# Operating Instructions and Parts Manual
# Belt and Disc Sanding Machine
## Model J-4210




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**Part No. M-414550**
Revision A2 03/2010
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# Warranty and Service

Walter Meier (Manufacturing), Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

MORE INFORMATION

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local Walter Meier distributor, or visit waltermeier.com.

WARRANTY

JET products carry a limited warranty which varies in duration based upon the product (MW stands for Metalworking, WW stands for Woodworking).

**90 DAY WARRANTY**

Lathe Accessories
Machine Accessories
Mobile Bases
Safety Equipment
Specialty Items
Vise Accessories

**1 YEAR WARRANTY**

Air Tools-Contractor
Air Tools-Industrial
Air Tools-Light Industrial
Lubrication

**2 YEAR WARRANTY**

Body Repair Kits
Bottle Jacks
Cable Pullers
Cold Saws
Hoists-Air
Hoists-Electric
Metal forming
Mill/Drills
Milling Machines
MW Bandsaws
MW Drill Presses
MW Finishing Equipment
MW Lathes
MW Precision Vises
Palet Trucks
Rigging Equip.
Service Jacks
Stackers
Surface Grinders
Tapping
Trolleys-Air
Trolleys-Electric
Web Slings
Winches-Electric

**3 YEAR WARRANTY**

WW Benchtop Tools

**5 YEAR WARRANTY**

Beam Clamps
Chain Hoist-Manual
Lever Hoists
Pullers-JCH Models
Scissor Lift Tables
Screw Jacks
Trolleys-Geared
Trolleys-Plain
Winches-Manual
WW Air Filtration
WW Bandsaws
WW Buffers
WW Drill Presses
WW Dust Collectors
WW Dust Filters
WW Dust Fittings
WW Jointers
WW Lathes
WW Planers
WW Sanders
WW Shapers
WW Tablesaws

**LIFE LIFETIME WARRANTY**

Fastening Tools
Mechanics Hand Tools
Striking Tools
Vises (no -precision)
Clamps

*Warranty reverts to 1 Year Warranty if woodworking (WW) products listed above are used for industrial or educational purposes.*

**WHAT IS COVERED?**

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

**WHO IS COVERED?**

This warranty covers only the initial purchaser of the product.

**WHAT IS THE PERIOD OF COVERAGE?**

The general JET warranty lasts for the time period specified in the product literature of each product.

**WHAT IS NOT COVERED?**

Three Year, Five Year and Lifetime Warranties do not cover products used for industrial or educational purposes. Products with Three Year, Five Year or Lifetime Warranties that are used for industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

**HOW TO GET SERVICE**

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option. We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

**HOW STATE LAW APPLIES**

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

**LIMITATIONS ON THIS WARRANTY**

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WALTER MEIER 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. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

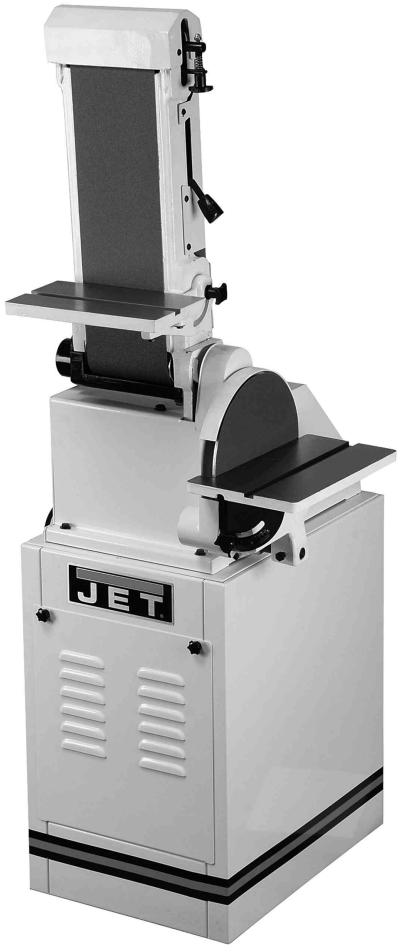
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# General Specifications

The JETModel J-4210 Belt and Disc Sanding Machine is ideal for all shops. This versatile machine can be used to grind, sand, finish, and contour all types of parts including metal, wood, plastic, and composite materials. Because of these capabilities, the JET sander eliminates the need for multiple machines to perform the same tasks.




JET Belt/Disc Sander, Model J-4210

## Specifications

| | |
|---|---|
| Model No. | J-4210 |
| Stock No. | 414550 |
| Belt Size | 6" x 48" |
| Disc Size | 10" |
| Motor | |
| Horsepower | 1 HP |
| Voltage | 115/230 Vac (pre-wired for 115 Vac) |
| Switch | Removable Safety Key |
| Platen | Cast Iron |
| Tables | Cast Iron (2) |
| Belt Speed | 1650 SFPM |
| Disc Speed | 2100 RPM |
| Dust Collection Shrouds | Two (standard) |
| Weight | 120 lbs. |

# Warnings

## General Machinery Cautions

- Misuse of this machine can cause serious injury.
- For safety, machine must be set up, used and serviced properly.
- Read, understand and follow instructions in the operator's and parts manual which was shipped with your machine.

When setting up machine:

- Always avoid using machine in damp or poorly lighted work areas.
- Always be sure machine is securely anchored to the floor.
- Always keep machine guards in place.
- Always put start switch in "OFF" position before plugging in machine.

When using machine:

- Never operate with machine guards missing.
- Always wear safety glasses with side shields (See ANSI Z87.1)
- Never wear loose clothing or jewelry.
- Never overreach — you may slip and fall into the machine.
- Never leave machine running while you are away from it.
- Always shut off the machine when not in use.

When servicing machine:

- Always unplug machine from electrical power while servicing.
- Always follow instructions in operators and parts manual when changing accessory tools or parts.
- Never modify the machine without consulting Walter Meier (Manufacturing) Inc.

You — the stationary power tool user — hold the key to safety.
Read and follow these simple rules for best results and full benefits from your machine. Used properly, JET machinery is among the best in design and safety. However, any machine used improperly can be rendered inefficient and unsafe. It is absolutely mandatory that those who use our products be properly trained in how to use them correctly. They should read and understand the Operators and Parts Manual as well as all labels affixed to the machine. Failure in following all of these warnings can cause serious injuries.

## Machinery general safety warnings

1. Always wear protective eye wear when operating machinery. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specifications. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from breakage of eye protection.
2. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
3. Do not overreach. Keep proper footing and balance at all times. Failure to maintain proper working position can cause you to fall into the machine or cause your clothing to get caught — pulling you into the machine.
4. Keep guards in place and in proper working order. Do not operate the machine with guards removed.
5. Don't use in dangerous environment. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
6. Reduce the risk of unintentional starting. Make sure switch is in off position before plugging in.
7. Never leave the machine running while unattended. Don't leave machine until it comes to a complete stop.
8. Disconnect tools before servicing; when changing accessories, such as blades, bits, cutters, and the like. Whenever changing accessories or general maintenance is done on the machine, electrical power to the machine must be disconnected before work is done.
9. Maintain all machine tools with care. Keep tools sharp and clean for best and safest performance. Follow all maintenance instructions for lubricating and the changing of accessories. No attempt shall be made to modify or have makeshift repairs done to the machine. This not only voids the warranty but also renders the machine unsafe.
10. Machinery must be anchored to the floor.
11. Secure work. Use clamps or a vise to hold work, when practical. It's safer than using your hand and it frees both hands to operate tool.
12. Never brush away chips while the machine is in operation.
13. Keep work area clean. Cluttered areas invite accidents.
14. Remove adjusting keys and wrenches before turning machine on. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
15. Use the right tool. Don't force a tool or attachment to do a job it was not designed for.
16. Use recommended accessories. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.

17. Keep hands in sight and clear of all moving parts and cutting surfaces.
18. All visitors should be kept at a safe distance from the work area. Make workshop completely safe by using padlocks, master switches, or by removing starter keys.
19. Know the tool you are using — its application, limitations, and potential hazards.
20. Keep children away. All visitors should be kept safe distance from work area.
21. Make workshops kidproof with padlocks, master switches, or by removing starter keys.
22. Don't force tool. It will do the job better and safer at the rate for which it was designed.
23. Never stand on tool. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
24. Check damaged parts. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function - check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
25. Direction of feed - Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
26. Never leave tool running unattended. Turn power off. Don't leave tool until it comes to a complete stop.

## General Electrical Cautions

This machine should be grounded in accordance with the National Electrical Code and local codes and ordinances. This work should be done by a qualified electrician. The machine should be grounded to protect the user from electrical shock.

