

MODEL W1850
1" X 42" BELT w/8" DISC SANDER



OWNER'S MANUAL
(FOR MODELS MANUFACTURED SINCE 06/17)

Phone: (360) 734-3482 • Online Technical Support: techsupport@woodstockint.com

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WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



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, 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.

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INTRODUCTION

Woodstock Technical Support

This machine has been specially designed to provide many years of trouble-free service. Close attention to detail, ruggedly built parts and a rigid quality control program assure safe and reliable operation.

Woodstock International, Inc. is committed to customer satisfaction. Our intent with this manual is to include the basic information for safety, setup, operation, maintenance, and service of this product.

We stand behind our machines! In the event that questions arise about your machine, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: tech-support@shopfox.biz. Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

If you need the latest edition of this manual, you can download it from <http://www.shopfox.biz>.
If you have comments about this manual, please contact us at:

Woodstock International, Inc.
Attn: Technical Documentation Manager
P.O. Box 2309
Bellingham, WA 98227
Email: manuals@woodstockint.com



MACHINE SPECIFICATIONS



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MODEL W1850 1" X 42" BELT WITH 8" DISC SANDER

Product Dimensions

Weight..... 59 lbs.
 Width (side-to-side) x Depth (front-to-back) x Height..... 19-1/2 x 26 x 14-1/2 in.
 Footprint (Length x Width)..... 18-1/2 x 11 in.

Shipping Dimensions

Type..... Cardboard Box
 Content..... Machine
 Weight..... 64 lbs.
 Length x Width x Height..... 15 x 22 x 14 in.
 Must Ship Upright..... Yes

Electrical

Power Requirement..... 110V, Single-Phase, 60 Hz
 Full-Load Current Rating..... 4A
 Minimum Circuit Size..... 15A
 Connection Type..... Cord & Plug
 Power Cord Included..... Yes
 Power Cord Length..... 6 ft.
 Power Cord Gauge..... 18 AWG
 Plug Included..... Yes
 Included Plug Type..... 5-15
 Switch Type..... Toggle Safety Switch w/Removable Key

Motors

Main

Horsepower..... 1/3 HP
 Phase..... Single-Phase
 Amps..... 4A
 Speed..... 1725 RPM
 Type..... Capacitor-Start Induction
 Power Transfer V-Belt (Sanding Belt), Direct Drive (Sanding Disc)
 Bearings..... Shielded & Permanently Lubricated



Main Specifications

Belt Sander Info

| | |
|----------------------------|-----------------------|
| Sanding Belt Width..... | 1 in. |
| Sanding Belt Length..... | 42 in. |
| Sanding Belt Speed..... | 3000 FPM |
| Table Length..... | 7 in. |
| Table Width..... | 6 in. |
| Table Thickness..... | 9/16 in. |
| Table Tilt..... | Left 0, Right 45 deg. |
| Table-to-Floor Height..... | 8 in. |
| Platen Type..... | Steel |
| Platen Length..... | 4 in. |
| Platen Width..... | 1 in. |

Disc Sander Info

| | |
|----------------------------------|-----------------------|
| Disc Diameter..... | 8 in. |
| Disc Speed..... | 1725 RPM |
| Disc Sandpaper Backing Type..... | PSA |
| Table Length..... | 10 in. |
| Table Width..... | 4 in. |
| Table Thickness..... | 3/4 in. |
| Table Tilt..... | Left 0, Right 45 deg. |
| Table-to-Floor Height..... | 5-1/2 in. |

Construction Materials

| | |
|------------------------|------------------|
| Base..... | Formed Steel |
| Table..... | Ground Cast Iron |
| Frame..... | Cast Iron |
| Disc..... | Aluminum |
| Miter Gauge..... | Steel |
| Paint Type/Finish..... | Powder Coated |

Other Related Info

| | |
|------------------------------|-------|
| Miter Gauge Slot Width..... | 12mm |
| Miter Gauge Slot Height..... | 5mm |
| Number of Dust Ports..... | 2 |
| Dust Port Size..... | 2 in. |

Other

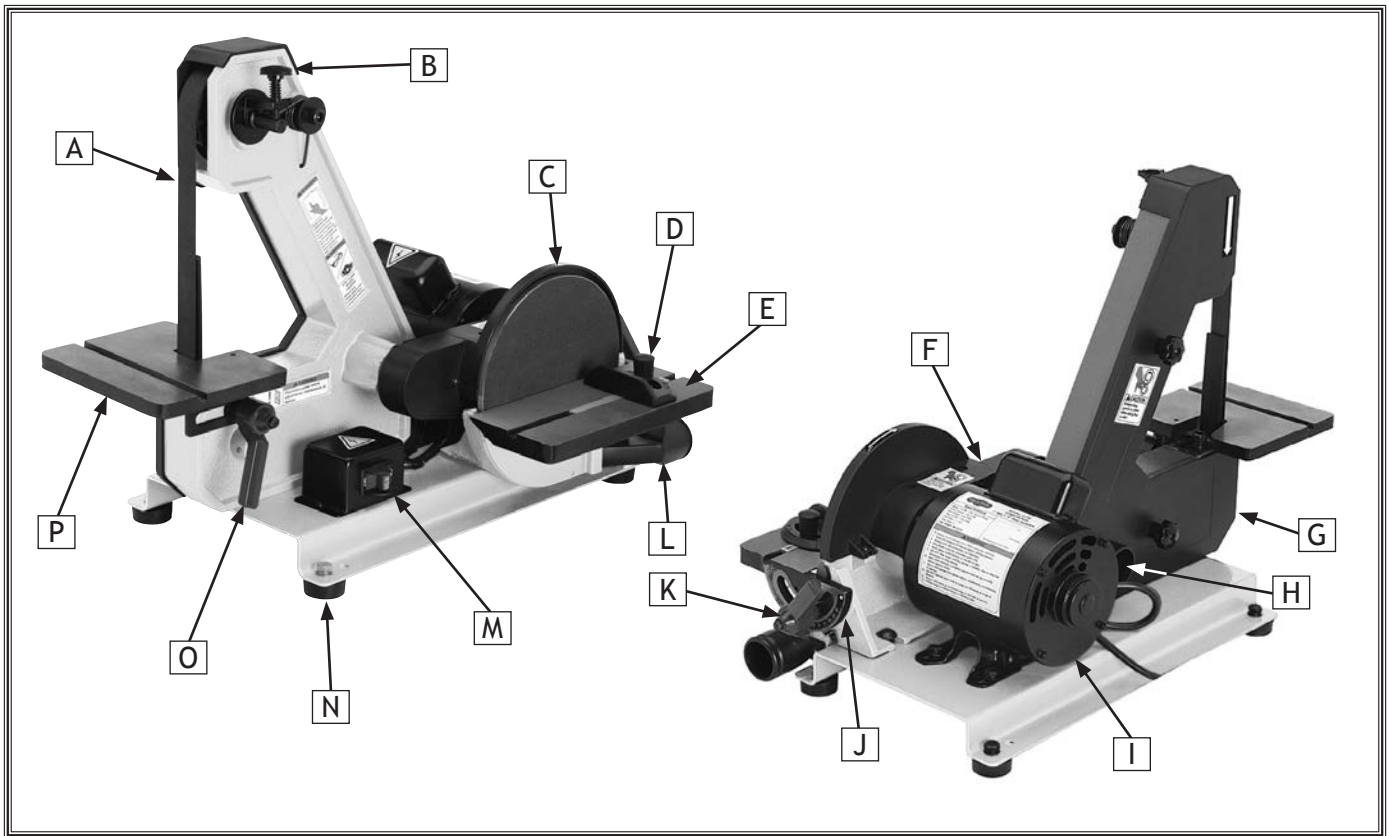
| | |
|---|------------|
| Country of Origin | China |
| Warranty | 2 Years |
| Approximate Assembly & Setup Time | 30 Minutes |
| Serial Number Location | ID Label |

Features

- Dual Cast-Iron Tables with Miter Slots
- Tables Tilt to 45 Degrees
- Two 2" Dust Ports
- Single-Knob Belt Tracking

Identification

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.



- | | |
|---|--|
| <ul style="list-style-type: none"> A. Sanding Belt 1" x 42" B. Sanding Belt Tracking Knob C. Sanding Disc 8" D. Miter Gauge E. Sanding Disc Table F. V-Belt Safety Cover G. Sanding Belt Safety Cover H. Sanding Belt Dust Port | <ul style="list-style-type: none"> I. Motor J. Disc Table Angle Scale K. Disc Table Lock Handle L. Disc Dust Port M. ON/OFF Switch with Disabling Key N. Rubber Machine Feet O. Sanding Belt Table Lock Handle P. Sanding Belt Table |
|---|--|

⚠ CAUTION

For Your Own Safety Read instruction Manual Before Operating the Sander

- a) Wear eye and ear protection.
- b) Support workpiece on worktable.
- c) Maintain the smallest gap possible between worktable and sandpaper.
- d) Avoid kickback by sanding in accordance with directional arrows.

SAFETY

For Your Own Safety, Read Manual Before Operating Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures—this responsibility is ultimately up to the operator!



Indicates an imminently hazardous situation which, if not avoided, **WILL** 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, **MAY** result in minor or moderate injury.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment or a situation that may cause damage to the machinery.

Standard Machinery Safety Instructions

OWNER'S MANUAL. Read and understand this owner's manual **BEFORE** using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!

DANGEROUS ENVIRONMENTS. Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow an electrician or qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

DISCONNECT POWER FIRST. Always disconnect machine from power supply **BEFORE** making adjustments, changing tooling, or servicing machine. This eliminates the risk of injury from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are not approved safety glasses.

WEARING PROPER APPAREL. Do not wear clothing, apparel, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips, which could cause loss of workpiece control.

HAZARDOUS DUST. Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

INTENDED USAGE. Only use machine for its intended purpose—never make modifications without prior approval from Woodstock International. Modifying machine or using it differently than intended will void the warranty and may result in malfunction or mechanical failure that leads to serious personal injury or death!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris—make sure they are properly installed, undamaged, and working correctly.

FORCING MACHINERY. Do not force machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase risk of serious injury.

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn machine **OFF** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

CHECK DAMAGED PARTS. Regularly inspect machine for any condition that may affect safe operation. Immediately repair or replace damaged or mis-adjusted parts before operating machine.

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside, resulting in a short. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact Technical Support at (360) 734-3482.

Additional Safety for Belt & Disc Sanders

WARNING

Serious injury or death can occur if fingers, clothing, jewelry, or hair get entangled in moving components. Impact injuries can occur from kickback if workpiece is improperly fed into moving sandpaper. Serious pinch injuries can occur from touching in-running nip point between table and sanding surface. Long-term respiratory damage can occur from using sander without proper use of a respirator. To reduce the risk of these hazards, operator and bystanders **MUST** completely heed the hazards and warnings below.

SANDPAPER DIRECTION. Feeding workpiece incorrectly can cause it to be thrown from machine, striking operator or bystanders, or causing your hands to slip into the moving sandpaper. To reduce these risks, only sand against direction of sandpaper travel, ensure workpiece is properly supported, and avoid introducing sharp edges into moving sandpaper on leading side of workpiece.

FEEDING WORKPIECE. Jamming workpiece into sanding surface could cause it to be grabbed aggressively, pulling hands into sanding surface. Firmly grasp workpiece in both hands and ease it into sandpaper using light pressure.

AVOIDING ENTANGLEMENT. Entanglement in moving parts can cause pinching and crushing injuries. Keep all guards in place and closed. **DO NOT** wear loose clothing, gloves, or jewelry, and tie back long hair.

SANDING DUST. Sanding creates large amounts of dust that can lead to eye injury or respiratory illness. Reduce risk by wearing approved eye and respiratory protection when using sander. Never operate without adequate dust collection system in place and running. Dust collection is not a substitute for using a respirator.

WORKPIECE INTEGRITY. Sanding fragile workpieces can result in loss of control, resulting in abrasion injuries, impact injuries, or damage to sandpaper. Only sand solid workpieces that can withstand power sanding forces. Make sure workpiece shape is properly supported; avoid sanding workpieces without flat bottom surfaces unless some type of jig is used to maintain support and control when sanding force is applied.

SANDPAPER CONDITION. Worn or damaged sandpaper can aggressively grab workpiece, resulting in subsequent injuries from operator loss of workpiece control. Always inspect sandpaper before operation and replace if worn or damaged.

WORKPIECE SUPPORT & HAND PLACEMENT. Rotating sandpaper can remove a large amount of flesh quickly, and kickback can occur with violent force if workpiece is not properly supported during operation. Always sand with workpiece firmly against table or another support device. Never touch moving sandpaper on purpose.

IN-RUNNING NIP POINTS. The gap between moving sandpaper and fixed table/support creates a pinch point for fingers or workpieces; the larger this gap is, the greater the risk of fingers or workpieces getting caught in it. Minimize this risk by adjusting table/support to no more than 1/16" away from sandpaper. For spindle sanders, always use the table insert that fits closest diameter of installed drum.

