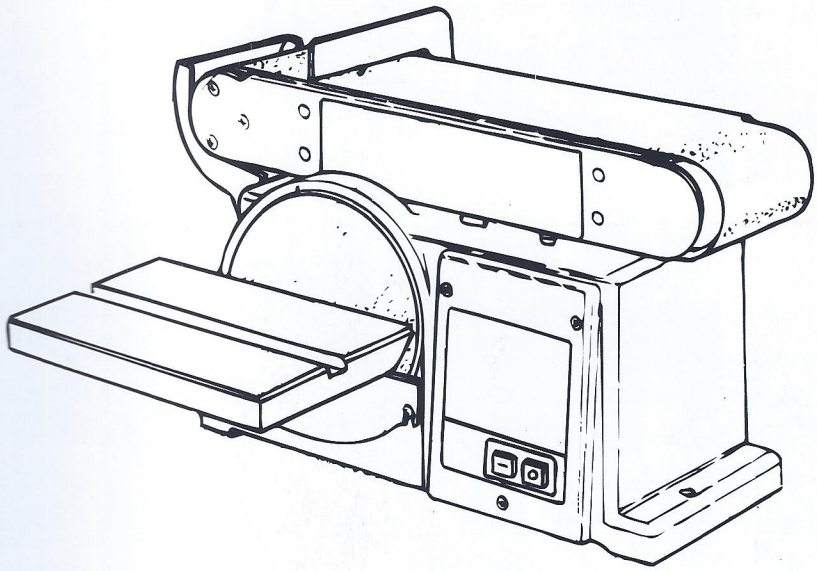
Save This Manual For Future Reference

owners manual

BELT AND DISC SANDER

FOR YOUR SAFETY:

READ ALL INSTRUCTIONS CAREFULLY



BELT AND DISC SANDER

- assembly
- operating
- repair parts

Safety instructions for belt and disc sander

Safety is a combination of common sense, staying alert and knowing how your belt and disc sander works. Read this manual to understand this sander.

BEFORE USING THE SANDER

WARNING: TO avoid mistakes that could cause serious, permanent injury, do not plug the sander in until the following steps are completed.

- Assembly and alignment. (See pages 7-11)
- Learn the use and function of the ON-OFF switch, backstop、belt tracking knob、belt tension lever, work table and work table tilt lock knob.(See pages 12-13)
- Review and understanding of all safety instructions and operating procedures in this manual.
- Review of the maintenance methods for this sander. (See pages 19-20)
- Read the following WARNING label found on the front of the sander:

⚠WARNING

1. Read manual before using sander.
2. Wear safety goggles
3. Wear a dust mask.
4. Maintain 1/16" maximum clearance between table and sanding belt and disc.
5. Always support work piece with"backstop"or "worktable".
6. Avoid "kickback"(workpiece with "thrown at you);use only the left half of the disc.
7. Avoid fire clean out all sawdust and disconnect From any vacuum before sanding metasl

WHEN INSTALLING OR MOVING THE SANDER

AVOID DANGEROUS ENVIRONMENT. Use the sander in a dry, indoor place protected from rain. Keep work area well lighted.

Place the sander so neither the user nor bystanders are forced to stand in line with the abrasive belt or disc.

To avoid injury from unexpected sander movement:

- Always unplug the sander before moving it.
- Put the sander on a firm level surface where there is plenty of room for handling and properly supporting the workpiece
- Support the sander so it does net rock.
- Bolt the sander to its work surface .Use the fasteners and method shown in "Assembly and Alignment".(Page 7)
- NEVER STAND ON TOOL. Serous injury could occur if the tool tips. Do not store anything above or near the tool where anyone might stand on the tool to reach them.

BEFORE EACH USE:

Inspect your sander.

DISCONNECT THE SANDER. To avoid injury from accidental starting , unplug the sand, and turn the switch off before changing the setup , sanding disc or belt or adjusting anything .

CHECK DAMAGED PARTS. Check for:

- alignment of moving parts,
- binding of moving parts,
- broken parts,
- work parts that cause a gap larger than 1/16" between work support and sanding surface,
- sanding belt narrower than 4 inches. Narrower belts uncover parts that could trap your fingers,
- worn or damaged electric cords,
- stable mounting, and
- any other conditions that may affect the way the sander works.

If any part is missing bent, or broken in any way, or any electrical parts don't work properly, turn the sander off and unplug sander. REPLACE damaged, missing, or failed parts before using the sander again.

MAINTAIN TOOLS WITH CARE. Keep the sander clean for best and safest performance .Follow instructions for lubricating.

REMOVE ADJUSTING KEYS AND WRENCHES from tool before turning it on.

To avold injury from jams, sllps or thrown plesces:

- USEONLYRECOMMENDEDED ACCESSORLES. Consult this Owner's manual for recommended accessories. Follow the instructions that come with the accessories. The use of improper accessories may cause risk of injury to person.

- Adjust any work support to clear the sanding surface by no more than 1/16 of an inch .When checking clearance between the belt and work support, press the belt flat against the metal beneath it .
- Make sure all clamps and locks are tight and no parts have excessive play.
- KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents. Floor must not be slippery.

To avoid bums or other fire damage, never use the sander near flammable liquids, vapors or gases.

PLAN AHEAD TO PROTECT YOUR EYES, HANDS, FACE, EARS.

KNOW YOUR SANDER. Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

To avoid injury from accidental contact with moving parts:

- KEEP GUARDS IN PLACE and in working order.
- Don't do layout, assembly, or setup work on the sander while any parts are moving .
- AVOID ACCLDENTAL STARTING .Make sure switch is “off” before plugging sander into a power outlet.

Plan your work.

USE THE RIGHT TOOL. Don't force tool or attachment to do a job it was not designed to do.

CAUTION: This machine is not designed for heavy deburring operations. When finishing metals, sparks or hot fragments could cause a fire. To avoid this:

- Disconnect any dust collecting hose from the sander.
- Remove all traces of wood dust from inside the sander.
- Remove all traces of metal dust from inside the sander before sanding wood again.

Dress for safety.

Any power sander can throw foreign objects into the eyes. This can cause permanent eye damage. Wear safety goggles (not glasses) that comply with ANSI Z87.1 (shown on package). Everyday eyeglasses have only impact resistant ienses. They are not safety glasses. Safety goggles are available. Glasses or goggles not in compliance with ANSIZ87.1 could seriously hurt you when they break.

- Do not wear loose clothing, gloves, neckties or jewelry (rings, wrist watches). They can get caught and draw you into moving parts.

Safety instructions for belt and disc sander

- Wear nonslip footwear.
- Tie back long hair.
- Roll long sleeves above the elbow.
- Noise levels vary widely. To avoid possible hearing damage, wear ear plugs or muffs when using sander for hours at a time.
- Sanding operations are usually dusty. Wear a dust mask along with the safety goggles.

Inspect your work piece

Make sure there are no nails or foreign objects in the part of the workpiece to be sanded.

Plan your work to avoid THROWBACKS - when the work piece catches on the sanding belt or disc and is torn from your hands.

- Make sure there's no debris between the workpiece and its supports.
- When sanding irregularly shaped workpieces, plan your work support so it will not slip and be pulled from your hands.
- Use extra caution with large, very small or awkward workpieces.
- Never use this tool to .`finish pieces too small to hold by hand.
- Use extra supports (tables, saw horses, blocks, etc.) For any workpieces large enough to tip when not held down to the table top.
- NEVER use another person as a substitute for a table extension, or as additional support for a workpiece that is longer or wider than the basic sander table, or to help feed, support or pull the workpiece.
- When finishing on the disc, always press the work-piece against the 'Down" side of the disc. Sanding against the side coming up from under the table could damage the work by making it "chatter," or tear the work from your hands and throw it.
- Sand only one workpiece at a time.
- Clear everything except the workpiece and related support devices off the table before turning the sander on.

