

4" x 36" Belt / 8" Disc Sander



Operator's Manual

Record the serial number and date of purchase in your manual for future reference.
The serial number can be found on the specification label on the rear of your machine.

Serial Number: _____ Date of purchase: _____

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

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NOTE: The specifications, photographs, drawings and information in this manual represent the current machine 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 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.

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

**SAVE THESE INSTRUCTIONS.
Refer to them often.**

CALIFORNIA PROPOSITION 65 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.

SAFETY INSTRUCTIONS

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. The following instructions must be followed at all times. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

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.

SAFETY SYMBOLS



SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, or CAUTION. This symbol may be used in conjunction with other symbols or pictographs.



Indicates an imminently hazardous situation, which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE: Shown without Safety Alert Symbol indicates a situation that may result in property damage.

GENERAL SAFETY

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

BEFORE USING SANDER

To avoid serious injury and damage to the tool, read and follow all of the Safety and Operating Instructions before operating the Bench Sander.

1. Some dust created by using power tools contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

2. **READ** the entire Owner's Manual. **LEARN** how to use the tool for its intended applications.

3. **GROUND ALL TOOLS.** If the tool is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The 3rd prong is used to ground the tool and provide protection against accidental electric shock. **DO NOT** remove the 3rd prong. See Grounding Instructions on pages 5 and 6.

4. **AVOID A DANGEROUS WORKING ENVIRONMENT. DO NOT** use electrical tools in a damp environment or expose them to rain.

5. **DO NOT** use electrical tools in the presence of flammable liquids or gasses.

6. **ALWAYS** keep the work area clean, well lit, and organized. **DO NOT** work in an environment with floor surfaces that are slippery from debris, grease, and wax.

7. **KEEP VISITORS AND CHILDREN AWAY. DO NOT** permit people to be in the immediate work area, especially when the electrical tool is operating.

SAFETY INSTRUCTIONS

8. **DO NOT FORCE THE TOOL** to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the tool was intended.

9. **WEAR PROPER CLOTHING. DO NOT** wear loose clothing, gloves, neckties, or jewelry. These items can get caught in the machine during operations and pull the operator into the moving parts. The user must wear a protective cover on their hair, if the hair is long, to prevent it from contacting any moving parts.

10. **CHILDPROOF THE WORKSHOP AREA** by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.

11. **ALWAYS UNPLUG THE TOOL FROM THE ELECTRICAL RECEPTACLE** when making adjustments, changing parts or performing any maintenance.

12. **KEEP PROTECTIVE GUARDS IN PLACE AND IN WORKING ORDER.**

13. **AVOID ACCIDENTAL STARTING.** Make sure that the power switch is in the "OFF" position before plugging in the power cord to the electrical receptacle.

14. **REMOVE ALL MAINTENANCE TOOLS** from the immediate area prior to turning "ON" the machine.

15. **USE ONLY RECOMMENDED ACCESSORIES.** Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the tool. If in doubt, check the instruction manual that comes with that particular accessory.

16. **NEVER LEAVE A RUNNING TOOL UNATTENDED.** Turn the power switch to the "OFF" position. **DO NOT** leave the tool until it has come to a complete stop.

17. **DO NOT STAND ON A TOOL.** Serious injury could result if the tool tips over, or you accidentally contact the tool.

18. **DO NOT** store anything above or near the tool where anyone might try to stand on the tool to reach it.

19. **MAINTAIN YOUR BALANCE. DO NOT** extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease, and wax.

20. **MAINTAIN TOOLS WITH CARE.** Always keep tools clean and in good working order. Keep all blades and tool bits sharp, dress grinding wheels and change other abrasive accessories when worn.

21. **EACH AND EVERY TIME, CHECK FOR DAMAGED PARTS PRIOR TO USING THE TOOL.** Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions. Check for alignment, binding or breaking of moving parts. A guard or other part that is damaged should be immediately repaired or replaced.

22. **DO NOT OPERATE TOOL WHILE TIRED, OR UNDER THE INFLUENCE OF DRUGS, MEDICATION OR ALCOHOL.**

23. **SECURE ALL WORK.** Use clamps or jigs to secure the work piece. This is safer than attempting to hold the work piece with your hands.

24. **STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE WHEN OPERATING A POWER TOOL.**

A moment of inattention while operating power tools may result in serious personal injury.

25. **ALWAYS WEAR A DUST MASK TO PREVENT INHALING DANGEROUS DUST OR AIRBORNE PARTICLES,** including wood dust, crystalline silica dust and asbestos dust.

Direct particles away from face and body.

Always operate tool in well ventilated area and provide for proper dust removal.

Use dust collection system wherever possible.

Exposure to the dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death.

Avoid breathing the dust, and avoid prolonged contact with dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material.

Always use properly fitting NIOSH/OSHA approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

SAFETY INSTRUCTIONS

26. USE A PROPER EXTENSION CORD IN GOOD CONDITION. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. The table on page 8 shows the correct size to use depending on cord length and nameplate amperage rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the larger diameter of the extension cord. If in doubt of the proper size of an extension cord, use a shorter and thicker cord. An undersized cord will cause a drop in line voltage resulting in a loss of power and overheating.

USE ONLY A 3-WIRE EXTENSION CORD THAT HAS A 3-PRONG GROUNDING PLUG AND A 3-POLE RECEPTACLE THAT ACCEPTS THE TOOL'S PLUG.

SAVE THESE INSTRUCTIONS. Refer to them frequently and use them to instruct others.

27. ADDITIONAL INFORMATION regarding the safe and proper operation of this product is available from:

- Power Tool Institute
1300 Summer Avenue
Cleveland, OH 44115-2851
www.powertoolinstitute.org
- National Safety Council
1121 Spring Lake Drive
Itasca, IL 60143-3201
www.nsc.org
- American National Standards Institute
25 West 43rd Street, 4th Floor
New York, NY 10036
www.ansi.org
- ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor regulations
www.osha.gov

ELECTRICAL SAFETY

WARNING: THIS TOOL MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for electric current and reduces the risk of electric shock. This tool is equipped with an electric cord that has an equipment grounding conductor and a grounding plug. The plug **MUST** be plugged into a matching electrical receptacle that is properly installed and grounded in accordance with **ALL** local codes and ordinances.

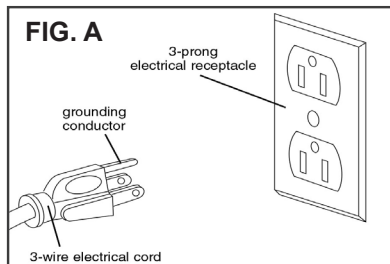
DO NOT MODIFY THE PLUG PROVIDED. If it will not fit the electrical receptacle, have the proper electrical receptacle installed by a qualified electrician.

IMPROPER ELECTRICAL CONNECTION of the equipment grounding conductor can result in risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. **DO NOT** connect the equipment grounding conductor to a live terminal if repair or replacement of the electric cord or plug is necessary.