MINIMUM STOCK DIMENSION. Small workpieces can be aggressively pulled from your hands, causing contact with sanding surface. Always use a jig or other holding device when sanding small workpieces, and keep hands and fingers at least 2" away from sanding surface.

WORKPIECE INSPECTION. Nails, staples, knots, or other imperfections in workpiece can be dislodged and thrown from sander at a high rate of speed at people, or cause damage to sandpaper or sander. Never sand stock that has embedded foreign objects or questionable imperfections.

ELECTRICAL

Circuit Requirements

This machine must be connected to the correct size and type of power supply circuit, or fire or electrical damage may occur. Read through this section to determine if an adequate power supply circuit is available. If a correct circuit is not available, a qualified electrician **MUST** install one before you can connect the machine to power.

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating at 110V4 Amps

Circuit Requirements for 110V


This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

- Circuit Type 110V/120V, 60 Hz, Single-Phase
- Circuit Size 15 Amps
- Plug/Receptacle NEMA 5-15

⚠ WARNING

The machine must be properly set up before it is safe to operate. **DO NOT** connect this machine to the power source until instructed to do so later in this manual.

⚠ WARNING



Incorrectly wiring or grounding this machine can cause electrocution, fire, or machine damage. To reduce this risk, only an electrician or qualified service personnel should do any required electrical work on this machine.

NOTICE

The circuit requirements listed in this manual apply to a dedicated circuit—where only one machine will be running at a time. If this machine will be connected to a shared circuit where multiple machines will be running at the same time, consult with an electrician to ensure that the circuit is properly sized for safe operation.

ELECTRICAL

Grounding Requirements

This machine **MUST** be grounded. In the event of certain types of malfunctions or breakdowns, grounding provides a path of least resistance for electric current to travel—in order to reduce the risk of electric shock.

Improper connection of the equipment-grounding wire will increase the risk of electric shock. The wire with green insulation (with/without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

For 110V Connection

This machine is equipped with a power cord with an equipment-grounding wire and NEMA 5-15 grounding plug (see figure). The plug must only be inserted into a matching receptacle that is properly installed and grounded in accordance with local codes and ordinances.

Extension Cords

We do not recommend using an extension cord with this machine. Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases with longer extension cords and smaller gauge sizes (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must contain a ground wire, match the required plug and receptacle, and meet the following requirements:

- Minimum Gauge Size at 110V 14 AWG**
- Maximum Length (Shorter is Better) 50 ft.**

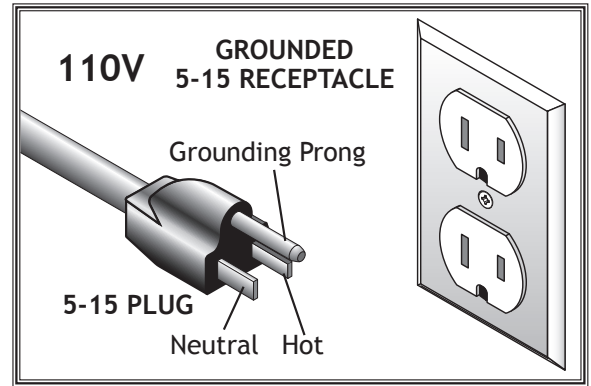
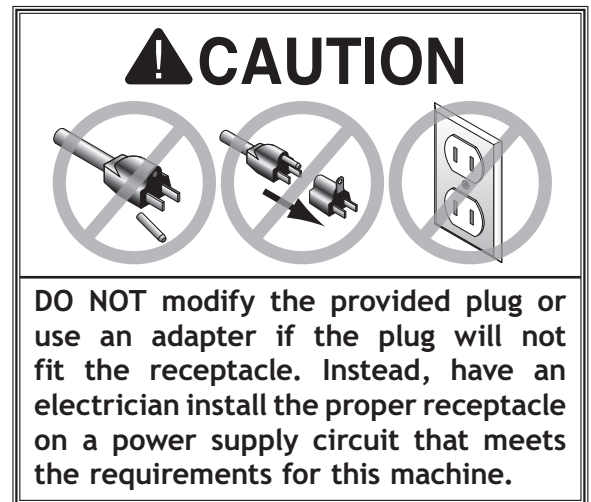


Figure 1. NEMA 5-15 plug & receptacle.



ELECTRICAL

SETUP

Unpacking

This machine has been carefully packaged for safe transportation. If you notice the machine has been damaged during shipping, please contact your authorized Shop Fox dealer immediately.

| | |
|--|---|
| | <p>! WARNING Keep machine disconnected from power until instructed otherwise.</p> |
|--|---|

Items Needed for Setup

The following items are needed, but not included, to set up your machine.

| Description | Qty |
|-------------------------------|-------------------|
| Another Person | 1 |
| Safety Glasses | 1 Pair Per Person |
| Open-End Wrench 13mm..... | 1 |
| Screwdriver Phillips #2..... | 1 |
| Screwdriver Flat Head #2..... | 1 |
| Dust Collection System | 1 |
| Dust Hose 2" | 2 |
| Hose Clamps 2" | 4 |

| | |
|--|--|
| | <p>! WARNING SUFFOCATION HAZARD! Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.</p> |
|--|--|

SETUP

Inventory

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

Note: *If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.*

| Inventory: (Figures 2-3) | Qty |
|--|-----|
| A. Motor and Base | 1 |
| B. Belt Housing Assembly | 1 |
| C. Belt Table | 1 |
| D. Aluminum Sanding Disc | 1 |
| E. Disc Table | 1 |
| F. V-Belt Safety Cover | 1 |
| G. V-Belt Rear Cover | 1 |
| H. Disc Dust Port 2" | 1 |
| I. Lock Handles for Sanding Tables | 2 |
| J. Miter Gauge | 1 |
| K. Hex Wrench 2.5mm | 1 |
| L. Hex Wrench 8mm | 1 |
| M. Disc Dust Cover | 1 |

| Hardware (not shown): | Qty |
|--|-----|
| • Disc Table Scale Pointer | 1 |
| • Cap Screws M10-1.5 x 20 | 2 |
| • Flat Washers 10mm | 2 |
| • Lock Washers 10mm | 2 |
| • Phillips Head Screw M6-1 x 12 | 1 |
| • Flat Washer 6mm | 1 |
| • Phillips Head Screws M4-.7 x 8 | 5 |
| • Flat Washers 4mm | 5 |
| • Phillips Head Screw M4-.7 x 40 | 1 |
| • Wing Nut M4-.7 | 1 |

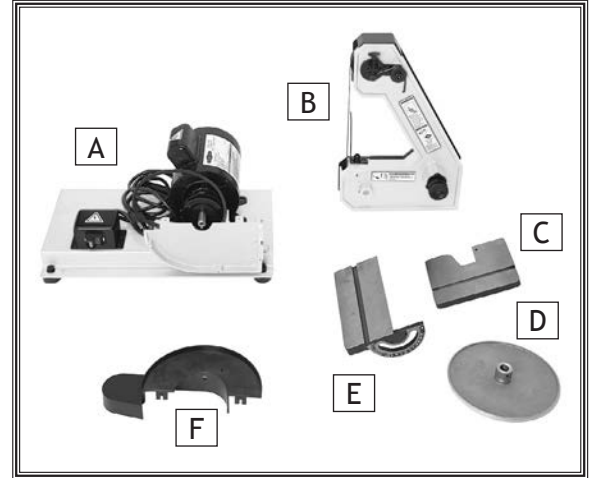


Figure 2. Model W1850 inventory items.

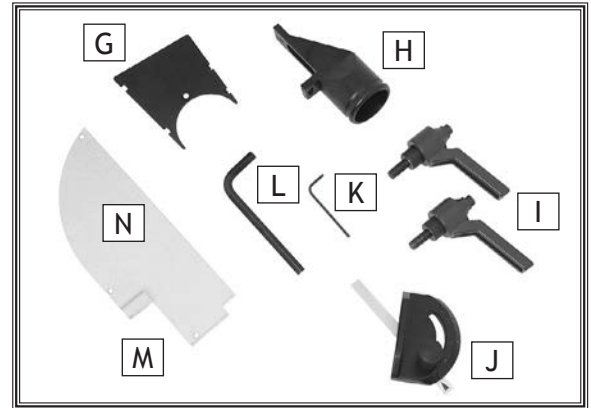
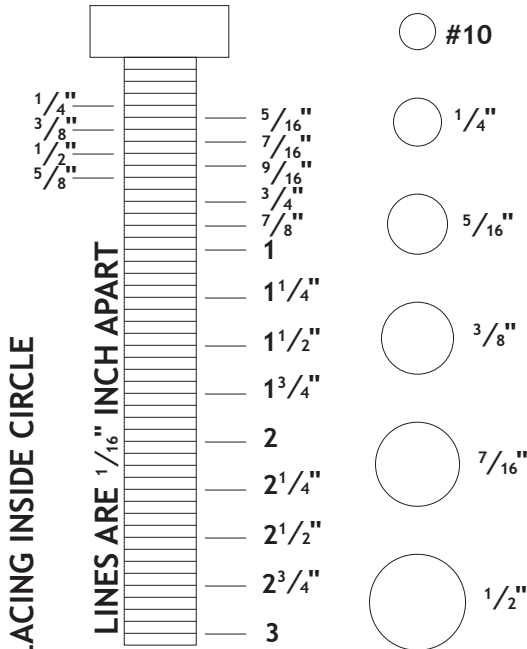


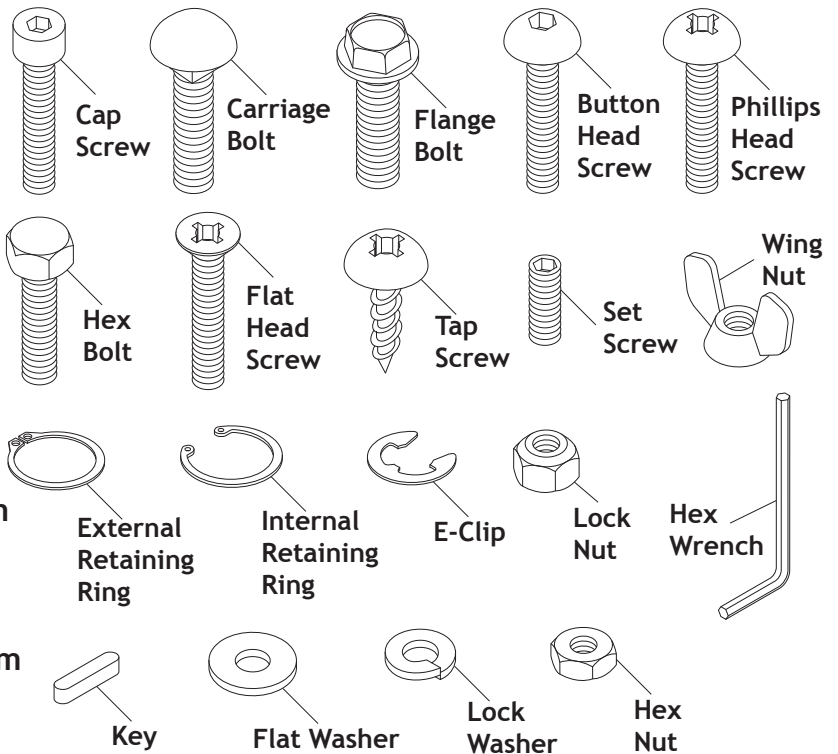
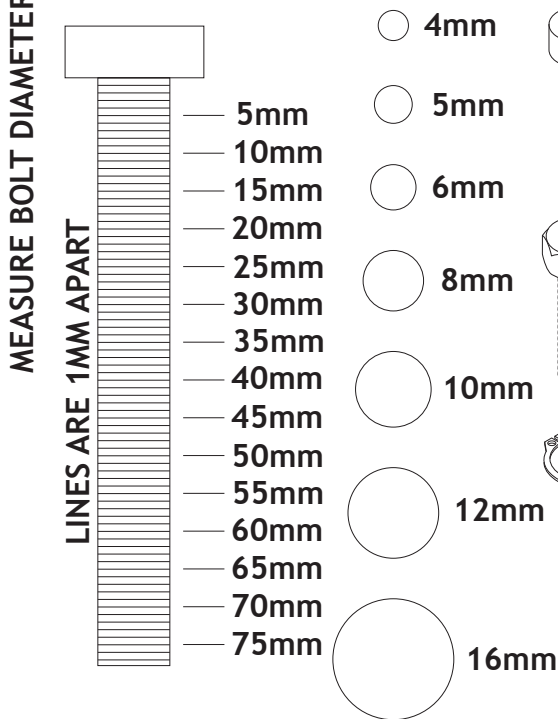
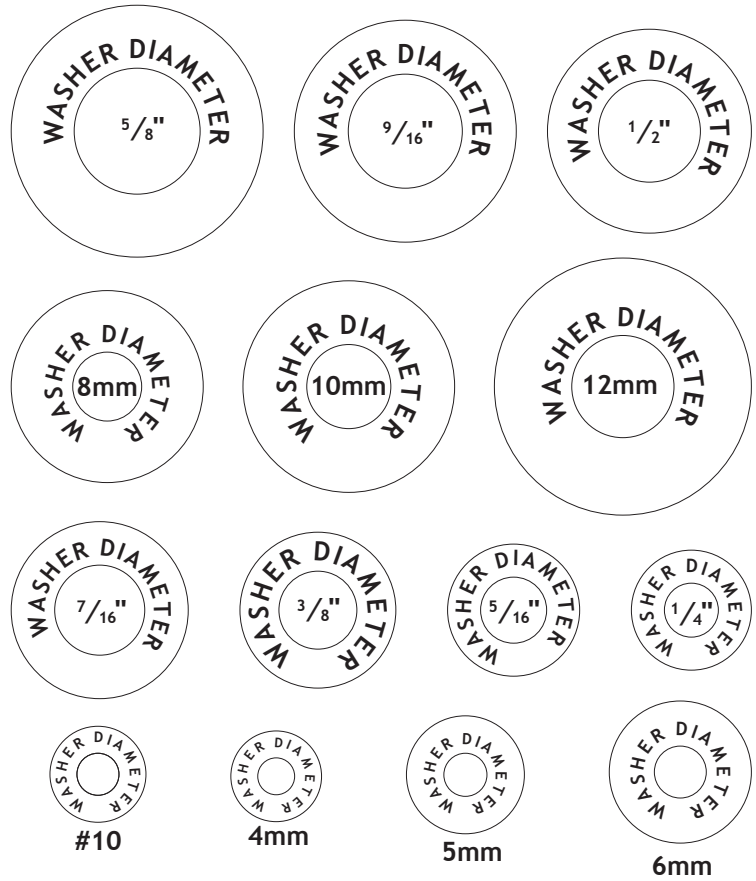
Figure 3. Model W1850 inventory items.

