

6" X 48" Belt & 10" Disc Sander



Operator's Manual

Record the serial number and date of purchase in your manual for future reference.

Serial Number: _____ Date of purchase: _____

For technical support or parts questions, email techsupport@rikontools.com or call toll free at (877)884-5167






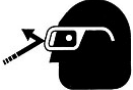


Operator Safety: Required Reading

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. The following instructions must be followed at all times.

There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us and we have advised you.

General Safety Warnings

KNOW YOUR POWER TOOL. Read the owner's manual carefully. Learn the tool's applications, work capabilities, and its specific potential hazards.

	<p>⚠ DANGER ALWAYS GROUND ALL TOOLS. If your tool is equipped with a three-pronged plug, you must plug it into a three-hole electric receptacle. If you use an adapter to accommodate a two-pronged receptacle, you must attach the adapter plug to a known ground. Never remove the third prong of the plug.</p> <p>ALWAYS AVOID DANGEROUS ENVIRONMENTS. Never use power tools in damp or wet locations. Keep your work area well lighted and clear of clutter.</p>
	<p>⚠ DANGER ALWAYS REMOVE THE ADJUSTING KEYS AND WRENCHES FROM TOOLS AFTER USE. Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.</p> <p>ALWAYS KEEP YOUR WORK AREA CLEAN. Cluttered areas and benches invite accidents.</p>
	<p>⚠ DANGER ALWAYS KEEP VISITORS AWAY FROM RUNNING MACHINES. All visitors should be kept a safe distance from the work area.</p> <p>ALWAYS MAKE THE WORKSHOP CHILDPROOF. Childproof with padlocks, master switches, or by removing starter keys.</p>
	<p>⚠ DANGER NEVER OPERATE A TOOL WHILE UNDER THE INFLUENCE OF DRUGS, MEDICATION, OR ALCOHOL.</p>
	<p>⚠ DANGER ALWAYS WEAR PROPER APPAREL. Never wear loose clothing or jewelry that might get caught in moving parts. Rubber-soled footwear is recommended for the best footing.</p>
	<p>⚠ DANGER ALWAYS USE SAFETY GLASSES AND WEAR HEARING PROTECTION. Also use a face or dust mask if the cutting operation is dusty.</p>
	<p>⚠ DANGER NEVER OVERREACH. Keep your proper footing and balance at all times.</p>
	<p>⚠ DANGER NEVER STAND ON TOOLS. Serious injury could occur if the tool is tipped or if the cutting tool is accidentally</p>

⚠ DANGER**ALWAYS DISCONNECT TOOLS.**

Disconnect tools before servicing and when changing accessories such as blades, bits, and cutters.

**ALWAYS AVOID ACCIDENTAL STARTING.**

Make sure switch is in "OFF" position before plugging in cord.

NEVER LEAVE TOOLS RUNNING UNATTENDED.**⚠ DANGER****ALWAYS CHECK FOR DAMAGED PARTS.**

Before initial or continual use of the tool, a guard or other part that is damaged should be checked to assure 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 conditions that may affect its operation. A guard or other damaged parts should immediately be properly repaired or replaced.



Special Safety Rules For Belt & Disc Sanders

1. Do not operate this machine until you have read all of the following instructions.
2. Do not attempt to operate this machine until it is completely assembled.
3. Do not turn ON this machine if any pieces are missing.
4. If you are not familiar with the operation of the machine, obtain assistance from a qualified person.
5. It is highly recommended that this machine be firmly mounted to a flat and secure work surface or stand.
6. Always wear protective eyewear prior to operating this machine.
7. Do not operate this machine if you are under the influence of drugs and/or alcohol.
8. Remove all jewelry prior to operating this machine.
9. Do not wear any gloves while operating this machine.
10. Always make sure the power switch is in the OFF position prior to plugging in the machine.
11. Always make sure the power switch is in the OFF position when doing any assembly or setup operation.
12. Always wear a dust mask and use adequate dust collection and proper ventilation. Use of sanders can produce harmful particles while sanding certain types of woods.
13. The use of any accessories or attachments not recommended may cause injury to you and damage your machine.
14. This machine must be properly grounded.
15. Abrasive discs and belts should be the recommended width and length of the manufacturer.
16. Always keep your face and hands clear of moving parts such as belts and pulleys.
17. Keep power supply cords free of moving parts of the sander. Damaged cords can result in electric shock.
18. Maintain a 1/16" clearance between the sanding disc, sanding belt and tables.
19. Always support the workpiece with the table or backstop.
20. Remove material or debris from the work area. Keep work area neat and clean.

SAVE THESE INSTRUCTIONS.

Refer to them often.

This owner's manual is not a teaching aid. Use of this owner's manual is intended to show assembly, adjustments, and general use.