Plan the way you will hold the workplace from start to finish.

Avoid awkward operations and hand positions where a sudden slip could cause fingers or hand to move into a sanding surface. Keep fingers away from where the belt goes into the dust trap.

DONT OVERREACH. Keep good footing and balance. Keep your face and body to one side, out of line with a possible throwback.

WHENEVER SANDER IS RUNNING

WARNING: Don't let famillarity (gained from frequent use of your belt and disc sander) cause a careless mistake. A careless fraction of a second is enough to cause a severe Injury.

Before starting your work, watch the sander while it runs. If it makes an unfamiliar noise or vibrates a lot, stop immediately. Turn the sander off. Unplug the sander: Do not restart until finding and correcting the problem. Make sure the sanding disc turns counterclockwise before using the sander.

KEEP CHILDREN AWAY. Keep all visitors a safe distance from the sander. Make sure bystanders are clear of the sander and workpiece.

DONTFORCE TOOL. It will do the job better and safer at its designed rate. Press the workpiece against the sanding material only hard enough to let it sand without bogging down or binding.

Before freeing any jammed material:

- Turn switch " Off
- Unplug the sander.
- Wait for all moving parts to stop.

BEFORE LEAVING THE SANDER:

NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

MAKE WORKSHOP CHILD-PROOF. Lock the shop. Disconnect master switches. Store it away from children and others not qualified to use the tool.

motor specifications and electrical requirements

This machine is designed to use, and is equipped with, a 2850 RPM motor. It is wired for operation on 230 volts, 50 Hz., alternating current.

For replacement motor, refer to parts list in this manual.

CONNECTING TO POWER SUPPLY OUTLET

This machine must be grounded while in use to protect 'he operator from electric shock.

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.

WARNING: To avoid electrocution: Do not let fingers touch the terminals of plugs when installing or removing the plug to or from the outlet.

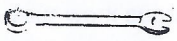
WARNING: if not properly grounded, this power tool can cause an electrical shock, particularly when used In damp locations close to plumbing. if an electrical shock occurs there is the potential of a secondary hazard. such as your hands contacting the sanding surface.

WARNING: To avoid electrocution or fire. if power cord Is won or cut, or damaged in any way, have i t replaced immediately,

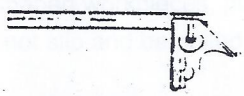
Contents

unpacking and checking contents

TOOLS NEEDED



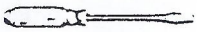
10MM WRENCH



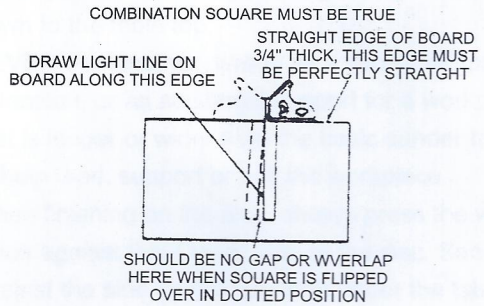
COMBINATION SQUARE

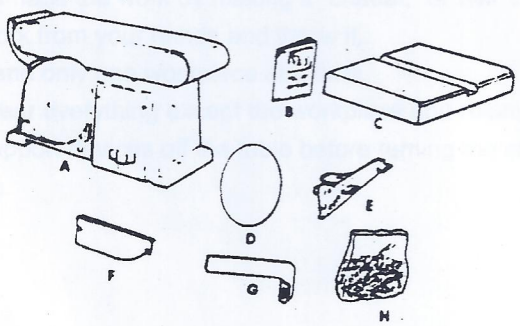
PHILLIPS TYPE
SCREWDRIVER

6MM HEX"L" WRENCB



STANDARD
SCREWDRIVER





Separate all parts from packing materials and check each item with illustration and "Table of Loose Parts.
NOTE: Make certain all items are accounted for, before discarding any packing material.
WARNING: To avoid Injury, If any parts are missing, do not attempt to assemble the Belt and Disc Sander, plug in the power cord, or turn the switch on until the missing parts are obtained and Installed correctly.
WARNING: For your own safety, never connect plug to power source outlet, or insert switch key until all assembly steps are complete and until you have read and understood the entire owners manual.

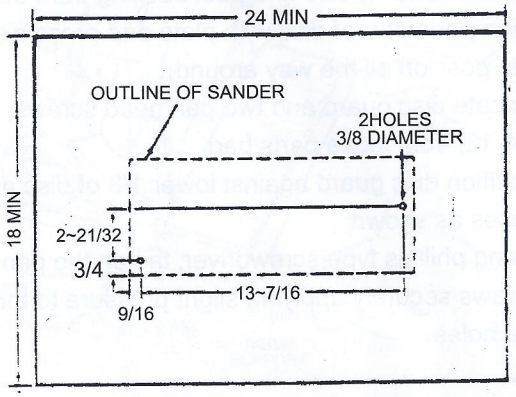
ITEM	TABLE OF LOOSE PARTS	OTY.
A	Belt and Disc Sander Assembly	1
B	Owner's Manual	1
C	Table	1
D	Sanding Disc	1
E	Table Support	1
F	Guard Disc	1
G	Work Support	1
H	Bag Assembly	
	Containing the following parts:	
	Knob	1
	Washer, 6.5 x 17.8 x 1.6	5
	Screw, Pan Hd. TY"AB" M4.2 x 1.9-12	2
	Switch Key	1
	Lock washer, Ext. M6	4
	Scale Label	1
	Screw, Hex Hd. M6 x 1.0-14	4

assembly

MOUNTING BELT AND DISC SANDER TO WORKBENCH

If belt and disc sander is to be used in a permanent location, it should be fastened securely to a firm supporting surface such as a workbench:

if mounting to a workbench, holes should be drilled through supporting surface of the workbench using dimensions illustrated.



ALL MEASUREMENTS ARE INCHES UNIESS OTHERWISE NOTED

1. The unit should be bolted securely using 5/16" screws and hex nuts (not included). Screw length should be 1-1/2" plus the thickness of the bench top.
2. Locate and mark the holes where belt and disc sander is to be mounted.
3. Drill (2) 3/8" diameter holes through workbench.
4. Place belt and disc sander on workbench aligning holes on base with holes drilled in workbench.
5. Insert two 5/16" screws and tighten hex nuts.

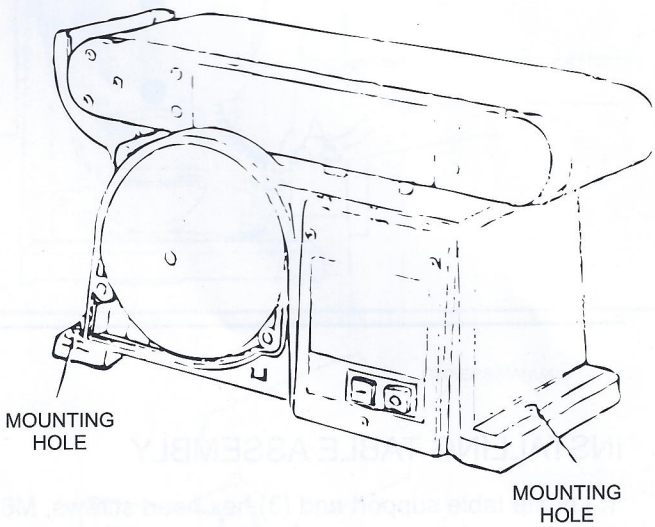
An alternate method of mounting is to fasten bet and disc sander to a mounting board. The board should be of sufficient size to avoid tipping of sander while in use. Any good grade of plywood or chipboard with a 3/4' ,minimum thickness is recommended. (Thinner chipboard can break.)

