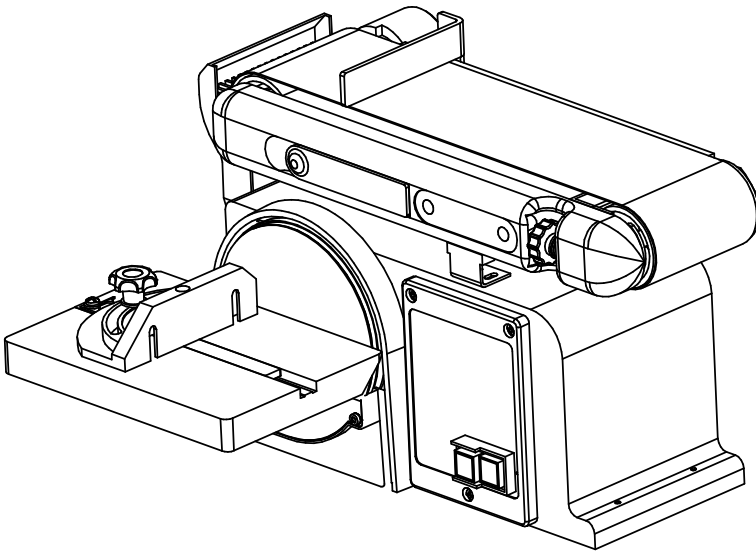




OPERATION & MAINTENANCE INSTRUCTIONS

BELT & DISC SANDER



MODEL NO: OT-BDS-914X150

Important!

It is essential that you read the instructions in this manual before assembling, operating and maintaining the product.

INTRODUCTION

Thank you for purchasing this product.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

IN THE BOX

The following should be supplied inside the box.

- 1 x Belt/Disc Sander
- 1 x Mitre Guide Assembly
- 1 x Limiting plate
- 1 x 6 mm Hexagon Key
- 1 x Tilting Work Table (Fitted)
- 1 x Fixings Pack

SPECIFICATIONS

Model	MM491GL
Motor	240V,50Hz
Input Power	370 Watts
Sanding Disc Diameter	6" (150 mm)
Sanding Belt Size (W x L)	4" x 36" (100 x 915 mm)
Sanding Belt Speed	450m/min
Sanding Table Dimensions (L x W)	226 x 160 mm
Table Angle Range	0-45 degrees
Mitre Guide Angle Range	0-60 degrees