CHECK with a qualified electrician or service personnel if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.

USE ONLY A 3-WIRE EXTENSION CORD THAT HAS A 3-PRONG GROUNDING PLUG AND A 3-POLE RECEPTACLE THAT ACCEPTS THE TOOL'S PLUG. REPLACE A DAMAGED OR WORN CORD IMMEDIATELY.

This tool is intended for use on a circuit that has an electrical receptacle as shown in **FIGURE A**. **FIGURE A** shows a 3-wire electrical plug and electrical receptacle that has a grounding conductor.

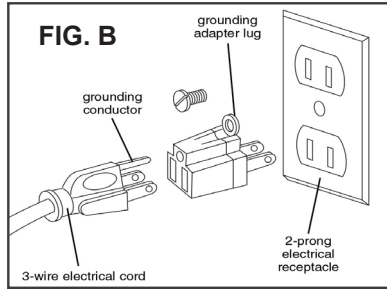


CONTINUED ON PAGE 6

SAFETY INSTRUCTIONS

CONTINUED FROM PAGE 5

If a properly grounded electrical receptacle is not available, an adapter as shown in **FIGURE B** can be used to temporarily connect this plug to a 2-contact ungrounded receptacle. The adapter has a rigid lug extending from it that **MUST** be connected to a permanent earth ground, such as a properly grounded receptacle box. **THIS ADAPTER IS PROHIBITED IN CANADA.**



EXTENSION CORDS

WARNING: Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool.

WARNING: Check extension cords before each use. If damaged replace immediately. Never use a tool with a damaged cord, since touching the damaged area could cause electrical shock, resulting in serious injury.

Use a proper extension cord. Only use cords listed by Underwriters Laboratories (UL). Other extension cords can cause a drop in line voltage, resulting in a loss of power and overheating of tool. When operating a power tool outdoors, use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.

MINIMUM RECOMMENDED GAUGE FOR EXTENSION CORDS (AWG)				
120 VOLT OPERATION ONLY				
	25' LONG	50' LONG	100' LONG	150' LONG
0 to 6 Amps	18 AWG	16 AWG	16 AWG	14 AWG
6 to 10 Amps	18 AWG	16 AWG	14 AWG	12 AWG
10 to 12 Amps	16 AWG	16 AWG	14 AWG	12 AWG

SPECIFIC SAFETY INSTRUCTIONS FOR SANDERS

This machine is intended for the surfacing of natural, solid woods and composite materials. Any other use not as specified, including modification of the machine or use of parts not tested and approved by the equipment manufacturer can cause unforeseen damage, and invalidate the warranty.

ATTENTION: Use of this sander still presents risks that cannot be eliminated by the manufacturer. Therefore, the user must be aware that wood working machines are dangerous if not used with care and all safety precautions are adhered to.

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 damaged or missing.
4. This machine must be properly grounded.
5. If you are not familiar with the operation of the machine, obtain assistance from a qualified person.
6. It is highly recommended that this machine be firmly mounted to a flat and secure work surface or stand.
7. Always wear protective eye wear prior to operating this machine.
8. 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.
9. Do not wear loose clothing or jewelry when operating this machine. Keep long hair tied back.

SPECIFICATIONS

SPECIFICATIONS FOR BELT/DISC SANDER #50-114

Motor	3/4HP, 120V, 5A, 60Hz
Motor Speed	3,450 RPM
Belt Size	4" x 36"
Belt Speed	2,165 SFPM
Belt Table Size (L x W)	7-1/2" X 6-1/4"
Belt Table Tilt	0-45°
Disc Size	8" PSA
Disc Speed	3,450 RPM
Disc Table (L x W)	10-3/8" x 5-7/8"
Disc Table Tilt	0-45°
Miter Gauge	Included
Miter Gauge Slot	16mm x 6.5mm
Machine Height	20"
Machine Width	25-1/4"
Machine Depth	14"
Base Size	10-7/8" x 8-5/8"
Dust Ports (2)	1-1/2" OD / 1-1/4" ID
Net Weight	32.4 lbs.

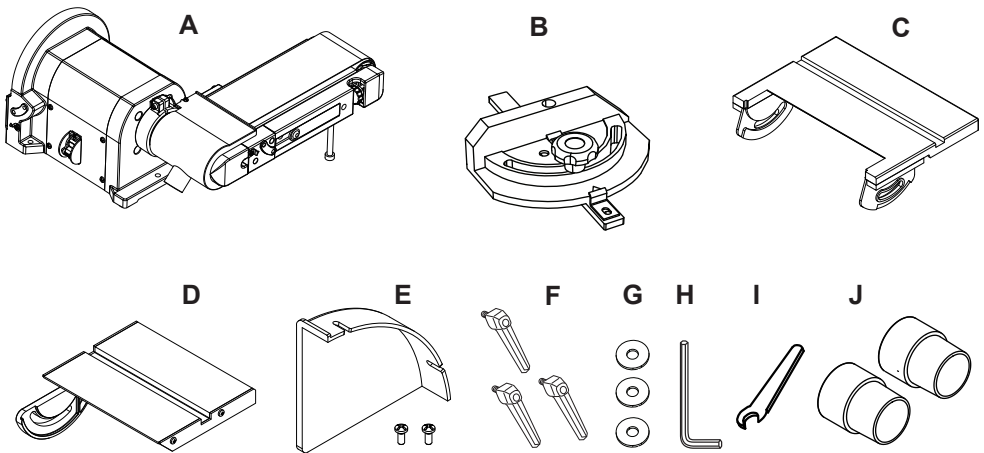
SAFETY INSTRUCTIONS FOR SANDERS - CONTINUED

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. Make sure all safety guards and hardware are securely tightened before operating the machine.
13. The use of any accessories or attachments not recommended may cause injury to you and damage your machine.
14. Abrasive discs and belts should be the recommended width and length of the manufacturer.
15. Replace worn, frayed or torn abrasives, as injury to the user, or the machine, may result.
16. Always keep your face and hands clear of moving parts such as belts, discs and pulleys.
17. Keep power supply cords free of moving parts of the sander. Damaged cords can result in electric shock.
18. Maintain a minimal gap clearance (1/16" or less) between the sanding disc or the sanding belt and their tables. See 'Mounting Disc Table' instructions on page 10.
19. Always support the workpiece with the table or backstop during sanding.
20. Carefully feed work into the rotating sanding belt, or disc, on the downward direction, so that the abrasive action pushes the work down onto the tables where it can be controlled.
21. Do not force the work into the abrasives, as burning of the wood or stalling of the machine may result.
22. Remove material or debris from the work area. Keep work area neat and clean.