CAUTION: To avoid Injury from tool movement, use 5/16" or larger screws and nuts.

1. Follow instructions for mounting to workbench, substituting a board 18' x 24" minimum size and using 5/16 inch that head screws, lockwashers, and hex nuts (not 'included). Screw length should be 1-1/2"plus the thickness of the mounting board.

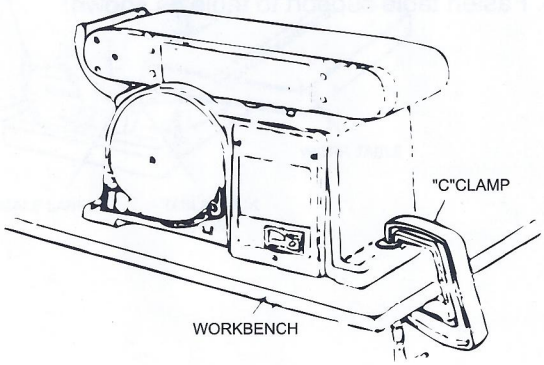
NOTE: For proper stability, holes must be counter sunk so screw heads are flush with the bottom surface of supporting board.

CATIO N: To avoid injury from tool movement, supporting surface where belt and disc sander is mounted should be examined carefully after mount ing to insure that no movement during use can result. if any tipping or walking Is noted, secure workbench or supporting surface before operating belt and disc sander.



CLAMPING BELT .AND DISC SANDER TO WORKBENCH

The belt and disc sander can be clamped directly to a workbench using two (2) or more "C' clamps on base of :unit('one clamp on each end of unit).



assembly

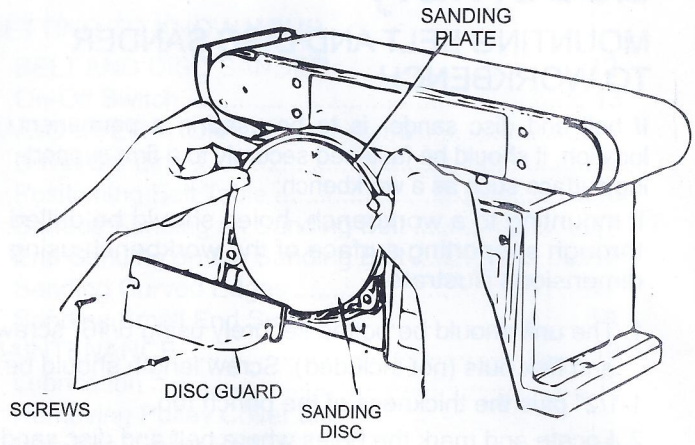
INSTALLING SANDING DISC AND GUARD

1.Locate sanding disc and peel backing tram disc,. Align perimeter of disc with plate and press disc firmly into position all the way around.

2. Locate disc guard and two pan head screws, M4.2 x 1.4-12, from loose parts bag

3.Position disc guard against lower 1/3 of disc aligning hoses as shown

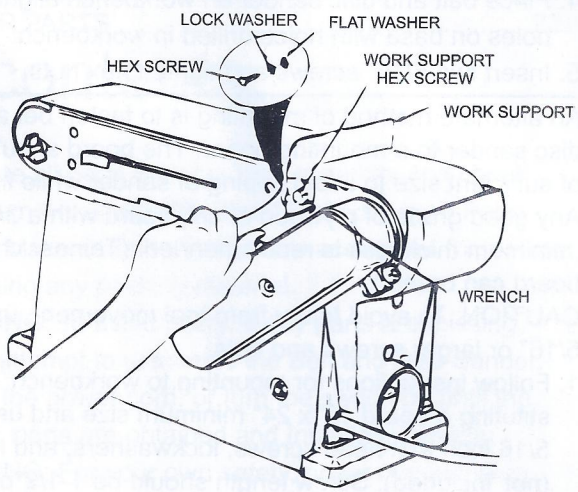
4 Using phillips type screwdriver, fasten the pan head screws securely applying slight pressure to thread the holes.



INSTALLING WORK SUPPORT

1. Locate work support and hex screw M6 ×1.0-14, washer and lockwasher.

2. Hold work support Into position and fasten as shown. Do not overtighten.

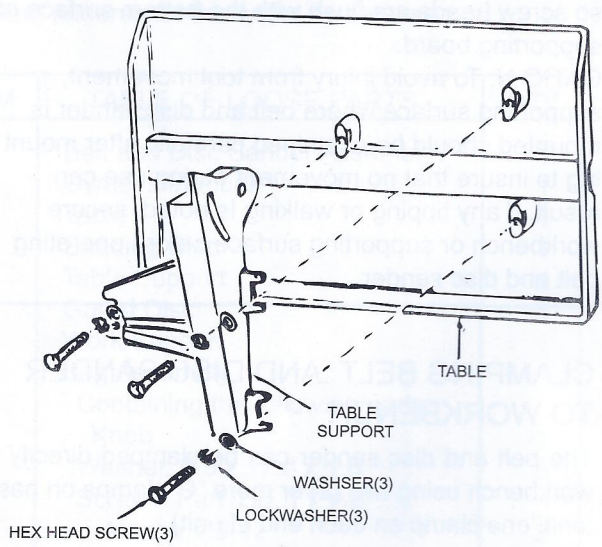


INSTALLING TABLE ASSEMBLY

1. Locate table support and (3) hex head screws, M6 × 1.0-14, washer and lockwashers among loose parts.

2. Position table support against table, aligning holes as shown.

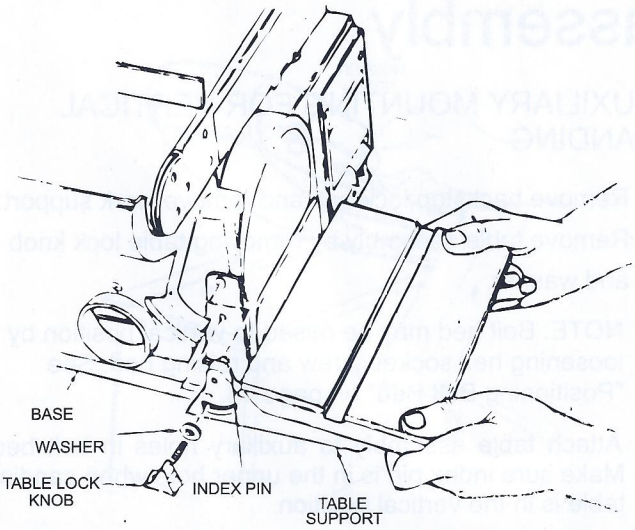
3. Fasten table support to table as shown.



4: Locate washer 6.5×17.8×1.6 and knob among loose parts.