GENERAL SAFETY RULES

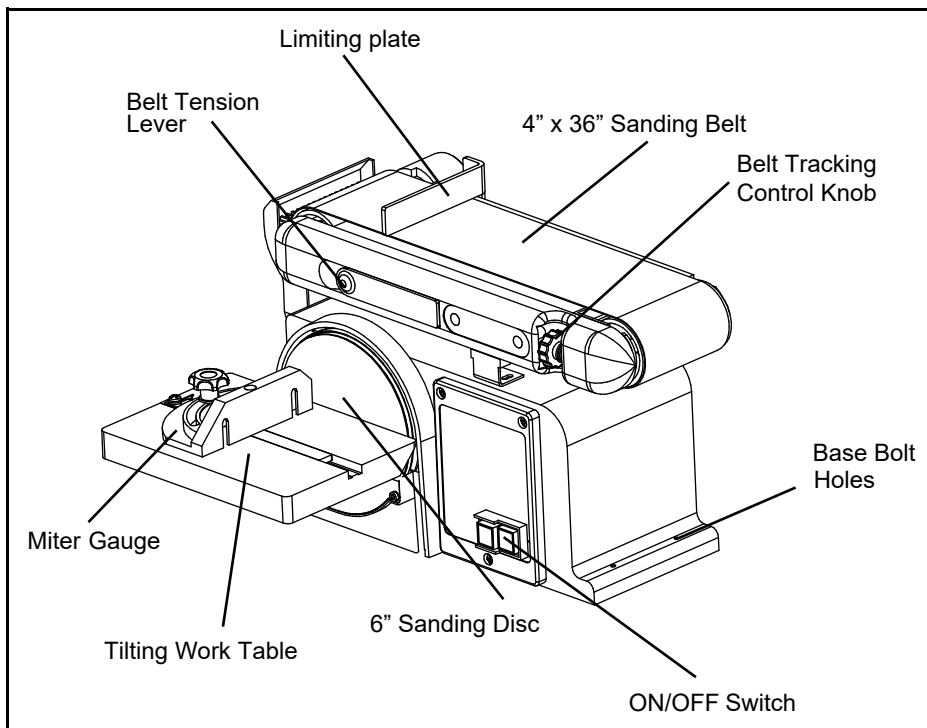
1. **ALWAYS** learn the machines applications, limitations and the specific potential hazards. Read and become familiar with the entire operating manual.
1. **ALWAYS** use a face or dust mask if the operation is particularly dusty.
2. **ALWAYS** check for damage before using the machine, check for alignment of moving parts, breakage of parts, and any other condition that may affect the machines operation. Damage should be properly repaired or the part replaced. If in doubt, **DO NOT** use the machine. Consult your local dealer.
3. **ALWAYS** disconnect the machine from the power supply before servicing and when changing accessories.
4. **ALWAYS** wear safety goggles, manufactured to the latest European Safety Standards. Everyday eyeglasses do not have impact resistant lenses, and are not safety glasses.
5. **ALWAYS** keep work area clean. Cluttered areas and benches invite accidents.
6. **ALWAYS** ensure that adequate lighting is available. Ensure that lighting is placed so that you will not be working in your own shadow.
7. **ALWAYS** keep children away. All visitors should be kept a safe distance from the work area, especially when the machine is being used.
8. **ALWAYS** maintain machine in top condition. Keep tools/machines clean for the best and safest performance. Follow maintenance instructions.
9. **ALWAYS** handle with extreme care and do not carry the tool/machine by its electric cable, or pull on the cable to disconnect it from the power supply.
10. **ALWAYS** ensure the switch is off before plugging in to mains. Avoid accidental starting.
11. **ALWAYS** concentrate on the job in hand, no matter how trivial it may seem. Be aware that accidents are caused by carelessness due to familiarity.
12. **ALWAYS** keep your proper footing and balance at all times - don't overreach. For best footing, wear rubber soled footwear. Keep floor clear of oil, scrap wood, etc.
13. **ALWAYS** dress properly. Loose clothing or jewellery may get caught in moving parts. Wear protective hair covering to contain long hair.
14. **ALWAYS** guard against electric shock. Avoid contact with earthed surfaces - pipes, radiators etc.

15. **NEVER** operate machine while under the influence of drugs, alcohol or any medication.
16. **NEVER** leave machine running unattended. Turn power off. Do not leave the machine until it comes to a complete stop.
17. **NEVER** force the machine, it will do a better and safer job at the rate for which it was designed.
18. **NEVER** use power tools in damp or wet locations or expose them to rain. Do not use in an explosive atmosphere (around paint, flammable liquids etc.). Avoid dangerous environments.
19. If the tool begins to make an abnormal noise, or produce excessive vibrations, smoke or burning odour, turn the tool off immediately and do not operate, until repaired.