## Wire sizes

**Caution:** for circuits which are far away from the electrical service box, the wire size must be increased in order to deliver ample voltage to the motor. To minimize power losses and to prevent motor overheating and burnout, the use of wire sizes for branch circuits or electrical extension cords according to the following table is recommended:

| Ampere Rating | | Volts | Total length of cord in feet | | | |
|---|---|---|---|---|---|---|
| | | 120V<br>240V | 25 ft<br>50 ft | 50 ft<br>100 ft | 100 ft<br>200 ft | 150 ft<br>300 ft |
| More than | Not more than | AWG | | | | |
| 0 | 6 | | 18 | 16 | 16 | 14 |
| 6 | 10 | | 18 | 16 | 14 | 12 |
| 10 | 12 | | 16 | 16 | 14 | 12 |
| 12 | 16 | | 4 | 12 | Not recommended | |

## Grounding Instructions

**1. All grounded, cord-connected tools:**

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

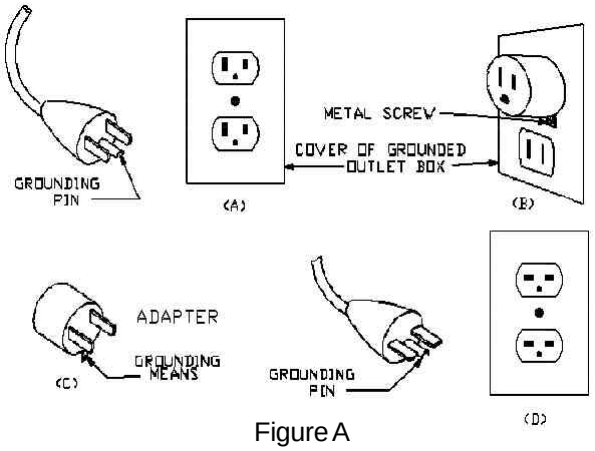



Figure A

**2. Grounded, cord-connected tools intended for use on a supply circuit with a nominal rating less than 150 V:**

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Figure A. The tool has a grounding plug that looks like the plug illustrated in Sketch A in Figure A. A temporary adapter, which looks like the adapter illustrated in Sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B if a properly grounded outlet is not available.

The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

**3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating between 150 - 250 V, inclusive:**

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch D in Figure A. The tool has a grounding plug that looks like the plug illustrated in Sketch D in Figure A. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this tool. If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.

**4. Permanently connected tools** - This tool should be connected to a grounded metal permanent wiring system; or to a system having an equipment-grounding conductor.

**5. Polarized Plugs** - To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

# Safety Requirements for Abrasive Sanding Machines

Abrasive sanding can be hazardous to operators and bystanders. Sanding sparks, chips and dust particles thrown off by the sanding disc can cause serious injury by contact or inhalation. To avoid injuries you must comply with the following safety requirements:

1. Always wear protective eyewear when operating machinery. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from breakage of eye protection. See **Figure B**, below.
2. Wear leather safety gloves, arm guards, leather aprons and safety shoes.
3. A dust collection system is recommended, Operator shall also wear a dust mask at all times. See **Figure C**, below.
4. Additional precautions may be necessary for sanding materials which are flammable or have other hazardous properties. You should always consult the manufacturer of such materials for instructions on sanding and handling.
5. Do not force or jamb the workpiece into the sanding disc.
6. Before sanding, always allow the motor to come up to operating speed, then check the sanding disc for wobble, runout, or any unbalanced condition. If the disc is not operating accurately and smoothly, immediately stop the motor and make repairs before attempting any sanding operations.
7. Abrasive discs must be stored in a controlled environment area. Relative humidity should be 35% to 50% and the temperature should be between 60 and 80 degrees Farenheit. Failure to do so could cause premature disc failure.
8. Examine the face of the sanding disc carefully. Excessive sanding which wears down to the backing material can tearing of the disc. Never use a disc which shows backing, nicks or cuts on the surface or edge or damage due to creasing or poor handling.
9. When installing a new disc, be certain the disc is accurately centered on the drive wheel. Failure to do so could cause a serious unbalanced condition.
10. Always present the workpiece to the wheel while resting the workpiece firmly on the table. Failure to do so could result in damage to the workpiece or throwing of the workpiece off the wheel.
11. Safety shoes which comply with ANSI Z41.1 shall be worn. See **Figure D**.
12. Personal hearing protection such as ear plugs or ear muffs shall be used to protect against the effect of noise exposure. See **Figure E**.

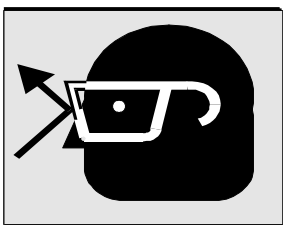


Figure B

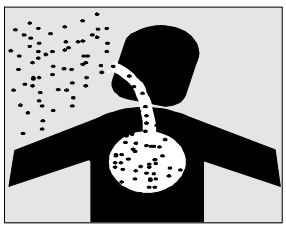


Figure C

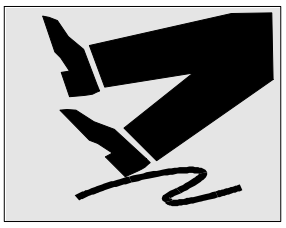


Figure D

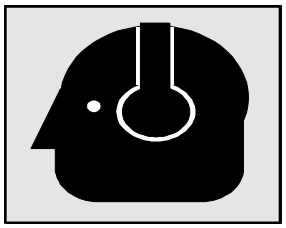


Figure E

# Introduction

This manual includes operating and maintenance instructions for the JET Model J-4210 Belt and Disc Sander. This manual also includes parts listings and illustrations of replaceable parts.

## Belt and Disc Sander Features

Figures 1 and 2 depict the main features of the JET Model J-4210 Belt and Disc Sander. (Specifications for the sanding machine are provided on page 3.)

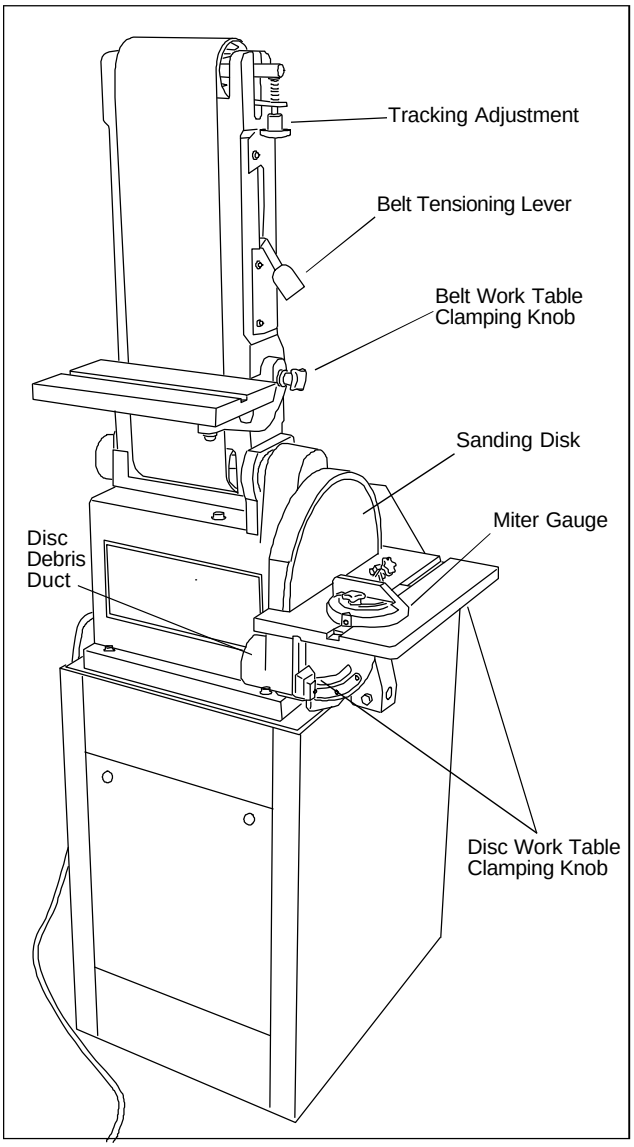



Figure 1: Belt and Disc Sander Features (Right Side View)