Hardware Recognition Chart

USE THIS CHART TO IDENTIFY HARDWARE DURING THE INVENTORY/ASSEMBLY PROCESS.



WASHERS ARE MEASURED BY THE INSIDE DIAMETER



SETUP

Machine Placement

Workbench Load

Refer to the **Machine Specifications** for the weight and footprint specifications of your machine. Some workbenches may require additional reinforcement to support the weight of the machine and workpiece materials.

Placement Location

Consider anticipated workpiece sizes and additional space needed for auxiliary stands, work tables, or other machinery when establishing a location for this machine in the shop. Below is the minimum amount of space needed for the machine.

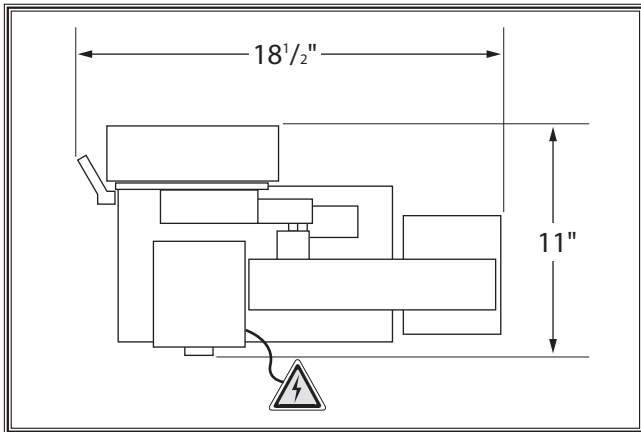


Figure 4. Model W1850 placement dimensions.



CAUTION
INJURY HAZARD! Untrained users can injure themselves with this machine. Restrict access to machine when you are away, especially if it is installed where children are present.

Cleaning Machine

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

Before cleaning, gather the following:

- Disposable rags
- Cleaner/degreaser (WD•40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

Basic steps for removing rust preventative:

1. Put on safety glasses.
2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5-10 minutes.
3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.
4. Repeat Steps 2-3 as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.

NOTICE

Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.

Bench Mounting

Number of Mounting Holes..... 4
 Diameter of Mounting Hardware Needed..... 1/2"

The base of this machine has mounting holes that allow it to be fastened to a workbench or other mounting surface to prevent it from moving during operation and causing accidental injury or damage.

The strongest mounting option is a "Through Mount" (see example) where holes are drilled all the way through the workbench—and hex bolts, washers, and hex nuts are used to secure the machine in place.

Another option is a "Direct Mount" (see example) where the machine is secured directly to the workbench with lag screws and washers.

Note: To reduce vibration when operating, keep the rubber feet included with your sander between the machine base and the workbench.

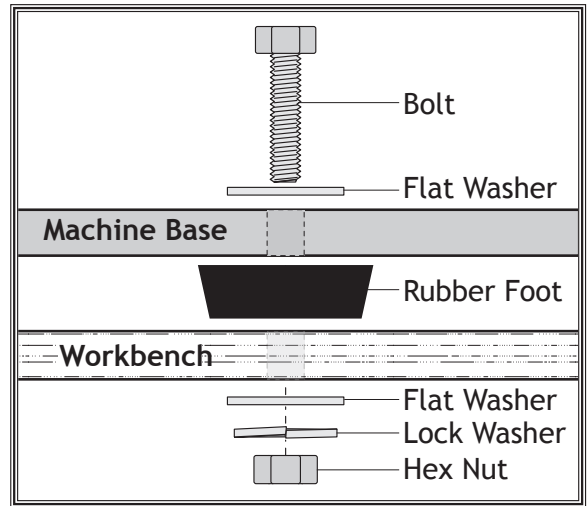


Figure 5. Typical "Through Mount" setup.

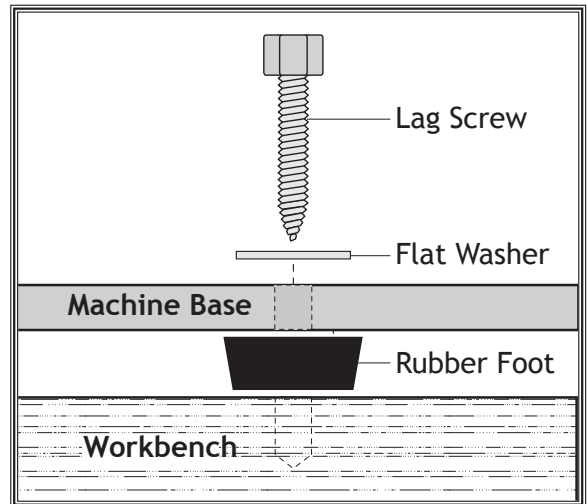


Figure 6. Typical "Direct Mount" setup.

SETUP

Assembly

Before beginning the assembly process, refer to **Items Needed for Setup** and gather the items you will need. Ensure all parts have been properly cleaned of any heavy-duty rust-preventative applied at the factory (if applicable). Be sure to complete all steps in this procedure prior to performing the **Test Run**.

| Items Needed | Qty |
|------------------------------|-----|
| Another Person | 1 |
| Open-End Wrench 13mm..... | 1 |
| Hex Wrench 8mm | 1 |
| Phillips Screwdriver #2..... | 1 |
| Hex Wrench 2.5mm..... | 1 |

To assemble machine, do these steps:

1. Loosen (4) motor mount hex bolts (see **Figure 7**) to adjust motor position in following steps.
2. With assistance from another person, position belt housing assembly on left side of base, taking care not to pinch power cords between assembly and base.
3. Place V-belt around both pulleys, and secure belt housing assembly with (2) M10-1.5 x 20 cap screws, 10mm lock washers, and 10mm flat washers (see **Figures 8-9**). **DO NOT** fully tighten fasteners yet.
4. Center motor arbor in cutout of cast-iron disc guard (see **Figure 10**), then re-tighten (4) motor mount hex bolts from **Step 1**.

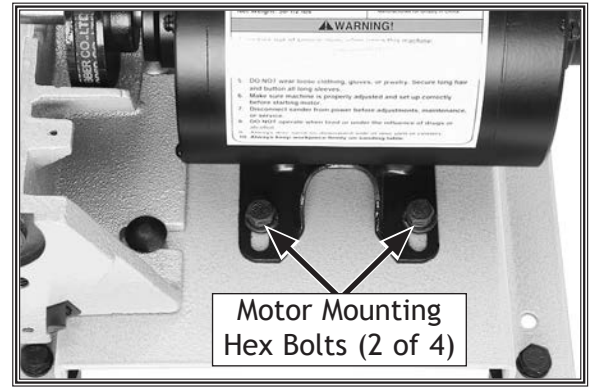


Figure 7. Motor mounting hex bolts (2 of 4, viewed from top).

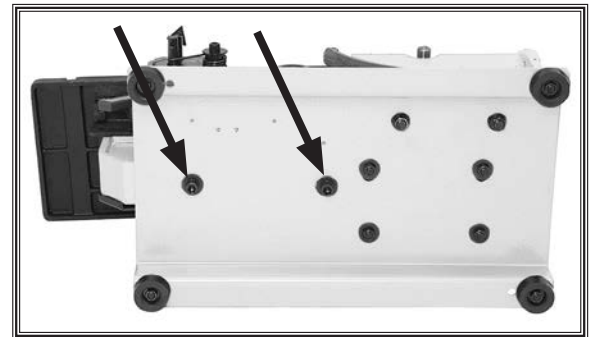


Figure 8. Cap screws for belt housing.



Figure 9. Belt housing assembly installed.

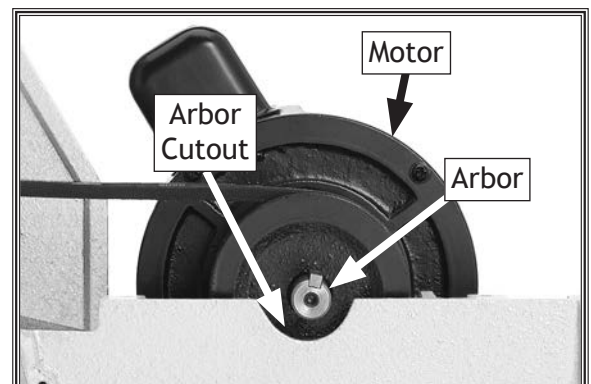


Figure 10. Motor arbor centered.

- Position belt housing assembly so there is about $\frac{1}{4}$ " V-belt deflection when moderate pressure is applied to V-belt between pulleys (see **Figure 11**) then fully tighten cap screws from **Step 3** to secure belt housing assembly in place.

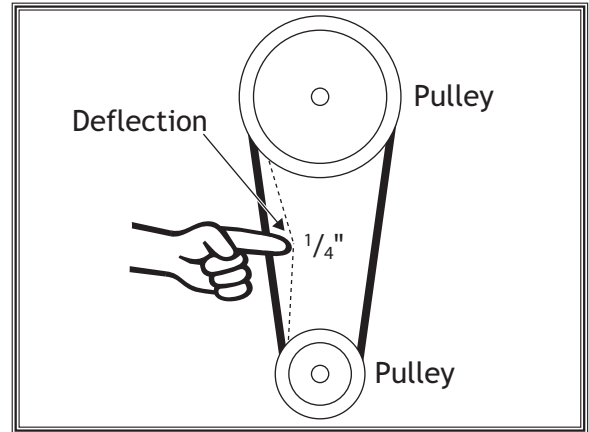


Figure 11. Measuring V-belt deflection.

- Insert (1) M4-.7 x 8 Phillips head screw and (1) 4mm flat washer into left inside mounting bracket of the V-belt safety cover (see **Figure 12**). Hold it in place with screwdriver as you slide cover over V-belt and tighten fastener into cast-iron disc guard.
- Secure right side of V-belt cover with (1) M4-.7 x 8 Phillips head screw and 4mm flat washer.

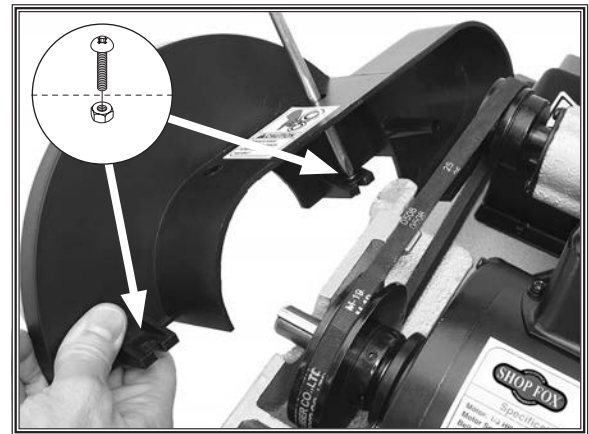


Figure 12. Holding V-belt cover mounting fastener in place with screwdriver.