EXTRA PRECAUTIONS FOR BELT/DISC SANDERS

1. **ALWAYS** wear ear protectors/defenders when using this machine.
2. **ALWAYS** wear a dust mask when using this machine. Be aware that harmful or toxic dusts could be produced when sanding some woods.
3. **ALWAYS** use the table to support the workpiece.
4. **ALWAYS** check to ensure the table and attachments are secure before starting.
5. **ALWAYS** maintain a clearance of 2-3mm between table and sanding disc.
6. **ALWAYS** hold the workpiece firmly so that it cannot be torn from your hands.
7. **ALWAYS** feed the workpiece against the direction of rotation of the disc. i.e the LEFT side of the disc.
8. **ALWAYS** keep the mains cable well away from the machine and ensure an adequate electrical supply is close at hand so that the operation is not restricted by the length of the cable.
9. **ALWAYS** use a dust extraction device, properly connected to the dust extraction port.
10. **ALWAYS** ensure that nails or foreign objects have been removed from a workpiece beforehand. Nails etc. will destroy the belt or disc.
11. **NEVER** allow the ventilation slots in the motor to become blocked.
12. **NEVER** sand pieces which cannot be held firmly by hand.

OVERVIEW



Sanding operations are inherently dusty. It is strongly recommended that users use a dust-collection system when using this belt & disc sander. The use of a mask or respirator is still recommended even when a dust-collection system is in use.

ASSEMBLY

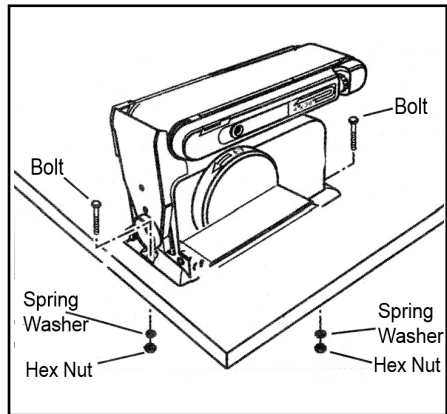


CAUTION: THE SANDER MUST ASSEMBLED BEFORE USE. DO NOT PLUG UNIT INTO POWER SOURCE UNTIL THE UNIT HAS BEEN COMPLETELY ASSEMBLED.

MOUNTING THE SANDER TO A WORKBENCH

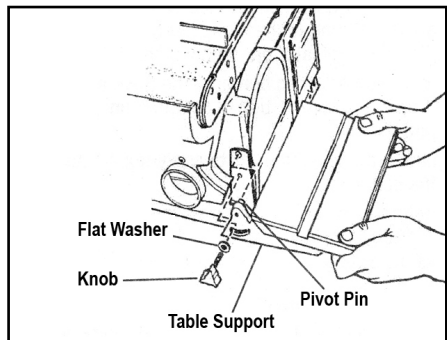
Before attempting to use this sander, it should be properly mounted to a workbench or stand

1. Position the sander on the workbench where you intend to use it.
2. Mark the workbench through the mounting holes located in the sander base. Drill holes in the workbench at the marks.
3. Use long bolts, spring washers and nuts (not supplied), to secure the sander to the workbench as shown.



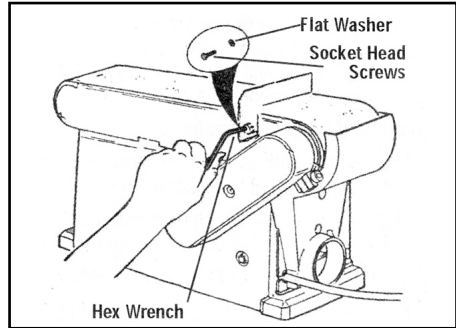
MOUNTING THE TILTING WORK TABLE ASSEMBLY

1. Position table-support bracket so that the "pivot pin" fits into the corresponding hole on the sander frame and the radius slot aligns with the threaded hole in the frame.
2. Place washer on threaded shaft of knob, insert through radius slot, and tighten into threaded hole.
3. Adjust table to angle desired for sanding task.
4. To avoid trapping the workpiece or your fingers between the table and disc, adjust the position of the table on it's mounting bracket to maintain a gap of no more than 2 mm.