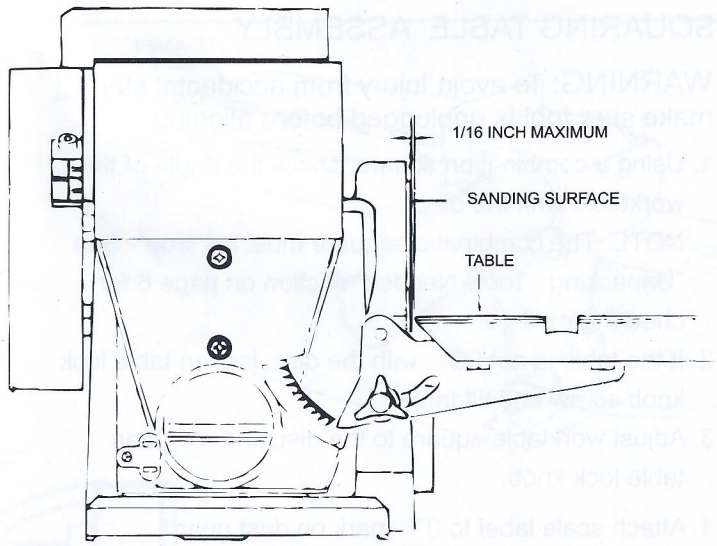
5. Position table support in corresponding holes on side of base as shown. Make sure the 9.5mm diameter index pin aligns with upper hole.

6. Place washer on threaded shaft of knob and insert through slot Into threaded holes of base



WARNING: To avoid trapping the work or finges between the table and sanding surface, the table edge should be a maximum of 1/16 inch from sanding surface.

7. Loosen the (3) hex head screws and adjust table.



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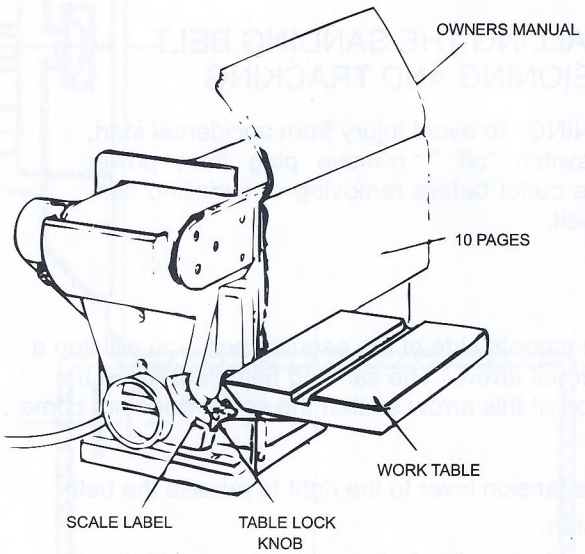
8. Use your Owner's Manual as a spacer. Place ten pages of the Owner's Manual between the Disc and the front edge of the table. Hold the table against the manual and tighten the three (3) Hex Washer Head screws.



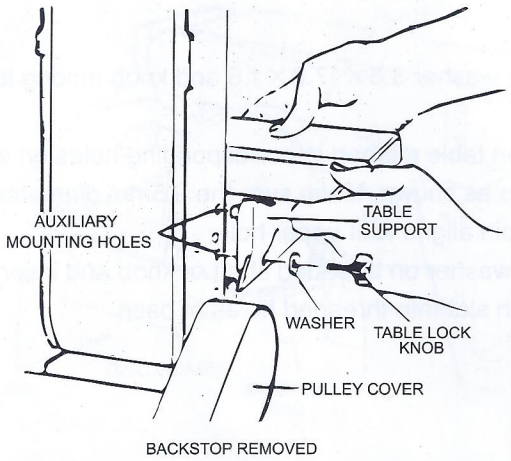
assembly

AUXILIARY MOUNTING FOR VERTICAL SANDING

1. Remove backstop lock belt and remove work support:
2. Remove table assembly by removing table lock knob and washer.

   NOTE: Belt bed may be raised to vertical position by loosening hex socket screw and raising bed. See "Positioning Belt Bed" on page 13.

3. Attach table assembly to auxiliary holes in belt bed. Make sure index pin is in the upper hole when sanding table is in the vertical position.



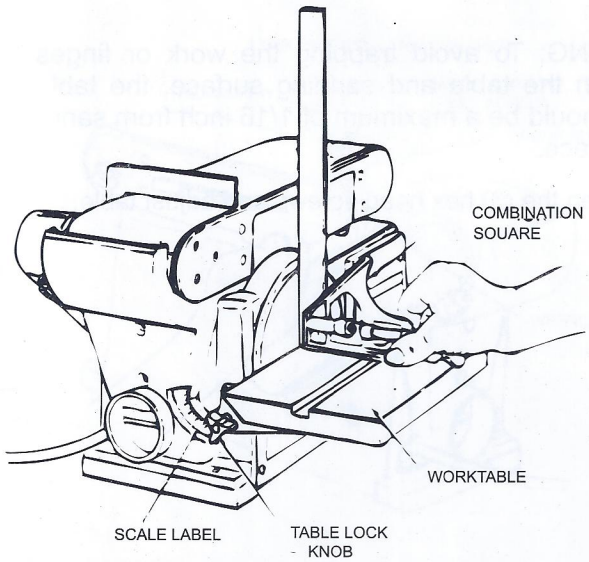
SQUARING TABLE ASSEMBLY

WARNING: To avoid Injury from accidental start, make sure tool Is unplugged before aligning.

1. Using a combination square, check the angle of the worktable with the disc.

   NOTE: The combination square must be "true"- See "Unpacking - Tools Needed" section on page 6 for checking method.

2. If the table is not 90° with the disc, loosen table lock knob screw and tilt table.
3. Adjust worktable square to the disc and retighten table lock knob.
4. Attach scale label to 0° mark on dust guard.

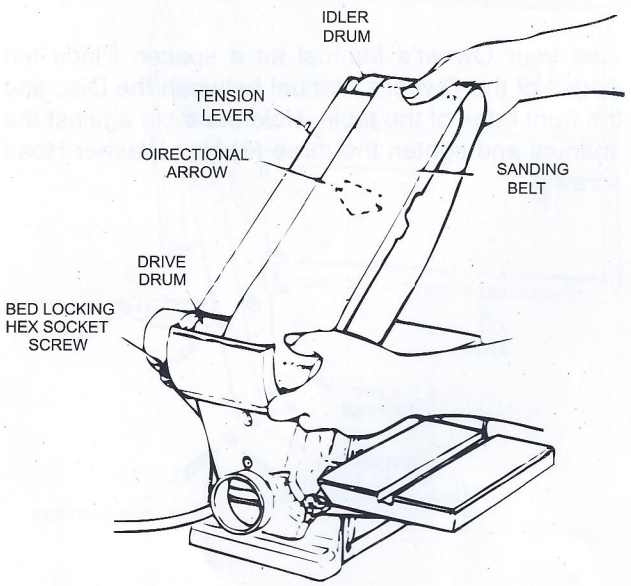


INSTALLING THE SANDING BELT TENSIONING AND TRACKING

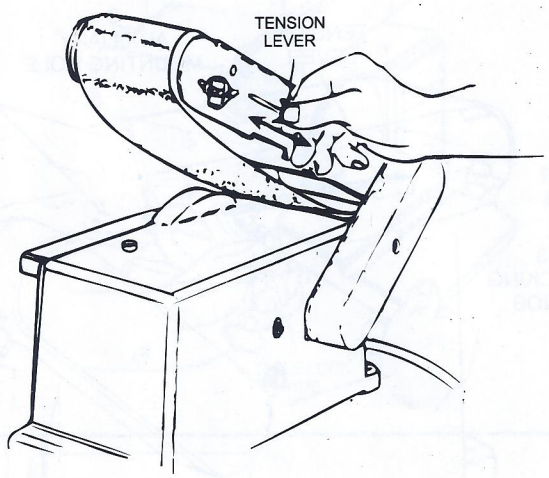
WARNING: To avoid Injury from accidental start, turn switch "off ", remove plug from power source outlet before removing or installing sanding belt.