- Install V-belt rear cover and secure it in place with (1) M4-.7 x 40 Phillips head screw and (1) M4-.7 wing nut, as shown in **Figure 13**.
- Peel backing from 8" sandpaper disc and apply it to aluminum disc.
- Slide aluminum disc onto motor arbor, making sure to align arbor key with disc keyway.

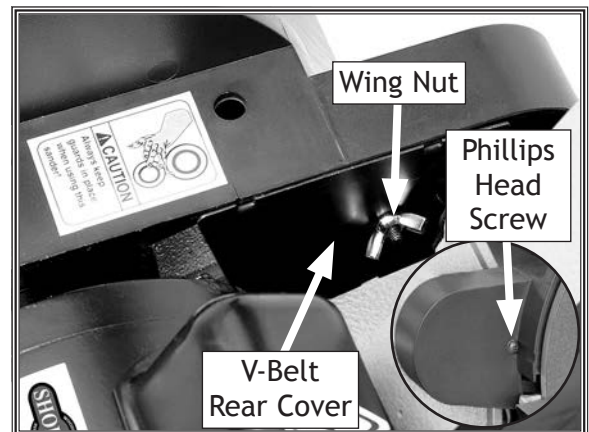


Figure 13. V-belt rear cover installed (inset shows front location of Phillips head screw).

SETUP

11. Rotate disc until set screw is visible through hole on back of V-belt safety cover and use 2.5mm hex wrench to secure disc to motor arbor (see **Figure 14**).



Figure 14. Securing sanding disc set screw.

12. Install disc dust cover, as shown in **Figure 15**, with (3) M4-.7 x 8 Phillips head screws and 4mm flat washers.

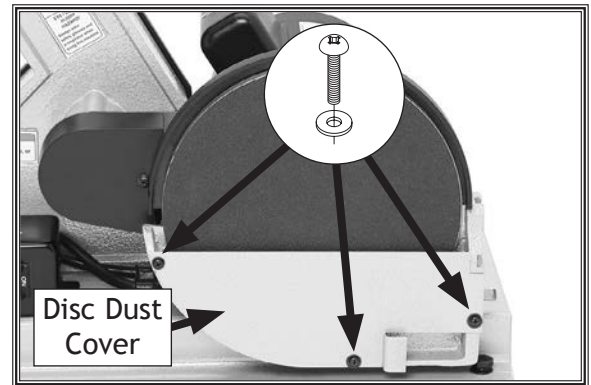


Figure 15. Disc dust cover installed.

13. Gently lay sander on flat surface, as shown in **Figure 16**, and place thin piece of cardboard approximately $\frac{1}{16}$ " thick over sanding disc. Cardboard acts as spacer when installing disc table.

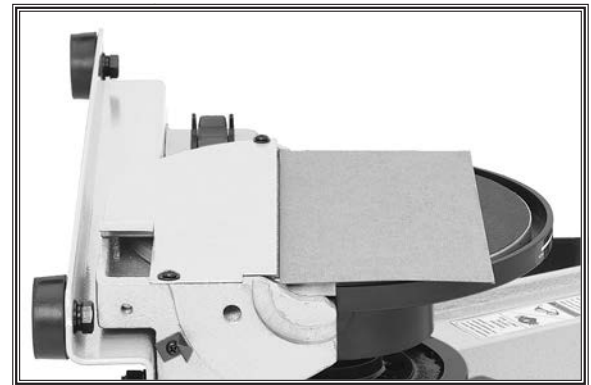


Figure 16. Using thin cardboard ($\frac{1}{16}$ " thick) for clearance gauge.

14. Keeping cardboard in place, align half-arc key of disc table with indented keyway on disc guard (see inset of **Figure 17**).
15. Secure table with table lock handle, then remove cardboard.

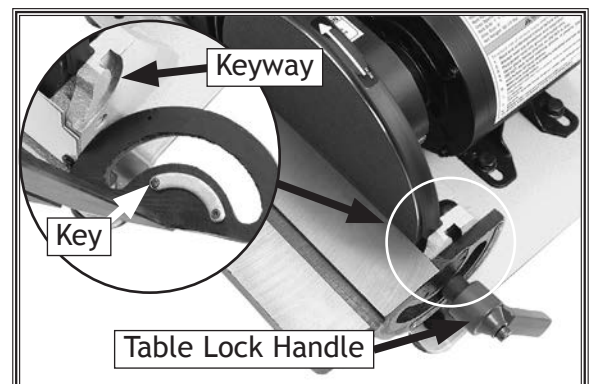


Figure 17. Sanding disc table installed.

- Secure disc sander dust port, as shown in **Figure 18**, with (1) M6-1 x 12 Phillips head screw and 6mm flat washer.

Note: Make sure the dust port covers the entire opening in the dust cover.

- Position disc table square to sanding disc (refer to **Squaring Disc Table** on **Page 29**).

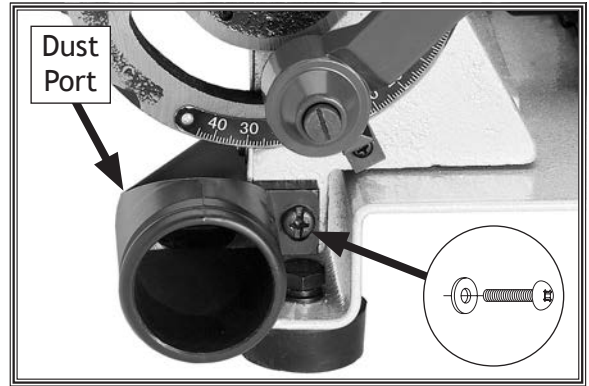


Figure 18. Disc dust port installed.

- Loosen Phillips head screw and align scale indicator with the "0" mark on table angle scale (see **Figure 19**). Re-tighten screw.



Figure 19. Sanding disc table angle scale pointer installed.

- Install belt table with a $\frac{1}{16}$ " maximum clearance from sanding belt, and secure it in place using table lock handle (see **Figure 20**).

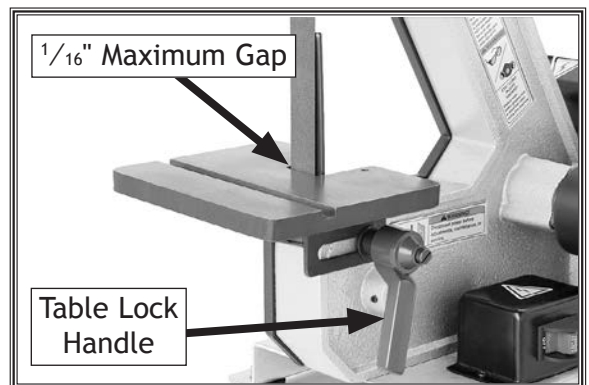


Figure 20. Sanding belt table installed.

- Loosen belt-support bracket cap screw shown in **Figure 21**, adjust support bracket approximately $\frac{1}{16}$ " away from the sanding belt, then re-tighten cap screw.

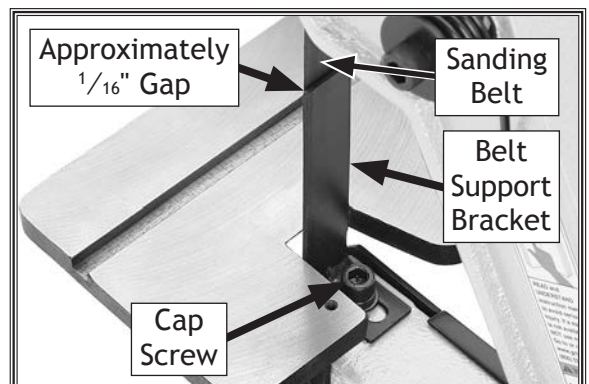


Figure 21. Sanding belt support.

Dust Collection

Recommended CFM at Each Dust Port: 100 CFM

Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection “how-to” book.

Tools Needed

| | Qty |
|--|-----|
| Shop Vac or Dust Collection System | 1 |
| Dust Hose 2" | 2 |
| Hose Clamps 2" | 4 |

To connect a dust collection hose, do these steps:

1. Fit 2" dust hose from dust collection system over sanding disc dust port (see **Figure 22**) and sanding belt dust port (see **Figure 23**). Secure hoses with 2" hose clamps.
2. Tug hoses to make sure they do not come off.

Note: A tight fit is necessary for proper performance.

⚠ CAUTION

This machine creates substantial amounts of dust during operation. Breathing airborne dust on a regular basis can result in permanent respiratory illness. Reduce your risk by wearing a respirator and capturing the dust with a dust collection system.



Figure 22. Sanding disc 2" dust port.



Figure 23. Sanding belt 2" dust port.

SETUP

Test Run

Once assembly is complete, test run the machine to ensure it is properly connected to power and safety components are functioning properly.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem **BEFORE** operating the machine again. The **Troubleshooting** table in the **SERVICE** section of this manual can help.

To test run machine, do these steps:

1. Clear all setup tools away from machine.
2. Before connecting power, spin sanding disc by hand to check sanding belt tracking.
 - If sanding belt tracks straight, proceed to **Step 4**.
 - If sanding belt *does not* track straight, refer to **Sanding Belt Tracking** on **Page 28** to make adjustments before proceeding to **Step 3**.
3. Connect machine to power source.
4. Verify that machine is operating correctly by turning machine **ON**.
 - If sanding belt tracks incorrectly, immediately turn machine **OFF** to avoid damage to belt. Refer to **Sanding Belt Tracking** on **Page 28** to make adjustments.
 - When operating correctly, machine runs smoothly with little or no vibration or rubbing noises.
 - Investigate and correct strange or unusual noises or vibrations before operating machine further. Always disconnect machine from power when investigating or correcting potential problems.
5. Turn machine **OFF**.
6. Remove switch disabling key, as shown in **Figure 24**.

⚠ WARNING

Serious injury or death can result from using this machine **BEFORE** understanding its controls and related safety information. **DO NOT** operate, or allow others to operate, machine until the information is understood.

⚠ WARNING

DO NOT start machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

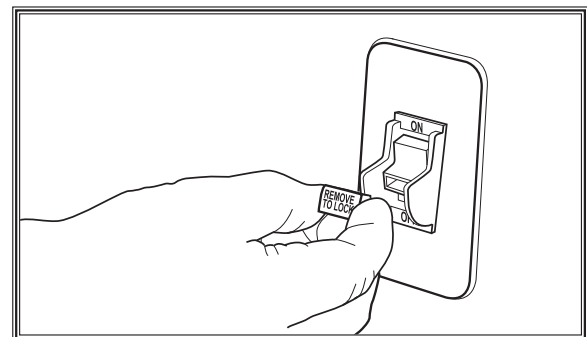


Figure 24. Removing switch key from toggle switch.

7. Flip toggle switch to **ON** position.
 - If the machine *does not* start, the switch disabling feature is working as designed.
 - If the machine *does start*, immediately stop machine. The switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

SETUP

OPERATIONS

General

This machine will perform many types of operations that are beyond the scope of this manual. Many of these operations can be dangerous or deadly if performed incorrectly.


The instructions in this section are written with the understanding that the operator has the necessary knowledge and skills to operate this machine. If at any time you are experiencing difficulties performing any operation, stop using the machine!

The overview below provides the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand. Due to its generic nature, this overview is **NOT** intended to be an instructional guide.

To complete a typical operation, the operator does the following:


1. Examines workpiece to make sure it is suitable for sanding. No extreme bows, knots, or cracks should exist.
2. Prepares and trims workpiece to an appropriate shape for the project.
3. Adjusts table angle and sets maximum clearance of $\frac{1}{16}$ " between table and sanding disc or sanding belt.
4. Holds workpiece securely and follows appropriate sanding procedures outlined in **Disc Sanding** (see Page 23) or **Belt Sanding** (see Page 24).
5. Ties back loose hair and clothing, and puts on face shield and respirator. Takes all other required safety precautions.

! WARNING



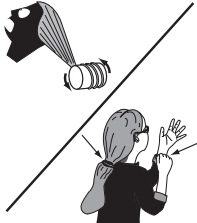
To reduce your risk of serious injury or damage to the machine, read this entire manual **BEFORE** using machine.

! WARNING



To reduce the risk of eye injury and long-term respiratory damage, always wear safety glasses and a respirator while operating this machine.

! WARNING



Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing and long hair away from moving machinery.

NOTICE

If you are an inexperienced operator, we strongly recommend that you read books or trade articles, or seek training from an experienced operator of this type of machinery before performing unfamiliar operations. Above all, safety must come first!

Disc Sanding

To perform sanding operations with the sanding disc, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Adjust angles of disc sanding table and miter gauge for operation.
3. Connect sander to power, turn it *ON*, and allow it to reach full speed.
4. Place workpiece on table and firmly against miter gauge.
5. Slowly, and with light pressure, move workpiece into left side of sanding disc. See Figures 25-27 for examples of disc sanding.