INSTALLING THE BACKSTOP

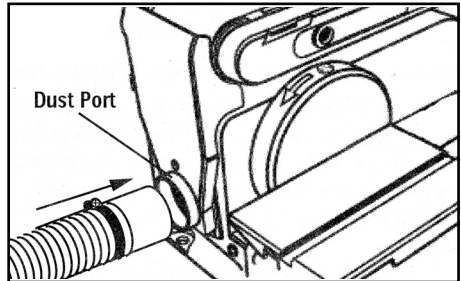
1. Position the backstop against the belt frame so that the slot aligns with threaded hole in frame.
2. Secure the backstop to frame with 2 x socket head screws, washers as shown. Do not overtighten.
 - The gap between the sanding belt and the backstop should be no more than 2mm.



ATTACHING A DUST COLLECTION HOSE

This sander is equipped with a 2 1/2" (60 mm) diameter dust port that can be connected to a vacuum or dust collection system.

1. Place a 2 1/2" ID diameter hose over the dust port.
Secure hose in place with a hose clamp.



CHANGING THE SANDING DISCS

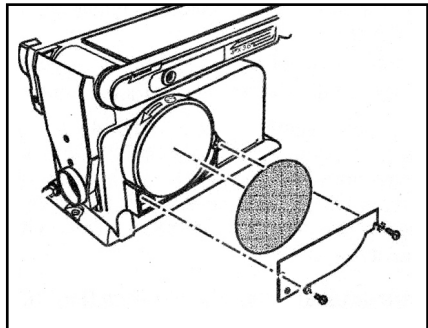
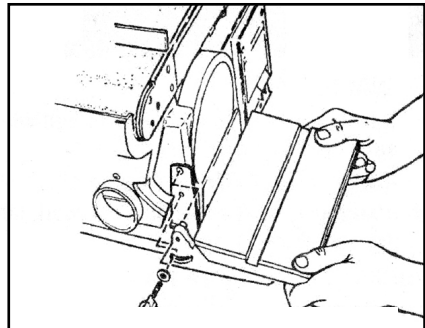


WARNING: TURN THE POWER OFF AND REMOVE THE PLUG FROM THE OUTLET BEFORE CHANGING THE ACCESSORIES.



CAUTION: 'HOOK & LOOP' SANDING DISCS CANNOT BE USED WITH THIS SANDER!

1. Remove mitre gauge and work table assembly.
2. Remove the disc guard screws and disc guard.
3. Remove sanding disc from disc plate. Sanding discs are attached to the plate using a pressure-sensitive adhesive.
4. Ensure the disc plate is clean.
5. Peel backing away from the new sanding disc.
6. Align perimeter of disc with plate and press disc firmly into position on plate, leaving no loose edges.
7. Replace the disc guard, disc guard screws and work table.

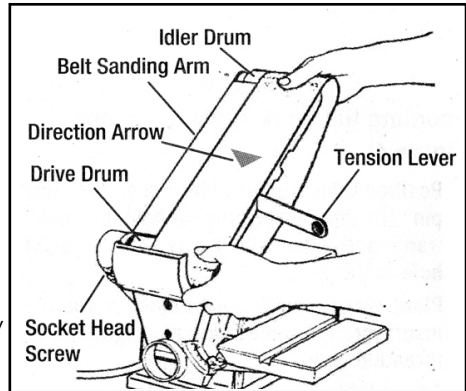


CHANGING THE SANDING BELTS



CAUTION: CHECK THE INSIDE OF THE BELT FOR A "DIRECTION ARROW". IF PRESENT, INSTALL THE BELT WITH THE ARROW POINTING IN THE SAME DIRECTION AS THE DIRECTION INDICATOR ON THE HOUSING.

1. Loosen the socket head screw using the 6 mm hex wrench provided.
2. Raise the belt sanding arm as shown.
3. Slide out one end of the tension lever as shown to release belt tension.
4. Remove the tray located on the bottom of the belt sanding arm by loosening the two screws on the back of the belt sanding arm.