CARTON CONTENTS

UNPACKING AND CHECKING CONTENTS

1. Carefully remove all contents from the shipping carton. Compare the contents with the list of contents to make sure that all of the items are accounted for, before discarding any packing material. Place parts on a protected surface for easy identification and assembly. If any parts are missing or broken, please call RIKON Customer Service (877-884-5167) as soon as possible for replacements. **DO NOT** turn your machine ON if any of these items are missing. You may cause injury to yourself or damage to the machine.
2. Report any shipping damage to your local distributor. Take photographs for any possible insurance claims.
3. Clean all rust protected surfaces with ordinary house hold type grease or spot remover. Do not use; gasoline, paint thinner, mineral spirits, etc. These may damage painted surfaces. Wipe all parts thoroughly with a clean dry cloth.
4. Set packing material and shipping carton aside. Do not discard until the machine has been set up and is running properly.



The following items are provided in the shipping box:

- | | |
|----------------------------------|--------------------------------------|
| A. Belt / Disc Sander | F. Table Lock Lever Handles (3) |
| B. Miter Gauge | G. Washers (3) |
| C. Disc Sanding Table | H. Hex Wrench - 5mm |
| D. Belt Sanding Table | I. Wrench - 10mm |
| E. Sanding Disc Cover & 2 Screws | J. Dust Fitting Adapters (2) |
| | Large end 38mm ID, Small end 34mm OD |



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

NOTE: Full Parts Diagram and Parts List are listed on pages 20 to 22.

GETTING TO KNOW YOUR MACHINE

FIG. 1

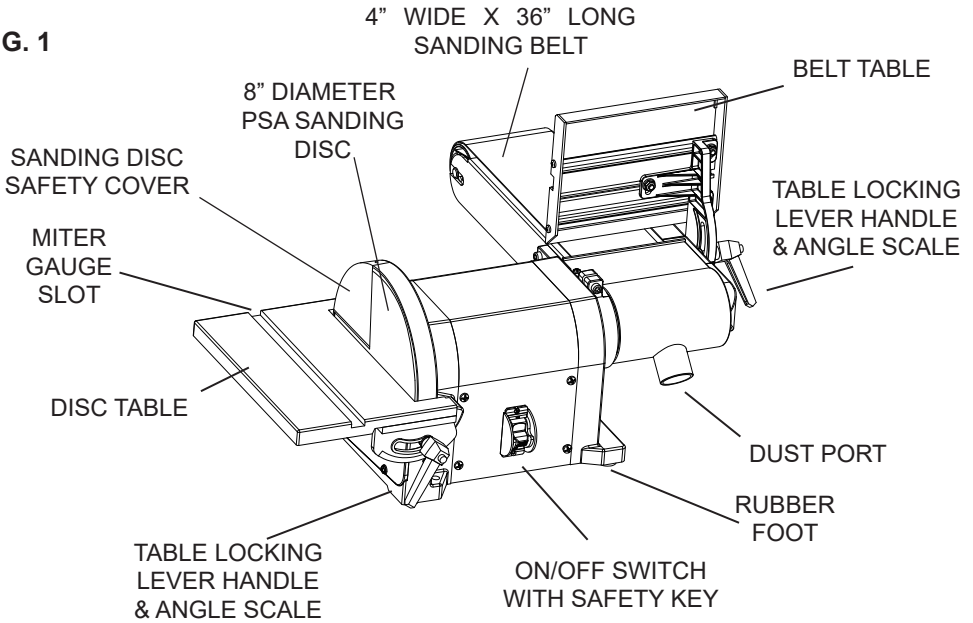
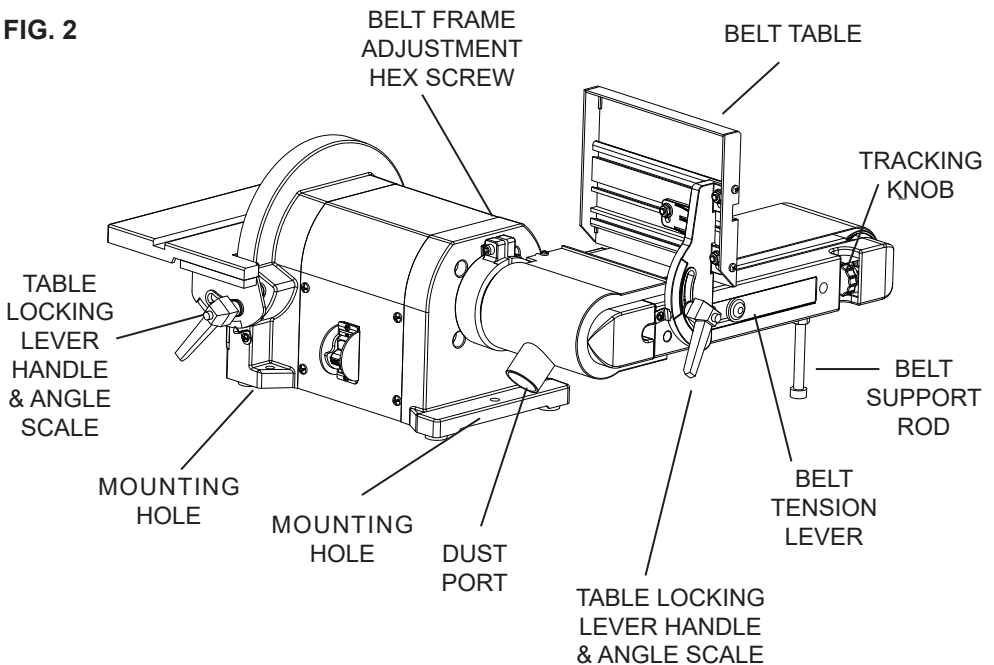


FIG. 2



ASSEMBLY



WARNING:

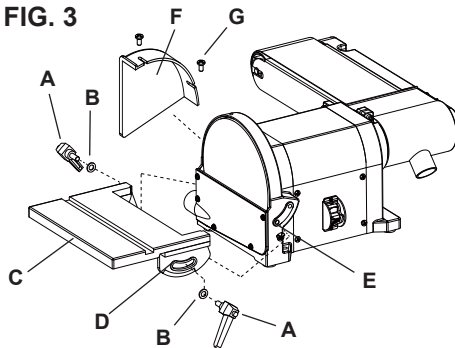
THE MACHINE MUST NOT BE PLUGGED IN AND THE POWER SWITCH MUST BE IN THE OFF POSITION UNTIL ASSEMBLY OF THE PARTS AND ALL ADJUSTMENTS ARE COMPLETE.

MOUNTING THE DISC TABLE & DISC COVER

The larger worktable is used with the sanding disc. It should be used to support workpieces in all sanding operations except inside curve sanding applications.

1. Locate the two worktable locking lever handles (A) and washers (B) in parts bag.
2. Place the worktable (C) onto the sander frame, aligning the semi-circle slots (D) with the threaded holes (E).
3. Place a washer (B) on the threaded shafts of each worktable handle (A), insert the handle shafts through the semi-circular slots (D), and tighten into the threaded holes (E) on both sides of the table.
4. Adjust the worktable to level or any angle between 0° and 45° for sanding.
5. Lock the table in place with the handles.