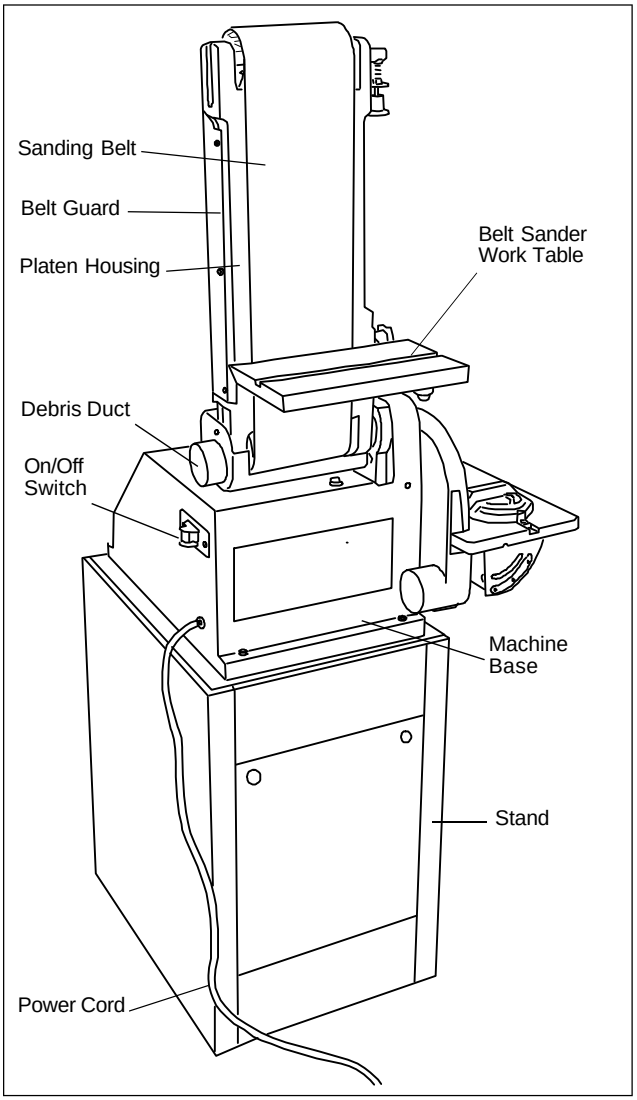



Figure 2: Belt and Disc Sander Features (Left Side View)

The sander has both a sanding belt and a sanding disc for use on a variety of work pieces and materials.

The platen housing for the belt sander can be positioned vertically or horizontally. When in the vertical position, the drum at the upper end of the platen housing can be used for contouring. A tracking adjustment mechanism for the sanding belt is provided at the upper end of the platen housing.

The platen housing has a lever that is used to apply tension to the sanding belt. The sanding belt is easily replaced by releasing the tension lever, removing a sanding shroud and dust collection duct at the bottom of the platen housing, and slipping the belt from the belt sander drums. Installation is the reverse of the removal steps.

The disc sander consists of an aluminum disc onto which is installed an adhesive-backed sanding and other abrasive discs. The disc is contained within a ducted shroud.

The sanding disc can be replaced by removing the table and a cover over the lower portion of the disc. If desired, the aluminum disc can be removed from its drive shaft to ease replacement of the sanding disc.

The drive motor for the belt and disc sander is attached to the underside of the machine base. An ON/OFF switch is mounted on the machine base on the side opposite the disc sander. Electrical wiring for the motor enters the machine base below the ON/OFF switch and is routed to the switch and motor inside the machine base.

The belt and disc sander is driven by V-belts connected to the drive motor. A pulley on the motor shaft drives a V-belt that drives a dual-groove pulley on an idler shaft. A second V-belt is installed in the second groove of the dual-groove pulley and connects to a pulley on belt sander drive shaft.

The aluminum sanding disc is driven off the end of the idler shaft. A shaft connected to the second V-belt pulley drives the belt sander drive drum.

The belt and disc sander is mounted on a stand that can be secured to the floor to stabilize the machine. The stand has a door for access to the fasteners for the machine base.

# Installation and Setup

## Mounting

It is recommended that the belt and disc sander be secured to the floor for safe operation. The machine stand has mounting holes in a flange on the inside of stand enclosure. The stand can be secured to the floor using these mounting holes.

## Electrical Connection

Refer to the **Wiring Data** section for wiring information. Electrical power should be connected by a qualified electrician. Observe local electrical codes when connecting and grounding the machine.

# Operation

This section defines the controls and other features with which the operator should be familiar. Refer to Figures 3 and 4 for some typical sander operations.

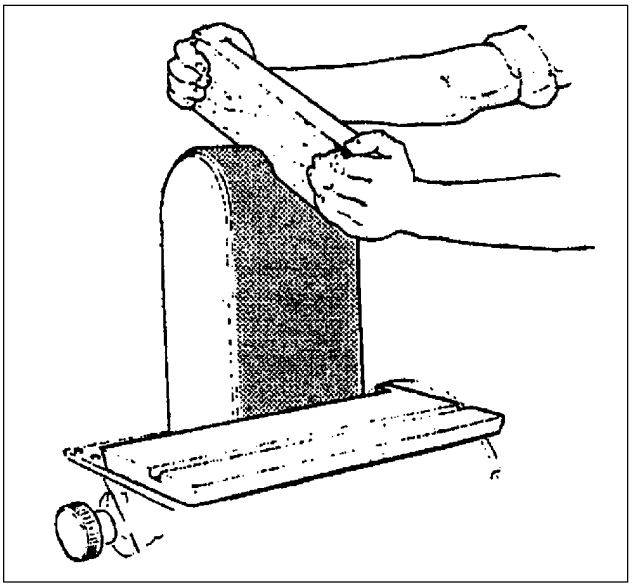


Figure 3. Contouring with Belt Sander

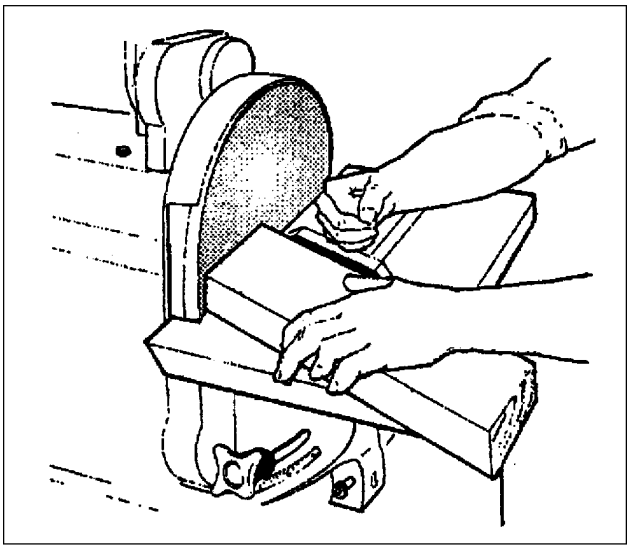


Figure 4. Sanding using Disc Sander

# Controls

The ON/OFF switch is located on the side of the machine base (refer to Figure 5).

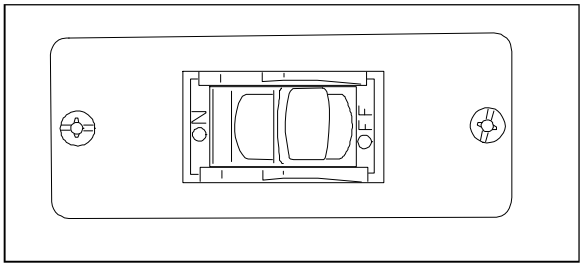



Figure 5. ON/OFF Switch

# Miter Gauge

A miter gauge is provided with the machine and can be used on either the belt sander of disc sander work tables. The angle of the miter gauge can be adjusted up to 45 degrees to accommodate angular work piece surfaces.

# Adjustments

## Adjusting Belt Tracking

The tracking of the sanding belt may require adjustment after changing the belt. The belt housing has a tracking adjustment mechanism (Figure 6) that is used to adjust tracking.

1. Start the machine.
2. Check tracking of the sanding belt. The belt should track at the center of the drums.
3. Adjust belt tracking by turning the adjustment knob. Turn the knob as needed to correct the tracking of the belt.