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Specifications

Model No.	50-120
Motor	
Horsepower	3/4 HP
Amps	10
Volts	110V, 60 Hz
Belt	
Size	6" x 48"
Speed	2,030 SFPM
Tilt	0° - 90°
Disc	
Diameter	10" PSA
Speed	1,720 RPM
Table	
Size	4" x 8"
Tilt	0° - 45°
Miter Gauge	Included
Miter Gauge 'T' Slot	3/8" x 3/4"
Overall	
Height	16"
Width	28-1/4"
Depth	17-1/4"
Base Size	22" x 10-1/4"
Net Weight	92 lbs.
Shipping Weight	102 lbs.
Shipping Carton	28-1/4" x 16" x 17-1/4"
Warranty	5 Years

NOTE: The specifications, photographs, drawings and information in this manual represent the current model when the manual was prepared. Changes and improvements may be made at any time, with no obligation on the part of Rikon Power Tools, Inc. to modify previously delivered units. Reasonable care has been taken to ensure that the information in this manual is correct, to provide you with the guidelines for the proper safety, assembly and operation of this machine.

California Proposition 65 Warning

WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Your risk from exposure to these chemicals varies, depending on how often you do this type of work. To reduce your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

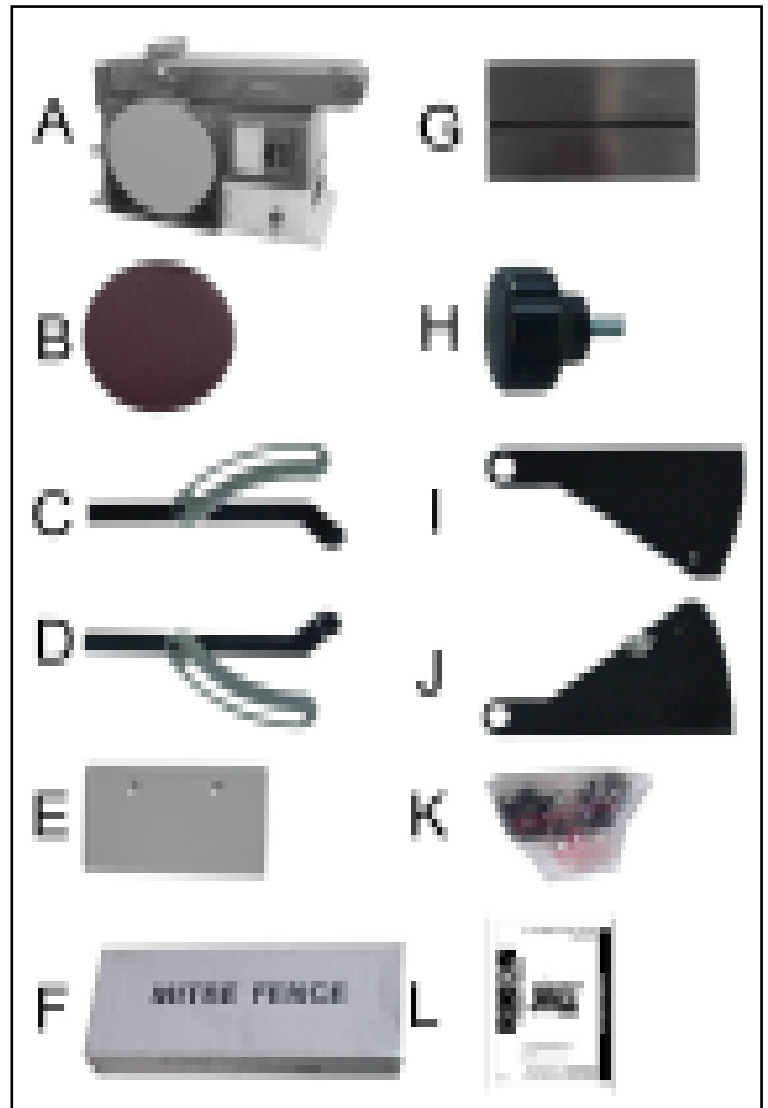
For more detailed information about California Proposition 65 log onto rikontools.com.

Contents of Package











When unpacking, check to make sure the following parts are included. If any parts are missing or broken, please call RIKON Power Tools at the number on the cover of this manual as soon as

Carton Contents

Item	Description	Qty
A	Belt & disc sander assembly	1
B	Sanding disc	1
C	Table support w/scale	1
D	Table support	1
E	Work table for belt	1
F	Miter Gauge	1
G	Work table for disc	1
H	Locking knob for table support	2
I	Mount, support table	1
J	Mount, support table w/indicator	1
K	Bag of loose parts	1



List of loose parts in bag

Description	Qty	Description	Qty
 Sunk head screw M6x16	2	 Pan head screw M6x16	4
 Washer 6mm	2	 Lock washer 6mm	4
 Knurled nut M6	2	 Washer 6mm	2
 Hex. bolt	4	 Hex "L" wrench 3mm	1
 Lock washer	4	 Hex "L" wrench 6mm	1

Securing Sander Base Assembly to Workbench

The sander base must be secured before using. Attach a large C-Clamp to each side of the sander and the workbench. Or, permanently mount following the instructions below:

1. Place the sander on the workbench in its final operating location.
2. Place a pencil through the mounting holes of the sander base (42) and mark the hole locations on workbench.
3. Remove sander and drill four 3/8 inch holes through the workbench.
4. Align sander base over holes and secure using four 5/16 inch screws (or larger) and hex nuts. (See Fig. 01)



Fig. 01

Mounting Sanding Disc and Guard

1. Locate sanding disc (22) and peel backing off disc.
2. Align perimeter of sanding disc over plate. When aligned, press disc firmly onto disc.
3. Position disc guard (27) onto lower portion of sanding disc so that the mounting holes align.
4. Using a Phillips screwdriver, fasten two pan head screws (found in parts bag) through disc guard. (See Fig. 02)



Fig. 02

Installing the Belt Table

1. Place the work table for belt on the work support.
2. Insert two countersink head screws through work table and the work support slot.
3. Put a 6mm washer and a wing nut on the screw and tighten. (See Fig. 03)

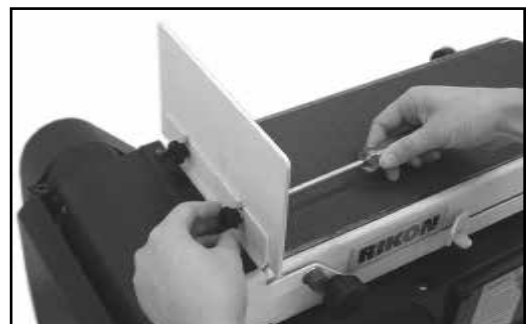


Fig. 03

Installing the Disc Table Assembly

Warning: To avoid jamming the workpiece or fingers between the table and sanding surface, the table edge should be a maximum of 1/16 in from sanding surface.

1. Use two M6x16 pan head screws to fasten the table support mount to the front of sander.
2. Place the support table w/scale onto the table support mount.
3. Put a 6mm flat washer on the table lock knob, and place the knob into the tilt scale plate and mount. Hand tighten it only at this time. (See Fig. 04)
4. Place the table onto table support; align the four screws which are preassembled under the table with the holes of table support. (See Fig. 05)
5. Put the external lock washer and hex nut onto the screws, and tighten.
6. Adjust the table and retighten the table lock knobs.
7. Loosen the four M6 hex nuts under the table.
8. Use a 1/16 inch drill bit as a spacer. Place the drill bit between the disc and the front edge of the table. Hold the table against the 1/16 inch drill bit and tighten the four M6 hex nuts. (See Fig. 06)

Leveling Table Assembly

Warning: To avoid injury from accidental start, make sure tool is unplugged before making any adjustments.

1. Using a combination square, check the angle of work table with the disc. (See Fig. 07)
2. If the table is not 90 degrees with the disc, loosen the table lock knob screw and tilt table.
3. Adjust worktable square to the disc and retighten the table lock knob.
4. Adjust the pointer to the zero mark on the scale plate.

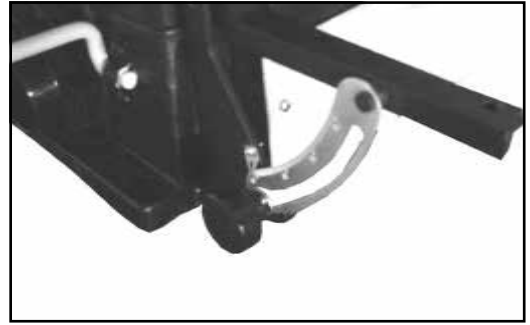


Fig. 04

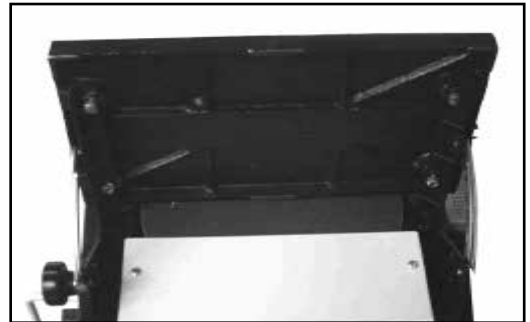


Fig. 05

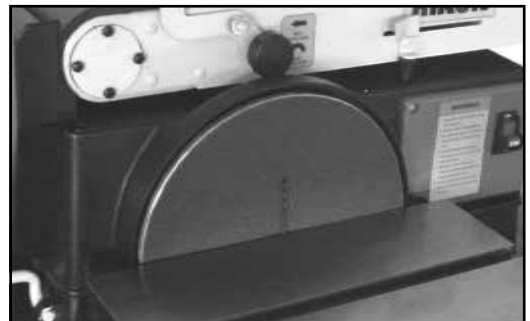


Fig. 06



Fig. 07

Installing the Sanding Belt

Warning: To avoid injury from accidental start, make sure tool is unplugged before making any adjustments.