5. Slide the sanding belt off of the drive and idler drums.
6. Slide new sanding belt over the drive and idler drums. Ensure the belt is centred on both drums and is the right way round.
7. Return the tension lever into its original position to apply tension to the belt.
8. Replace the tray and tighten the two screws on the back of the belt sanding arm.
9. Lower the belt sanding arm and tighten the socket head screw using the 6mm hex wrench provided.

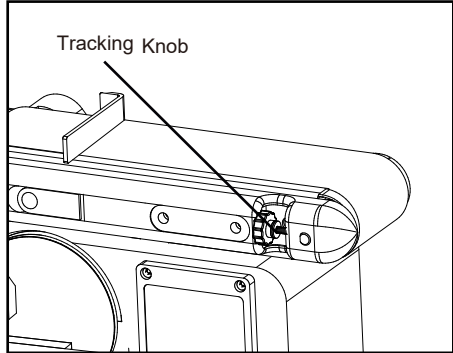
BELT TRACKING

The belt-tracking adjustment is set at the factory so that the abrasive belt will run true on the drums. If, however, the belt should track to one side or the other, an adjustment can be made by turning the tracking knob.

- Turning the knob clockwise will cause the belt to track to the right (towards the disc sander).
- Turning the knob counter-clockwise will cause the belt to track to the left side of the machine.

TO TRACK THE SANDING BELT

1. Rotate the sanding arm to the desired position and tighten socket head screw to secure.
2. Turn power switch ON,
3. Note whether the belt tends to wander off its track, and to which side (left or right) of the sander.
 - If the sanding belt does not move to either side, it is tracking properly.
 - If the sanding belt moves to the right (disc side of the sander), turn the tracking knob counter clockwise $\frac{1}{4}$ turn.
 - If the sanding belt moves to the left (away from the disc), turn the tracking knob clockwise $\frac{1}{4}$ turn.
4. Readjust tracking knob another $\frac{1}{4}$ turn, as necessary.



OPERATION



WARNING: NEVER TOUCH THE SANDING DISC OR BELT WHILE IT IS MOVING, DO NOT TOUCH THE WORK PIECE AFTER SANDING, IT COULD BE VERY HOT.

WARNING: ALWAYS WEAR SAFETY GLASSES WHEN OPERATING THE SANDER

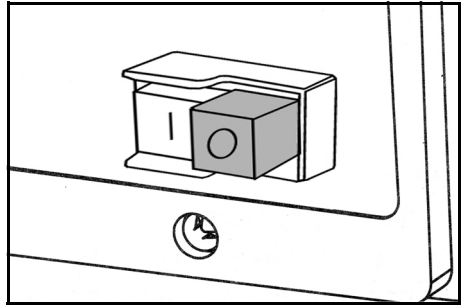


CAUTION: ALWAYS MAKE SURE THE WORK TABLE AND BACKSTOP ARE PROPERLY ADJUSTED AND SECURE BEFORE USE.

ON/OFF SWITCH

The On/Off switch are located on the front of the sander.

1. Press the GREEN button (I) to turn the sander on.
2. Press the RED button (O) to turn the sander off.
 - If the power supply is interrupted for any reason, the unit will automatically switch off. When power is restored, simply press the GREEN button to resume work.



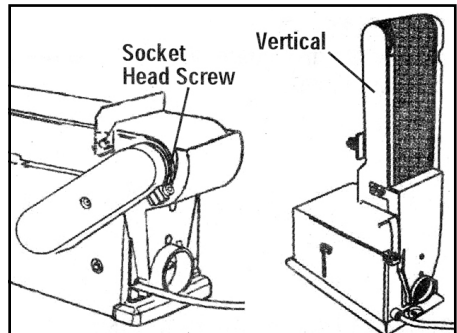
BELT SANDING

HORIZONTAL AND VERTICAL SANDING

The sanding belt can be used in the vertical or horizontal position, depending on operator needs and the workpiece.

To change from one position to the other:

1. Loosen the socket head screw using the 6 mm hex wrench provided.
2. Manually move the sanding belt to the desired angle and retighten the socket head screw.



