

# 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

# www.rikontools.com

50-120

## **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.



#### A 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.



#### 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 eye wear 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**

Motor	
Amps	10 A
Volts, Hertz	110 V, 60 Hz
Belt Size	6" x 48"
Belt Speed (no load)	2,030 SFPM
Belt Table Tilt	0° - 90°
Belt Fence (LxH)	
Disc Size (PSA) Diameter	
Disc Speed (no load)	1,720 RPM
Disc Table Size (LxW)	
Disc Table Tilt	0° - 45°
Miter Gauge 'T' Slot	
Dust Port (1)	2-1/2" OD, 2-5/16" ID
Overall Size (LxWxH)	
Base Size (LxW)	
Net Weight	

**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 possible.

#### **Carton Contents**

<b>ltem</b> A	Description Belt & disc sander assembly	<b>Qty</b> 1
В	Sanding disc	1
С	Table support w/scale	1
D	Table support	1
Е	Work table for belt	1
F	Miter Gauge	1
G	Work table for disc	1
Н	Locking knob for table support	2
I	Mount, support table	1
J	Mount, support table w/indicator	1
K	Bag of loose parts	1
L	Owner's manual	1

#### List of loose parts in bag Description





Qty	Description		
	Pan head screw M6x16	4	
0	Lock washer 6mm	4	
0	Washer 6mm	2	
<u> </u>	Hex "L" wrench 3mm	1	
	Hex "L" wrench 6mm	1	

#### Assembly

#### 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 the sander and drill four 3/8 inch holes through the workbench.

4. Align the sander base over the holes and secure using four 5/16 inch screws (or larger) and hex nuts. (See Fig. 01)

#### **Mounting Sanding Disc and Guard**

1. Locate the sanding disc (22) and peel the backing off of the disc.

2. Align the perimeter of the sanding disc over plate. When aligned, press the disc firmly onto the disc.

3. Position the disc guard (27) onto the lower portion of the sanding disc so that the mounting holes align.

4. Using a Phillips screwdriver, fasten two pan head screws (found in parts bag) through the disc guard. (See Fig. 02)

#### **Changing the Sanding Disc**

The sandpaper disc can be removed with the table installed, or with the table removed to give more working access to the disc, if needed.

1. Peel off the used abrasive disc from the metal sanding disc. A putty knife may help in this process.

2. Make sure that the disc plate is clean of any residue. Mineral spirits will soften the PSA adhesives. Rotate the disc by hand may be necessary to get access to all of the disc surface.

3. Peel the backing off the new PSA 10" sanding disc, then center and press the sanding disc onto the metal disc plate.

4. Replace the sanding table if it was removed.

WARNING THE MACHINE MUST NOT BE PLUGGED IN AND THE POWER SWITCH MUST BE IN THE 'OFF' POSITION UNTIL ASSEMBLY IS COMPLETE.



Fig. 01



Fig. 02



Fig. 03

#### Installing the Belt Table

1. Place the work table for belt on the work support.

2. Insert two countersink head screws through the work table and the work support slot.

3. Put a 6mm washer and a wing nut on the screw and tighten. (See Fig. 03)

#### Assembly

#### 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 inch from the sanding surface.

1. Use two M6x16 pan head screws to fasten the table support mount to the front of the sander.

2. Place the support table with 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 pre-assembled 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 re-tighten 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 the machine is unplugged before making any adjustments.

1. Using a combination square, check the angle of the 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 the table.

3. Adjust the worktable square to the disc and re-tighten 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 the machine 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 the tension lever to the right to release the belt tension. (See Fig. 08)

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 the hex socket screw (59) when the bed is in the desired position for sanding. See page 10.

#### **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 the switch "ON" and immediately "OFF" again, noting the belt movement. Readjust the tracking knob if necessary.

#### **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. 08



Fig. 09



Fig. 10



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 locks 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.





#### **Bevel Sanding**

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

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

#### 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 (59) 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.

#### 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 and 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. 12



Fig. 13



Fig. 14



Fig. 15

#### Operation

#### 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 work table assembly.

3. Move the work evenly across the sanding belt. (See 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. The downward rotating sanding disc will safely force the work down onto the work table where it can be safely controlled.(Fig. 18)

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

#### 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. 16



Fig. 17



Fig. 18



Fig. 19

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

1. Apply a light coat of paste wax to the work table to make feeding stock easier, and reduce rust.

2. Use compressed air to frequently blow out dust and debris from the 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 the 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 the belt around the motor pulley and drive pulley as shown. (See Fig. 22)

4. Adjust tension of the belt by putting a wrench in the adjusting gap. Push up on the wrench to tighten the tension between the two 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', or deflection, to the belt. (See Fig. 23)

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

7. Locate the pulley cover and position it 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> <li>Not plugged into wall outlet.</li> <li>Locking key is not inserted.</li> <li>Power switch defective.</li> <li>Motor or wiring problem.</li> </ol>	<ol> <li>Plug into wall outlet.</li> <li>Insert locking key.</li> <li>Replace power switch.</li> <li>Take to a qualified technician.</li> </ol>
Motor slows when sanding	<ol> <li>Timing belt is too tight.</li> <li>Applying too much pressure on work piece.</li> </ol>	<ol> <li>Decrease tension.</li> <li>Apply less pressure to work piece when sanding.</li> </ol>
Sanding Belt runs off drums	1. Not tracking proplerly.	1. Adjust tracking.
Wood burns while sanding	1. Sanding Disc or Belt is loaded with debris.	1.Clean or replace disc or belt.
Sander makes excessive noise	1. Timing belt too tight, bearings need oil.	1. Decrease tension, oil bearings.