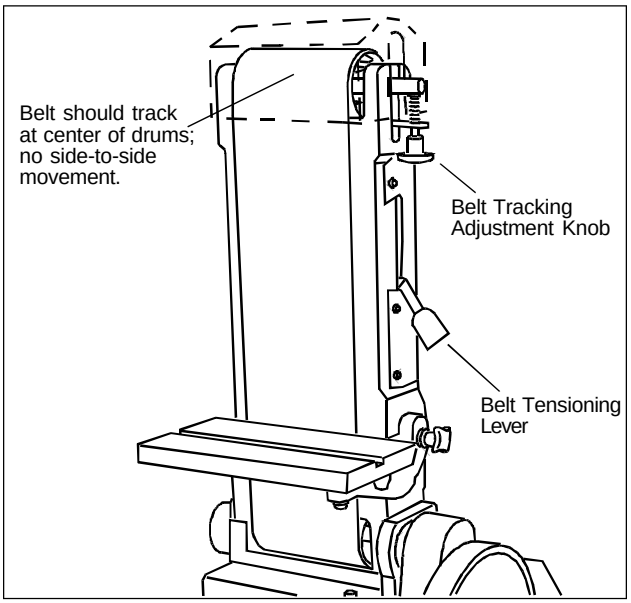



Figure 6. Adjusting Belt Tracking

# Adjusting Platen Housing Position

The sanding belt can be operated with the platen housing horizontal, vertical, or at any angle in between. Change position of the platen housing as follows:

**WARNING**: DISCONNECT ELECTRICAL POWER TO THE MACHINE BEFORE PERFORMING ANY MAINTENANCE.

1. Disconnect electrical power.
2. Remove four screws (52) and pulley cover (12).
3. Using an open end wrench, loosen two hex screws (13) (refer to Figure 7).
4. Move the platen housing to the desired position. When the platen housing is to be placed in the horizontal position, lower the platen housing onto stop screw (28) on the machine base.
5. If the stop requires adjustment, loosen jam nut (29), adjust stop screw (28) to desired position, and tighten nut (29).
6. Tighten two hex screws (13).
7. Install pulley cover (12) and secure with four screws (52).
8. Start the machine to check operation.

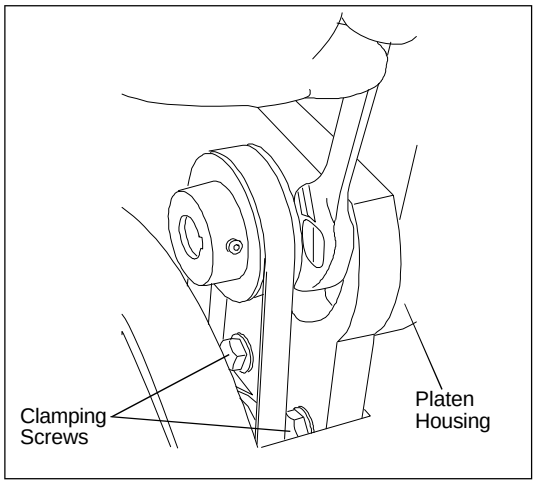



Figure 7. Platen Housing Clamping Screws

# Adjusting the Sander Tables

The belt and disc sander tables can be adjusted from 0 to 45 degrees to accommodate the work piece.

## Disc Table

1. To change the disc table angle, loosen the knob on the left side of the table (refer to Figure 8).
2. Move the table to the desired angle.
3. Tighten the knob to secure the table.

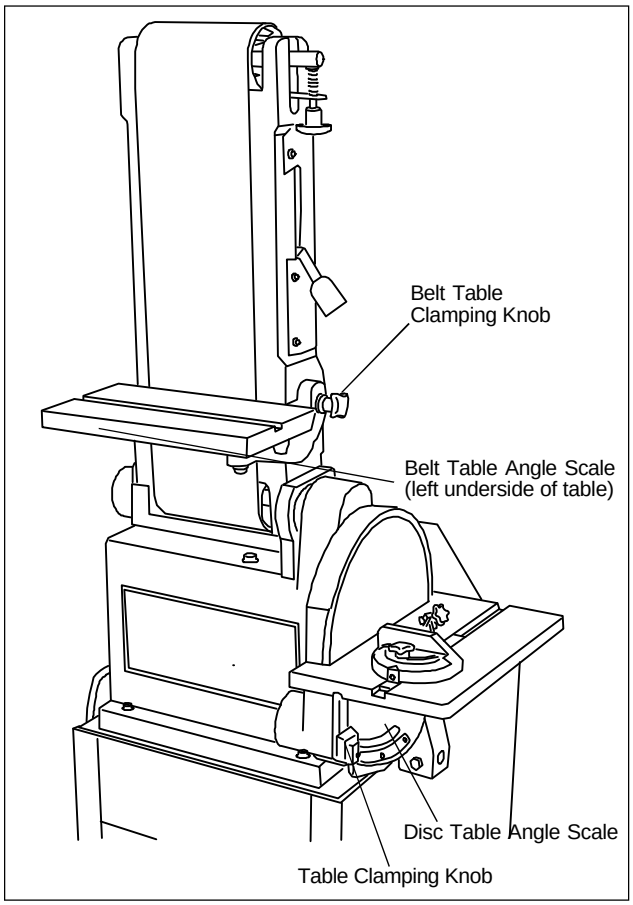



Figure 8. Adjusting Sander Table Angle

## Belt Table

1. To change the belt table angle, loosen the knob on the right side of the platen housing (refer to Figure 8).
2. Move the table to the desired angle.
3. Tighten the knob to secure the table.

# Maintenance

This section provides procedures required to maintain the belt/disc sander. The numbers in parentheses throughout the manual correspond with reference numbers for parts shown in the exploded views in the **Replacement Parts** section.

## Lubrication

The bearings used in the sanding machine are sealed, pre-lubricated bearing. The bearings do not require periodic lubrication.

## Cleaning

Periodically use a vacuum cleaner to remove sanding debris from the machine. In hard to reach areas, brush the debris loose while vacuuming.

## Replacing the Sanding Belt

**WARNING**: DISCONNECT ELECTRICAL POWER TO THE MACHINE BEFORE PERFORMING ANY MAINTENANCE.

1. Disconnect electrical power.
2. Position sanding belt platen (4) in the vertical position. Remove eight screws (97) and guard (96).
3. Remove screw (76) and guard (75).
4. Move tensioning lever (50) downward to slacken sanding belt (79).

Refer to Figure 9. Slip sanding belt off drums (5) and (39).

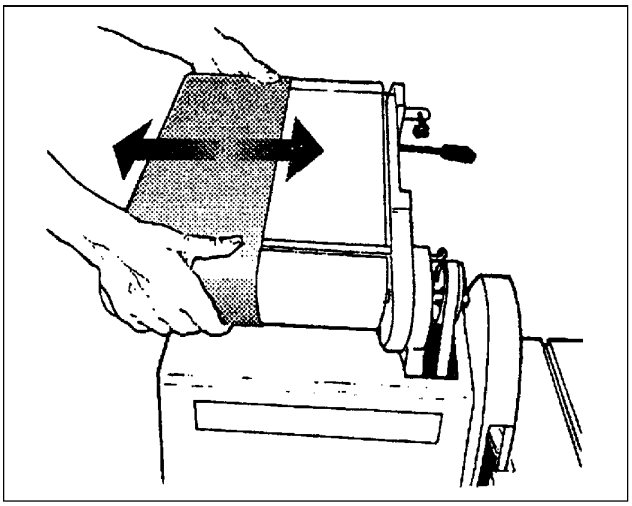


Figure 9. Replacing Sanding Belt

1. Install replacement sanding belt on drums. Position edges of sanding belt evenly on the drums.
2. Lift tensioning lever to tighten sanding belt on drums.
3. Install guard (75) and secure with screw (76).
4. Install guard (96) and secure with eight screws (97).
5. Connect electrical power and operate machine to check operation.
6. If belt does not track properly, adjust tracking (refer to ***Adjusting Belt Tracking***).

## Replacing the Sanding Disc

**WARNING**: DISCONNECT ELECTRICAL POWER TO THE MACHINE BEFORE PERFORMING ANY MAINTENANCE.

1. Disconnect electrical power.
2. Loosen screw (65). Remove disc table (60).
3. Remove four screws (56) and plate (55) from disc shroud (53).
4. Insert a long T-handle Allen wrench through the side opening in shroud (53) and into set screw (57). Loosen disc set screw (57) and remove disc (58).

**WARNING**: USE CARE WHEN USING KNIFE TO SEPARATE SANDING DISC (59) FROM DISC (58). INJURY FROM THE KNIFE MAY OCCUR IF THE KNIFE SLIPS OR IF SANDING DISC SHOULD SUDDENLY COME FREE.

5. Using a knife, slowly work the tip of the knife blade under sanding disc (59). Slowly work the tip around the circumference of disc (58). Continue to work around the circumference until sanding disc can be separated by hand from disc (58).
6. Remove paper backing from replacement sanding disc (59). Place sanding disc (59) on disc (58). Make sure the sanding disc is place evenly at the outside diameter of disc (58).
7. Press on the sanding disc to remove any entrapped air and to make sure the sanding disc is adhering to disc (58).
8. Install disc (58) onto shaft (16). Position the disc on the shaft to provide clearance between plate (55) and sanding disc. Tighten set screw (57).

**NOTE:** There is a close fit between the edge of disc (58) and disc shroud. To ease installation and positioning of the disc, use an L-shaped tool (such as an Allen wrench) under outer edge of the disc to support and position the disc while tightening set screw.