FIG. 3



6. Mount the Sanding Disc Safety Cover (F) onto the metal frame that surrounds the sanding disc with the two Phillips Screws (G) supplied in the parts bag.
7. The cover guards the left, upward rotation side of the sanding disc to prevent any accidents from occurring. Always sand on the downward, right side of the rotating disc.



WARNING:

To avoid jamming the workpiece or fingers between the table and sanding surface, the tables' edge should set 1/16" away from the sanding surface. The tables' distance to the disc or belt can be adjusted by loosening the bolts that secure the table bracket(s) to the table. Loosen the bolts, adjust the table location, then tighten the bolts to secure the table in place.

MOUNTING THE BELT TABLE

Mounting the smaller worktable for use with the sanding belt follows the same instructions as above, but only one table bracket is used on this table. See Figures 4 and 5 on page 11.

1. Loosen the inner hex screw (A) using the supplied 5 mm hex key, and raise the belt bed (B) in the vertical position. Tighten the inner hex screw (A).
2. Place the smaller worktable (C) onto the belt sander frame, aligning the semi-circular slot (D) with the threaded hole (E) in the sander's frame.
3. Place the washer (F) on the shaft of worktable locking lever (G), insert through the table's semi-circular slot (D), and tighten the lever in the threaded hole (E).
4. Adjust worktable to level or any angle between 0° and 45° for sanding.

ASSEMBLY

FIG. 4

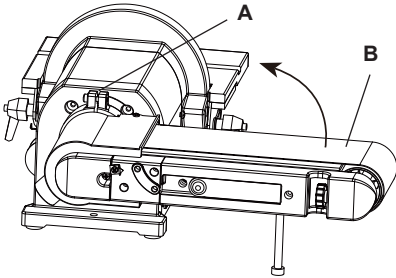
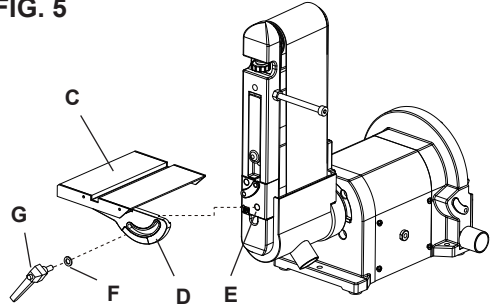


FIG. 5



MOUNTING BELT / DISC SANDER TO WORKBENCH OR STAND

1. Place the sander on a surface that is level but also provides enough room on all sides for the workpiece and for the operator. Allow room for the belt to be positioned horizontally or vertically. **NOTE:** Users, or bystanders, should never be standing in line with the wood while sanding in case of kickback.
2. Mark the workbench or stand through the 3 mounting holes in the sander's base.
3. Drill holes in the workbench or stand to mount the sander with screws or bolts.
4. The hardware to mount this sander is NOT supplied with the sander.

MITER GAUGE

The supplied miter gauge (A) can be used with the sanding tables. The miter gauge body can be adjusted from 0° to 60° right or left for angle or miter sanding.

1. Install the miter gauge bar (B) into the table slot (C) as shown.
2. Loosen lock knob (D) and then rotate miter gauge body to the desired angle.
3. Tighten lock knob (D) to secure the angle in place for sanding.

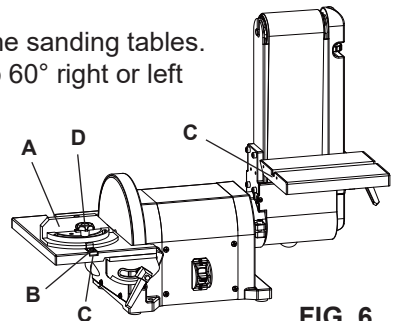


FIG. 6

INSTALLING DUST COLLECTION

The use of a dust collection system with the sander is strongly recommended. It will maintain shop cleanliness, and help prevent possible health hazards caused by wood dust.

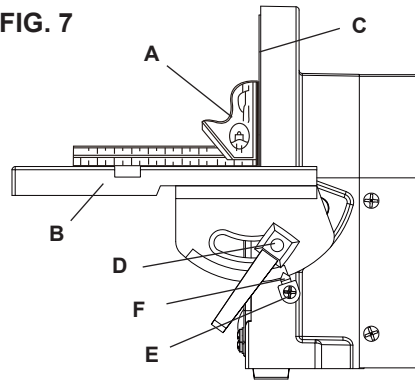
The sander has two dust ports - one for the disc and one for the belt - 1-1/2" O.D. / 1-1/4" I.D., and also includes two adapters for use with other hose sizes. Slide the hoses of your dust collector over the outlets, and secure them in place with hose clamps (not included). **NOTE:** Properly sized dust fittings, hoses and clamps are available through woodworking dealers. Also, see page 18 for the 4" Dust Fitting Adapter Set # 52-114 that connects both ports together.

ADJUSTMENTS

ADJUSTING DISC TABLE SQUARE WITH SANDING DISC

1. Using a combination square (A), place one side of the square on the disc table (B) with the other side against the sanding disc (C), and check to see if the disc table is 90° to the disc.
2. If the disc table surface is not 90° to the disc, loosen the table lock knob (D), adjust table square with disc, and then tighten the table lock knob to secure the table in place.
3. If needed, adjust the angle scale pointer with a #2 Phillips screwdriver. Loosen the screw (E) and secure the scale pointer (F) at 0°.

FIG. 7

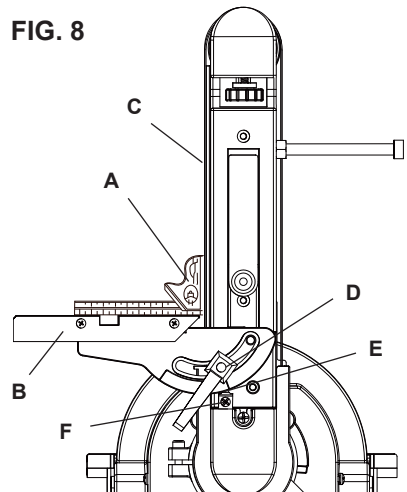


NOTE: The disc table (B) can be tilted from 0° to 45° by loosening the table lock knob (D). Tilt the disc table to the desired angle, then tighten the table lock knob.

ADJUSTING BELT TABLE SQUARE WITH SANDING BELT

1. Using a combination square (A), place one side of the square on the belt table (B) with the other side against the sanding belt (C), and check to see if the belt table is 90° to the belt.
2. If the belt table surface is not 90° to the belt, loosen the table lock knob (D), adjust table square with belt, and tighten the table lock knob to secure the table in place.
3. Loosen the screw (E) and secure the scale pointer (F) at 0°.

FIG. 8



NOTE: The belt table (B) can be tilted from 0° to 45° by loosening the table lock knob (D). Tilt the belt table to the desired angle, then tighten the table lock knob. See page 13.



