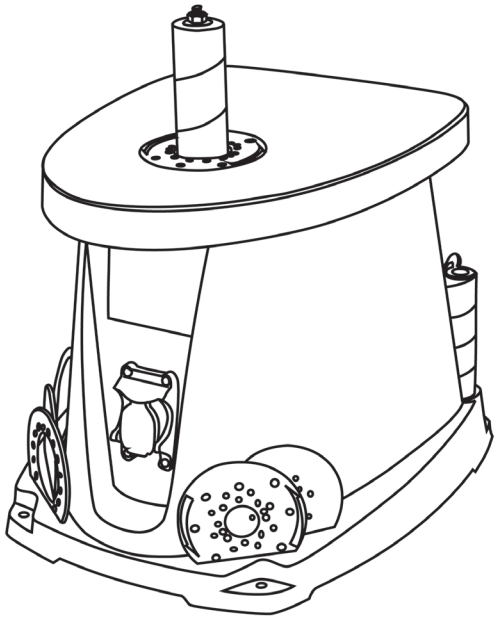
OSCILLATING SPINDLE SANDER



Model # 6510
bit.ly/wenvideo

IMPORTANT:

Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged, trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for intended purpose, you will enjoy years of safe, reliable service.



NEED HELP? CONTACT US!

Have product questions? Need technical support?
Please feel free to contact us at:

800-232-1195 (M-F 8AM-5PM CST)

techsupport@wenproducts.com

WENPRODUCTS.COM

TABLE OF CONTENTS

Technical Data 2
General Safety Rules 3
Specific Safety Rules For Spindle Sander 4
Electrical Information 5
Know Your Spindle Sander 6
Assembly and Adjustments 7
Operation 10
Maintenance 11
Troubleshooting 11
Exploded View and Parts List 12
Warranty 16

TECHNICAL DATA

Model Number:	6510
Motor:	120 V AC, 60 Hz, 3.5 A, 7/16 HP
Speed:	2000 RPM (no load)
Oscillations:	58 OPM with 5/8" of travel
Spindle Size:	1/2"
Sanding Sleeve Sizes:	1/2", 3/4", 1", 1-1/2", 2", 3"
Maximum Sanding Height:	3-5/8"
Weight:	35 lbs.

GENERAL SAFETY RULES

Safety is a combination of common sense, staying alert and knowing how your item works. **SAVE THESE SAFETY INSTRUCTIONS.**



WARNING: To avoid mistakes and serious injury, do not plug in your tool until the following steps have been read and understood.

1. READ and become familiar with this entire instruction manual. LEARN the tool's applications, limitations, and possible hazards.

2. AVOID DANGEROUS CONDITIONS. Do not use power tools in wet or damp areas or expose them to rain. Keep work areas well lit.

3. DO NOT use power tools in the presence of flammable liquids or gases.

4. ALWAYS keep your work area clean, uncluttered, and well lit. DO NOT work on floor surfaces that are slippery with sawdust or wax.

5. KEEP BYSTANDERS AT A SAFE DISTANCE from the work area, especially when the tool is operating. NEVER allow children or pets near the tool.

6. DO NOT FORCE THE TOOL to do a job for which it was not designed.

7. DRESS FOR SAFETY. Do not wear loose clothing, gloves, neckties, or jewelry (rings, watches, etc.) when operating the tool. Inappropriate clothing and items can get caught in moving parts and draw you in. ALWAYS wear non-slip footwear and tie back long hair.

8. WEAR A FACE MASK OR DUST MASK to fight the dust produced by sawing operations.



WARNING: Dust generated from certain materials can be hazardous to your health. Always operate the tool in a well-ventilated area and provide for proper dust removal. Use dust collection systems whenever possible.

9. ALWAYS remove the power cord plug from the electrical outlet when making adjustments, changing parts, cleaning, or working on the tool.

10. KEEP GUARDS IN PLACE AND IN WORKING ORDER.

11. AVOID ACCIDENTAL START-UPS. Make sure the power switch is in the OFF position before plugging in the power cord.

12. REMOVE ADJUSTMENT TOOLS. Always make sure all adjustment tools are removed from the saw before turning it on.

13. NEVER LEAVE A RUNNING TOOL UNATTENDED. Turn the power switch to OFF. Do not leave the tool until it has come to a complete stop.

GENERAL SAFETY RULES

14. NEVER STAND ON A TOOL. Serious injury could result if the tool tips or is accidentally hit. DO NOT store anything above or near the tool.

15. DO NOT OVERREACH. Keep proper footing and balance at all times. Wear oil-resistant rubber-soled footwear. Keep the floor clear of oil, scrap, and other debris.

16. MAINTAIN TOOLS PROPERLY. ALWAYS keep tools clean and in good working order. Follow instructions for lubricating and changing accessories.

17. CHECK FOR DAMAGED PARTS. Check for alignment of moving parts, jamming, breakage, improper mounting, or any other conditions that may affect the tool's operation. Any part that is damaged should be properly repaired or replaced before use.

18. MAKE THE WORKSHOP CHILDPROOF. Use padlocks and master switches and ALWAYS remove starter keys.

19. DO NOT operate the tool if you are under the influence of drugs, alcohol, or medication that may affect your ability to properly use the tool.