9. Install plate (55) and secure with four screws (56). Check for clearance between plate (55) and the sanding disc.
10. Install table (60) onto rod (74). Position table so it is level and tighten screw (65) against rod (74).
11. Connect electrical power and operate machine to check operation.

## Replacing the V-Belts

**WARNING**: DISCONNECT ELECTRICAL POWER TO THE MACHINE BEFORE PERFORMING ANY MAINTENANCE.

1. Disconnect electrical power.
2. Remove sanding belt table.
3. Remove sanding disc table.
4. Remove sanding disc and shroud.
5. Remove pulley cover. Loosen set screw in pulley.
6. With second person holding belt housing, alternately loosen and remove two screws.
7. Remove V-belt from pulley (11). Remove pulley from shaft while separating assembled belt housing from the machine base.
8. Remove key from sanding belt drum shaft.
9. Loosen set screw in pulley (20).
10. Remove pulley. While removing pulley, slip V-belts from pulley.
11. Remove four screws from base. With assistance of the second person, lift base from stand.

**NOTE:** Place base on bench. As an alternative, the stand may be used to support the base while removing drive motor screws.

12. Place base on bench with underside of the base facing up.
13. Remove two hex head screws, two nuts, and two washers from the motor base on the shaft side of motor.
14. Loosen (but do not remove) two hex bolts, two nuts, and two washers on the side of motor base opposite the motor shaft.
15. Tip motor enough to provide clearance between end of shaft and wall of base. Remove motor drive belt.
16. With base still on the bench, slip V-belt (15) over end of idler shaft.

**NOTE:** Install V-belt for sanding belt first, followed by the motor V-belt.

17. Install replacement V-belt over end of motor shaft.
18. Install two hex bolts, two nuts, and two washers in the motor base on the shaft side of motor. Tighten all four hex nuts and hex head screws.
19. Install key in idler shaft with keyway facing up. Install pulley (20) on idler shaft.
20. Install motor V-belt (18) in outermost groove of pulley (20) and on pulley (18) on motor shaft.
21. Position motor belt (18) on idler shaft so it is parallel with the inner wall of the base. Tighten set screw in pulley (20).
22. Place assembled base on stand. Secure with four screws, washers, nuts.

**NOTE:** Because of the weight of the belt housing, a second person should hold the belt housing in position while installing pulley (10).

23. Hold belt housing in position in bracket (3). Start two screws (13) in threaded holes in platen. Install key (8) in shaft.

**NOTE:** Because of the length of screws (13), the screws will have to be installed alternately. As the screws are installed, there will be enough clearance to slide the belt drum drive pulley a little at a time onto shaft (8).

24. Alternately install two screws (13). As the screws are tightened, slide pulley (10) onto the idler shaft as allowed by the protrusion of screw heads. Make sure V-belt remains on pulleys (11 and 20).
25. When screws (13) are fully installed, align pulley (20) with pulley (11). Tighten set screw (10).
26. Install shroud (53) on base and secure with four screws and washers.
27. Install pulley cover (12) and secure with two screws.
28. Install disc (58) onto shaft (16) and over key. Position the disc on the shaft to provide clearance between plate (55) and the sanding disc. Using long T-handle Allen wrench, tighten set screw (57).

**NOTE:** There is a close fit between the edge of disc (58) and the disc shroud. To ease installation and positioning of the disc, use an L-shaped tool (such as an Allen wrench) under the outer edge of the disc to support and position the disc while tightening the set screw.

29. Install plate (55) and secure with four screws (56). Check for clearance between plate (55) and the sanding disc.
30. Install table (60) onto rod (74). Position table so it is level and tighten screw (65) against rod (74).
31. Install assembled table (88).
32. Connect electrical power and operate machine to check operation.

## Replacement of Motor

**WARNING**: DISCONNECT ELECTRICAL POWER TO THE MACHINE BEFORE PERFORMING ANY MAINTENANCE.

1. Disconnect electrical power.
2. Remove four screws from base. With assistance of the second person, lift base from stand.

**NOTE**: Place base on bench. As an alternative, the stand may be used to support the base while removing drive motor screws.

3. Place base on bench with underside of the base facing up.
4. Remove four hex head screws, nuts, and washers from the motor base.
5. Remove motor V-belt from motor pulley.
6. Remove motor from base.
7. Loosen set screw in pulley (18). Remove pulley.
8. Align set screw in pulley with flat on motor shaft and install pulley. Do not tighten set screw.
9. Install replacement V-belt over end of motor shaft and install motor in base . Secure with four screws, washers and nuts.
10. Install and tighten four hex bolts, nuts, and washers in the motor base.
11. Position pulley (18) on motor shaft so the V-belt is parallel with the inner wall of the base. Tighten set screw in pulley (20) against flat on motor shaft.
12. Place assembled base on stand. Secure with four screws, washers, nuts.
13. Connect electrical power and operate machine to check operation.

# Wiring Data

## Single phase electrical hook-up

When connecting your machine to single phase power you may be connecting to either 115 or 230 volts, depending upon the motor type provided. Local codes may, or may not, permit the use of a plug type of connection for your machine. Where a plug connection is permitted, the following installation practices must be followed:

1. The plug used must be a grounding type of plug. On a 115 volt single phase connection, the plug must be a three-prong plug with two flat, parallel blades for the power wires and a single rounded or U-shaped prong for the ground connection. On 230 volt single phase connections, the lug must be a three prong plug with two flat blades in tandem to carry the current, and a third round or U-shaped prong for the ground connection.
2. The service branch to which the plug is connected must be a branch with a separate ground wire so the grounding prong of the plug can be connected to ground effectively.

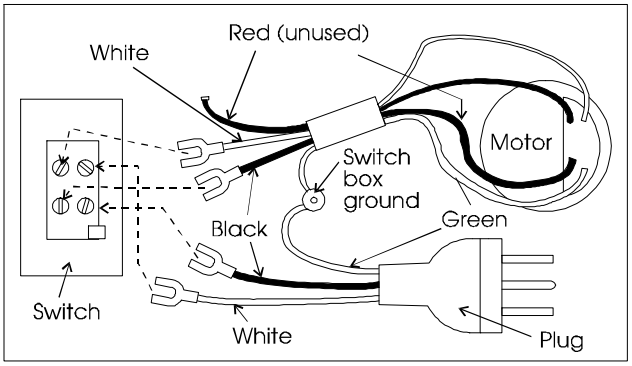



Figure 10: Pictoral diagram for single phase motor, 115 volts w/plug.

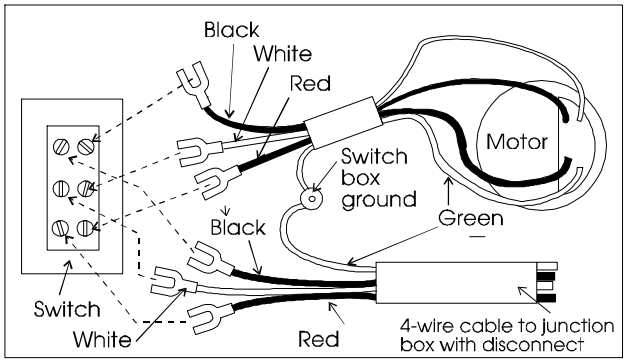



Figure 11: Pictoral diagram for 3-phase motor.

**Note:** Local electrical codes in many jurisdictions do not allow the use of plug type connections for single phase power when the machine is used in a commercial or industrial establishment.

In these cases you must connect your machine to the service branch using a hard-wired junction box connection.

All JET sanders are shipped with the power cable terminating without a plug on the assumption the machine will be hard-wired to its service branch.

## Circuit protection

Where the service branch is protected with a fuse or circuit breaker which is too high a value to offer protection to the motor supplied, a fuse or circuit breaker box should be used at the point where the machine connection is made and the time delay fuse or circuit breaker should be a value just slightly higher than the maximum load current draw as specified on the motor plate on the motor.

## Correcting motor rotation in single phase motors

JET provides single phase motors in both 115 volt and 230 volt configuration. Several motor manufactures may be used by JET for motors of this type.

These motors may, or may not, rotate in the correct direction -- *counter-clockwise* -- when connected to your single phase power source. If, after connection, the motor runs in the correct counter-clockwise direction, the power connection is successful.

**CAUTION:** IF THE MOTOR RUNS CLOCKWISE WHEN CONNECTED TO YOUR SINGLE PHASE POWER SOURCE, YOU MUST DISCONNECT THE POWER SOURCE, OPEN THE JUNCTION BOX AND FIND THE CORRECT WIRING CONNECTIONS FOR THE MOTOR, OR LOCATE THE WIRING CONNECTIONS REQUIRED ON THE MOTOR PLATE ON THE OUTSIDE OF THE MOTOR.