On the under side of the sanding belt, you will find a “direction arrow”. The sanding belt must run in the direction of this arrow so that the splice does not come apart.

1. Slide tension lever to the right to release the belt tension. (See Fig. 08)
2. Place the sanding belt over the drums with the direction arrow pointing in the proper direction. (See Fig. 09) Make sure the belt is centered on both drums.
3. Slide tension lever to the left to apply belt tension.
4. Tighten hex socket screw when bed is in desired position.



Fig. 08

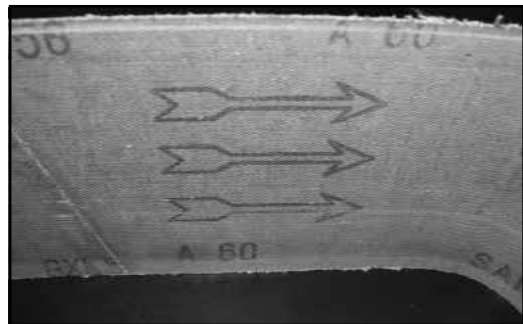


Fig. 09

Tensioning and Tracking

1. Plug in the power cord. Turn the switch “ON” and immediately “OFF”, noting if the belt tends to slide off the idler drum or drive drum.
2. If the sanding belt moves toward the disc, turn the tracking knob clockwise 1/4 turn. (See Fig. 10)
3. If the sanding belt moves away from the disc, turn the tracking knob counterclockwise 1/4 turn.
4. Turn switch “ON” and immediately “OFF” again, noting belt movement. Readjust tracking knob if necessary.



Fig. 10

On/Off Switch

The On/Off Locking Switch needs to have the switch key inserted before the switch can be used (key located in parts bag). This feature prevents unauthorized use of the sander. (See Fig. 11)

CAUTION: Never walk away from sander when machine is running. Always lock the switch in the Off position and unplug from the power supply when not in use.



Fig. 11

Electrical Requirements

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor, with insulation having an outer surface that is green with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only three wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the tool's plug.*

Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet that looks the one illustrated in Figure A below. The tool has a grounding plug that looks like the grounding plug as illustrated in Figure A below. A temporary adapter, which looks like the adapter as illustrated in Figure B below, may be used to connect this plug to a two-pole receptacle, as shown in Figure B if a properly grounded outlet is not available.** The temporary adapter should only be used until a properly grounded outlet can be installed by a qualified electrician. The green colored rigid ear or tab, extending from the adapter, must be connected to a permanent ground such as a properly grounded outlet box.

* Canadian electrical codes require extension cords to be certified SJT type or better.

** Use of an adapter in Canada is not acceptable.

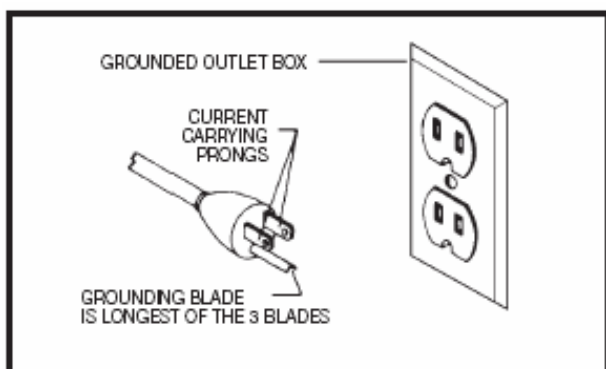


Fig. A

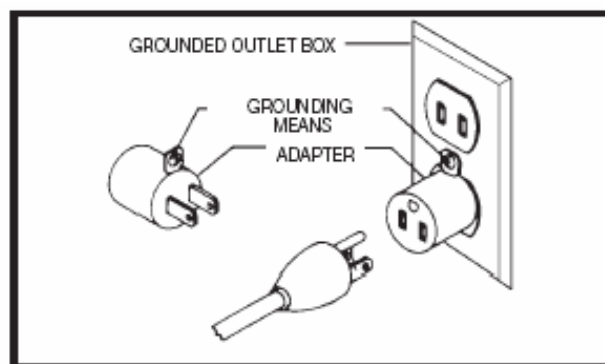


Fig. B

Bevel Sanding

The work table can be tilted from 0 to 45 degrees for bevel sanding. Loosen the table lock knob and tilt the worktable to desired angle as shown. (See Fig. 12) Retighten table lock knob.

Warning: To avoid jamming the workpiece or fingers between the table and sanding surface, the table should be repositioned on the table support to retain a maximum of 1/16" distance between sanding surface and table.

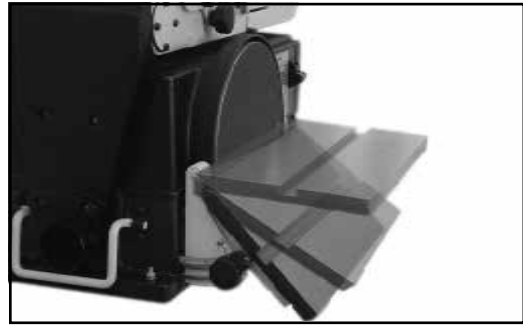


Fig. 12

Positioning the Belt Bed

A bed locking hex socket head screw locks the belt bed in a vertical or horizontal position.