Note: To prevent burning workpiece and overloading sanding disc, move workpiece slowly back and forth from left side of sanding disc to center of sanding disc.

⚠ CAUTION

Always keep workpiece on left side of wheel that rotates down toward table as shown below. This will keep workpiece from flying out of your hands due to kickback.



Figure 25. Example of 90° disc sanding.

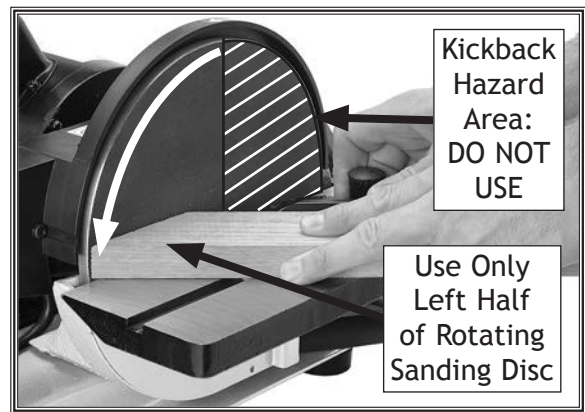


Figure 26. Example of miter sanding.



Figure 27. Example of angle sanding.

OPERATIONS

Belt Sanding

Use the sanding belt for the long, flat surfaces of the workpiece.

To perform sanding operation with sanding belt, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Use a protractor or other angle measuring tool to set correct angle of sanding belt table for operation.
3. Connect sander to power, turn it **ON**, and allow it to reach full speed.
4. Place workpiece on sanding belt table, then slowly, and with light pressure, move workpiece into sanding belt.

Note: Hold workpiece firmly on table, but keep fingers away from sanding surface, as shown in *Figure 28*.

⚠ CAUTION

To avoid risk of kickback and personal injury, always keep workpiece firmly on table, and never sand short side of the workpiece with sanding belt.

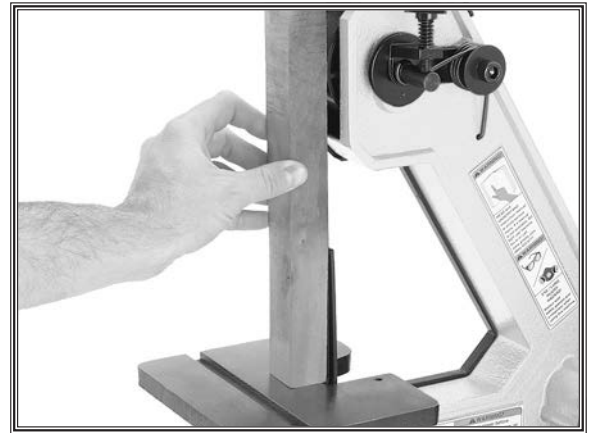


Figure 28. Example of belt sanding.

ACCESSORIES

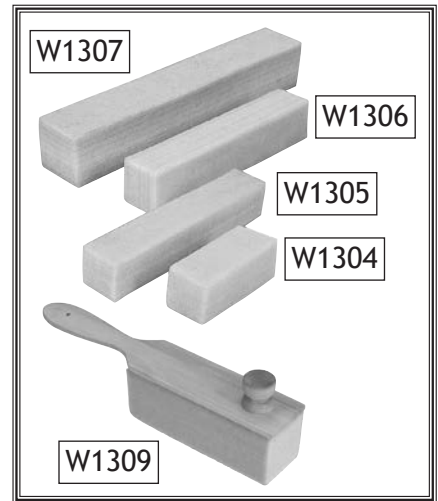
Belt & Disc Sander Accessories

The following belt & disc sander accessories may be available through your local Woodstock International Inc. Dealer. If you do not have a dealer in your area, these products are also available through online dealers. Please call or e-mail Woodstock International Inc. Customer Service to get a current listing of dealers at: 1-800-840-8420 or at sales@woodstockint.com.

The **D2675 Shop Fox Safety Glasses Metal Frame** feature a metal band across the top that makes these glasses stylish and strong. This band is linked to the metal ear pieces through a tough hinge. These glasses have a wide field of view and side shields for added protection. Exceeds ANSI Z87.1 - 1989 standards for impact resistance.



- W1304—PRO-STIK® Belt Cleaner 1³/₈" x 4¹/₄"**
 - W1305—PRO-STIK® Belt Cleaner 1³/₈" x 8¹/₂"**
 - W1306—PRO-STIK® Belt Cleaner 1¹/₂" x 1¹/₂" x 8¹/₂"**
 - W1307—PRO-STIK® Belt Cleaner 2" x 2" x 12"**
 - W1309—PRO-STIK® 6" Abrasive Belt/Disk Cleaner with Handle**
- These Pro-Stik belt cleaners use crepe-rubber to quickly remove gum and grit from belts and discs without damage. Just press the cleaning block against your sanding belt until it is clean.

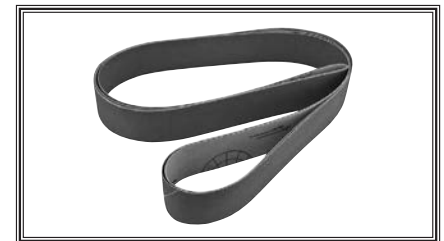


1" x 42" Sanding Belts

Both our silicon carbide and aluminum oxide sanding belts come in 2-packs and are available in grits from 80–220.

Silicon Carbide (model/grit): D1270/60, D1271/80, D1272/100, D1273/120, D1274/150, D1275/180, D1276/220

Aluminum Oxide (model/grit): D1214/60, D1215/80, D1216/100, D1217/120, D1218/150, D1219/180, D1220/220



8" PSA Sanding Discs

Our high-quality, 8" aluminum oxide sanding discs are backed with a pressure-sensitive adhesive for secure mounting. Each grit comes in 3-packs.

Aluminum Oxide (model/grit): D1314/60, D1315/80, D1316/100, D1317/120, D1318/150, D1319/180, D1320/220



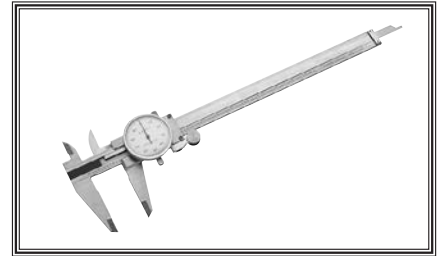
D3304—Compact Super Heavy-Duty Workbench Leg System

For the ultimate workbench, this Workbench Leg System features square column steel legs with adjustable foot pads and rectangular steel cross braces for unparalleled strength and stability. Assembly is fast and simple with bolt-together construction. Braces are recessed for adding a 3/4" plywood shelf. Evenly distributed, each leg can bear a 1000-lb. load. Overall size without top is 32" H x 26" W x 26" D (table top and shelf not included).



D1053—8" Dial Caliper

These precision dial calipers can measure small part sizes and thickness of everything from lumber to a sheet of paper. One-handed operation provides inside, outside and depth measurements in precise .001" increments. Each comes in a beautiful protective case.



D4099—Digital Angle Finder

This Digital Angle Finder features a large LCD display, 0.05°; resolution, 0.1°; accuracy, 360°; range, ON/OFF button, hold button, zero/ABS button, analog quadrant display, metal blade and beam, and built-in spirit level. A locking knob even lets you transfer angles for layouts. Beam measures 10" long.



MAINTENANCE

General

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily Check:

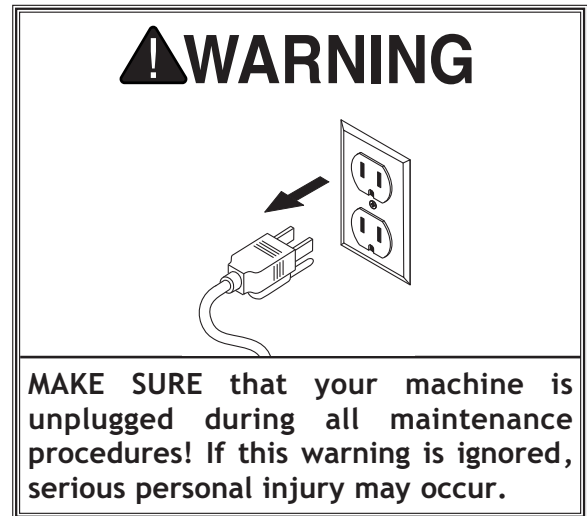
- Loose mounting bolts.
- Damaged or worn sanding belt or disc.
- Worn or damaged wires.
- Any other unsafe condition.
- Belt tracking on pulley (**Page 28**).

After Each Use:

- Clean/vacuum dust buildup on tables and motor.

After 50 Hours of Use:

- Check and correct V-belt tension, damage, or wear.



Cleaning & Protecting

Cleaning the Model W1850 is relatively easy. Vacuum excess sawdust, and wipe off the remaining dust with a dry cloth. Wiping the table clean after every use ensures moisture from wood dust does not remain on bare metal surfaces. If any resin has built up, use a resin-dissolving cleaner to remove it. Keep your table rust-free with regular applications of quality lubricants.

Lubrication

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. DO NOT lubricate them.

Sanding Belt Tracking

The sanding belt must track in the center of the top pulley to avoid damage during use.

To adjust sanding belt tracking, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. While facing tracking adjustment knob, turn sanding disc clockwise by hand to move belt downward. Observe sanding belt as it moves over top pulley (see **Figure 29**).
 - If belt shifts off track, turn tracking adjustment knob clockwise to move belt right over top pulley, or counterclockwise to move belt left over top pulley.
3. Connect machine to power and observe sanding belt tracking. If necessary, turn tracking adjustment knob in small increments until sanding belt tracks in center of top pulley.

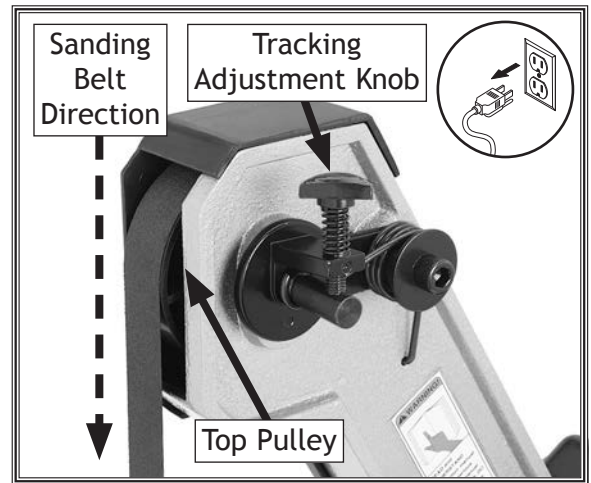


Figure 29. Sanding belt tracking adjustment.

Changing Sanding Belt

Some sanding belts are designed to sand in only one direction and will have a direction indicated on the back of the belt. The Model W1850 is designed so that the sanding belt travels downward to the sanding table.

To change sanding belt, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Unscrew knobs securing sanding belt cover and remove cover (see **Figure 30**).
3. Firmly press down on tracking adjustment knob (see **Figure 29**) to remove tension from sanding belt.
4. Roll old sanding belt off all three pulleys, and roll new belt into place.
5. Make sure sanding belt is positioned in center of all three pulleys.
6. Replace and secure sanding belt cover.
7. Check and adjust sanding belt tracking, as instructed above.

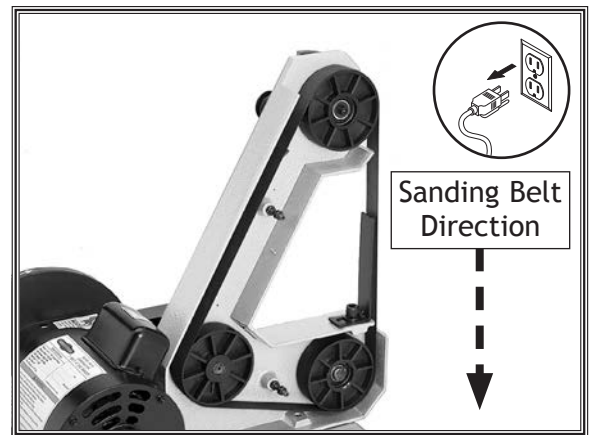


Figure 30. Sanding belt cover and table removed to expose pulleys.

Changing Sandpaper Disc

The Model W1850 accepts 8" diameter cloth or paper-backed, pressure-sensitive adhesive (PSA) sandpaper discs (refer to **Accessories** on **Page 25**).

Refer to the **Assembly** subsection, beginning on **Page 16**, for detailed instructions for some of the following steps.

| Tool Needed | Qty |
|-----------------------|-----|
| Hex Wrench 2.5mm..... | 1 |

To change sanding disc, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Remove sanding disc table, disc dust port, and dust cover.
3. Rotate disc until set screw is visible through access hole in V-belt safety cover (see **Figure 31**).
4. Loosen set screw and remove sanding disc.
5. Peel off old sandpaper disc, clean aluminum disc thoroughly, and apply new sandpaper disc.
6. Reverse **Steps 2-4** above to re-assemble sander.