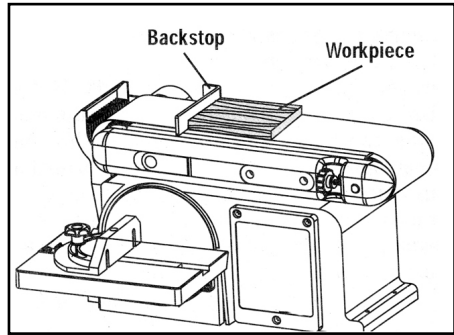
SURFACE SANDING ON THE BELT

When sanding flat broad surfaces on the belt hold the workpiece firmly on the surface of the belt and against the backstop, keeping fingers away from the sanding belt. Consider using a push or hold-down stick.

- Use extra caution when sanding very thin pieces, and when sanding extra long pieces, remove the backstop.

NOTE: When using the sander without the backstop, ensure that you have a firm hold on the workpiece at all times and take extra care.

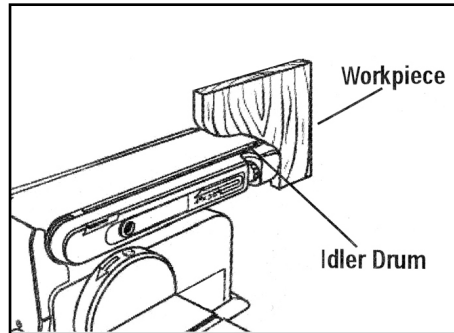
- Apply only enough pressure to allow the sanding belt to remove material.



SANDING CURVED PIECES

When sanding inside-curves on the belt sander, always sand on the idler drum end of the belt.

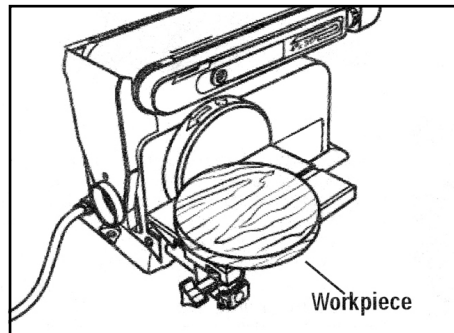
1. Hold the workpiece firmly, keeping fingers away from the sanding belt. Keep the curve pressed firmly against the idler drum, moving the work evenly back and forth across the drum.



SANDING DISC

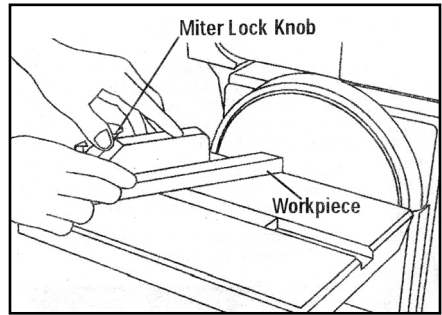
SANDING OUTSIDE CURVES

Always sand outside curves using the sanding disc and moving the workpiece from the left side of centre, as shown. Keep the curve pressed firmly against the sanding disc, moving the work evenly from the left side of the sanding disc. Be sure to hold the workpiece firmly against the surface of the table.



MITRE GAUGE - DISC SANDER

A mitre gauge can be used on the work table, as shown. The mitre gauge head can be set anywhere up to 60° (right or left) by loosening the lock-knob, setting the mitre gauge head to the desired angle, and tightening the lock-knob.



SANDING SMALL SURFACES USING THE MITRE GAUGE

Use of the mitre gauge is recommended for sanding small end surfaces on the sanding disc.

NOTE: Always move the workpiece across the left side (dust chute end of machine) of the sanding disc and be sure to hold the workpiece down tightly onto the table surface.