20. USE SAFETY GOGGLES AT ALL TIMES that comply with ANSI Z87.1. Normal safety glasses only have impact resistant lenses and are not designed for safety. Wear a face or dust mask when working in a dusty environment. Use ear protection such as plugs or muffs during extended periods of operation.

SPECIFIC RULES FOR THE SPINDLE SANDER



WARNING: Do not operate the spindle sander until it is completely assembled and installed according to the instructions.

1. Know your spindle sander; if any part is missing, bent, broken, or otherwise does not function properly, replace it before using the spindle sander.

2. Be familiar with the type of work to be performed when operating any power tool, including the spindle sander.

3. Hold the workpiece securely to the sander table with both hands to protect yourself and your project.

4. Be aware of the direction of the spindle's rotation. Be certain to feed the workpiece against the rotation of the spindle.

5. Always keep your hands out of the path of the sander and away from the sanding sleeves. Avoid hand positions where a sudden slip could cause your hand to move into the spindle. Do not reach underneath the workpiece or around the sanding sleeve while the spindle is rotating.

6. Disconnect the sander after turning off the power switch. Wait for the spindle to stop rotating before performing maintenance. The sander must be disconnected when not in use or when changing parts and accessories.

7. Make sure there are no nails or other foreign objects present in the area of the workpiece to be sanded.

SPECIFIC RULES FOR THE SPINDLE SANDER

8. Do not use the spindle sander for wet sanding. Failure to comply may cause electric shock leading to injury or death.

9. Use only identical replacement parts when servicing the sander.

10. Wait until the spindle comes to a complete stop before touching the workpiece.

11. Take precautions when sanding painted surfaces. Sanding lead-based paint is NOT RECOMMENDED. The contaminated dust is too difficult to control, and could cause lead poisoning. When sanding paint:

- Protect your lungs. Wear a dust mask or respirator.
- Do not allow children or pregnant women in the work area until the paint sanding job is finished and the clean-up is completed.
- Do not eat, drink, or smoke in an area where painted surfaces are being sanded.
- Use a dust collection system when possible. Seal the work area with plastic. Do not track paint dust outside of the work area.
- Thoroughly clean the area when the paint sanding project is completed.

ELECTRICAL INFORMATION



WARNING: This tool is for indoor use only. Do not expose to rain or use in damp locations.

GUIDELINES FOR USING EXTENSION CORDS

Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table below shows the correct size to be used according to cord length and nameplate ampere rating. When in doubt, use a heavier cord. The smaller the gauge number, the heavier the cord.

Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.

Protect your extension cords from sharp objects, excessive heat and damp/wet areas.

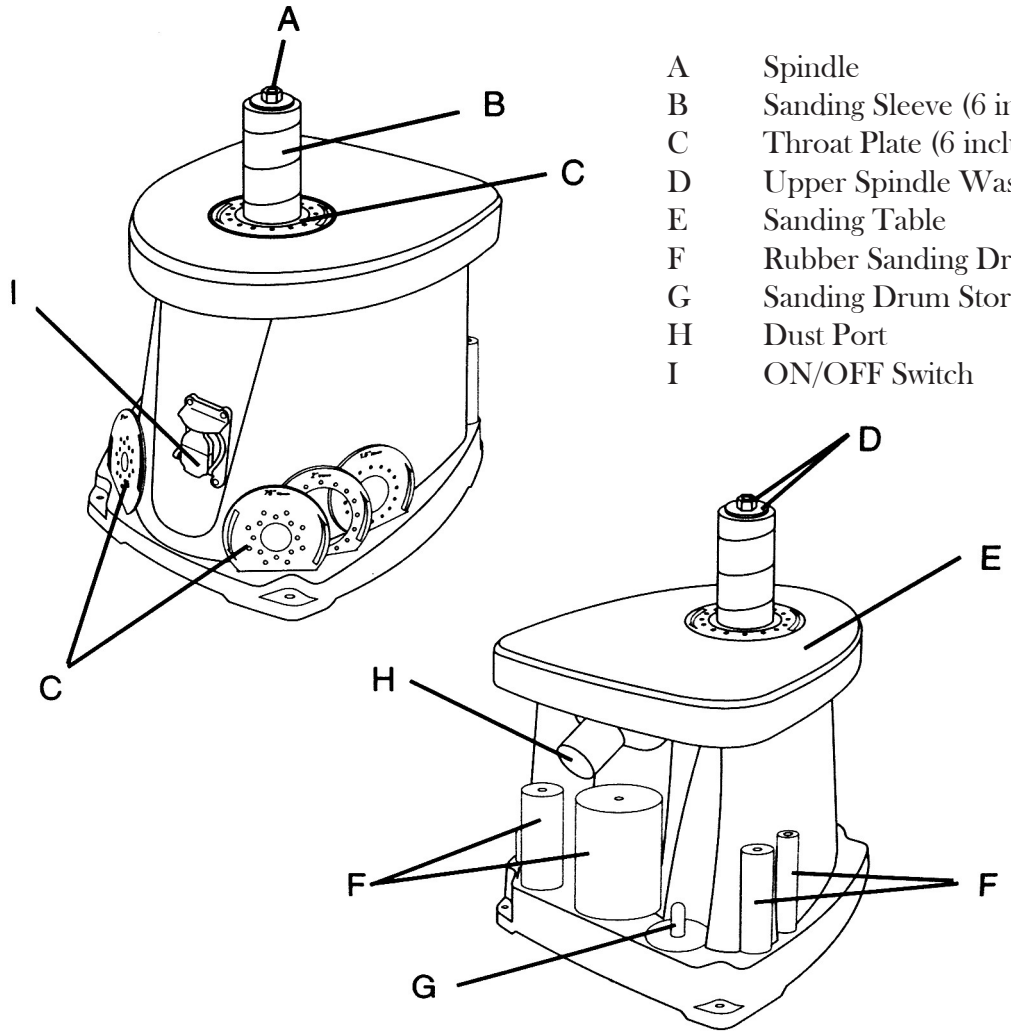
Use a separate electrical circuit for your tools. This circuit must not be less than a #12 wire and should be protected with a 15 A time-delayed fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.