To adjust vertical position:

1. Remove the work support.
2. Loosen the hex socket head locking screw using a 1/4 inch hex wrench. (See Fig. 13)
3. Position the belt bed vertically as shown and tighten the hex socket head locking screw.

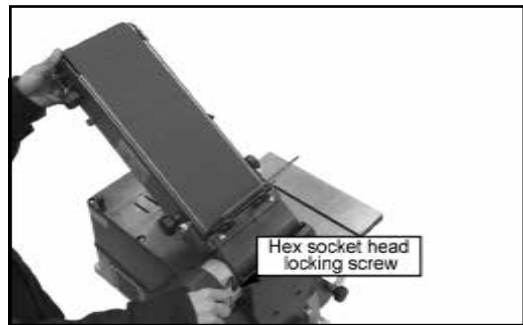


Fig. 13

Surface Sanding on the Sanding Belt

Warning: To avoid injury from slips, jams or thrown pieces, adjust the backstop to clear the sanding surface by no more than 1/16th of an inch. When checking clearance between the belt and work support, use a 1/16" drill bit as a spacer gauge. (See Fig. 14)

1. Hold the workpiece firmly with both hands, keeping fingers away from the sanding belt.
2. Keep the end butted against the backstop and move the work evenly across the sanding belt. Use extra caution when sanding very thin pieces. (See Fig. 15)
3. For sanding long pieces, remove the work support.
4. Apply only enough pressure to allow the sanding belt to remove material.



Fig. 14



Fig. 15

End Sanding on the Sanding Belt

To sand the end of a long workpiece, it is recommended to sand with the belt in the vertical position.

1. To raise the belt to the vertical position, follow the instructions in "Positioning Belt Bed" on the previous page.
2. Install the worktable assembly.
3. Move the work evenly across the sanding belt. (See Fig. 16)

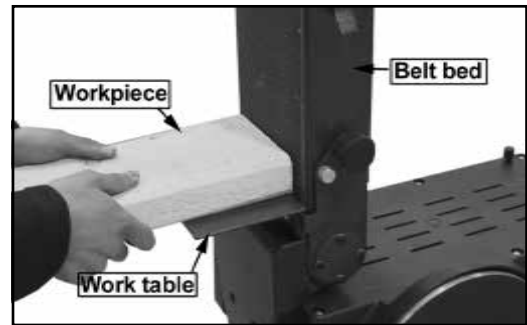


Fig. 16

Sanding Curved Edges

Always sand inside curves on the idler drum as shown. (See Fig. 17)

Warning: Never attempt to sand the ends of a workpiece on the idler drum, applying the end of the workpiece to the idler drum could cause the workpiece to fly up and result in an injury.

Always sand outside curves on the left side of center on the sanding disc as shown. (See Fig. 18)

Warning: Applying the workpiece to the right side of the disc could cause workpiece to fly up (kickback) and result in an injury.



Fig. 17



Fig. 18

Sanding Small End Surfaces on the Sanding Disc

Note: Use of a miter gauge is recommended for this operation.

Always move the work across left side of center on the sanding disc face as shown. (See Fig. 19)

Warning: Applying the workpiece to the right side of the disc could cause workpiece to fly up (kickback) and result in an injury.

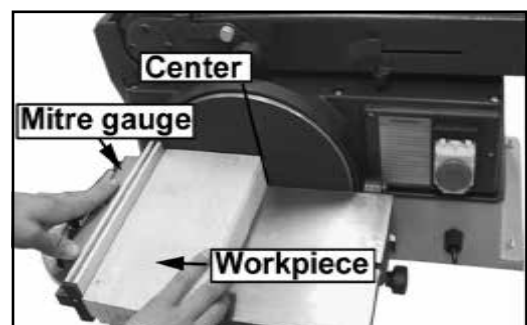


Fig. 19

Maintenance

Warning: For your safety, remove the plug from power source outlet before adjusting, maintaining, or lubricating your belt and disc sander.

1. Apply a light coat of paste wax to the worktable to make feeding stock easier, and reduce rust.
2. Use compressed air to frequently blow out dust and debris from sander and motor. (See Fig. 20)

Warning: To avoid electrocution or fire, any repairs to electrical systems should be done only by qualified service technicians. Unit must be reassembled exactly to factory specifications.