WARNING:

THE MACHINE MUST NOT BE PLUGGED IN AND THE POWER SWITCH MUST BE IN THE OFF POSITION UNTIL ASSEMBLY OF THE PARTS AND ALL ADJUSTMENTS ARE COMPLETE.

OPERATION

ON/OFF SWITCH

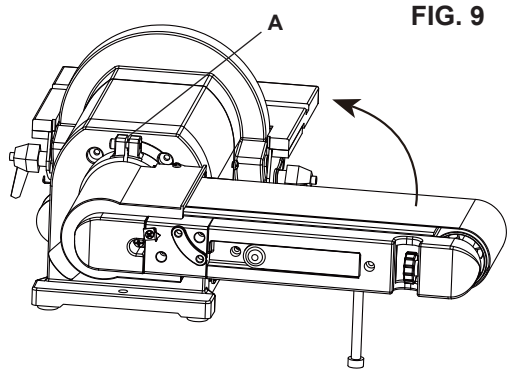
The ON/OFF power switch incorporates a removable safety key. In situations where the sander may be left unattended, the operator has the option of removing the “black” safety key of the ON/OFF switch to render the sander inoperable. When the operator is ready to use the machine again, simply insert the “black” safety key into the slot in the switch and pushing it in until it “seats.”

ADJUSTING THE BELT FRAME FOR VERTICAL OR HORIZONTAL SANDING

Your belt/disc sander - belt station can sand vertically as well as horizontally. Depending on operator needs and the workpiece, the worktable can be used with either the horizontal or vertical position. To change from one position to the other:

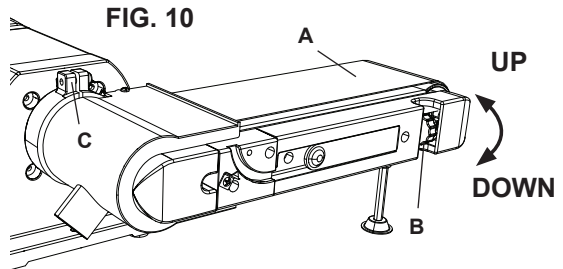
1. Loosen the inner hex screw (A) by turning it counterclockwise with the 5 mm hex key.
2. Manually move the work support station into the vertical or horizontal position, as required.
3. Retighten the inner hex screw by turning it clockwise.

See page 14 for instructions on supporting and leveling the belt when in the horizontal working position.



TRACKING THE SANDING BELT

1. Plug in the sander.
2. Turn power switch ON, then immediately OFF, noting whether the belt (A) tends to slide off its track, and to which side (front or back) of the sander.
3. If the sanding belt does not slide to either side, it is tracking properly. If it is not, the belt tracking needs adjustment.
4. Viewed from the switch end, if the sanding belt runs toward the disc side, slightly turn the tracking knob (B) clockwise (down) 1/4 turn.
5. If the sanding belt runs away from the disc side, slightly turn the tracking knob (B) counterclockwise (up) 1/4 turn.



6. With the power on, note the belt movement and slowly adjust the tracking knob, as necessary, until the belt runs true in the center of the drums.

OPERATION

LEVELING THE SANDING BELT

The support rod is designed for adjusting the level of sanding belt to the workbench, and to give needed support to the belt frame during sanding while in the horizontal working position. See page 13 for information on adjusting the belt frame.

To adjust, please do the following:

1. Loosen the lock nut (A) on the upper end of the support rod (B) with the adjustable wrench.
2. Adjust the support rod upward or downward to leveling the sanding belt (C).
3. When the level of the sanding belt is achieved, tighten the lock nut to secure the belt frame in position.

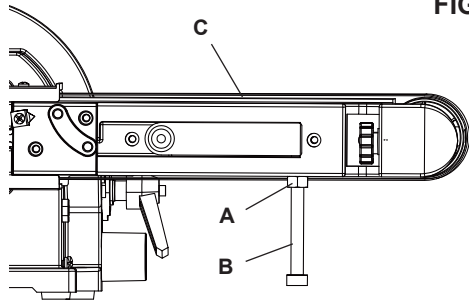


FIG. 11

OPERATING DUST EXHAUST

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

NOTE: Do not operate the sander without first turning on the dust collector.

HORIZONTAL BELT SANDING

When using the sanding belt in the horizontal position, to perform surface or edge sanding, the belt worktable (A) must always be used.

- Always hold the workpiece (B) firmly keeping your fingers away from the sanding belt (C).
- Always keep the end of the workpiece against the belt worktable and move the work evenly across the sanding belt.
- Apply only enough pressure to allow the sanding belt to remove material.
- Use extra caution when sanding very thin pieces.

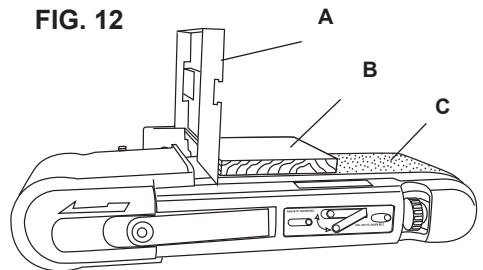


FIG. 12

⚠ WARNING: To avoid injury from slips, jams or thrown pieces, keep fingers a minimum of 1 in. (25.4 mm) from the sanding disc or belt to prevent accidents. Tables should be positioned 1/16" from the disc or belt sanding surface.

OPERATION

SANDING INSIDE CURVES

With care, freehand sanding of inside curves can be accomplished on the idler drum (A).

WARNING: Never sand the ends of a workpiece on the idler drum, as this could cause the workpiece to fly up and result in injury. Use the work tables of the belt or disc for this purpose.

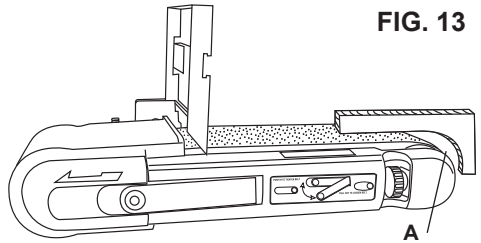


FIG. 13

SANDING OUTSIDE CURVES

Freehand sanding of outside curves should be done on the sanding disc or belts using the tables for support of the workpiece. The belt is best used for this purpose when it is in the vertical position.

MAINTENANCE

WARNING: For your safety, turn switch OFF and remove the power cord from the electrical outlet before adjusting or performing maintenance on your sander. To avoid electric shock or fire, all repairs to the electrical components should be done by a qualified service technician. Before each use check for damaged, missing, or worn parts; check for alignment of moving parts, binding, improper mounting, or any other conditions that may affect the operation. Should any of these conditions exist, do not use the sander until properly repaired or parts are replaced.