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

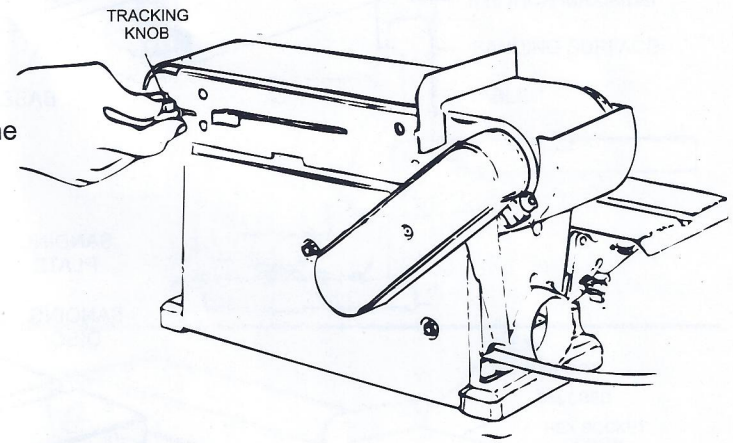
1. Slide tension lever to the right to release the belt tension.
2. Place the sanding belt over the drums with the directional arrow pointing as shown. Make sure the belt is centered on both drums.

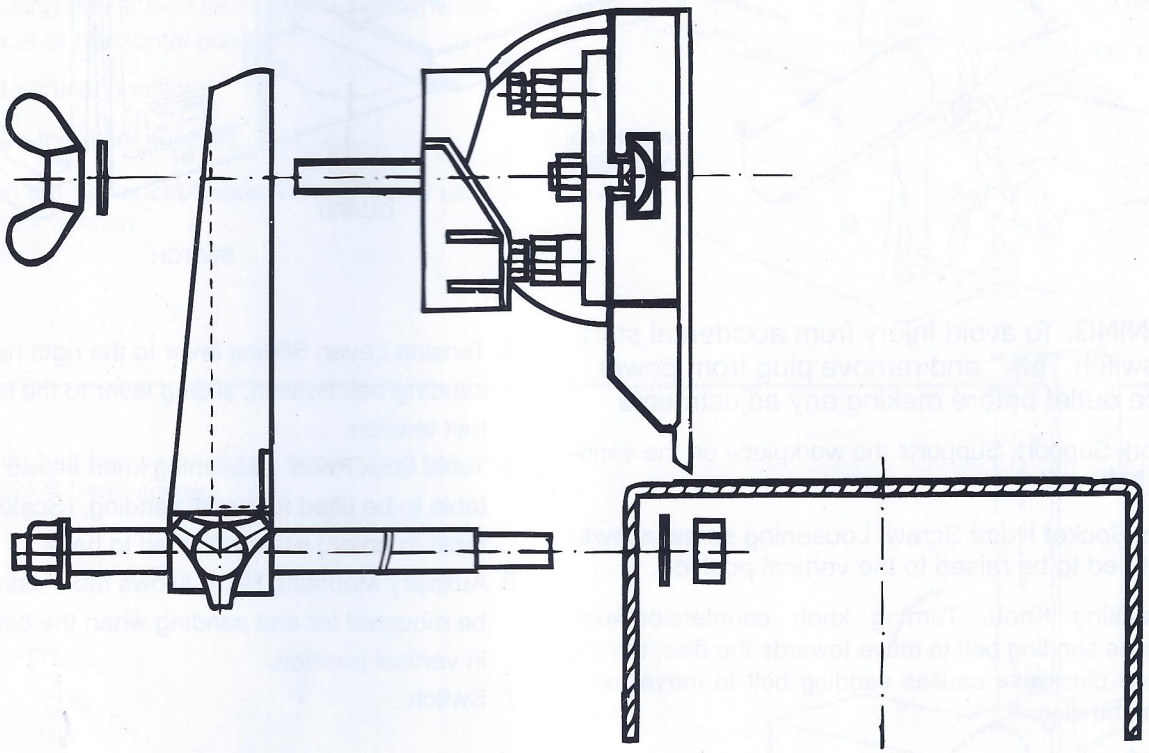


3. Slide tension lever to the left to apply belt tension.
4. Tighten hex socket screw when bed is in desired position.
5. Plug in the power cord. Turn Switch " on" and immediately "off ," noting if the belt tends to slide off the idler drum or drive drum. If it did not tend to slide off, it is TRACKING properly.

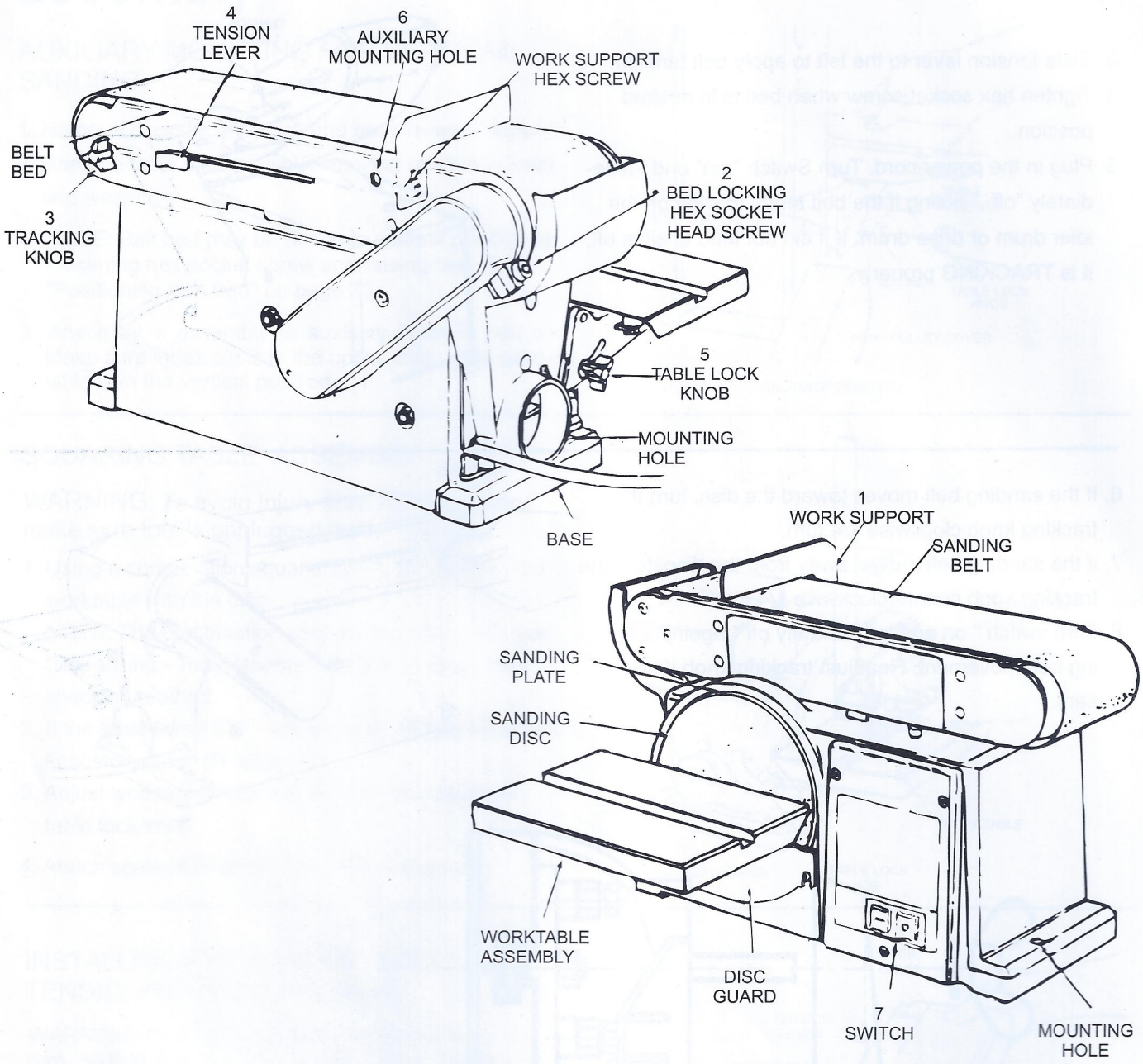


6. If the sanding belt moves toward the disc, turn the tracking knob clockwise 1/4 turn.
7. if the sanding belt moves away from the disc, turn the tracking knob counterclockwise 1/4 turn.
8. Turn switch " on and immediately off " again, noting belt movement. Readjust tracking knob if neces sary.





getting to know your belt and disc sander



WARNING: To avoid Injury from accidental start, turn switch " off '" and remove plug from power source outlet before making any adjustments.