Figure 31. Location of access hole for sanding disc set screw.

Squaring Disc Table

| Tools Needed | Qty |
|------------------------------|-----|
| Machinist's Square | 1 |
| Phillips Screwdriver #2..... | 1 |

To square sanding disc table, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Place machinist's square or other 90° measuring tool against disc table and sanding disc (see **Figure 32**).
3. Loosen table lock handle, adjust table square with sanding disc, then re-tighten table lock handle (see **Figure 33**).
4. Loosen Phillips head screw on scale indicator (see **Figure 33**), position red scale indicator over "0" mark on angle scale, then re-tighten screw.

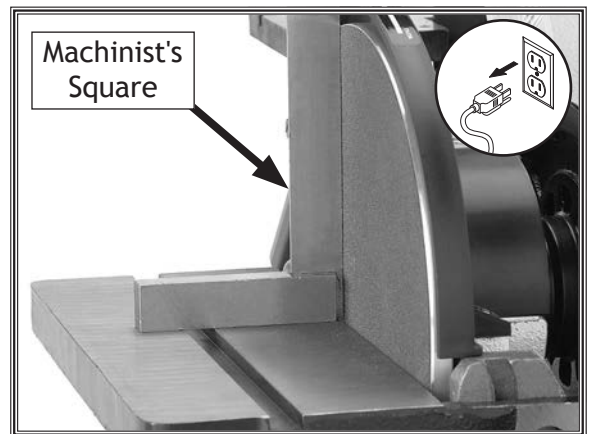


Figure 32. Using a machinist's square to adjust sanding disc table to 90°.

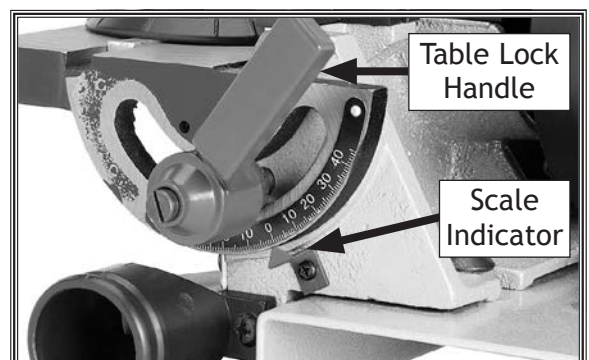


Figure 33. Sanding disc table lock handle and scale indicator.

SERVICE

Tensioning/Replacing V-Belt

| Tools Needed | Qty |
|------------------------------|-----|
| Hex Wrench 8mm | 1 |
| Open-End Wrench 13mm..... | 1 |
| Phillips Screwdriver #2..... | 1 |

To adjust V-belt tension, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Remove disc table, dust port, dust cover, and V-belt safety cover (refer to **Assembly** steps beginning on **Page 16**).
3. Gently lay sander on its back. Loosen (but do not remove) two cap screws securing belt housing assembly shown in **Figure 34**.
4. Position belt housing assembly so there is about 1/4" V-belt deflection when moderate pressure is applied to V-belt between pulleys (see **Figure 35**)—then fully tighten cap screws to secure belt housing assembly in place.
5. Check V-belt tension and re-adjust if necessary.
6. Re-install V-belt safety cover, dust cover, dust port, and disc table.

To replace V-belt, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Remove disc table, dust port, dust cover, and V-belt safety cover (see **Assembly** steps beginning on **Page 16**).
3. Gently lay sander on its back, loosen two hex nuts securing cast-iron disc guard, and remove disc guard (see **Figure 36**).
4. Roll old V-belt off pulleys and roll new one back on (see **Figure 37**).
5. Re-install disc guard, and re-adjust V-belt tension, as described in subsection above.
6. Re-install V-belt safety cover, dust cover, dust port, and disc table.

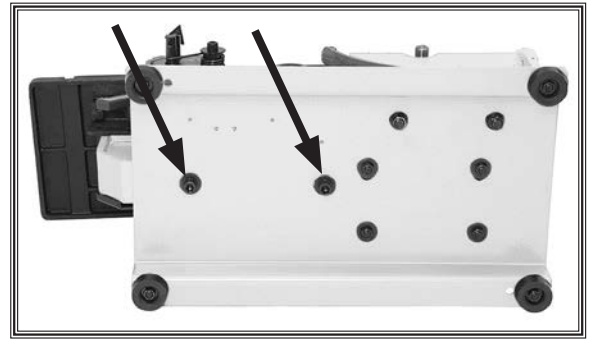


Figure 34. Cap screws for belt housing.

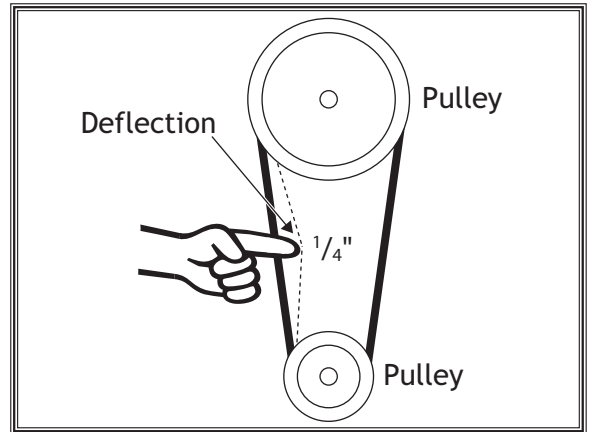


Figure 35. Measuring V-belt deflection.



Figure 36. Location of cast-iron disc guard hex nuts.

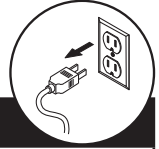


Figure 37. New V-belt installed.

Troubleshooting

The following troubleshooting tables cover common problems that may occur with this machine. If you need replacement parts or additional troubleshooting help, contact our Technical Support.

Note: Before contacting Tech Support, find the machine serial number and manufacture date, and if available, your original purchase receipt. This information is required to properly assist you.



Motor & Electrical

| PROBLEM | POSSIBLE CAUSE | CORRECTIVE ACTION |
|--|---|---|
| Machine does not start or a breaker trips. | <ol style="list-style-type: none"> 1. Switch disabling key removed. 2. Power supply switched OFF or at fault. 3. Plug/receptacle at fault/wired wrong. 4. Motor connection wired wrong. 5. Wall circuit breaker tripped. 6. Wiring open/has high resistance. 7. Start capacitor at fault. 8. Motor ON/OFF switch at fault. 9. Motor at fault. | <ol style="list-style-type: none"> 1. Install switch disabling key (Page 21). 2. Ensure power supply is on/has correct voltage. 3. Test for good contacts; correct the wiring (Page 34). 4. Correct motor wiring connections. 5. Ensure circuit size is correct/replace weak breaker. 6. Check/fix broken, disconnected, or corroded wires. 7. Test/replace if faulty. 8. Test/replace if faulty. 9. Test/repair/replace. |
| Machine stalls or is underpowered. | <ol style="list-style-type: none"> 1. Excessive pressure on sanding surface. 2. Machine undersized for task. 3. Workpiece material not suitable for machine. 4. V-belt loose/slipping. 5. Motor wired incorrectly. 6. Pulley slipping on shaft. 7. Plug/receptacle at fault. 8. Motor overheated. 9. Motor bearings at fault. 10. Motor at fault. | <ol style="list-style-type: none"> 1. Reduce workpiece pressure on sanding surface (Page 23). 2. Clean/replace sandpaper; reduce workpiece pressure. 3. Only sand wood; ensure moisture is below 20%. 4. Check/adjust V-belt tension (Page 30). 5. Wire motor correctly (Page 34). 6. Inspect/replace loose pulley/shaft. 7. Test for good contacts/correct wiring (Page 34). 8. Clean motor, let cool, and reduce workload. 9. Test/repair/replace. 10. Test/repair/replace. |

Machine Operation

| PROBLEM | POSSIBLE CAUSE | CORRECTIVE ACTION |
|---|---|---|
| Machine has vibration or noisy operation. | <ol style="list-style-type: none"> 1. Motor/mount loose/broken. 2. Machine incorrectly mounted to workbench. 3. Incorrect sanding belt tracking. 4. Broken/damaged sanding belt. 5. Weak or broken sanding belt tension spring. 6. Sanding disc rubbing, not properly centered, set screw not tight. 7. V-belt worn or loose. 8. Pulley loose. 9. Motor fan rubbing on fan cover. 10. Sanding disc out of balance or loose. 11. Motor bearings at fault. | <ol style="list-style-type: none"> 1. Tighten/replace. 2. Adjust feet, shim, or tighten mounting hardware (Page 15). 3. Adjust sanding belt tracking (Page 28). 4. Replace sanding belt (Page 28). 5. Replace spring. 6. Properly install/secure sanding disc (Page 29). 7. Inspect/replace belt (Page 30). 8. Realign/replace shaft, pulley, set screw, and key. 9. Fix/replace fan cover; replace loose/damaged fan. 10. Tighten disc hub or replace disc. 11. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. |
| Sanded surface not square. | <ol style="list-style-type: none"> 1. Table/miter gauge not square to sanding belt/disc. | <ol style="list-style-type: none"> 1. Square table/miter gauge relative to sanding belt/disc (Page 29). |
| Deep sanding grooves or scars in workpiece. | <ol style="list-style-type: none"> 1. Sandpaper too coarse for desired finish. 2. Workpiece sanded across grain. 3. Too much sanding force on workpiece. 4. Workpiece held still against the belt/disc. | <ol style="list-style-type: none"> 1. Use finer grit sanding belt/disc. 2. Sand with grain. 3. Reduce pressure on workpiece while sanding. 4. Keep workpiece moving while sanding on belt/disc. |
| Grains rub off the belt or disc easily. | <ol style="list-style-type: none"> 1. Sanding belt/disc has been stored in an incorrect environment. 2. Sanding belt/disc has been folded or smashed. | <ol style="list-style-type: none"> 1. Store sanding belt/disc away from extremely dry or hot temperatures. 2. Store sanding belt/disc flat, not folded or bent. |
| Sanding surfaces clog quickly or burn. | <ol style="list-style-type: none"> 1. Too much pressure against belt/disc. 2. Sanding softwood, or stock has surface residue. | <ol style="list-style-type: none"> 1. Reduce pressure on workpiece while sanding. 2. Use different stock. Or, accept characteristics of stock and plan on cleaning or replacing belts/discs frequently. |
| Burn marks on workpiece. | <ol style="list-style-type: none"> 1. Using too fine of sanding grit. 2. Using too much pressure. 3. Work held still for too long. | <ol style="list-style-type: none"> 1. Use coarser grit sanding belt/disc. 2. Reduce pressure on workpiece while sanding. 3. Do not keep workpiece in one place for too long. |
| Glazed sanding surfaces. | <ol style="list-style-type: none"> 1. Sanding wet stock. 2. Sanding stock with high residue. | <ol style="list-style-type: none"> 1. Dry stock properly before sanding. 2. Use different stock. Or, accept characteristics of stock and plan on cleaning/replacing belts/discs frequently. |

Electrical Safety Instructions

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (360) 734-3482 for assistance **BEFORE** making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.

WARNING

SHOCK HAZARD. Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

QUALIFIED ELECTRICIAN. Due to the inherent hazards of electricity, only a qualified electrician should perform wiring tasks on this machine. If you are not a qualified electrician, get help from one before attempting any kind of wiring job.

WIRE CONNECTIONS. All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

WIRE/COMPONENT DAMAGE. Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components before completing the task.

MODIFICATIONS. Using aftermarket parts or modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire.

MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.

CAPACITORS/INVERTERS. Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

CIRCUIT REQUIREMENTS. You **MUST** follow the requirements at the beginning of this manual when connecting your machine to a power source.

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (360) 734-3482.

NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.shopfox.biz.