MAINTENANCE



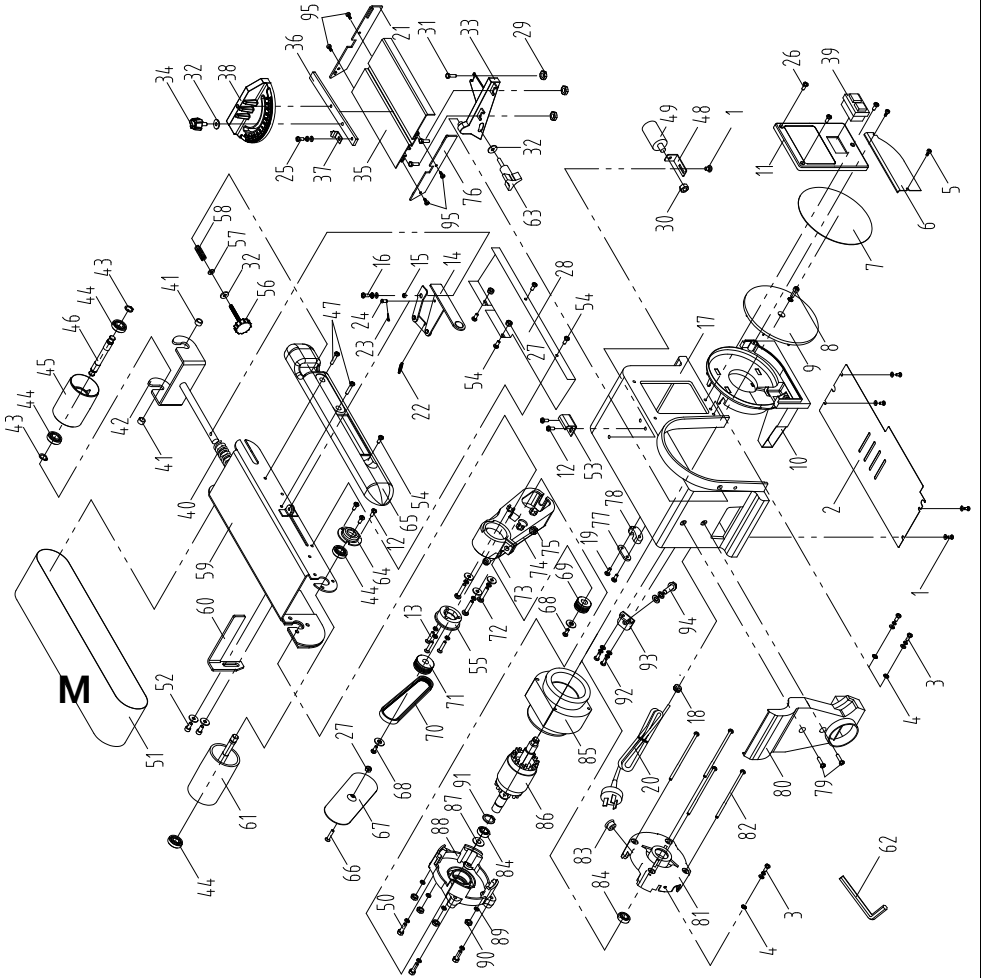
WARNING: ALWAYS DISCONNECT TOOL FROM POWER SOURCE BEFORE MAKING ANY ADJUSTMENTS, INSTALLING OR PERFORMING MAINTENANCE.



CAUTION: TOOL SERVICE MUST BE PERFORMED ONLY BY QUALIFIED REPAIR PERSONNEL. SERVICE OR MAINTENANCE PERFORMED BY UNQUALIFIED PERSONNEL COULD RESULT IN A RISK OF INJURY. WHEN SERVICING A TOOL, USE ONLY IDENTICAL REPLACEMENT PARTS. FOLLOW INSTRUCTIONS IN THE MAINTENANCE SECTION OF THIS SERVICE MANUAL. USE OF UNAUTHORISED PARTS OR FAILURE TO FOLLOW MAINTENANCE INSTRUCTIONS MAY CREATE A RISK OF ELECTRIC SHOCK OR INJURY.