Different manufacturers provide different wiring configurations for correcting the rotation of the motor armature. Therefore, no wiring diagrams for these motors are provided in this manual. Always consult the motor plate and/or the wiring diagram inside the junction box if rotation direction is not correct.

## Connecting Power for 3-phase Motors

1. Be certain the power to the branch you are connecting is off, and locked out, so power cannot be reestablished, accidentally.
2. Connect the ground wires. Thse wires will be either green, or green with a white trace.
3. Connect the remaining three cable wires to the three power wires in the service branch.
4. Reestablish power to the branch.
5. Turn the machine on. The motor should be turning counter-clockwise, the belt sander should be moving downward, and the disc sander should be turning clockwise. If this is the case, the machine can be considered wired correctly. If the motor is not turning in the correct direction, take the following corrective action:
6. Disconnect power in the branch again and be certain it cannot be accidentally turned on while you correct the wiring.
7. Reverse ANY TWO of the power wires to the machine.
8. Reestablish power in the service branch to the machine.
9. Turn on the machine again. The motor should now be turning in the correct direction.

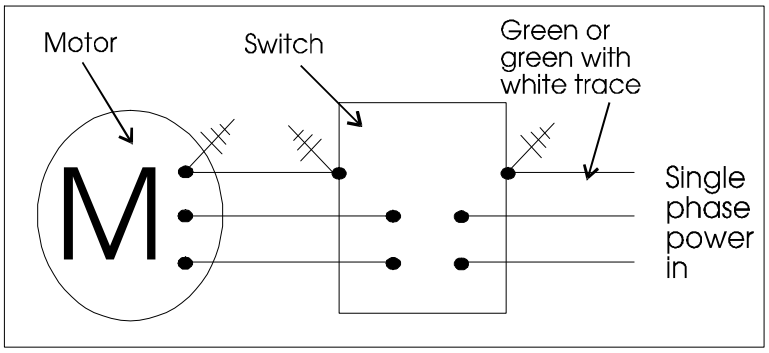



Figure 12: Schematic diagram for single phase motor with 3-wire cable. Note: this schematic provided for use with older sanders, only. All machines are now shipped with a 4-wire cable whether single phase or 3-phase.

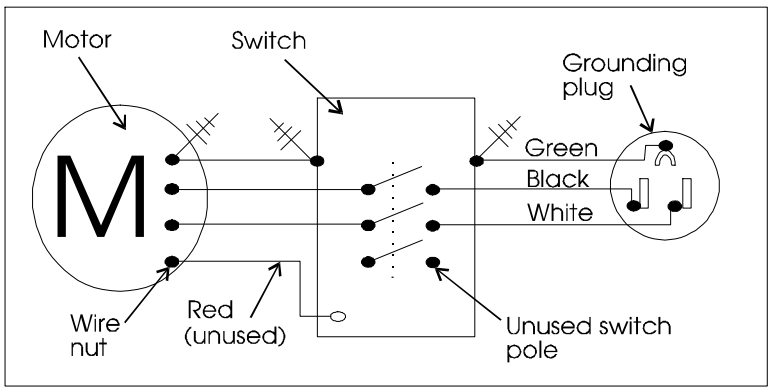



Figure 13: Schematic diagram for single phase motor with 4-wire cable.

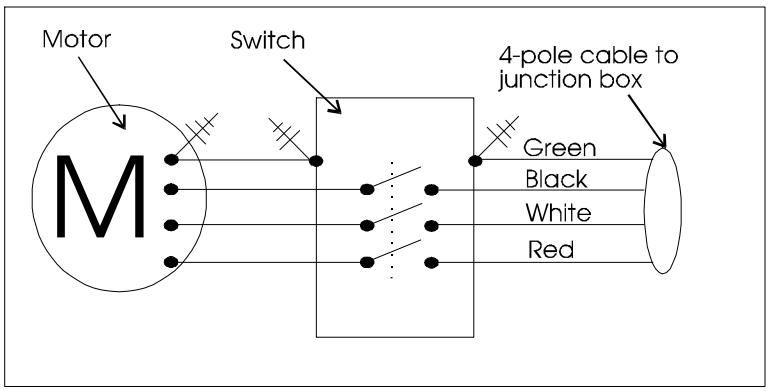



Figure 14: Schematic diagram for 3-phase motor.

# Troubleshooting

| Fault | Probable Cause | Remedy |
|---|---|---|
| Machine does not start. | 1. Blown fuse or tripped circuit breaker.<br><br>2. Motor failure.<br>3. Not connected to power source.<br>4.Motor not wired for correct voltage.<br>5. Motor not connected to correct voltage source. | 1. Determine reason for blown fuse/tripped breaker (such as a short circuit or motor overload). Correct reason for fault. Replace fuse/reset breaker.<br>2. Replace motor.<br>3. Connect to power source.<br><br>4. Correct motor wiring.<br><br>5. Connect to proper voltage source. |
| Sanding belt does not trackcorrectly. | 1. Sanding belt stretched unevenly.<br>2. V-belt worn.<br>3. Pulley worn. | 1. Replace sanding belt.<br><br>2. Replace V-belt.<br>3. Replace pulley. |
| Abrasive disc separates from disc. | 1. Improperly bonded. | 1. Clean residual adhesive from disc. Reapply adhesive-backed disc to clean disc. |
| Sanding belt slips or stalls when pressure is applied. | 1. Abrasive belt tension inadequate.<br>2. Excessive pressure being applied to platen housing.<br>3. Motor belt loose. | 1. Tighten sanding belt.<br><br>2. Reduce pressure on sanding belt (and platen housing).<br>3. Tighten motor belt. |
| Disc stalls when pressure is applied. | 1. Motor V-belt loose. | 1. Tighten motor V-belt. |
| Frequent replacement of sanding belt. | 1. Too much pressure being applied to work piece.<br>2. Full width of belt not being used. | 1. Reduce pressure on work piece.<br><br>2. Stroke across sanding belt using full width of belt surface. |

# Replacement Parts

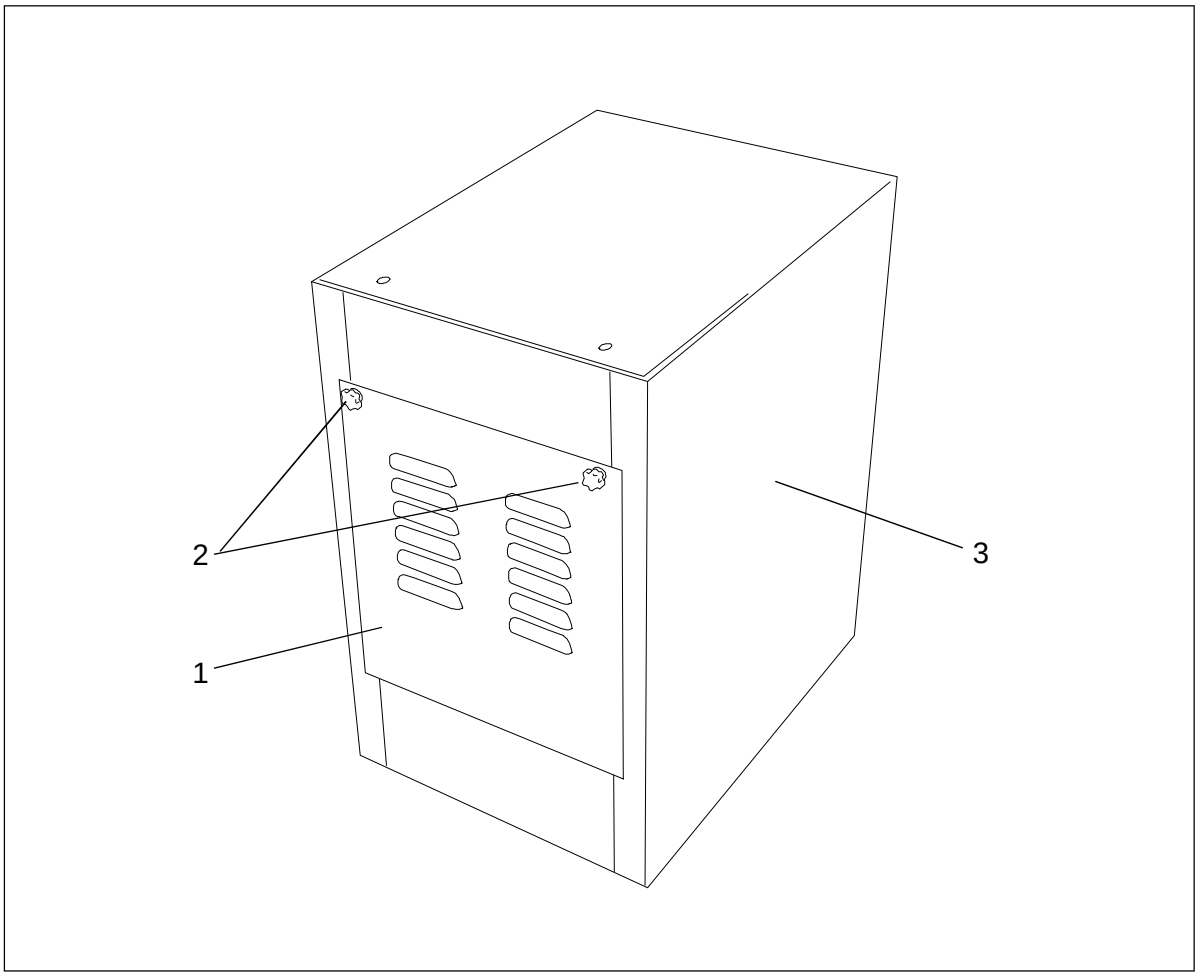
This section provides exploded view illustrations that show the replacement parts for the JET Model J-4210 Belt/ Disc Sander. Also provided are parts listings that provide part number and description. The item numbers shown on the illustration relate the item number in the facing parts listing.