3. If power cord is worn, cut, or damaged in any way, have it repaired immediately.

Changing the Motor Belt

1. Using a Phillips screwdriver, remove the three pan head screws located in the cover. (See Fig. 21)
2. Remove the cover.
3. Loosen four M8 hex head screws to allow the pulleys to shift enough to place belt around them. Place belt around motor pulley and drive pulley as shown. (See Fig. 22)
4. Adjust tension of the belt by putting a wrench in adjusting gap. Push up on wrench to tighten tension between pulleys.
5. Tighten the four M8 hex head screws carefully.
6. Test belt tension by placing fingers on either side of the belt and squeeze. There should be about a 1/4 inch give to the belt. (See Fig. 23)

Note: Too much tension on pulley belt may cause increased noise and over load the motor. Not enough tension on the pulley belt may cause belt to fail prematurely.

7. Locate the pulley cover and position inside the edges of pulley housing.
8. Using a Phillips screwdriver, reinstall and tighten the three pan head screws.

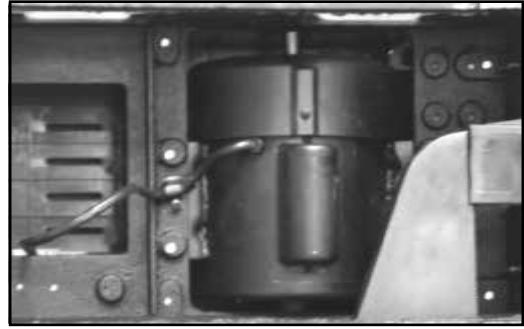


Fig. 20

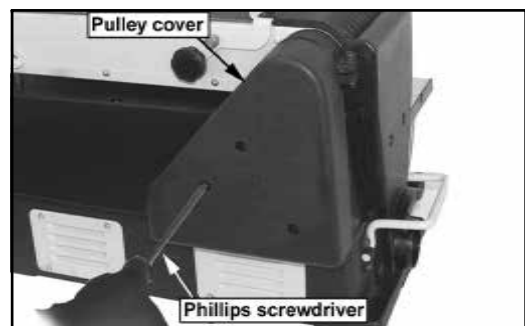


Fig. 21

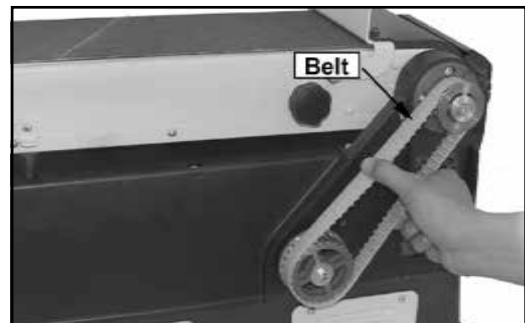


Fig. 22

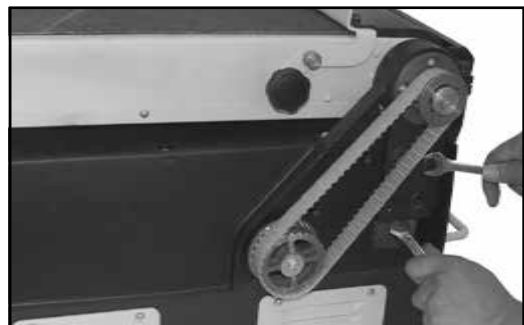
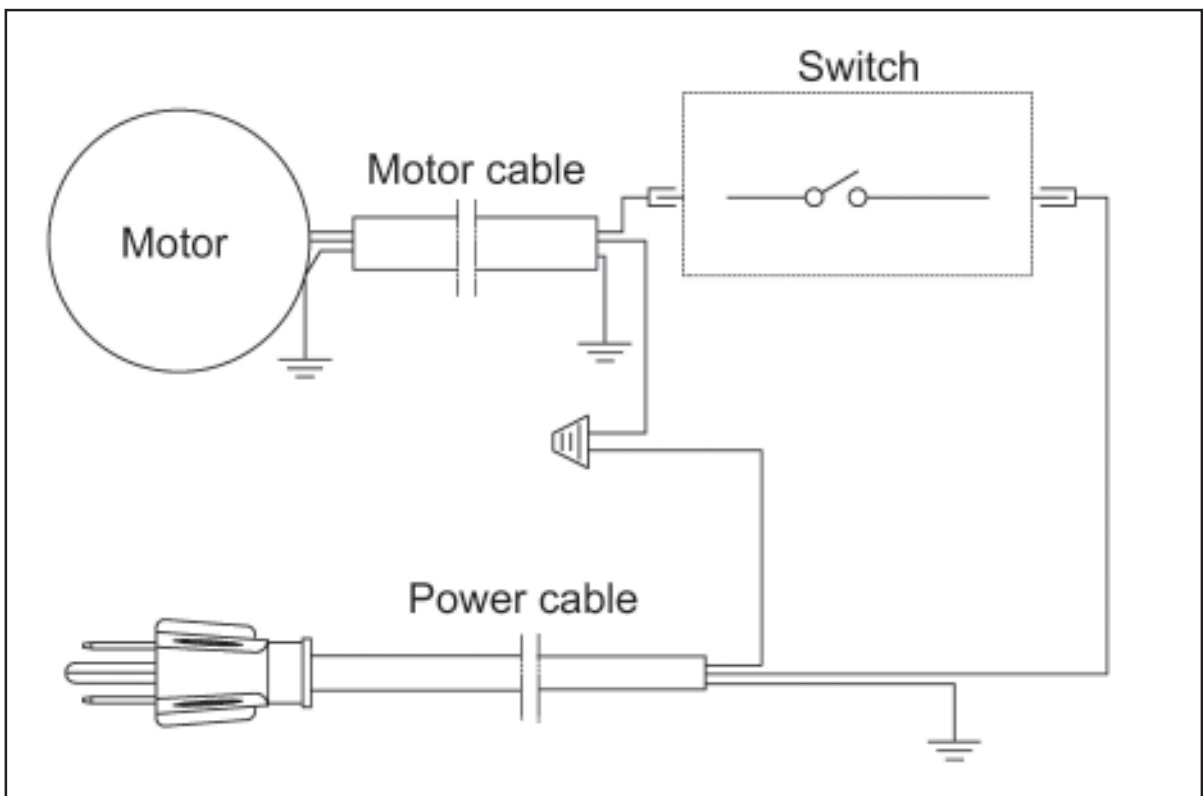