1. Clean the machine, belt and disc after each use.
2. Keep the machine dry, clean and free from oil and grease.
3. Store the tool in a safe and dry place, out of reach of children.
4. During normal use, sanding belts and disc can become loaded with sanding debris. Use a stick belt cleaner (available at most hardware stores) to remove build-up.

PARTS DIAGRAM



PARTS LIST

NO.	Specification	QTY
1	Philips Screw+spring washer+ flat washer assy	M4X6 5
2	Bottom plate	1
3	Philips Screw+ spring washer+flat washer assy	M4X8 3
4	Tooth lock washer	φ4 3
5	Philips Screw	ST4.2X10 2
6	Disc cover	1
7	Sanding paper	150mm-80# 1
8	Hex screw+ tooth washer assy	M6X16 1
9	Aluminium disc	1
10	Wheel box	1
11	Switch plate	1
12	Philips Screw	M5X8 5
13	Philips Screw+ spring washer	M5X25 3
14	Tensioning handle assy	1
15	Bushing	1
16	Philips Screw+ tooth washer+big flat washer assy	M5X16 1
17	Base	1
18	Cord clip	6P4 1
19	Philips Screw	M4x20 2
20	Cord	1
21	Left table protection plate	1
22	Tension Spring	1
23	Pin	1.6X10 1
24	Pin Shaft	5X10 1
25	Philips Screw+ spring washer+flat washer assy	M5x8 1
26	Philips Screw	M4X12 3
27	Lock nut	M5 3
28	Protection plate	1
29	Hex nut	M6 3
30	Hex nut	M8 1
31	Hex Bolt	M6*14 3
32	Big flat washer	φ6 3
33	Table support	1
34	Miter gauge handle	1
35	Working Table	1
36	Miter bar	1
37	Miter gauge Pointer	1
38	Miter gauge	1
39	Switch	1
40	Compression Spring	1
41	Sleeve	2
42	Guide frame	1
43	Retainer ring	D12 2
44	Bearing	6001-2RS 4
45	Driven roller	1
46	Driven shaft	1
47	Philips Screw	M5*25 2
48	Capacitor support	1

NO.	Specification	QTY
49	Capacitor	30uF/450V 1
50	Hex bolt+ spring washer assy	M6X20 3
51	Sanding Belt	100*915mm 1
52	Hex screw+flat washer	M8X16 2
53	Support	1
54	Philips Screw	M5x16 5
55	Bearing base	1
56	Belt adjustment knob	1
57	Rubber Washer	1
58	Spring	1
59	Support assy	1
60	Limiting plate	1
61	Driving roller	1
62	Wrench	M6X90X32 1
63	Table lock knob	1
64	Bearing Cap	1
65	Support cover	1
66	Philips Screw+flat washer	M5x25 1
67	Belt cover	1
68	Philips Screw+lock washer assy	M5x16左 2
69	Motor shaft wheel	1
70	Cog belt	1
71	Driven wheel	1
72	Philips Screw+Spring washer+flat washer assy	M6x25 3
73	Hex Bolt	M8X25 1
74	Belt cover	1
75	Hex nut	M8 1
76	Right table protection plate	1
77	Cord clip subplate	1
78	Cord clip plate	1
79	Philips Screw	M5*20 2
80	Dust Cover	1
81	Front end cap	1
82	Philips Screw	M6*113 4
83	Retaining ring	90# 1
84	Bearing	6003-2RS 2
85	Stator	1
86	Rotor	1
87	Wave washer	φ35 1
88	Back end cap	1
89	Spring washer	φ6 4
90	Hex nut	M6 4
91	Retaining ring for shaft	D17 1
92	Philips Screw+Spring washer+flat washer assy	M5X12 2
93	Belt support plate	1
94	Hex screw+Spring washer+flat washer assy	M8X30 1
95	Philips Screw	3.5*9.5 4
96	Velcro	150mm 1