Order replacement parts from:

**WALTER MEIER (Manufacturing) Inc.**
427 New Sanford Road
LaVergne, Tennessee 37086
Ph.: 800-274-6848
www.waltermeier.com

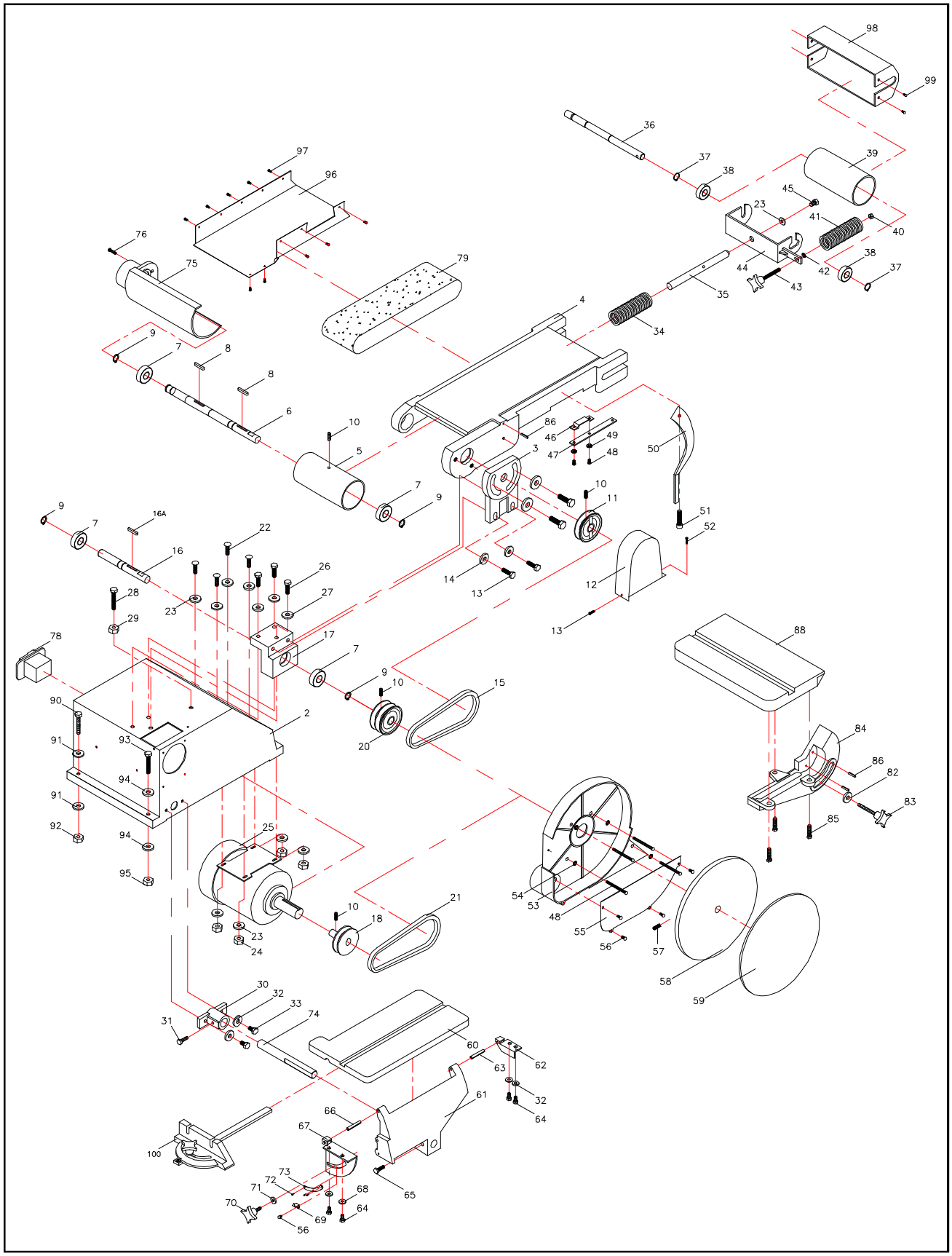
To order parts or reach our service department, call 1-800-274-6848 Monday through Friday (see our website for business hours, www.waltermeier.com). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

# Assembled View and Parts Listing of Stand – Model J-4210 Belt and Disc Sander




| Ref. No. | Part Number | Description | Qty. |
|---|---|---|---|
| 1 | J-5513476 | Panel, Access | 1 |
| 2 | 5513477 | Knob | 2 |
| 3 | J-5515307 | Stand, Complete | 1 |

# Exploded View – JET Model J-4210 Belt & Disc Sander



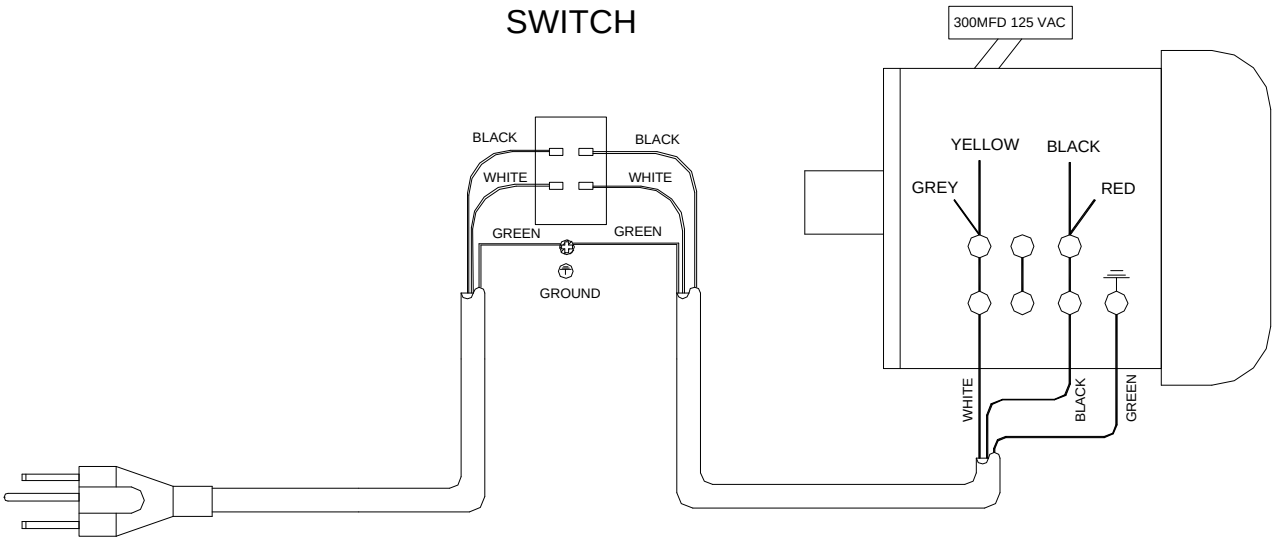
# Parts Listing – JET Model J-4210 Belt & Disc Sander