WARNING: Although this tool is double-insulated, it must still be grounded while in use to protect the operator from electric shock.

AMPERAGE	REQUIRED GAUGE FOR EXTENSION CORDS			
	25 ft.	50 ft.	100 ft.	150 ft.
3.5 A	18 gauge	16 gauge	16 gauge	14 gauge

KNOW YOUR OSCILLATING SPINDLE SANDER



A	Spindle
B	Sanding Sleeve (6 included)
C	Throat Plate (6 included)
D	Upper Spindle Washer/Hex Nut
E	Sanding Table
F	Rubber Sanding Drums (5 included)
G	Sanding Drum Storage Peg
H	Dust Port
I	ON/OFF Switch

ASSEMBLY AND ADJUSTMENTS

WARNING: To avoid injury from accidental startups, turn the power switch OFF and remove the plug from the power source outlet before making any adjustments.

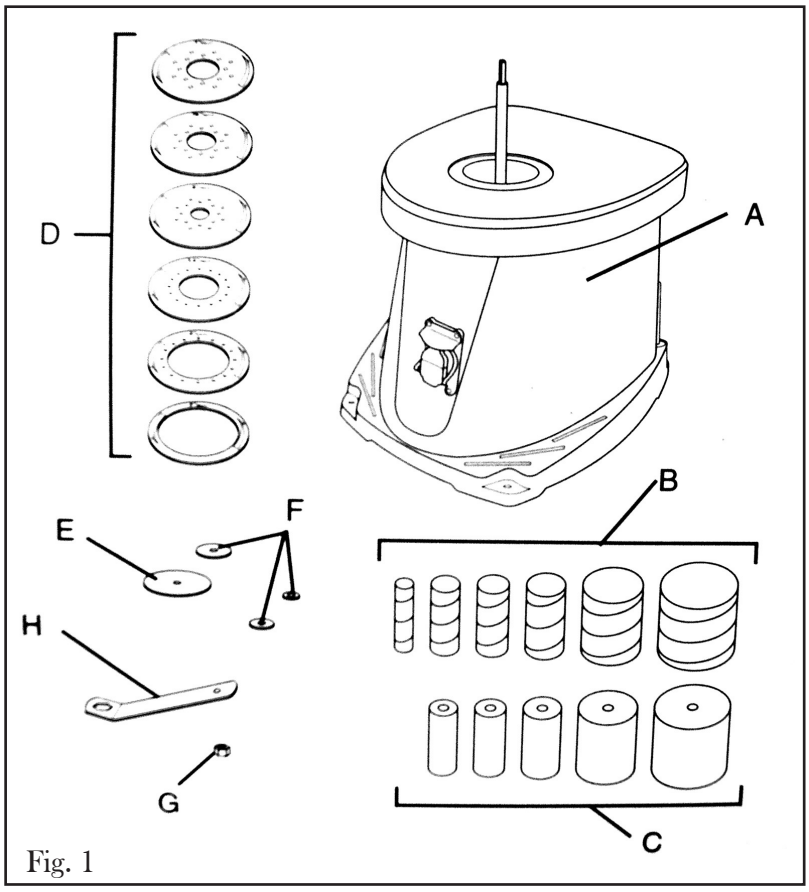


Fig. 1

A Spindle Sander

B Sanding Sleeves (6)

C Rubber Drums (5)

D Throat Plates (6)

E Lower Spindle Washer

F Upper Spindle Washers (3)

G Spindle Lock Nut

H Wrench

UNPACKING

Carefully unpack the spindle sander and all its parts, and compare against the list below (Fig. 1). Do not discard the carton or any packaging until the spindle sander is completely assembled. If any parts are missing or damaged, contact the WEN customer support line.

This spindle sander requires some assembly. For your safety, completely assemble the oscillating spindle sander before connecting it to the power or switching it on.

DUST COLLECTION

A 1-1/2" dust port is located at the rear of the machine as seen on page 6 (Item H) or in Fig. 2 to the right. This can be connected to a dust-collection system (not included).