Fig. 23

Troubleshooting

SYMPTOM	PROBABLE CAUSE	REMEDY
Sander does not operate	<ol style="list-style-type: none"> 1. Not plugged into wall outlet. 2. Locking key is not inserted. 3. Power switch defective. 4. Motor or wiring problem. 	<ol style="list-style-type: none"> 1. Plug into wall outlet. 2. Insert locking key. 3. Replace power switch. 4. Take to a qualified technician.
Motor slows when sanding	<ol style="list-style-type: none"> 1. Timing belt is too tight. 2. Applying too much pressure on work piece. 	<ol style="list-style-type: none"> 1. Decrease tension. 2. Apply less pressure to work piece when sanding.
Sanding Belt runs off drums	<ol style="list-style-type: none"> 1. Not tracking properly. 	<ol style="list-style-type: none"> 1. Adjust tracking.
Wood burns while sanding	<ol style="list-style-type: none"> 1. Sanding Disc or Belt is loaded with debris. 	<ol style="list-style-type: none"> 1. Clean or replace disc or belt.
Sander makes excessive noise	<ol style="list-style-type: none"> 1. Timing belt too tight, bearings need oil. 	<ol style="list-style-type: none"> 1. Decrease tension, oil bearings.

Wiring Diagram

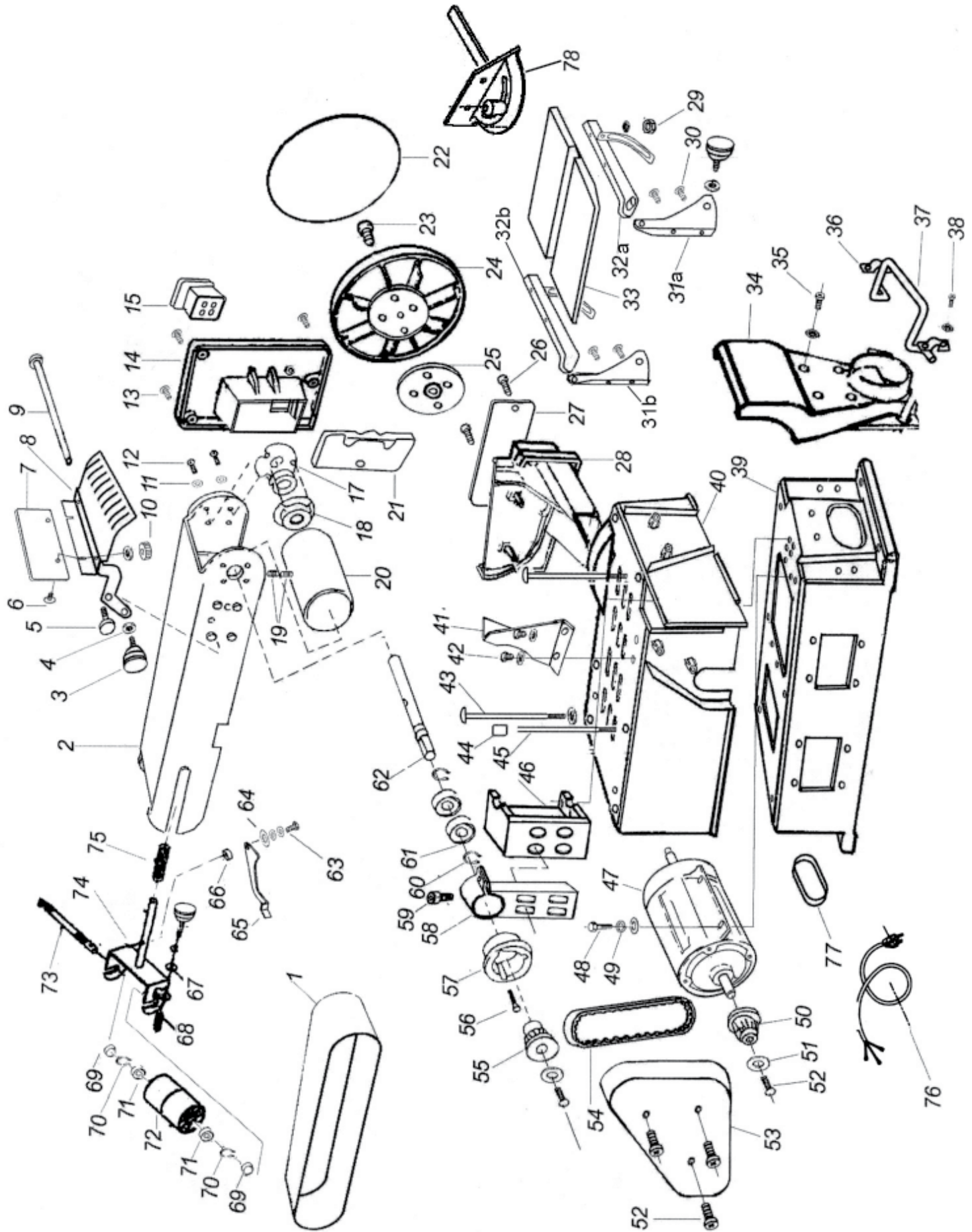


Parts List

Key		Key	
No.	Description	No.	Description
1	Sanding Belt 152x1219mm	39	Cast Base
2	Bed	40	Motor Cover
3	Knob	41	Safety guard, sanding belt lower
4	Washer	42	Pan head screw M5x8
5	Wing screw	43	Thread M6x145
6	Sunk head screw M6x16	44	Rubber sleeve
7	Work table for belt	45	Support stem
8	Work support, for sander belt	46	Lock base sander belt
8A	Work support plastic belt shroud	47	Motor
9	Lock pin, work support	48	Hex head screw
10	Wing nut M6	49	Lock washer
11	Lock washer-helical 5mm	50	Drive Pulley
12	Pan head Screw M5x8	51	Countersink Washer
13	Pan head Screw M5x16	52	Drive pulley
14	Switch housing	53	Pulley Cover
15	No-volt switch	54	Timing Belt
17	Bearing spacer	55	Drive Pulley
18	Bearing cap	56	Flat head screw M5x25
19	Socket head screw M8x10	57	Bearing support
20	Drive drum	58	Lock plate sander plate
21	Cover, switch Housing	59	Hex socket cap screw M8x25
22	Pad-254mm dia. Sander paper	60	Retaining ring 15mm
23	Screw-pan cross M6x12	61	Ball Bearing
24	Disc	62	Drive Shaft
25	Support, sanding disc	63	Panhead screw M5x16
26	Tapping screw M4x12	64	Rubber washer