# Wiring Diagram



# Parts Diagram



# Parts List

KEY NO.	DESCRIPTION	PART NO.	KEY NO.	DESCRIPTION	PART NO.
1	Sanding belt 6" x 48"	1-JL61020032	39	Cast base	1-JL61010001-001G
2	Bed	1-JL61021000-050W	40	Motor cover	1-JL61010002-001S
3	Knob	1-JL20061101/2-001S	41	Safety guard, sanding belt lower	1-JL61010012-001S
4	Washer	1-WSH8GB96B	42	Pan head screw M5x8	1-M5X10GB818Z
5	Wing screw	1-JL61040006	43	Thread M6x145	1-M6X145GB818Z
6	Sunk head screw M6x16	1-M6X16GB818B	44	Rubber sleeve	1-JL61010011-001S
7	Work table for belt	1-JL61040008-050W	45	Support stem	1-JL61010010
8	Work support, for sander belt	1-JL61040003A-117U	46	Lock base sander belt	1-JL61020026-001G
8A	Work support plastic belt shroud	1-JL61040007-0015	47	Motor	1-G3512674
9	Lock pin, work support	1-JL61040004	48	Hex head screw	1-M8X16GB5781Z
10	Wing nut M6	1-JL20061003-001S	49	Lock washer	1-WSH8GB93Z
11	Lock washer-helical 5mm	1-WSH5GB862D2Z	50	Drive pulley	1-JL61020027
12	Pan head screw M5x8	1-M5X14GB818B	51	Countersink washer	1-WSH6GB5287Z
13	Pan head screw M5x16	1-ST4D2X25GB845B	52	Drive pulley	1-JL61020001
14	Switch housing	1-JL60062001-049S	53	Pulley cover	1-JL61010004-001S
15	No-volt switch	1-J-9301B	54	Timing belt	1-JL61020034
17	Bearing spacer	1-JL61020008	55	Drive pulley	1-JL61020002
18	Bearing cap	1-JL61020007	56	Flat head screw M5x25	1-M6X20GB70Z
19	Socket head screw M8x10	1-M8X10GB80B	57	Bearing support	1-JL61020004
20	Drive drum	1-JL61020006	58	Lock plate sander plate	1-JL61020005-050A
21	Cover, switch housing	1-JL60062002-049S	59	Hex socket cap screw M8x25	1-M8X25GB5783B
22	Pad - 10" dia. sandpaper	1-JL61020033	60	Retaining ring 15mm	1-CLP15GB894D1B
23	Screw-pan cross M6x12	1-M6X10GB70Z	61	Ball bearing	1-BRG80202GB278
24	Disc	1-JL61030001	62	Drive shaft	1-JL61020025
25	Support, sanding disc	1-JL61030002A	63	Pan head screw M5x16	1-M5X16GB818B
26	Tapping screw M4x12	1-M5X40GB70Z	64	Rubber washer	1-JL61020021-001S
27	Disc guard	1-JL61010005-050W	65	Tension lever	1-JL61020023-050W
28	Disc shroud	1-JL61010006-001S	66	Lever spacer	1-JL61020013
29	Hex nut M6	1-M6GB6170Z	67	Rubber washer	1-JL60020018
30	Pan head screw M6x16	1-M6X16GB5781Z	68	Index spring	1-JL61020020
31a	Mount, table support, left	1-JL61030005-001Y	69	Rubber bushing	1-JL61020022
31b	Mount, table support, right	2-JL61034000-001Y	70	Retaining ring 12mm	1-CLP12GB894D1B
32a	Table support, left	2-JL61032000-001Y	71	Ball bearing	1-BRG80101GB278
32b	Table support,right	2-JL61033000-001Y	72	ldler drum	1-JL61020017
33	Table	1-JL61030010-001G	73	Idler shaft	1-JL61020016
34	Dust collector	1-JL61010003-001S	74	Drum guide	1-JL61022000
35	Pan head screw M5x16	1-M5X16GB818B	75	Index spring	1-JL61020015
36	Clamp handle	1-JL61010014-001Y	76	Power cord w/plug	1-JL20072101
37	Handle	1-JL61010013-050W	77	"D" shape rubber bushing	1-JL61010009-001S
38	Pan head screw M5x16	1-M6X16GB818B			

**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.

## Notes

Use this section to record maintenance, service and any calls to Technical Support:

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# Notes

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## Notes

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# WARRANTY

# **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.



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For more information: 16 Progress Road Billerica, MA 01821

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

www.rikontools.com