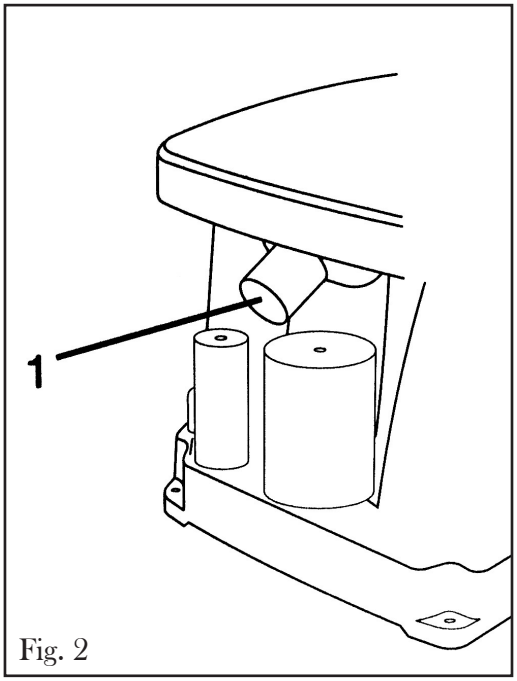


Fig. 2

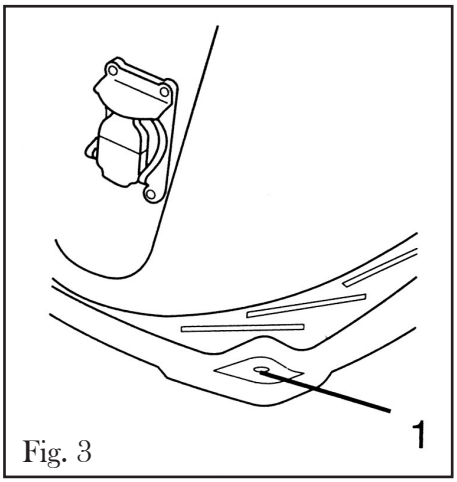


Fig. 3

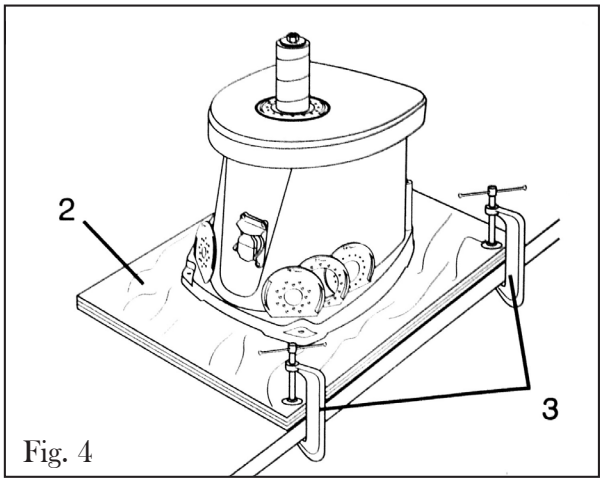


Fig. 4

SPINDLE SANDER MOUNTING (Figs. 3 and 4)
To mount the spindle sander permanently, choose a solid benchtop. If the sander is to be used portably, mount the sander to a mobile mounting board and use clamps to secure it to a solid surface (Fig. 4). When mounting the sander on either a board or a benchtop, use the corner holes as guides (Fig. 3) and secure the sander using bolts (not included). Lag bolts should go far enough into the bench in order to secure the sander, while machine bolts must pass through the benchtop completely.

SELECTING A SANDING SLEEVE
Select a sleeve that is an appropriate size for sanding your workpiece, and install the corresponding throat plate.

THROAT PLATE SELECTION (Fig. 5)

WARNING: Failure to install the correct throat plate for the sleeve size being used can lead to both personal injury and damage to the spindle sander.

Use the throat plate with the smallest amount of clearance between the plate and the spindle sleeve (Fig. 5). Use the chart below to help you determine which throat plate and upper spindle washer to use with each spindle sleeve.

Sanding sleeve diameter	Throat plate size	Upper spindle washer size
1/2"	.5"	small
3/4"	.75"	medium
1"	1"	medium
1 1/2"	1.5"	large
2"	2"	large
3"	3"	large

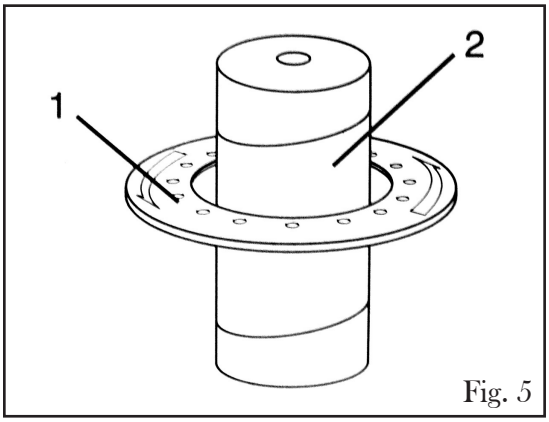


Fig. 5

INSTALLING A SANDING SLEEVE (Fig. 6)
All sleeves with the exception of the 1/2" sleeve fit over a rubber sanding drum. To install a sleeve:

1. Place the lower spindle washer (2) over the spindle (1) with the fin side facing down.

2. Select a sanding sleeve (5) for the job that you are planning. Select the corresponding rubber sanding drum (4).

Note: Do not use a sanding drum with the 1/2" sanding sleeve.

3. Select the throat plate (3) that provides the smallest clearance between the sanding sleeve (5) and the opening in the throat plate.

4. Place the throat plate (3) over the spindle (1), and fit it into the opening in the table.

5. Place the sanding drum (4) over the spindle.

6. Slide the sanding sleeve (5) over the sanding drum (4).

7. Place the appropriate upper spindle washer (6) over the spindle (1).

8. Place the hex nut (7) on the spindle (1). Tighten the hex nut only enough to expand the rubber sanding drum (4) against the sanding sleeve (5). Do not overtighten (Fig. 7).