1 . Work Support. Supports the workpiece on the sanding belt.

2. Hex Socket Head Screw. Loosening screw allows belt bed to be raised to the vertical position.

3. Tracking Knob. Turning knob counterclockwise causes sanding belt to move towards the disc; turning knob clockwise causes sanding belt to move away from the disc.

4. Tension Lever. Sliding lever to the right releases the sanding belt tension; sliding lever to the left applies belt tension.

5. Table Lock Knob. Loosening knob allows the worktable to be tilted for bevel sanding. (Scale pointer on table trunnion; scale attached to base.)

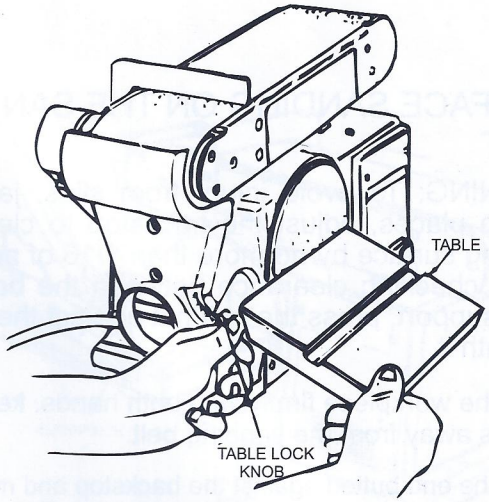
6. Auxiliary Mounting Hole. Allows table assembly to be mounted for end sanding when the bed is placed in vertical position.

7. Switch .

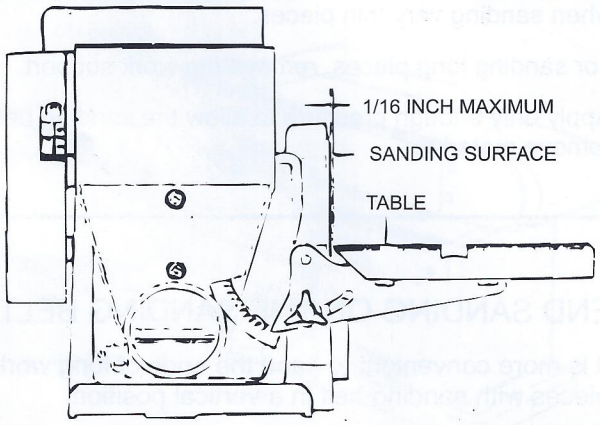
basic operation

BEVEL SANDING

The worktable can be tilted from 0° to 45° for bevel sanding. Loosen the table lock knob and tilt the work-table to desired angle as shown. Retighten table lock knob.



WARNING: To avoid trapping the work or fingers between the table and sanding surface, the table should be repositioned on the table support to retain a maximum of 1/16 Inch distance between sanding surface and table.

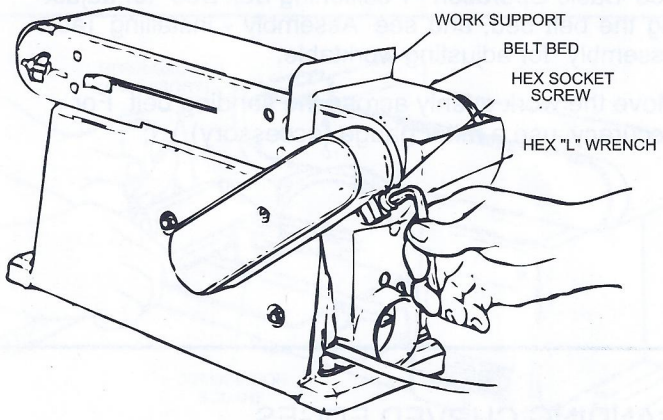


POSITIONING BELT BED

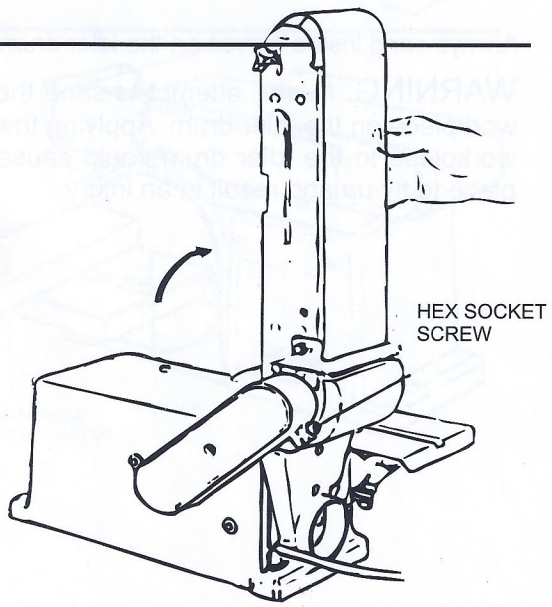
A bed locking hex socket head screw locks the beit bed in a vertical or horizontal position.

To adjust vertical position:

1. Remove the work support.
2. Loosen the hex socket head locking screw using a 6mm hex wrench.



3. Position belt bed vertically as shown and tighten the hex socket head screw.

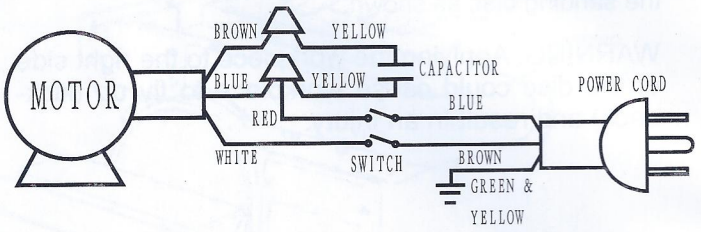


maintenance

WARNING: For your own safety, turn switch ", off " and remove plug from power source outlet before adjusting, maintaining, or lubricating your belt and disc sander.

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.

If power cord is wom or cut, or damaged in anyway, have it replaced immediately.



WIRING DIAGRAM

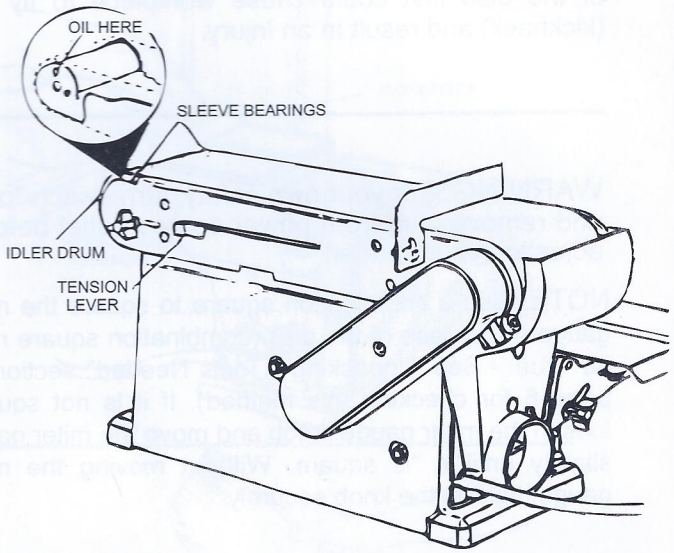
Frequently blow out or vacuum out any dust that may accumulate inside the motor.