| Ref. No. | Part Number | Description | Qty |
|---|---|---|---|
| 2 | J-5513011 | Base | 1 |
| 3 | J-5513012 | Bracket | 1 |
| 4 | J-5513013 | Platen | 1 |
| 5 | 5513014 | Drum, Drive | 1 |
| 6 | 5513015 | Shaft, Drum Drive | 1 |
| 7 | 5513016 | Bearing (6203ZZ) | 2 |
| 8 | 5513017 | Key | 1 |
| 8A | 5513028 | Key | 1 |
| 9 | 5513018 | Ring, Retaining (S-17) | 2 |
| 10 | 5513019 | Screw, Set (1/4 X 3/8) | 1 |
| 11 | J-5513020 | Pulley | 1 |
| 12 | J-5513021 | Cover, Pulley | 1 |
| 13 | 5513022 | Screw (5/16 X 1-1/2) | 4 |
| 14 | 5513023 | Washer, Plain (5/16) | 4 |
| 15 | 5513024 | V-Belt (A-18) | 1 |
| 16 | 5513025 | Shaft, Drive Pulley | 1 |
| 17 | J-5513026 | Bracket | 1 |
| 18 | J-5513027 | Pulley, Motor | 1 |
| 20 | J-5513029 | Pulley, Idler | 1 |
| 21 | 5513030 | V-Belt (A-25) | 1 |
| 22 | 5513031 | Screw (5/16 X 3/4) | 4 |
| 23 | 5513032 | Washer, Flat (5/16) | 8 |
| 24 | 5513033 | Nut, Hex (5/16) | 4 |
| 25 | 5512767 | Motor, 1-HP | 1 |
| 26 | 5513035 | Screw, Hex (3/8 X 1) | 3 |
| 27 | 5513036 | Washer, Flat (3/8) | 3 |
| 28 | 5513037 | Screw (3/8 X 1-1/2) | 1 |
| 29 | 5513038 | Nut, Jam | 1 |
| 30 | J-5513039 | Bracket, Mounting | 1 |
| 31 | 5513040 | Screw (5/16 X 1) | 1 |
| 32 | 5513041 | Washer (1/4) | 6 |
| 33 | 5513042 | Screw, Hex (1/4 X 3/4) | 2 |
| 34 | 5513043 | Spring (1/4) | 1 |
| 35 | 5513044 | Shaft | 1 |
| 36 | 5513045 | Shaft, Driven Drum | 1 |
| 37 | 5513046 | Ring, Retaining (S-15) | 2 |
| 38 | 5513047 | Bearing (6202ZZ) | 2 |
| 39 | 5513048 | Drum, Driven | 1 |
| 40 | 5513049 | Nut (1/4) | 1 |
| 41 | 5513050 | Spring | 1 |
| 42 | 5513051 | Washer, Flat | 1 |
| 43 | 5513052 | Rod, Threaded, Belt Tracking Adjustment | 1 |
| 44 | 5513054 | Support, Driven Drum | 1 |
| 45 | 5513055 | Screw (5/16 X 1/2) | 1 |
| 46 | 5513056 | Bracket | 1 |
| 47 | 5513057 | Bar | 1 |
| 48 | 5513058 | Screw (3/16 X 1/2) | 6 |
| 49 | 5513059 | Washer (3/16) | 2 |
| 50 | 5513060 | Lever, Belt Tension | 1 |
| 51 | 5513061 | Screw (5/16 X 1-1/4) | 1 |
| 52 | 5513062 | Screw (3/16 X 3/8) | 2 |
| 53 | J-5513063 | Guard, Disk | 1 |
| 54 | 5513064 | Washer, Lock (3/16) | 4 |
| 55 | 5513065 | Plate, Cover | 1 |
| 56 | 5513066 | Screw (3/16 X ¼) | 5 |
| 57 | 5513067 | Screw, Set (6 X 10 MM) | 1 |
| 58 | 5512765 | Disk, Aluminum | 1 |
| 59 | 5513071 | Garnet Disk 10": 80 Grit (Standard) | 1 |
| | 5513073 | Also available: 100 Grit | 1 |
| | 5513075 | 120 Grit | 1 |
| 60 | J-5513077 | Table, Side | 1 |
| 61 | J-5513078 | Support, Table | 1 |
| 62 | 5513079 | Bracket, Table Support | 1 |
| 63 | 5513080 | Pin, Spring | 1 |
| 64 | 5513081 | Screw (1/4 X 3/8) | 4 |
| 65 | 5513082 | Screw, Hex (5/16 X 1) | 1 |
| 66 | 5513083 | Pin, Spring | 1 |
| 67 | 5513084 | Bracket, Table Support | 1 |
| 68 | 5513085 | Washer, Flat | 2 |
| 69 | 5513086 | Pointer | 1 |
| 70 | 5513087 | Knob | 1 |
| 71 | 5513088 | Washer | 1 |
| 72 | 5513089 | Rivet | 3 |
| 73 | 5513090 | Scale | 1 |
| 73A | 5513091 | Pointer | 1 |
| 74 | 5513092 | Rod, Table Support | 1 |
| 75 | 5513093 | Guard, Belt | 1 |
| 76 | 5513094 | Screw (3/16 X 5/8) | 1 |
| 77 | 5513095 | Cover, Sanding Belt* | 1 |
| 77A | 5513096 | Screw, Cap* | 8 |
| 78 | 5512766 | Switch | 1 |
| 79 | 5051841 | Belt, Abrasive(6 x 48) 80 Grit (Standard) | 1 |
| | 5512764 | Also available: 100 Grit | 1 |
| | 5513103 | 150 Grit | 1 |
| 82 | 5513107 | Washer | 1 |
| 83 | 5513108 | Knob (1/4 X 1-1/2) | 1 |
| 84 | J-5512763 | Bracket, Table | 1 |
| 85 | 5513110 | Screw (5/16 X 1-1/2) | 3 |
| 86 | 5513111 | Pin (4 X 15) | 1 |
| 88 | J-5513113 | Table, Sanding Belt | 1 |
| 89 | 5513114 | Wrench* | 1 |
| 90 | 5513115 | Screw, Socket Head | 2 |
| 91 | 5513116 | Washer, Flat | 2 |
| 92 | 5513117 | Nut, Hex | 2 |
| 93 | 5513118 | Screw, Hex Head | 2 |
| 94 | 5513119 | Washer, Flat | 2 |
| 95 | 5513120 | Nut, Hex | 2 |
| 96 | J-5513479 | Cover, Belt | 1 |
| 97 | 5513480 | Screw, Socket Head | 8 |
| 98 | J-5514639 | Guard, Belt | 1 |
| 99 | 5514640 | Screw | 4 |
| 100 | 5517426 | Gauge, Miter | 1 |
| | 5515308 | Head, Complete | 1 |

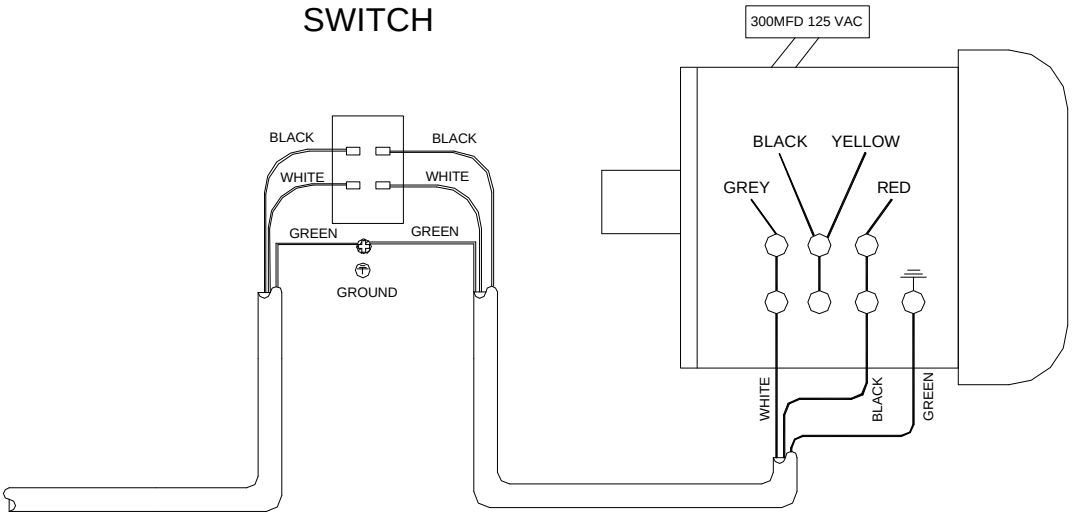
* Part not shown.

# Wiring Diagram

## J-4210 ELECTRICAL SCHEMATIC - 115V




## J-4210 ELECTRICAL SCHEMATIC - 230V



# Notes

# Notes

**WALTER MEIER (Manufacturing) Inc.**
427 New Sanford Road
LaVergne, Tennessee 37086
Ph.: 800-274-6848
www.waltermeier.com