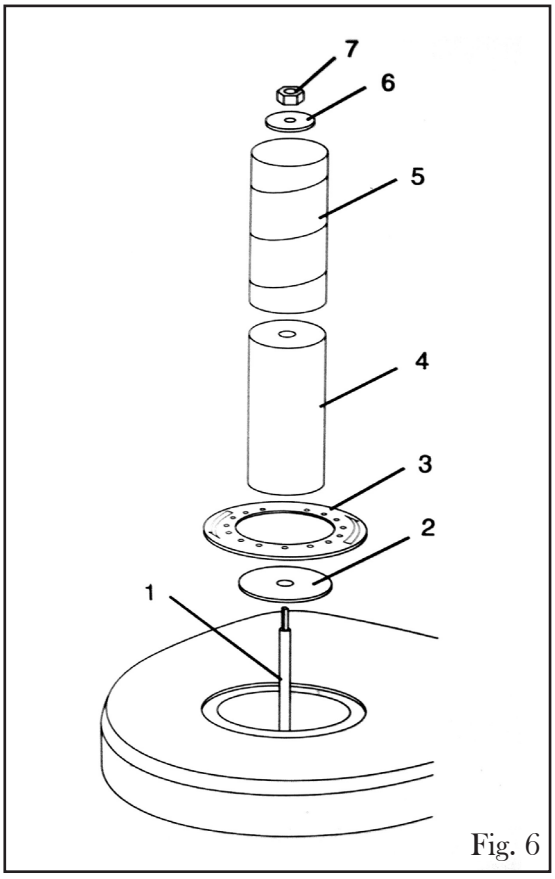


Fig. 6

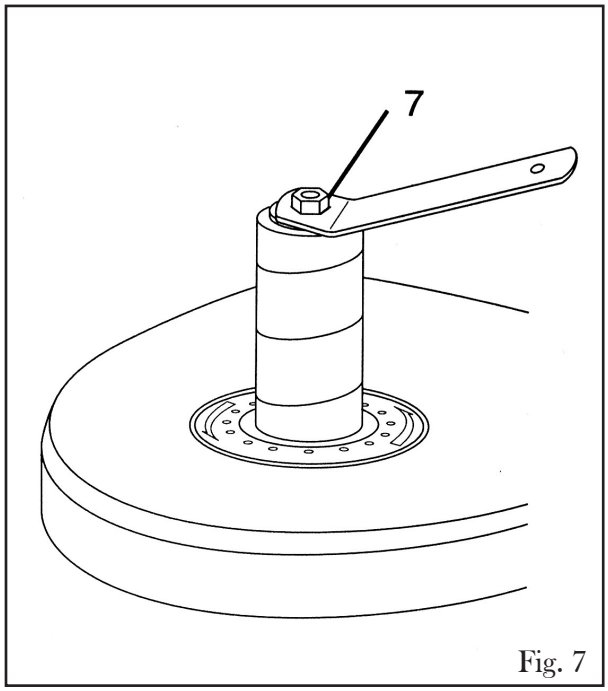


Fig. 7

ON/OFF SWITCH (Fig. 8)

The keyed switch is intended to prevent unauthorized use of the sander.

WARNING: Remove the safety key whenever the sander is not in use. Place the key in a safe place and out of the reach of children.

1. To turn sander ON, insert the safety key (1) into the key slot (2) in the center of the switch.

2. Push key firmly into the slot, then push switch to the ON position to start the sander.

3. To turn the sander OFF push switch to the OFF position.

4. Remove the safety key when the sander has come to a complete stop by gently pulling it forward and out.

Note: If the safety key is removed while the sander is running, the sander can be turned OFF, but it cannot be restarted without inserting the safety key.

OPERATING THE SANDER (Fig. 9)

WARNING: Do not sand metal with the spindle sander. Sanding metal will create sparks that present a serious fire hazard.

The spindle rotates in a counterclockwise (1) direction.
1. Make sure the hex nut (2) on top of the spindle is fastened securely.
2. Turn the sander ON, and let the motor reach full speed.
3. Feed the workpiece gradually against the sanding sleeve.
   - Do not force the workpiece.
   - Guide the workpiece from the right to left (3). If you guide the workpiece in the opposite direction, the rotation forces of the spinning sanding sleeve will tend to throw or bounce the workpiece away from the sanding sleeve.