A coat of automobile-type wax applied to the worktable will make it easier to feed the work while finishing.

Do not apply wax to the abrasive belt table because the belt could pick up the wax and deposit it on the pulleys, causing the belt to slip.

LUBRICATION

The BALL BEARINGS in this machine are packed with grease at the factory. They require no further lubrication. Sleeve bearings should be lubricated with 30 weight oil or equivalent after each 10 hours of operation - see instructions below.



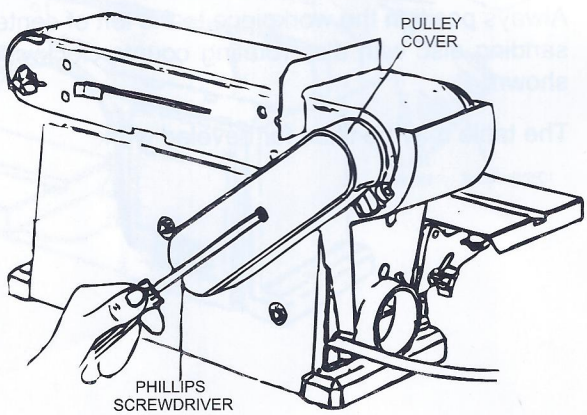
OILING SLEEVE BEARINGS

WARNING: TO AVOID INJURY, TURN SWITCH OFF, REMOVE KEY AND REMOVE PLUG FROM POWER SOURCE OUTLET BEFORE OILING UNIT.

1. Release belt tension by sliding the tension lever to the right.
2. Move the sanding belt slightly to either side of the idler drum to expose the oval shaped oiling hole.
3. Apply two to three drops of oil in the hole on each side as shown. Do not apply more than three drops of oil. Too much oil can cause belt to slip, and oil may get on workpiece.
4. Adjust belt tracking as described in the Assembly instructions under the heading "installing the Sanding Belt - Tensioning and Tracking."

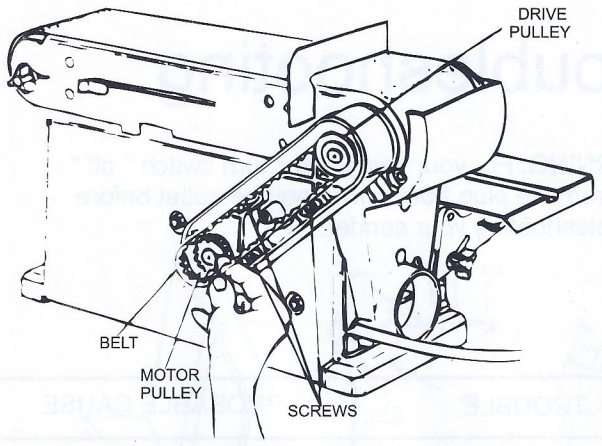
REMOVING PULLEY COVER AND INSTALLING TIMING DRIVE BELT

1 . Using a phillips screwdriver, remove the flat head screw located in the middle of the cover.
2. Remove the cover.

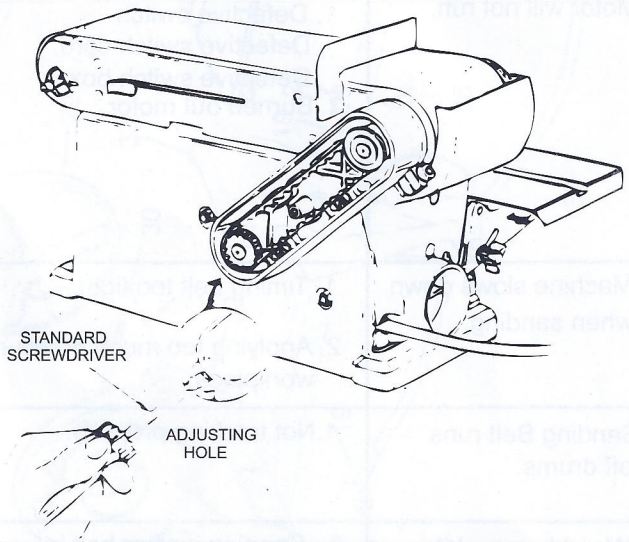


maintenance

3. Loosen (3) screws to allow pulleys to shift enough to place belt around them. Place belt around motor pulley and drive pulley as shown if belt is ever broken.

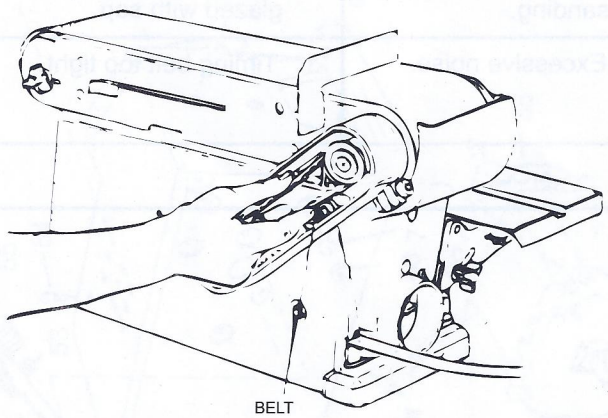


4. Slightly tighten (3) screws. Adjust tension of belt by putting blade screwdriver in adjusting hole. Push up on screwdriver to tighten tension between pulleys.
5. Tighten screws being careful not to disturb belt.



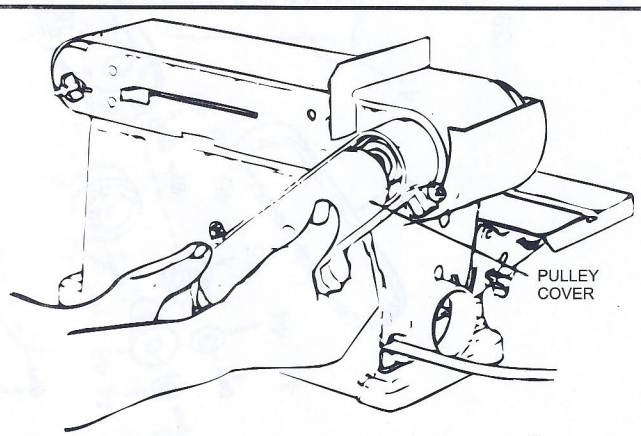
6. Test belt tension by placing fingers on either side of belt and squeeze. There should be about a 1/4" give to the belt.

NOTE: Excessive tightness on pulley belt may cause increased noise and over load motor. Excessive looseness on pulley belt may cause belt to fail prematurely.



INSTALLING PULLEY COVER

1. Locate the pulley cover and position it inside the relief edges of pulley housing.
2. Using a phillips screwdriver, reinstall and tighten the flat head screw.