REPLACING THE SANDING DISC

Use only sanding discs with pressure sensitive adhesive (PSA) backing that measure 8 in. (150 mm) in diameter. Once the disc's safety cover is removed, the sandpaper disc can be removed with the table installed, or with the table and disc cover both removed to give more working access to the sanding disc, if needed. See page 10 for table instructions.

To replace the sanding disc with the table still in place:

1. Remove the safety disc cover from the machine.
2. Peel the used abrasive disc from the metal sanding disc plate. A putty knife may help in this process.
3. Clean the disc plate of any residue. Mineral spirits will soften the PSA adhesive for its removal. Rotate the disc by hand to get access to all of the disc surface.
4. Peel the plastic backing from new sanding disc and carefully press the disc firmly in position around the sanding plate. Make sure the disc is centered on the plate.
5. Reinstall the safety disc cover back onto the machine.

CONTINUED ON PAGE 16

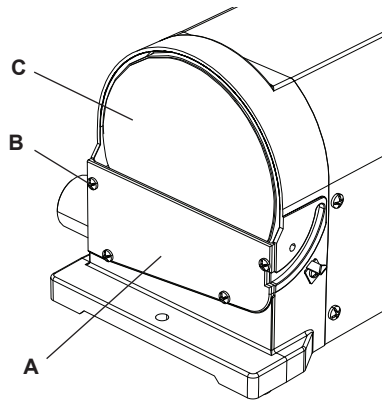
MAINTENANCE

CONTINUED FROM PAGE 15

To replace the sanding disc if the table and disc cover need to be removed:

1. Remove the disc worktable and then remove the disc cover (A) by removing the four screws holding it in place (B). See page 10 for table instructions.
2. Remove the existing sanding disc, and clean any residue left on metal disc plate (C). See page 15 for instructions on this step.
3. Peel the plastic backing from the new PSA sanding disc and carefully press the disc firmly in position around the metal sanding plate. Make sure the disc is centered on the plate.
4. Reinstall the disc cover, tighten the four screws, and place the sanding table and safety disc cover back onto the machine.

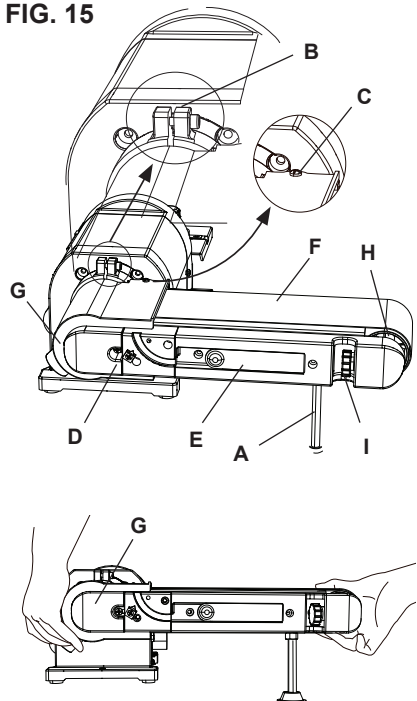
FIG. 14



REPLACING THE SANDING BELT

1. Remove the belt worktable. See page 10 and 11 for reference.
2. Remove the belt sander support rod (A). See page 14 for reference.
3. Position the belt work support frame horizontally as shown. Loosen the inner hex screw (B) by using the supplied 5 mm hex wrench, turning it counterclockwise. Do not remove the screw.
4. Remove the two screws (C, D) by using a Phillips screwdriver, and pull out the tension lever (E) to release the tension of the sanding belt (F). Remove the belt exhaust cover (G).
5. Remove the sanding belt from both sanding drums (H).
6. Place new sanding belt over sanding drums. Make sure the belt arrow located on the inside of the belt is pointed in the right direction.
7. Replace the belt exhaust cover (G) back in position on the machine.

FIG. 15




CONTINUED ON PAGE 17

MAINTENANCE

8. Replace and tighten the two screws (C, D) and push the tension lever (E) in to apply tension onto the belt.
9. Replace the belt sander support rod (A) back onto the machine.
10. Push the belt by hand and check if the sanding belt tends to run to one side or the other of the two drums. If the belt does not track properly in the center of the drums, it will need to be adjusted to do so. See page 13 for this procedure.
11. Re-adjust and fine-tune the belt tracking with the tracking knob (I), as necessary.
12. Move the belt frame to your desired work position, keep it horizontal or adjust it up to vertical, and tighten the inner hex screw (B) to secure the frame in position.

LUBRICATION

Ball bearings are grease packed at the factory and require no further lubrication. Use a paste wax to ensure smooth operation on all moving table parts. Do not use any lubrication on the belt plate as this might end up on the wheels, causing them to slip.


 **WARNING:** Turn the power switch “OFF” and disconnect the plug from the outlet prior to adjusting or maintaining the sander. DO NOT attempt to repair or maintain the electrical components of the motor. Take the sander to a qualified service technician for this type of maintenance.

MAINTENANCE REQUIRED

- | | |
|-------------------------------------------------------------------------|------------------|
| 1. Check the power cord for any damage. | Before each use. |
| 2. Check sanding belts and discs for damage or wear. | Before each use. |
| 3. Check all guards and hardware to make sure they are secure. | Before each use. |
| 4. Check all moving parts for alignment and binding issues. | Before each use. |
| 4. Dress/Clean sanding surfaces for best abrasive action. | As needed. |
| 5. Replace sanding belts or discs when worn or damaged. | As needed. |
| 6. Clean/vacuum dust from the motor housing all other machine parts. | As needed. |
| 7. Keep tables free of sap, dirt etc. Apply paste wax or silicon spray. | As needed. |

FREQUENCY

Service beyond recommended maintenance on these tools should only be performed by an authorized, qualified technician.

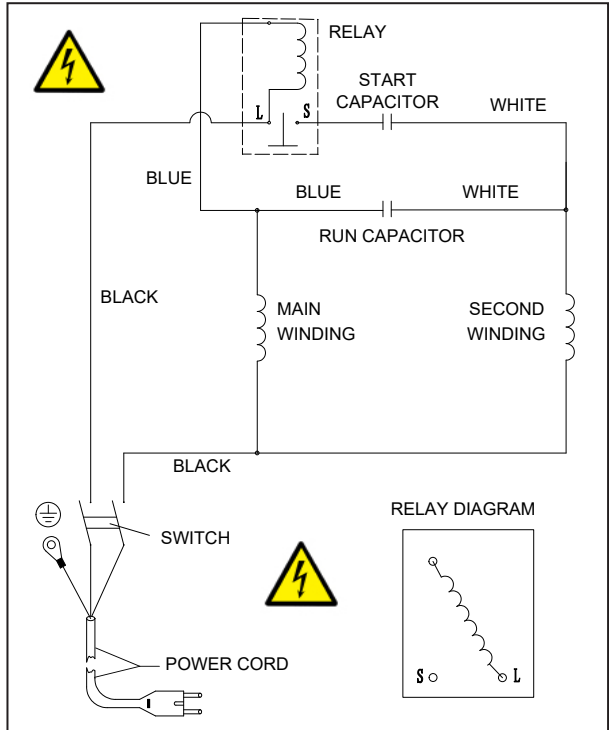
 **WARNING:** If blowing sawdust, wear proper eye protection to prevent debris from blowing into eyes.