27	Disc guard	65	Tension Lever
28	Disc shroud	66	Lever Spacer
29	Hex nut M6	67	Rubber washer
30	Pan head screw M6x16	68	Index spring
31a	Mount, table support, left	69	Rubber bushing
31b	Mount, table support, right	70	Retaining ring 12mm
32a	Table support, left	71	Ball bearing
32b	Table support, right	72	Idler Drum
33	Table	73	Idler Shaft
34	Dust collector	74	Drum guide
35	Pan head screw M5x16	75	Index spring
36	Clamp handle	76	Power cord w/plug
37	Handle	77	"D" shape rubber bushing
38	Pan head screw M5x16		

NOTE: Please reference the Manufacturer's Part Number when calling for Replacement Parts.
For Parts under Warranty, the serial number of your machine is required.

Parts Explosion



WARRANTY

RIKON

POWER TOOLS

5-Year Limited Warranty

RIKON Power Tools Inc. ("Seller") warrants to only the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship for a period of five (5) years from the date the product was purchased at retail. This warranty may not be transferred.

This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs, alterations, lack of maintenance or normal wear and tear. Under no circumstances will Seller be liable for incidental or consequential damages resulting from defective products. All other warranties, expressed or implied, whether of merchantability, fitness for purpose, or otherwise are expressly disclaimed by Seller. This warranty does not cover products used for commercial, industrial or educational purposes.

This limited warranty does not apply to accessory items such as blades, drill bits, sanding discs, grinding wheels or belts and other related items.

Seller shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty proof of purchase documentation, which includes date of purchase and an explanation of the complaint, must be provided.

The Seller reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

To take advantage of this warranty, please fill out the enclosed warranty card and send it to:
RIKON Warranty
16 Progress Rd.
Billerica, MA 01821

The card must be entirely completed in order for it to be valid. If you have any questions please contact us at 877-884-5167 or warranty@rikontools.com.

RIKON
POWER TOOLS

50-120



For more information:
16 Progress Rd
Billerica, MA 01821

877-884-5167/978-528-5380
techsupport@rikontools.com