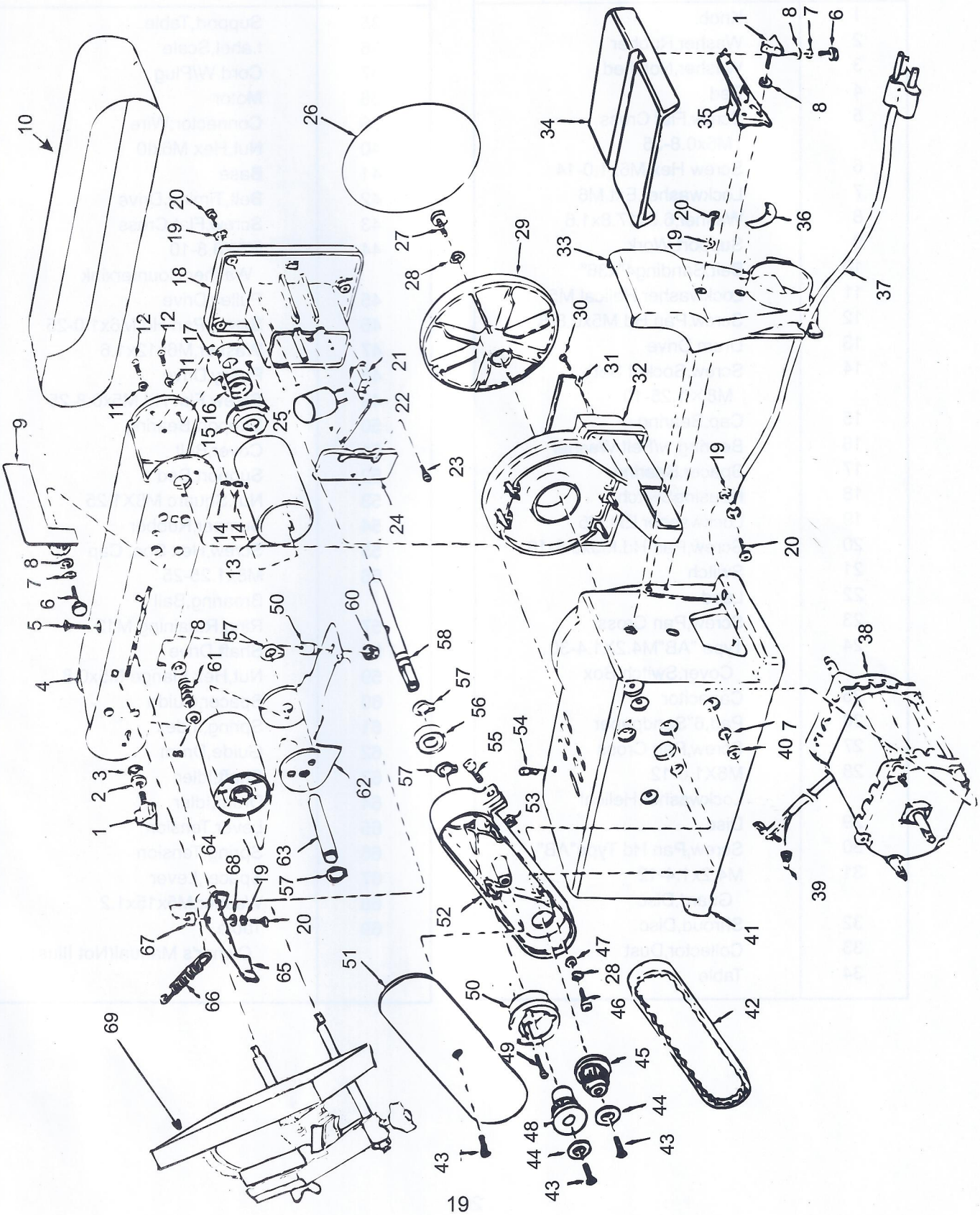
troubleshooting

WARNING: For your own safety, turn switch " off " and remove plug from power source outlet before troubleshooting your sander.

TROUBLE	PROBABLE CAUSE	REMEDY
Motor will not run.	1. Defective switch Defective switch cord. Defective switch box. 2. Burned out motor.	1 Replace defective parts before using belt disc sander again. 2. Any attempt to repair this motor may create a HAZARD unless repair is done by a qualified service technician.
Machine slows down when sanding.	1. Timing belt too tight. 2. Applying too much pressure to workpiece.	1. Decrease belt tension, see Maintenance section, "Removing Pulley Cover and Installing Timing Belt." 2. Ease upon pressure.
Sanding Belt runs off drums.	1.Not tracking properly.	1. Adjust tracking, see Assembly section, "Installing the Sanding Belt - Tensioning and Tracking"
Wood bums while sanding.	1 . Sanding disc or belt is glazed with sap.	1 . Replace disc or belt.
Excessive noise.	1. Timing belt too tight.	1. Decrease belt tension, see Maintenance Section "Removing Pulley Cover and Installing Timing Belt".

repair parts

PARTS LIST FOR BELT AND DISC SANDER



repair parts

Key No.	Description
1	Knob
2	Washer,Rubber
3	Washer,Notched
4	Bed
5	Scrcw,Flat Cross M5x0.8-35
6	Screw Hex M6x1.0-14
7	Lockwasher,Ext.M6
8	Washer,6.5x17.8x1.6
9	Support,Work
10	Belt,Sanding4"x36"
11	Lockwasher,Helical M5
12	Scrcw,Pan Hd M5x0.8-8
13	Drum,Drive
14	Screw,Socket Set M8×1.25-10
15	Cap,Bearing
16	Bearing w/Felt Washer
17	Spacer,Bearing
18	HousingSwitch
19	Lockwasher,Ext.M5
20	Screw,Pan Hd.M5x0.8-16
21	Switch
22	Lead
23	Screw,Pan Cross
24	Type "AB"M4.2X1.4-30 Cover,Switch Box
25	Capacitor
26	Pad,6"Sandpaper
27	Screw,Pan Cross
28	M6X1.0-12 Lockwasher,Helical
29	Disc
30	Screw,Pan Hd Type"AB"
31	M4.2x1.4-12 Guard,Disc
32	Shroud,Disc
33	Collector,Dust
34	Table

Key No.	Description
35	Support,Table
36	I.ahel,Scale
37	Cord W/Plug
38	Motor
39	Connector;Wire
40	Nut,Hex M6xI0
41	Base
42	Belt,Timing Drive
43	Screw,Flat Cross
44	M5X0.8-10 Washer,Counterxink
45	Pulley,Drive
46	Screw,Pan Hd.M6x1.0-25
47	Washer,M6x12x1.6
48	Pulley,Drive
49	Screw,Flat Hd.M5x0.8-25
50	Support,Bearing
51	Cover,Belt
52	Support,Bed
53	Nut,Squarc M8X1.25
54	Bumper,Rubber
55	Screw,Hex Soc. Cap
56	M8x1.25-25 Brearing,Ball
57	Ring,Retaining M12
58	Shaft,Drive
59	Nut,Hex Flange M5x0.8
60	Spacer,Guide
61	Spring,Index
62	Guide,Drum
63	Shaft,Idler
64	Drum,Idler
65	Lever,Tension
66	Spring,Tension
67	Spacer,Lever
68	Washer,M5x15x1.2
69	Table Owner's Manual(Not Illus)

PARTS LIST OF WOKING FENCE

PART No.	DESCRIPTION		PART No.	DESCRIPTION
1	Guide Segment		10	Knob 6mm
2	Fence		11	Bridge Plate
3	Fence Right End Cap		12	Hex Nut M8
4	Fence Segment		13	Wing Nut 8mm
5	Screw – Hex. M8x25mm		14	Flat Washer 8mm
6	Carriage Bolt M6x20		15	Hex. Nut M6
7	Fence Left End Cap		16	Fence carrier
8	Washer –8mm		17	Scale adjusting screw
9	Fence Carrier Rod		18	Slide Piece