WIRING DIAGRAM

WARNING:

This machine must be grounded. Replacement of the power supply cable should only be done by a qualified electrician.

This tool is intended for use on a circuit that has a 120 volt electrical receptacle. The illustrations on pages 5 and 6 show the type of the 120v, 3-wire electrical plug and electrical receptacle that has a grounding conductor that is required.



ACCESSORIES

Visit RIKON's website at www.rikontools.com for information on sanding accessories, and a complete listing of machines for all of your woodworking and other shop needs.



4" DUST FITTING ADAPTER SET

Includes 4" Plastic Dust Fitting with dual 35mm ports, and 2 Dust Hoses that are 40mm O.D. x 35mm I.D.. Hoses connect to both of the 50-114 sander's dust ports and 4" Fitting for the greatest dust collection when sanding.

52-114

SANDING BELTS

4" x 36"

Aluminum Oxide

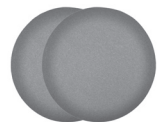


50-4080	80 Grit *	Pack of 2
50-4120	120 Grit	Pack of 2
50-4150	150 Grit *	Pack of 2
50-4180	180 Grit	Pack of 2
50-4220	220 Grit *	Pack of 2
50-4999	Assortment	Pack of 6
* 2 each 3 grits 80-220		

SANDING DISCS

8" Diameter, PSA

Aluminum Oxide



50-8060	60 Grit	Pack of 5
50-8080	80 Grit	Pack of 5
50-8120	120 Grit	Pack of 5
50-8180	180 Grit	Pack of 5
50-8220	220 Grit	Pack of 5
50-8999	Assortment	Pack of 10
2 each 5 grits		

TROUBLESHOOTING

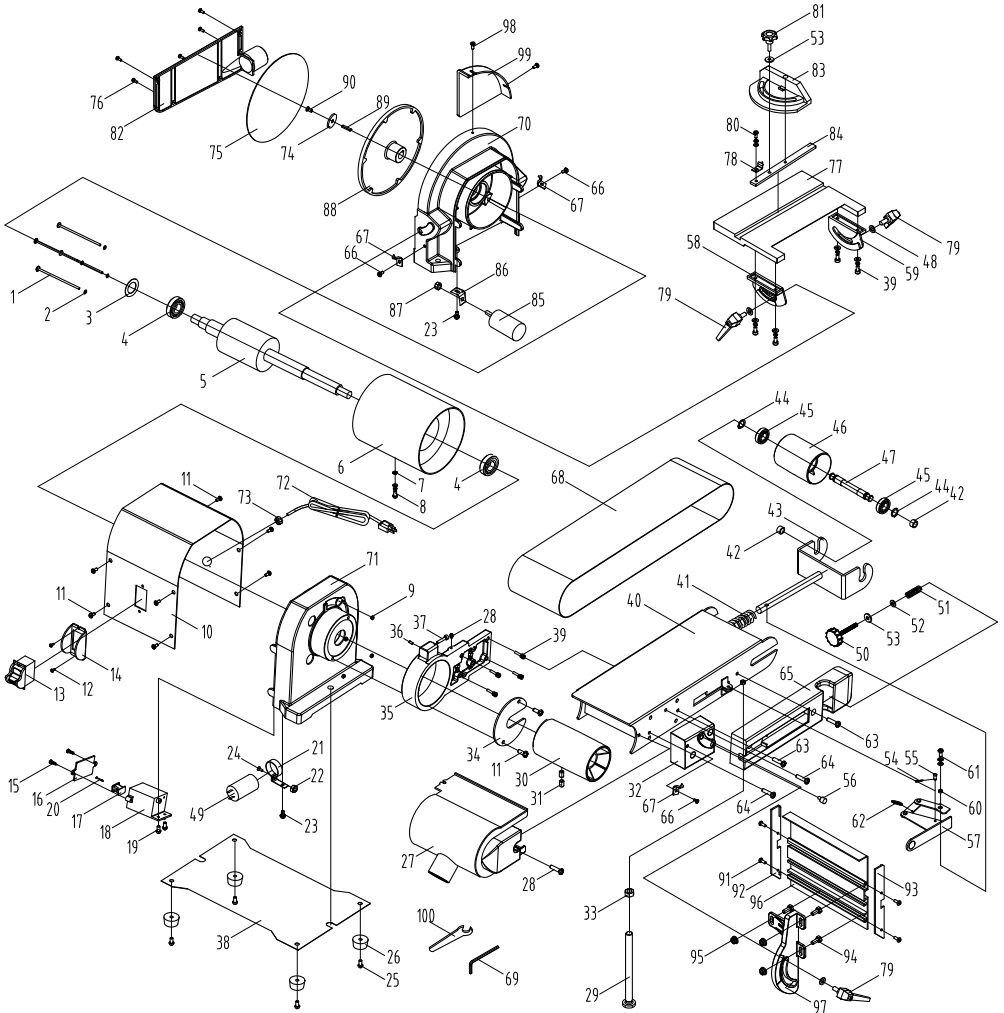
⚠ WARNING: To avoid injury from an accidental start, turn the switch OFF and always remove the plug from the power source before making any adjustments. Service on this machine should only be performed by an authorized, qualified technician.

PROBLEM	PROBLEM CAUSE	SUGGESTED CORRECTIVE ACTION
Motor will not run.	<ol style="list-style-type: none"> 1. Defective or broken ON/OFF switch / switch cord / switch relay. 2. Burned out motor. 3. Blown house fuse 	<ol style="list-style-type: none"> 1. Replace all broken or defective parts before using sander. 2. Contact Professional Service Station for repair. Any attempt to repair this motor may create a hazard unless repair is done by a qualified technician. 3. Replace house fuse. Turn OFF other appliances and power tools on the same circuit.
Machine slows down while sanding.	<ol style="list-style-type: none"> 1. Operator applying too much pressure to workpiece. 2. Dirt on wheels. 3. Worn or stretched belt. 	<ol style="list-style-type: none"> 1. Use less pressure in applying workpiece to sanding surface. 2. Clean wheels. 3. Replace pulley belt.
Motor does not develop full speed.	<ol style="list-style-type: none"> 1. Power line overloaded with lights, other tools, etc. 2. Long/wrong extension cord being used. 3. Incorrect fuses or circuit breakers in power cord. 	<ol style="list-style-type: none"> 1. Reduce the load on power line. 2. Replace with correct extension cord. 3. Install correct fuses or circuit breaker.
Sanding belt runs off pulleys.	<ol style="list-style-type: none"> 1. Not tracking properly. 	<ol style="list-style-type: none"> 1. Adjust the tracking. See "TO PROPERLY TRACK THE SANDING BELT".
Wood burns while sanding.	<ol style="list-style-type: none"> 1. Sanding disc or belt is glazed with sap. 2. Excessive pressure being applied to the workpiece. 	<ol style="list-style-type: none"> 1. Replace belt or disc. 2. Reduce pressure applied to the workpiece.
Motor over heats.	<ol style="list-style-type: none"> 1. Motor over load. 	<ol style="list-style-type: none"> 1. Reduce motor load. Allow to cool off before restarting.