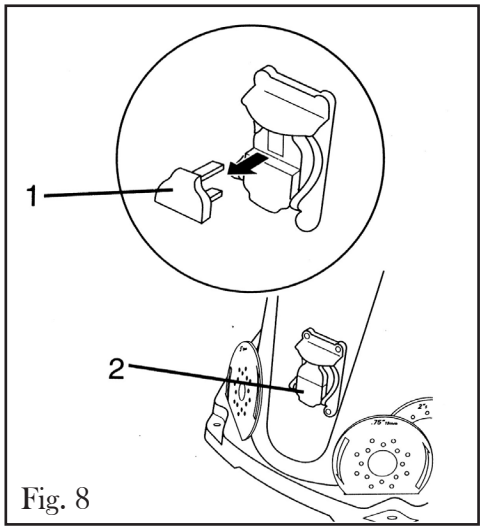


Fig. 8

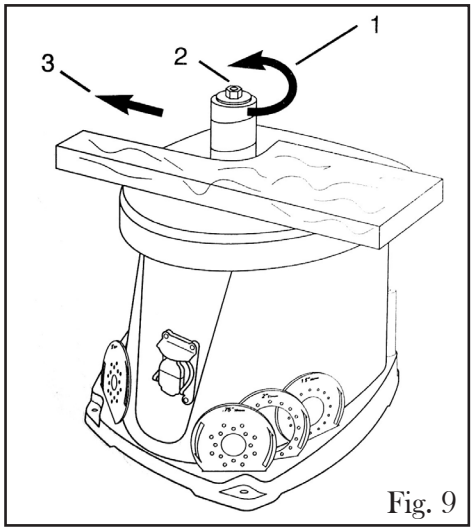


Fig. 9

MAINTENANCE



WARNING: For your own safety, turn the switch OFF and remove the plug from the electrical outlet before adjusting or performing maintenance or lubrication work on the belt/disc sander.

Before using, check to make sure parts are not damaged, missing, or worn. Check for alignment of moving parts, binding of moving parts, improper mounting, or any other conditions that may affect the sander operation. If any of these conditions exist, do not use the sander until parts are replaced or the sander is properly repaired. Frequently blow or vacuum dust from all sanding parts and motor housing.



WARNING: Any attempt to repair or replace electrical parts on this tool may be hazardous. Repairs should be done by a qualified service technician.

LUBRICATION

Ball bearings are grease packed at the factory and require no further lubrication. Use a spray lubricant on all moving table parts to ensure smooth operation.

CLEANING

Frequently blow away or vaccuum all sander parts and the motor housing. Periodically, remove the throat plate and lower spindle washer and remove any dust accumulation in the throat plate area.



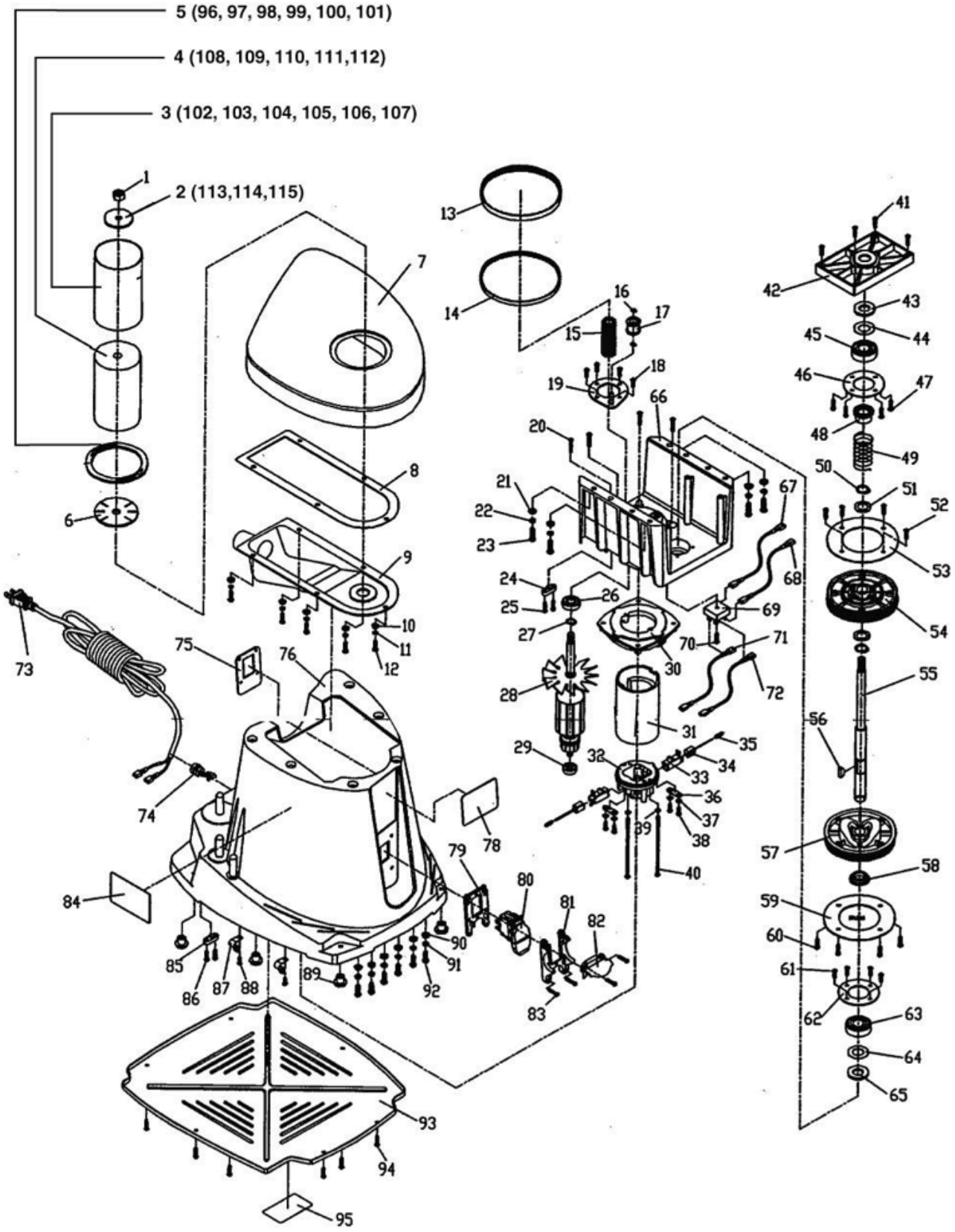
WARNING: Never use flammable or combustible solvents around power tools. When servicing, use only identical WEN replacement parts. Use of other parts may be hazardous or induce product failure.