WIRING DIAGRAM COLOR KEY

| | | | |
|-------|--------|--------------|------------|
| BLACK | BLUE | YELLOW | LIGHT BLUE |
| WHITE | BROWN | YELLOW GREEN | BLUE WHITE |
| GREEN | GRAY | PURPLE | TURQUOISE |
| RED | ORANGE | PINK | |

SERVICE

Wiring Diagram



| COLOR KEY | |
|-----------|--|
| BLACK | |
| WHITE | |
| GREEN | |

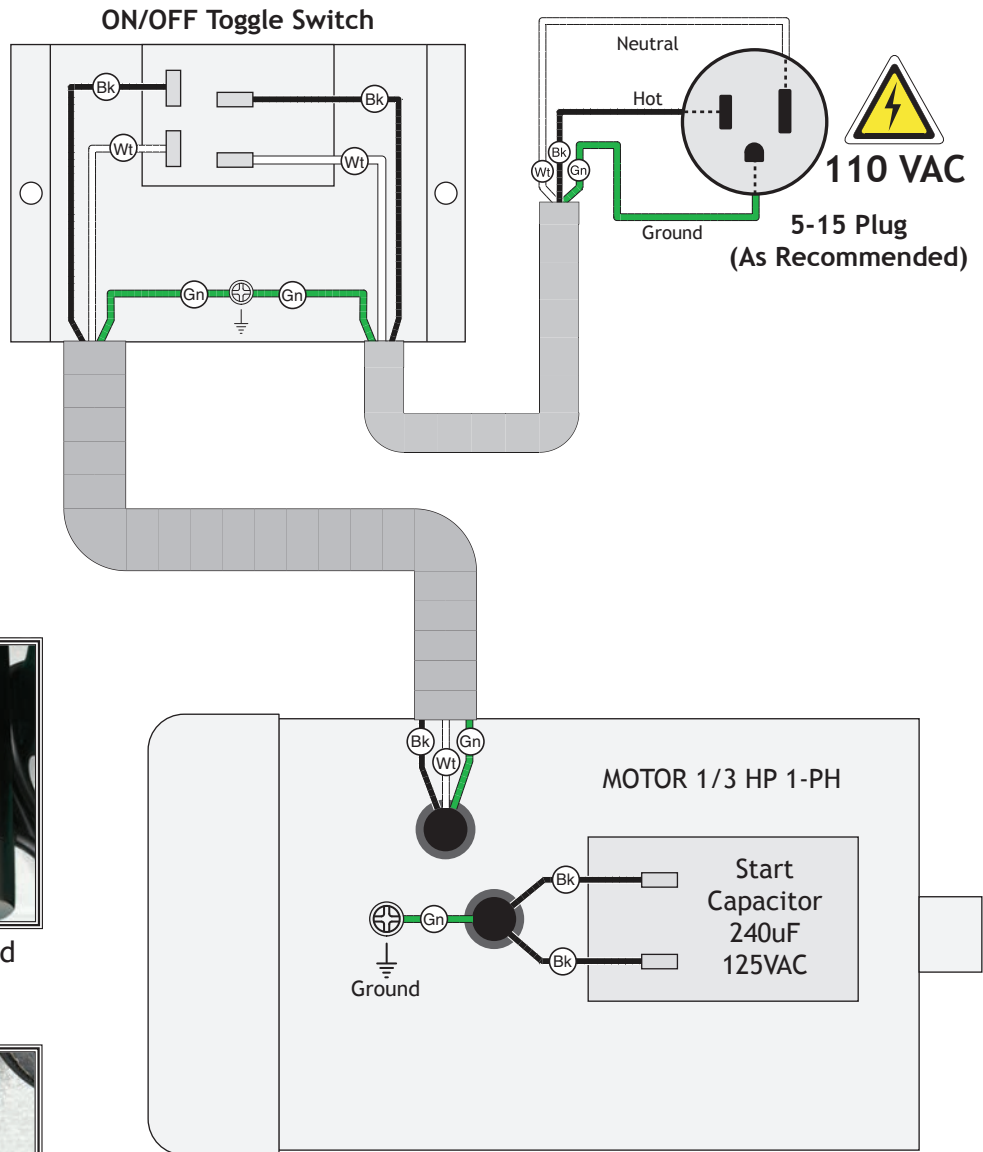


Figure 38. W1850 motor and start capacitor.



Figure 39. W1850 switch.

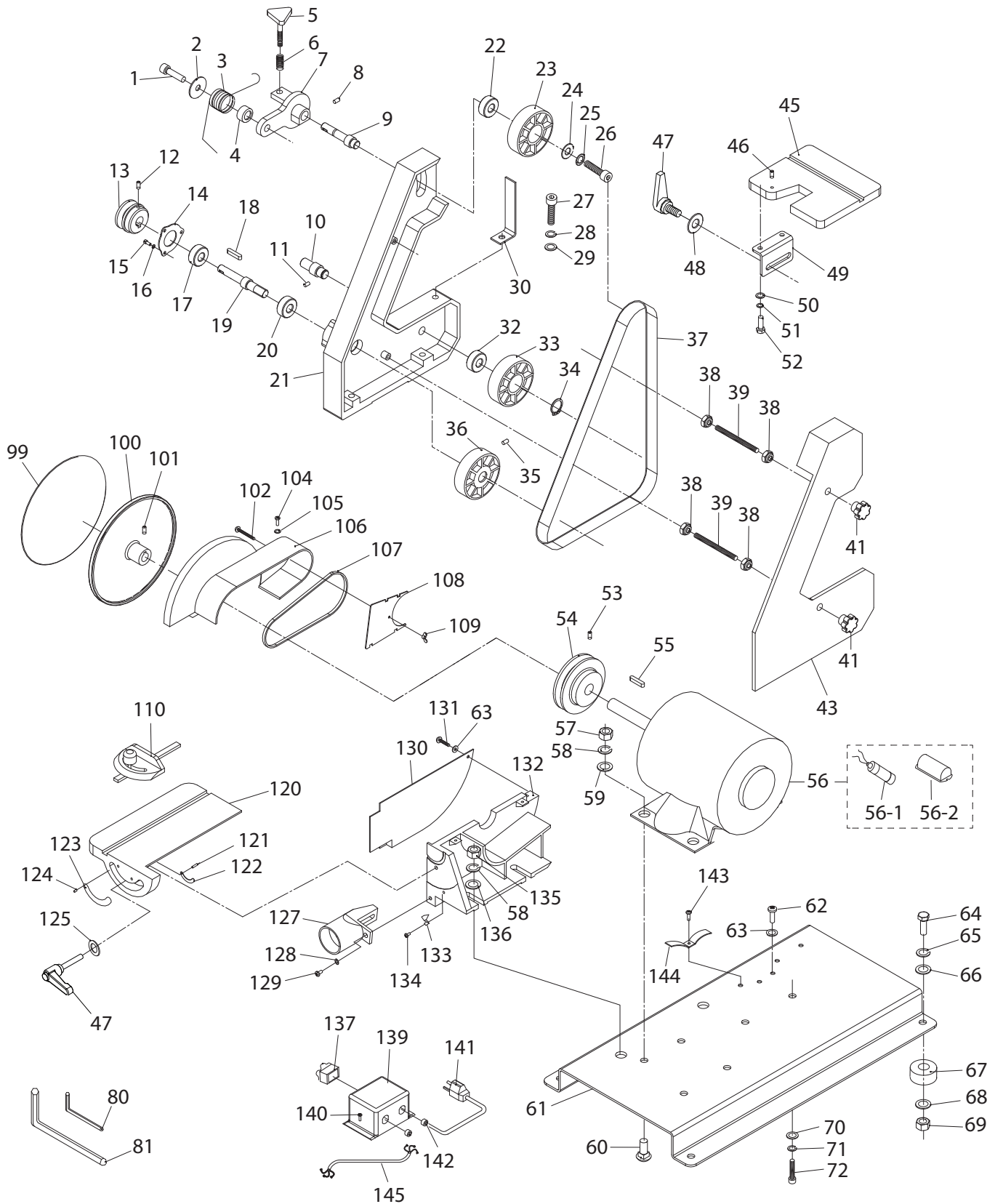
NOTICE

This motor wiring diagram is current at the time of printing; however, always use the diagram on the inside of the junction box cover when rewiring your motor!