For parts or technical questions contact: techsupport@rikontools.com or 877-884-5167.

PARTS DIAGRAM

50-114 4" x 36" BELT / 8" DISC SANDER



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 LIST 1 of 2

KEY NO.	DESCRIPTION	QTY	MFG. PART NO.	KEY NO.	DESCRIPTION	QTY	MFG. PART NO.
1	Phillips Screw M5x305	4	P50-114-1	26	Rubber Foot	4	P50-114-26
2	Flat Washer 5	4	P50-114-2	27	Belt Dust Port	1	P50-114-27
3	Wave Washer D40	1	P50-114-3	28	Phillips Screw+Flat Washer M5x25	2	P50-114-28
4	Bearing 6203RZ	2	P50-114-4	29	Belt Sander Support Rod	1	P50-114-29
5	Rotor	1	P50-114-5	30	Driven Pulley	1	P50-114-30
6	Stator	1	P50-114-6	31	Inner Hex Screw M8x8	2	P50-114-31
7	Locking Washer 4	1	P50-114-7	32	Fixed Block	1	P50-114-32
8	Phillips Screw+Spring Washer+Flat Washer M4x8	1	P50-114-8	33	Hex Nut M10	1	P50-114-33
9	Hex Nut M5	4	P50-114-9	34	Baffle Plate	1	P50-114-34
10	Housing	1	P50-114-10	35	Belt Frame Connect	1	P50-114-35
11	Phillips Screw M5x10	10	P50-114-11	36	Fixed Pin	1	P50-114-36
12	Phillips Screw M3x10	2	P50-114-12	37	Inner Hex Screw M6x25	1	P50-114-37
13	Switch	1	P50-114-13	38	Base Plate M5x16	1	P50-114-38
14	Switch Plate	1	P50-114-14	39	Inner Hex Screw+Flat Washer M6x12	8	P50-114-39
15	Phillips Screw ST4.2x10	2	P50-114-15	40	Support Assembly	1	P50-114-40
16	Relay Box Cover	1	P50-114-16	41	Press Spring	1	P50-114-41
17	Relay	1	P50-114-17	42	Sleeve	2	P50-114-42
18	Relay Box	1	P50-114-18	43	Guide Frame	1	P50-114-43
19	Phillips Screw M4x10	2	P50-114-19	44	Spring Washer D12	2	P50-114-44
20	Phillips Screw ST4.2x28	1	P50-114-20	45	Bearing 6001-2RS	2	P50-114-45
21	Capacitor Support	1	P50-114-21	46	Idle Pulley	1	P50-114-46
22	Hex Flange Nut M4	1	P50-114-22	47	Idle Shaft	1	P50-114-47
23	Phillips Screw+Spring Washer+Flat Washer M4x10	2	P50-114-23	48	Flat Washer D8	3	P50-114-48
24	Phillips Screw M4x10	1	P50-114-24	49	Capacitor 100µF125V	1	P50-114-49
25	Phillips Screw+Spring Washer+Flat Washer M5x12	4	P50-114-25	50	Belt Adjusting Knob	1	P50-114-50

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 LIST 2 of 2

KEY NO.	DESCRIPTION	QTY	MFG. PART NO.	KEY NO.	DESCRIPTION	QTY	MFG. PART NO.
51	Adjusting Spring	1	P50-114-51	76	Phillips Screw+Flat Washer M4x8	5	P50-114-76
52	Rubber Washer	1	P50-114-52	77	Disc Work Table	1	P50-114-77
53	Big Flat Washer D6	2	P50-114-53	78	Miter Gauge Pointer	1	P50-114-78
54	Cotter Pin 2x10	1	P50-114-54	79	Knob	3	P50-114-79
55	Pin 5x10	1	P50-114-55	80	Phillips Screw+Spring Washer+Flat Washer M5x8	1	P50-114-80
56	Fix Shaft	1	P50-114-56	81	Miter Gauge Knob	1	P50-114-81
57	Tension Handle	1	P50-114-57	82	Disc Dust Port	1	P50-114-82
58	Disc Right Support	1	P50-114-58	83	Miter Gauge	1	P50-114-83
59	Disc Left Support	1	P50-114-59	84	Miter Gauge Bar	1	P50-114-84
60	Sleeve	1	P50-114-60	85	Capacitor 20µF300V	1	P50-114-85
61	Phillips Screw+Lock Washer+Big Flat Washer M5x16	1	P50-114-61	86	Capacitor Support	1	P50-114-86
62	Pull Spring	1	P50-114-62	87	Hex Nut M8	1	P50-114-87
63	Phillips Screw M5x25	2	P50-114-63	88	Disc Plate	1	P50-114-88
64	Phillips Screw M5x16	2	P50-114-64	89	Flat Key C4.8*15	1	P50-114-89
65	Belt Cover	1	P50-114-65	90	Phillips Screw M6*16left	1	P50-114-90
66	Phillips Screw+Spring Washer+Flat Washer M4x8	3	P50-114-66	91	Phillips Screw 3.5*9.5	4	P50-114-91
67	Pointer	3	P50-114-67	92	Left Table Baffle Plate	1	P50-114-92
68	Belt	1	P50-114-68	93	Right Table Baffle Plate	1	P50-114-93
69	Wrench S5	1	P50-114-69	94	Hex Bolt M6*14	3	P50-114-94
70	Left End Cap	1	P50-114-70	95	Hex Flange Nut M6	3	P50-114-95
71	Right End Cap	1	P50-114-71	96	Belt Work Table	1	P50-114-96
72	Plug	1	P50-114-72	97	Work Table Support	1	P50-114-97
73	Strain Relief 6P4	1	P50-114-73	98	Phillips Screw+Flat Washer M4x8	2	P50-114-98
74	Disc Washer	1	P50-114-74	99	Disc Cover	1	P50-114-99
75	Disc Paper	1	P50-114-75	100	Open End Wrench	1	P50-114-100

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.

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 five-year warranty does not cover products used for commercial, industrial or educational purposes. The warranty term for these claims will be limited to a two-year period.

This limited warranty does not apply to accessory items such as blades, drill bits, sanding discs, grinding wheels, belts, guide bearings 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 must be provided which has the date of purchase and an explanation of the complaint.

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 register your machine online, visit RIKON at www.rikontools.com/warranty

To take advantage of this warranty, or if you have any questions, please contact us at 877-884-5167 or email warranty@rikontools.com



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