TROUBLESHOOTING

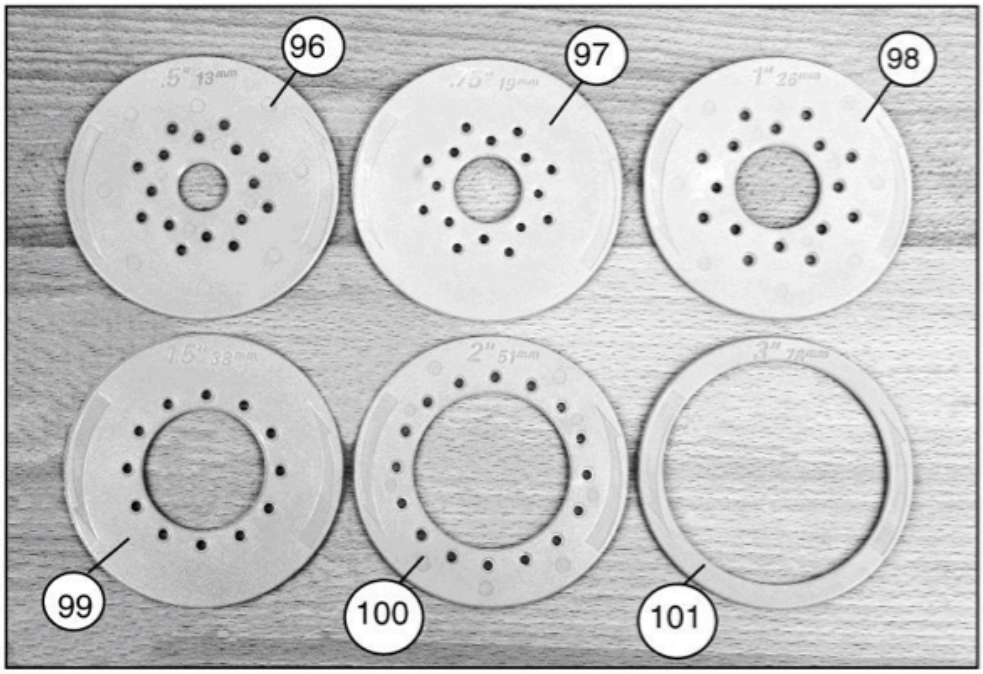
1. Over time, if the performance of the tool diminishes, or it stops working completely, it may be necessary to replace the Carbon Brushes by removing the Brush Holder. This procedure should only be completed by a qualified technician. If the Carbon Brushes are not worn down, try cleaning the Carbon Brush tips with an ink eraser.

2. If the Sanding sleeve stops rotating when you touch it or press the stock material against it, turn off the machine at once. Unplug the machine and check to make sure that the Hex Nut is threaded on tight to the Spindle.