SERVICE

PARTS

Main Breakdown

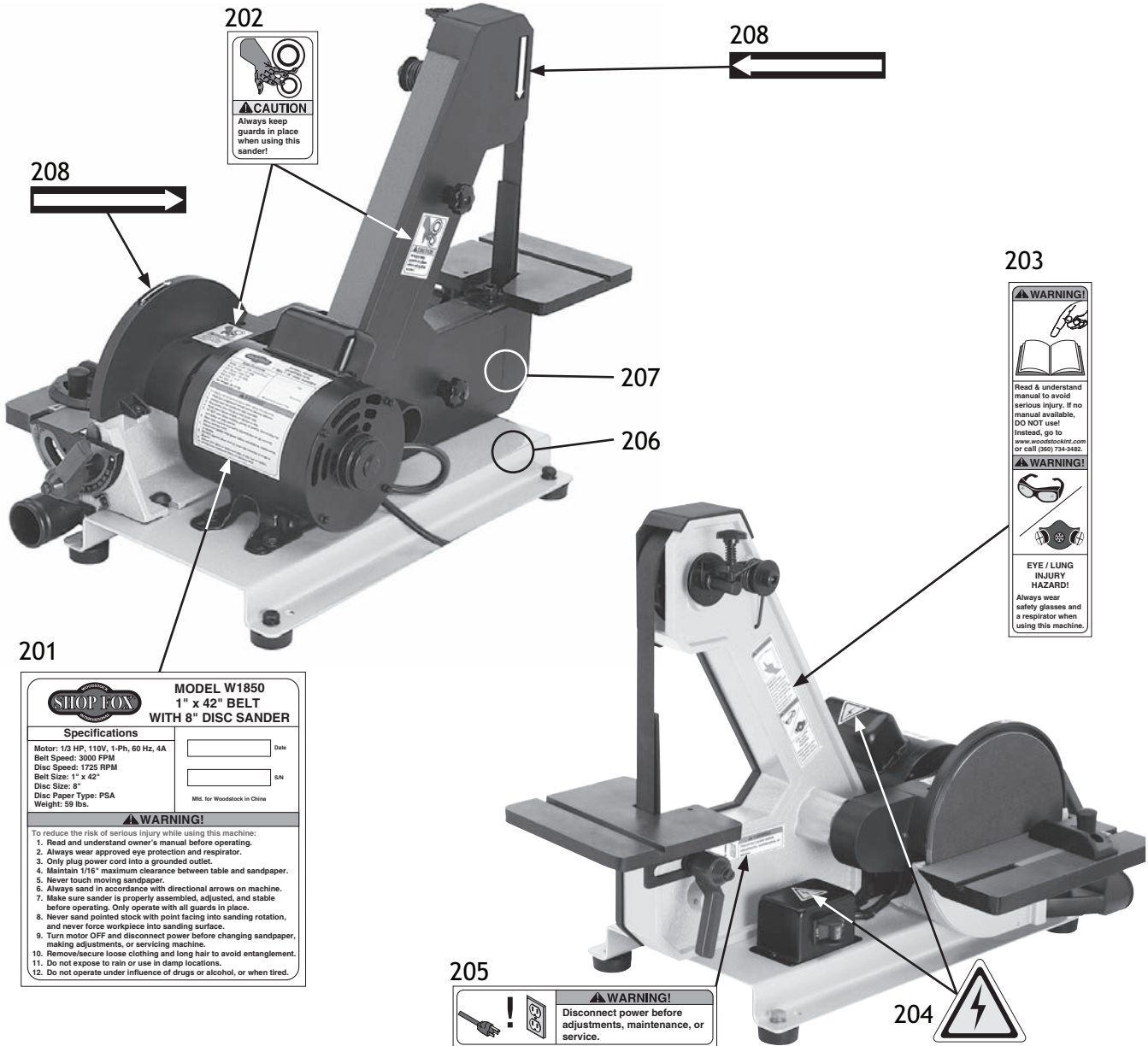


Parts List

| REF | PART # | DESCRIPTION |
|------|------------|--------------------------------------|
| 1 | X1850001 | CAP SCREW M10-1.5 X 40 |
| 2 | X1850002 | FLAT WASHER 10MM |
| 3 | X1850003 | TORSION SPRING |
| 4 | X1850004 | SPACER |
| 5 | X1850005 | KNOB BOLT 3-LOBE M8-1.25 X 40 |
| 6 | X1850006 | COMPRESSION SPRING 1.1 X 11 X 20 |
| 7 | X1850007 | TRACKING BRACKET |
| 8 | X1850008 | ROLL PIN 3 X 20 |
| 9 | X1850009 | UPPER WHEEL SHAFT |
| 10 | X1850010 | LOWER WHEEL SHAFT |
| 11 | X1850011 | SET SCREW M5-.8 X 10 |
| 12 | X1850012 | SET SCREW M5-.8 X 10 |
| 13 | X1850013 | BELT DRIVE PULLEY |
| 14 | X1850014 | RETAINING PLATE |
| 15 | X1850015 | PHLP HD SCR M4-.7 X 8 |
| 16 | X1850016 | EXT TOOTH WASHER 4MM |
| 17 | X1850017 | BALL BEARING 6202ZZ |
| 18 | X1850018 | MACHINE KEY 5 X 5 X 25 |
| 19 | X1850019 | MIDDLE WHEEL SHAFT |
| 20 | X1850020 | BALL BEARING 6002-2RS |
| 21 | X1850021 | BELT HOUSING |
| 22 | X1850022 | BALL BEARING 6202ZZ |
| 23 | X1850023 | UPPER BELT WHEEL (PLASTIC) |
| 24 | X1850024 | FLAT WASHER 6MM |
| 25 | X1850025 | LOCK WASHER 6MM |
| 26 | X1850026 | CAP SCREW M6-1 X 10 |
| 27 | X1850027 | CAP SCREW M10-1.5 X 15 |
| 28 | X1850028 | LOCK WASHER 10MM |
| 29 | X1850029 | FLAT WASHER 10MM |
| 30 | X1850030 | SANDING BELT PLATEN |
| 32 | X1850032 | BALL BEARING 6202ZZ |
| 33 | X1850033 | LOWER BELT WHEEL (PLASTIC) |
| 34 | X1850034 | EXT RETAINING RING 15MM |
| 35 | X1850035 | SET SCREW M5-.8 X 12 |
| 36 | X1850036 | LOWER BELT PULLEY (PLASTIC) |
| 37 | X1850037 | SANDING BELT 1" X 42" 80-GRIT |
| 38 | X1850038 | LOCK NUT M6-1 |
| 39 | X1850039 | STUD-FT M6-1 X 45 |
| 41 | X1850041 | KNOB 7-LOBE M6-1 |
| 43 | X1850043 | BELT COVER |
| 45 | X1850045 | BELT TABLE |
| 46 | X1850046 | SET SCREW M5-.8 X 20 |
| 47 | X1850047 | ADJUSTABLE HANDLE 80L, M10-1.5 X 20 |
| 48 | X1850048 | FLAT WASHER 10MM |
| 49 | X1850049 | BELT TABLE SUPPORT |
| 50 | X1850050 | FLAT WASHER 10MM |
| 51 | X1850051 | LOCK WASHER 10MM |
| 52 | X1850052 | HEX BOLT M10-1.5 X 16 |
| 53 | X1850053 | SET SCREW M5-.8 X 10 |
| 54 | X1850054 | MOTOR PULLEY |
| 55 | X1850055 | MACHINE KEY 5 X 5 X 55 |
| 56 | X1850056 | MOTOR 1/3HP 110V 1-PH |
| 56-1 | X1850056-1 | CAPACITOR 240UF 125VAC 1-3/8 X 2-1/2 |
| 56-2 | X1850056-2 | CAPACITOR COVER |

| REF | PART # | DESCRIPTION |
|-----|----------|--------------------------------|
| 57 | X1850057 | HEX NUT M8-1.25 |
| 58 | X1850058 | LOCK WASHER 8MM |
| 59 | X1850059 | FLAT WASHER 8MM |
| 60 | X1850060 | CARRIAGE BOLT M8-1.25 X 20 |
| 61 | X1850061 | BASE |
| 62 | X1850062 | PHLP HD SCR M4-.7 X 8 |
| 63 | X1850063 | FLAT WASHER 4MM |
| 64 | X1850064 | HEX BOLT M8-1.25 X 16 |
| 65 | X1850065 | LOCK WASHER 8MM |
| 66 | X1850066 | FLAT WASHER 8MM |
| 67 | X1850067 | RUBBER FOOT |
| 68 | X1850068 | FLAT WASHER 8MM |
| 69 | X1850069 | HEX NUT M8-1.25 |
| 70 | X1850070 | FLAT WASHER 10MM |
| 71 | X1850071 | LOCK WASHER 10MM |
| 72 | X1850072 | CAP SCREW M10-1.5 X 25 |
| 80 | X1850080 | HEX WRENCH 2.5MM |
| 81 | X1850081 | HEX WRENCH 8MM |
| 99 | X1850099 | SANDPAPER DISC 8" PSA 80-GRIT |
| 100 | X1850100 | SANDING DISC PLATEN 8" |
| 101 | X1850101 | SET SCREW M5-.8 X 8 |
| 102 | X1850102 | PHLP HD SCR M4-.7 X 45 |
| 104 | X1850104 | PHLP HD SCR M4-.7 X 8 |
| 105 | X1850105 | FLAT WASHER 4MM |
| 106 | X1850106 | V-BELT/DISC SAFETY COVER |
| 107 | X1850107 | V-BELT O-460 |
| 108 | X1850108 | V-BELT REAR COVER |
| 109 | X1850109 | WING NUT M4-.7 |
| 110 | X1850110 | MITER GAUGE |
| 120 | X1850120 | DISC TABLE |
| 121 | X1850121 | ROLL PIN 4 X 10 |
| 122 | X1850122 | ARC KEY |
| 123 | X1850123 | ANGLE SCALE |
| 124 | X1850124 | RIVET |
| 125 | X1850125 | FLAT WASHER 10MM |
| 127 | X1850127 | DUST PORT 2" |
| 128 | X1850128 | FLAT WASHER 6MM |
| 129 | X1850129 | PHLP HD SCR M6-1 X 12 |
| 130 | X1850130 | DUST COVER |
| 131 | X1850131 | PHLP HD SCR M4-.7 X 8 |
| 132 | X1850132 | DISC COVER |
| 133 | X1850133 | POINTER |
| 134 | X1850134 | PHLP HD SCR M4-.7 X 8 |
| 135 | X1850135 | HEX NUT M10-1.5 |
| 136 | X1850136 | FLAT WASHER 10MM |
| 137 | X1850137 | TOGGLE SWITCH GAUYOU CB-8 125V |
| 139 | X1850139 | SWITCH COVER |
| 140 | X1850140 | PHLP HD SCR M4-.7 X 8 |
| 141 | X1850141 | POWER CORD 3W 18G 72" 5-15P |
| 142 | X1850142 | STRAIN RELIEF 3/8" TYPE-1 |
| 143 | X1850143 | PHLP HD SCR M4-.7 X 8 |
| 144 | X1850144 | WIRE CLAMP |
| 145 | X1850145 | MOTOR CORD 3W 18G 12" |

Labels & Cosmetics



SHOP FOX

MODEL W1850
1" x 42" BELT
WITH 8" DISC SANDER

Specifications

| | |
|--------------------------------------|------|
| Motor: 1/2 HP, 110V, 1-Ph, 60 Hz, 4A | Date |
| Belt Speed: 3000 FPM | SN |
| Disc Speed: 1725 RPM | |
| Belt Size: 1" x 42" | |
| Disc Size: 8" | |
| Disc Paper Type: PSA | |
| Weight: 59 lbs. | |

Mfd. for Woodstock in China

⚠ WARNING!

To reduce the risk of serious injury while using this machine:

1. Read and understand owner's manual before operating.
2. Always wear approved eye protection and respirator.
3. Only plug power cord into a grounded outlet.
4. Maintain 1/16" maximum clearance between table and sandpaper.
5. Never touch moving sandpaper.
6. Always sand in accordance with directional arrows on machine.
7. Make sure sander is properly assembled, adjusted, and stable before operating. Only operate with all guards in place.
8. Never sand pointed stock with point facing into sanding rotation, and never force workpiece into sanding surface.
9. Turn motor OFF and disconnect power before changing sandpaper, making adjustments, or servicing machine.
10. Remove/secure loose clothing and long hair to avoid entanglement.
11. Do not expose to rain or use in damp locations.
12. Do not operate under influence of drugs or alcohol, or when tired.

| REF | PART # | DESCRIPTION |
|-----|----------|---------------------------|
| 201 | X1850201 | MACHINE ID LABEL |
| 202 | X1850202 | PINCH WARNING LABEL |
| 203 | X1850203 | READ/EYE/LUNG COMBO LABEL |
| 204 | X1850204 | ELECTRICITY LABEL |

| REF | PART # | DESCRIPTION |
|-----|----------|--------------------------------|
| 205 | X1850205 | DISCONNECT POWER LABEL |
| 206 | X1850206 | TOUCH-UP PAINT, SHOP FOX WHITE |
| 207 | X1850207 | TOUCH-UP PAINT, SHOP FOX BLACK |
| 208 | X1850208 | DIRECTION ARROW LABEL |

⚠ WARNING

Safety labels warn about machine hazards and how to prevent serious personal injury. The owner of this machine **MUST** maintain the original location and readability of all labels on this machine. If any label is removed or becomes unreadable, **REPLACE** that label before allowing machine to be operated again. Contact us at (360) 734-3482 or www.woodstockint.com to order new labels.



Warranty Registration

Name _____
 Street _____
 City _____ State _____ Zip _____
 Phone # _____ Email _____ Invoice # _____
 Model # _____ Serial # _____ Dealer Name _____ Purchase Date _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. Of course, all information is strictly confidential.

- How did you learn about us?

| | | |
|---|----------------------------------|--------------------------------------|
| <input type="checkbox"/> Advertisement | <input type="checkbox"/> Friend | <input type="checkbox"/> Local Store |
| <input type="checkbox"/> Mail Order Catalog | <input type="checkbox"/> Website | <input type="checkbox"/> Other: |
- How long have you been a woodworker/metalworker?

| | | | |
|------------------------------------|------------------------------------|-------------------------------------|------------------------------------|
| <input type="checkbox"/> 0-2 Years | <input type="checkbox"/> 2-8 Years | <input type="checkbox"/> 8-20 Years | <input type="checkbox"/> 20+ Years |
|------------------------------------|------------------------------------|-------------------------------------|------------------------------------|
- How many of your machines or tools are Shop Fox?

| | | | |
|------------------------------|------------------------------|------------------------------|------------------------------|
| <input type="checkbox"/> 0-2 | <input type="checkbox"/> 3-5 | <input type="checkbox"/> 6-9 | <input type="checkbox"/> 10+ |
|------------------------------|------------------------------|------------------------------|------------------------------|
- Do you think your machine represents a good value? Yes No
- Would you recommend Shop Fox products to a friend? Yes No
- What is your age group?

| | | |
|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> 20-29 | <input type="checkbox"/> 30-39 | <input type="checkbox"/> 40-49 |
| <input type="checkbox"/> 50-59 | <input type="checkbox"/> 60-69 | <input type="checkbox"/> 70+ |
- What is your annual household income?

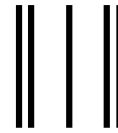
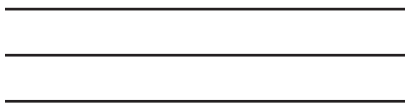
| | | |
|--|--|--|
| <input type="checkbox"/> \$20,000-\$29,000 | <input type="checkbox"/> \$30,000-\$39,000 | <input type="checkbox"/> \$40,000-\$49,000 |
| <input type="checkbox"/> \$50,000-\$59,000 | <input type="checkbox"/> \$60,000-\$69,000 | <input type="checkbox"/> \$70,000+ |
- Which of the following magazines do you subscribe to?

| | | |
|---|--|---|
| <input type="checkbox"/> Cabinet Maker | <input type="checkbox"/> Popular Mechanics | <input type="checkbox"/> Today's Homeowner |
| <input type="checkbox"/> Family Handyman | <input type="checkbox"/> Popular Science | <input type="checkbox"/> Wood |
| <input type="checkbox"/> Hand Loader | <input type="checkbox"/> Popular Woodworking | <input type="checkbox"/> Wooden Boat |
| <input type="checkbox"/> Handy | <input type="checkbox"/> Practical Homeowner | <input type="checkbox"/> Woodshop News |
| <input type="checkbox"/> Home Shop Machinist | <input type="checkbox"/> Precision Shooter | <input type="checkbox"/> Woodsmith |
| <input type="checkbox"/> Journal of Light Cont. | <input type="checkbox"/> Projects in Metal | <input type="checkbox"/> Woodwork |
| <input type="checkbox"/> Live Steam | <input type="checkbox"/> RC Modeler | <input type="checkbox"/> Woodworker West |
| <input type="checkbox"/> Model Airplane News | <input type="checkbox"/> Rifle | <input type="checkbox"/> Woodworker's Journal |
| <input type="checkbox"/> Modeltec | <input type="checkbox"/> Shop Notes | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Old House Journal | <input type="checkbox"/> Shotgun News | |

9. Comments: _____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE



Place
Stamp
Here



WOODSTOCK INTERNATIONAL INC.
P.O. BOX 2309
BELLINGHAM, WA 98227-2309



FOLD ALONG DOTTED LINE

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY

Woodstock International, Inc. warrants all Shop Fox machinery to be free of defects from workmanship and materials for a period of two years from the date of original purchase by the original owner. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, lack of maintenance, or reimbursement of third party expenses incurred.

Woodstock International, Inc. will repair, replace, or arrange for a dealer refund, at its expense and option, the Shop Fox machine or machine part proven to be defective for its designed and intended use, provided that the original owner returns the product prepaid to an authorized warranty or repair facility as designated by our Bellingham, Washington office with proof of their purchase of the product within two years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'s sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant that Shop Fox machinery complies with the provisions of any law, acts or electrical codes. We do not reimburse for third party repairs. In no event shall Woodstock International, Inc.'s liability under this limited warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom. We 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.

Every effort has been made to ensure that all Shop Fox machinery meets high quality and durability standards. We are committed to continuously improving the quality of our products, and reserve the right to change specifications at any time.



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ABRASIVE BELT & DISC CLEANER

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