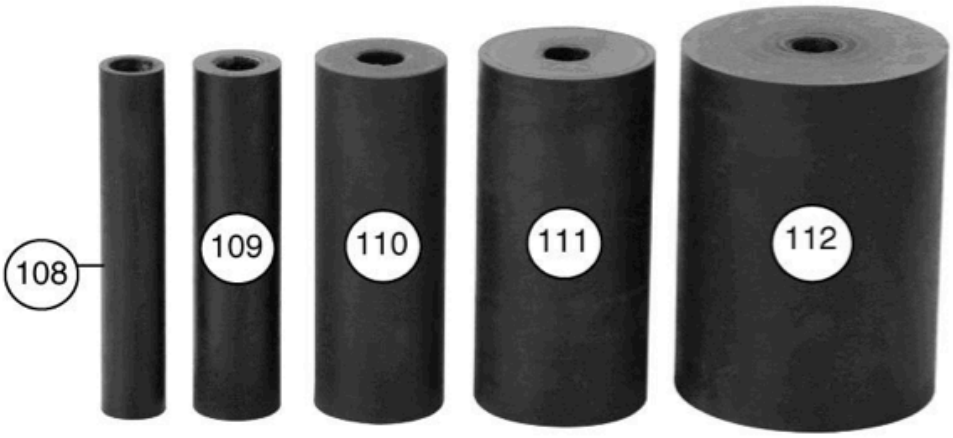
EXPLODED VIEW AND PARTS LIST



EXPLODED VIEW AND PARTS LIST







EXPLODED VIEW AND PARTS LIST

Part#	Stock #	Description
1	90225-001	Hex nut 10
2	90225-002	Upper spindle washer
3	90225-003	Sander sleeve
4	90225-004	Rubber spindle
5	90225-005	Throat plate
6	90225-006	Lower spindle washer
7	90225-007	Cast iron table
8	90225-008	Dust washer
9	90225-009	Dust cover
10	90225-010	Washer 5
11	90225-011	Spring washer 5
12	90225-012	Screw 5x12
13	90225-013	Belt
14	90225-014	Belt Ⅱ
15	90225-015	Belt wheel
16	90225-016	Spring washer
17	90225-017	Tension roller assembly
18	90225-018	Screw 4.2x13
19	90225-019	Orientation plate assembly
20	90225-020	Screw 4.2x22
21	90225-021	Washer 6
22	90225-022	Spring washer 6
23	90225-023	Screw 6x16
24	90225-024	Cord clamp
25	90225-025	Screw 4.2x15
26	90225-026	Bearing 6001zz
27	90225-027	Spring washer
28	90225-028	Armature assembly
29	90225-029	Bearing 608zz
30	90225-030	Connection plate
31	90225-031	Field assembly
32	90225-032	Rear cover
33	90225-033	Brush holder
34	90225-034	Carbon brush
35	90225-035	Brush spring
36	90225-036	Cord clamp
37	90225-037	Washer 4
38	90225-038	Screw 4.2x13
39	90225-039	Washer 4
40	90225-040	Screw 4.2x110
41	90225-041	Screw 4.2x22

Part#	Stock #	Description
42	90225-042	Bearing Cover
43	90225-043	Felt
44	90225-044	Rubber washer
45	90225-045	Bearing 6203zz
46	90225-046	Bearing support
47	90225-047	Screw 4.2x15
48	90225-048	Bearing sleeve
49	90225-049	Spring
50	90225-050	Spring washer
51	90225-051	Spindle washer
52	90225-052	Screw 4.2x13
53	90225-053	Wheel plate
54	90225-054	Wheel(Ⅰ)
55	90225-055	Spindle
56	90225-056	Pin
57	90225-057	Wheel(Ⅱ)
58	90225-058	Bearing sleeve
59	90225-059	Wheel plate
60	90225-060	Screw 4.2x13
61	90225-061	Screw 4.2x13
62	90225-062	Bearing support
63	90225-063	Bearing 6203zz
64	90225-064	Rubber washer
65	90225-065	Felt
66	90225-066	Wheel support
67	90225-067	Wire assembly(Ⅰ)
68	90225-068	Wire assembly(Ⅱ)
69	90225-069	Rectifier
70	90225-070	Screw 4.2x19
71	90225-071	Wire assembly(Ⅲ)
72	90225-072	Wire assembly(Ⅳ)
73	90225-073	Power cord
74	90225-074	Cord clamp
75	90225-075	Switch orientation plate
76	90225-076	Housing base
78	90225-078	Logo label
79	90225-079	Switch orientation(Ⅰ)
80	90225-080	Switch
81	90225-081	Switch orientation(Ⅱ)
82	90225-082	Switch assistant orientation
83	90225-083	Screw 4x16

EXPLODED VIEW AND PARTS LIST

Part#	Stock #	Description
84	90225-084	Warning label(Ⅰ)
85	90225-085	Cord clamp
86	90225-086	Screw 4.2x15
87	90225-087	Thread
88	90225-088	Screw 4.2x10
89	90225-089	Rubber foot
90	90225-090	Washer 6
91	90225-091	Spring washer 6
92	90225-092	Screw 6x16
93	90225-093	Bottom plate
94	90225-094	Screw 4.2x13
95	90225-095	Warning label(Ⅱ)
96	90225-096	1/2”Throat plate
97	90225-097	3/4”Throat plate
98	90225-098	1” Throat plate
99	90225-099	1-1/2” Throat plate

Part#	Stock #	Description
100	90225-100	2”Throat plate
101	90225-101	3” Throat plate
102	90225-102	1/2”Sanding sleeve(80 grit)
103	90225-103	3/4” Sanding sleeve(80 grit)
104	90225-104	1” Sanding sleeve(80 grit)
105	90225-105	1-1/2” Sanding sleeve(80 grit)
106	90225-106	2” Sanding sleeve(80 grit)
107	90225-107	3” Sanding sleeve(80 grit)
108	90225-108	3/4”Rubber spindle
109	90225-109	1” Rubber spindle
110	90225-110	1-1/2” Rubber spindle
111	90225-111	2” Rubber spindle
112	90225-112	3” Rubber spindle
113	90225-113	5/8”OD Rubber spindle
114	90225-114	7/8” OD Rubber spindle
115	90225-115	1-3/4” OD Rubber spindle

LIMITED TWO YEAR WARRANTY

WEN Products is committed to building tools that are dependable for years. Our warranties are consistent with this commitment and our dedication to quality.

LIMITED WARRANTY OF WEN CONSUMER POWER TOOLS PRODUCTS FOR HOME USE

GREAT LAKES TECHNOLOGIES, LLC ("Seller") warrants to the original purchaser only, that all WEN consumer power tools will be free from defects in material or workmanship for a period of two (2) years from date of purchase. Ninety days for all WEN products, if the tool is used for professional use.

SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or misrepaired by persons other than Seller or Authorized Service Center. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of purchase must be a direct vendor of Great Lakes Technologies, LLC. Third party vendors such as garage sales, pawn shops, resale shops, or any other secondhand merchant void the warranty included with this product. Contact techsupport@wenproducts.com or 1-800-232-1195 to make arrangements for repairs and transportation.

When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the warranty card and/or the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge.

THIS LIMITED WARRANTY DOES NOT APPLY TO ACCESSORY ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME INCLUDING BELTS, BRUSHES, BLADES, ETC.
ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S., SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

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